Indicating Health: Leona Baumgartner, Global Development, and the Metrics of Infant Mortality (1950-1980)

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Leona Baumgartner, Global Development, and the Metrics of Infant Mortality (1950-1980)

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Abstract

This dissertation tracks the fall of infant mortality as a universal metric in order to examine changes in the management of population vulnerability in the decades immediately following World War II. Today, the metric of infant mortality holds cultural authority but has lost the meanings and uses that it possessed as it rose to be the universal measure of health and development over the late nineteenth and early twentieth centuries. Following Dr. Leona Baumgartner to globalized sites in Ecuador, India, and the United States, where the relationship of healthcare and development was renegotiated through the interactions of experts, policymakers, and everyday citizens, I describe the changing character of discourse as global collaborations gave rise to a new science of health and development. I argue that it was these interactions, conditioned by the particular character of post-colonial contexts, rising Cold War tensions, and new data processing capacity, that produced the shift in meaning of infant mortality from a symbol of collective population vulnerability to a moving target to be reduced in itself. This erosion of a metric was an indication of a broader process of demoralization of the ideas, practices, and practitioners of health development at mid-century. Though many of Baumgartner's ideas, failed in her lifetime, became realized in the new global health emerging after she retired, the spirit and meanings of vital public care that she endorsed remain lost.

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To the memory of Elif Yavuz.

Prologue

In 2007, while visiting friends in Chile, I took a day to tour El Teniente, a working subterranean copper mine dug into the side of the Andes. The guide, a miner doing a shift of "gringo duty," chatted with me as we walked through the caverns of wet rock. When he asked, I told him that I was currently working as a science journalist and debating a masters degree program in public health. Had I heard of the "Gran Decenso" in Chile, he asked. I had not, but I looked it up when I got home that evening. To my surprise it was not about mining.

The Gran Decenso was a dramatic drop in Chilean infant mortality that ran continuously through tectonic political changes. The rate fell through the agrarian reforms of the 1960s and the "fence movements," through which the native Mapuche community recovered land lost a century and a half earlier in the liberalization of land rights. When physician Salvador Allende was elected President in 1970 and initiated a transition to a socialist system of government, the infant mortality rate continued to fall. A military coup supported by the Central Intelligence Agency of the United States left Allende dead and military general Augusto Pinochet in power in 1973. The infant mortality rate still fell. Through structural adjustments of the economy, elimination of the social sector, an excellent new highway, the disappearance and torture of thousands of citizens, the pushing of poverty to the edges of the capital city, improved water facilities, an economic crisis, and a loud vote on a highly campaigned referendum to restore democracy in 1989, the infant mortality rate kept falling. The infant mortality rate was the internationally accepted metric of global

population health, but there were profound disagreements about which, if any of these political eras, had been healthy for the population.

Through a course on the Chilean health system in 2009, I met a former government official who told me that in the 1980s the falling infant mortality rate had been used as propaganda amidst neoliberal reforms, used as evidence of "good social policy" to bolster requests for support from multinational banks.[1] At the time, scholars had explained that the programs were put in place to protect the especially vulnerable at times of recession.[2] In contrast, some demographers attributed the decline to changing fertility patterns.[3] Having coffee with Chilean medical historian Cesar Leyton Robinson on a visit in 2012, I learned about filmmaker Patricio Kaulen's 1967 project *El Largo Viaje*, produced when he was appointed chairman of Chile Films by President Eduardo Frei Montalvo, as social tensions rose across the country. In the film a young boy in a working class Santiago shantytown runs through the city after the death of his newborn sibling. Looking for wings to give the infant during the ritual *angelito* wake, the boy crosses through the dramatic class differences that segregated the city. "The filmmaker," wrote critic Alicia Vega, "finds and gives life in this film to expressions of our identity."[4]

I was curious whether my friends and their families knew about the Gran Decenso. Claudia and her mother remembered being frightened during the Allende presidency while

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[1] Antonio Infante, "The Post Military Government Reforms to the Chilean Health System: A Case Study Commissioned by the Health Systems Knowledge Network" (Presented at the Health Services Knowledge Network Meeting, London, 2006): 3.

[2] Alejandro Foxley and Dagmar Raczynski (CEPLAN), "Vulnerable Groups in Recessionary Situations: The Case of Children and the Young in Chile," *World Development* 12, no. 3 (1984): 223–46.

[3] Erica Taucher S. and Irma Jofre C., "Mortalidad Infantil En Chile: El Gran Decenso," *Revista Médica de Chile* 125 (1997): 1225–35.

[4] "Patricio Kaulen," *Cinechile*, accessed Jan 9, 2017, http://cinechile.cl/persona-2819.

banks emptied and loud demonstrations filled the streets outside their apartment in downtown Santiago. Where they felt relief when the military tanks showed up, Tere and Enrique, were frightened during the dictatorship when teachers disappeared from St. George's, the Catholic school that they and later their children and grandchildren attended. One of my friends spent his childhood in California and had a memory of overhearing in the late-1980s that Chilean grapes were embargoed. Bernardo wondered, "What's wrong with my grapes?" Javi spent her childhood in Germany because her grandmother had been a left-wing Senator during the Allende presidency. She was now a family doctor in a community outside of the city. When I asked these friends if they knew about the falling infant mortality rate, they recalled it like a thread in the background of their lives. "It's like when the television is on but you're doing other things," Javi explained.

Infant mortality ran through the background of my life, too, not as a tracked data point but as a collection of stories. I grew up outside of Boston, Massachusetts. My mother was a staff nurse in the world's most technologically advanced neonatal intensive care unit. When my father took us to visit her at work on the weekends, I saw palm-sized neonates under the blue glow of bilirubin lights in translucent trays and boxes lines with soft white blankets. On white hospital tape affixed to the Isolettes someone had used a Sharpie to calligraphy hopeful names. Wires and mechanically regular breaths pulled and pushed at fragile chests. At home, I overheard my parents discuss fierce debates between nurses, social workers, and physicians bringing differences in ethics, morals, and knowledge to care decisions at the margins of viable human life. On the answering machine, I would occasionally find a message thanking my mother for remembering the anniversary of a patient's death, years after the fact. Some parents sent a holiday card every year with a new family picture as their preemie grew up. One became a spectacled and grinning kid last I

knew. But not all care brought moral rewards. Pushing the margin of viability to the extent possible in that high tech facility generated new problems of public health for the communities it served, as well as cases of personal catastrophe. There were days when my mother came home wrecked by the anger of mothers in the NICU who identified racism or classism in the conversations about the likely social and economic costs of different death-defying measures. Ambient social discrimination and structural violence outside the hospital complicated the choices in the hospital, for NICU staff and for parents who felt violated in their everyday lives. These real experiences came, too, to the surface in the crisis of salvage.

Knowing these stories may have been why I found it odd that that the faces on the "Guest at Your Table" boxes in our kitchen and the Unicef posters at our school were all in settings far away. The posters and the boxes were shiny and simple. But even a child with a few examples in her head could imagine that the world those starving faces on the box inhabited might not be so simple. Still, it felt good and easy to put my nickels in the box.

I had completed a master's degree in public health and was three years deep in dissertation research when I next visited Santiago. My dissertation was not about Chile, but as I talked about it with a friend who worked in the Ministry of Health, he had the idea that I might appreciate the chance to interview pediatricians who had worked in government through the Gran Decenso.

Pediatrician Patricio Hevia Rivas met me in the lobby of the Unidad de Patrimonio Cultural de la Salud, where he was having coffee with two colleagues at the secretary's desk. He was narrow, with wire glasses, and white hair starting far back from his lined and spotted forehead. They greeted me and offered me a Nescafe while we introduced ourselves. Hevia had directed numerous projects for the Servicio Nacional de Salud initiated in the years leading up to the election of physician and former Minister of Health Salvador Allende and

through the three years of the presidency. After that he had worked for the Pan American Health Organization. Now he was director of the UPCS. A community health center in the neighborhood of Recoleta had recently been named for him.

Hevia's office was up a set of creaky but richly carved wooden stairs. He pulled a binder from a shelf and put it on the table, turning the pages slowly, pointing out particular passages and telling me stories as I took pictures with my phone. He gave me some documents to take away. After we had been talking for some time he asked without looking at me, "Dr. Martorell said that you will also be talking to Fernando Mönckeberg?" I said that yes, I would be meeting with Mönckeberg the next day. I was trying to hear a number of perspectives, I said. He nodded and said that was good. "No importa," he said, but continued speaking. "It was a different time. He was on the right. We all trained together." He described the community health work done to teach people new approaches to hygiene and sanitation. I asked if he wanted to comment on what others had written, that it was the infant nutrition programs of the dictatorship that explained the continued fall of the infant mortality rate. His eyes flashed and his voice dropped. "Mentirosos," he said. "Nobody wanted to eat those fake foods they were making. The people learned when we worked with them in the community, and they didn't forget what they learned when there was a coup. They kept doing those things. That's why it kept falling." I nodded and waited, but he didn't say more. He gave me a document he had authored with the Chilean Academy of Medicine in 1985 that had taken the risk, as some left-wing physicians were disappearing, facing torture and execution, of stating that the infant mortality rate was no longer a viable measure of "global" population health in Chile. We talked a while longer, and the conversation moved to talking about the building. He took me to the window where ministers in the past had stood to talk to people in the streets below. Before the afternoon ended I asked if I

could take a picture of him and he requested that we take it in the garden. On the way out we stopped there and he stood in front of a stone memorial of medical staff killed in the explosion of a public hospital, one of whom had been his wife and all of whom had been his friends. He waited for the flash.

The next afternoon, I walked from the Providencia stop on the Transantiago metro to the offices of the non-governmental organization CONIN, La Corporación para la Nutrición Infantil that pediatrician Fernando Mönckeberg had founded and directed since 1972. I called via telecom from the gate separating the street from the parking lot and office, a late colonial house with white and moss-green plaster façade and steep clay tiled roof, squeezed between two larger cement neighbors. With a buzz the gate opened and a secretary met me inside, walking me up the stairs to where Mönckeberg was sitting in his office in front of a computer. He gestured for me to sit across from him. He was thick and wore a crisp eggshell blue button shirt. His gray hair was combed tightly down the back of his head. He asked how long I could stay and began with a bit of autobiography. He had studied medicine in Santiago and then traveled to Harvard on a fellowship, where he conducted research on gamma globulin deficiencies in the immunology lab of David Gitlin at Boston Children's Hospital. In 1960, he went back to Chile and worked on a project funded by the National Institutes of Health along with the Rockefeller and Ford Foundations, the WHO, the European Economic Commission, Pfizer, Nestlé, Bristol-Myers, and Ralston-Purina, studying the effects of malnutrition on cerebral development. During the Allende presidency he founded INTA, the Instituto Nacional de Tecnologia y Alimentation. After the coup, INTA distributed protein-enriched synthetic foods amidst a devastating economic recession, and CONIN established 32 feeding centers across the country that saved the lives of malnourished infants and sent them back to their families.

Mönckeberg had collected a stack of brochures for me, and he paged through them at his desk, pointing to photos of infrastructure projects and graphics charting the progress of Chile across a number of indicators through the 1970s and 1980s. "Maybe you'll cut off my head for saying this," he said, his eyes flickering away from mine, "but nothing that was accomplished in health over these years would have been accomplished in that democracy." I was not sure what to say. "I would really like to hear what you think," I told him. He explained the need for roads and water infrastructure and other massive projects that required money and definitive action. I mentioned reading that the infant mortality rate had been useful for attracting funds for the government. He said that INTA had been very successful getting money from the government on account of the falling infant mortality rate. I asked why he thought that was so. "Data have power," he said.

Before leaving I asked if I could take a picture of him. Agreeing, he had a second thought and said there was something better. He retrieved a book from a small bookcase by the door. It was an autobiography and had what appeared to be a relatively recent photograph on the front. "There are more photos inside," he said. I thanked him and put it with the other pamphlets he had offered me. He called the secretary and she walked me back down to the driveway, buzzing me through the gate back onto the street.

Both Hevia and Mönckeberg reflected on the significance of infant mortality as a vital assessment of success and failure, national conditions, politics, and the nature of communities. The metric they spoke about contained a range of arguments about values, technology, babies and bodies, and determinants of health, in addition to the very ways we *count*. Their memories spoke to the heart of conflicts in public health and international development that I was learning about through my research. I have tried to keep my memory of both of these interviews on my shoulders as I write.

Introduction

In 1951, when this story begins, infant mortality was the universal metric with which liberal health experts hoped to stabilize and rebuild a burned and broken world. It was clear to them that the hazards of infancy reached far beyond the sheer boundaries of the metric. The statistic, after all, counted only infant bodies. But as a vital statistic, it was a symbol of the qualities of life, and comprised conditions beyond the skin-bounded bodies of those it counted. The experts believed that this problem, present in every society, could attract the broad and comprehensive responses needed to address the social vulnerability so evident in the post-colonial settings where they fixed their gaze. Moreover, infant mortality was a problem with which these experts, predominantly associated with the field of social medicine in the United States, had experience and a record of success.

In the thirty years that the United States Government had been reporting a national infant mortality rate, estimates had dropped from a frightening height to a level of relative security, on par with the nations of northern Europe. At the beginning of the century, it is estimated, close to thirty percent of those born in large U.S. cities, industrial towns, or in parts of the rural South, died within a year of birth. Nation-wide, the estimates likely fell between fifteen and twenty percent. Health boards responded with environmental and sanitary regulations addressing sewage and garbage disposal and safe drinking water. Rising standards of living enabled the maintenance of housing, education and economic welfare interventions. Milk pasteurization addressed gastrointestinal infections tied to contaminated milk supplies, and education in for expectant mothers addressed individual health behaviors. More recently, powerful new medical technologies from diphtheria toxin to penicillin to infant ambulances and incubators had been utilized. In 1951, when the nation-wide infant

death rate was closer to three percent, widespread public anxieties about infant mortality had slipped away and the problem largely passed out of view for the political majority. Infant mortality became a problem of the fragile states emerging from centuries of colonial rule after World War II. The visiting health experts, for whom infant mortality was a beacon of hope in progress, were confident that they knew what to do.[1]

By the end of the twentieth century, infant mortality was no longer the universal metric for the new global health. Health had been marginalized in the institutions leading international development, and while infant mortality remained in the vernacular, its meaning was different. An eroded artifact of an earlier time, it sat opaquely now in a crowd of twenty-one quantifiable targets and sixty indicators in a framework of Millennium Development Goals. In 2015, infant mortality was embedded into one of 169 targets spread across seventeen updated Sustainable Development Goals. To this day, the metric retains cultural authority. When news reports state that the U.S. infant mortality rate is the highest among all wealthy countries, it is to be assumed that the death of infants is problematic and serious.[2] But infant mortality's mid-century meaning as an indicator of social and political inequity is advocated only by a small group of social health scientists.[3] Amidst reports that maternal mortality rates are rising in the United States, few in the early twenty-first century

[1] Richard A. Meckel, *Save the Babies : American Public Health Reform and the Prevention of Infant Mortality, 1850-1929* (Ann Arbor: University of Michigan Press, 1998).

[2] Aaron E. Carroll, "The US Is Failing in Infant Mortality, Starting at One Month Old," *New York Times*, June 6, 2016.

[3] Nancy Krieger, "Stormy Weather: Race, Gene Expression, and the Science of Health Disparities," *American Journal of Public Health* 95, no. 12 (December 1, 2005): 2155–60.Zoë Carpenter, "What's Killing America's Black Infants?," *The Nation*, February 15, 2017, https://www.thenation.com/article/whats-killing-americas-black-infants/.

United States relate this tragic fact to the infant mortality rate.[4] For social welfare activists in the early twentieth century, the connection between infant and maternal mortality was clear. One reason they drew political attention to infant mortality was to gain support for services that would address the high rates of maternal death plaguing childbirth across the country.

While it is evident that the predominant meaning of infant mortality has changed despite retaining cultural authority, it is not clear how that change was produced. This is the mystery motivating the investigation and argument that follows. To describe and understand the processes implicated in the shifting meaning and use of infant mortality, I follow the problem and the metric to the marginalized communities where it remained after World War II. In these sites, infant mortality mediated complex local interactions taking place in globalized settings. Liberal experts attempted to intervene on diffuse human vulnerability with modern medicine, public health, and social science. These efforts were an assemblage of complex interactions bridging vastly different local moral worlds.[5] In planning, implementation, and policymaking, the meanings, uses, and expected determinants of infant mortality varied among collaborators. It was in the interactions of these liberal development projects, carried out in the decades immediately following World War II, that infant mortality lost its social meaning.

As a durable problem of knowledge, politics, and ethics that had wide social, cultural, and affective valence, infant mortality is a valuable object for studying these interactions over time, linking local sites and global trends. Using infant mortality to investigate complexity in

[4] Sabrina Tavernise, "Maternal Mortality Rate in U.S. Rises, Defying Global Trend, Study Finds," *The New York Times*, September 21, 2016, sec. Health."U.S. Has The Worst Rate Of Maternal Deaths In The Developed World," *NPR.Org*, accessed July 11, 2017, http://www.npr.org/2017/05/12/528098789/u-s-has-the-worst-rate-of-maternal-deaths-in-the-developed-world.

[5] Arthur Kleinman, *What Really Matters: Living a Moral Life amidst Uncertainty and Danger* (Oxford ; New York: Oxford University Press, 2006).

the management of population vulnerability, this dissertation traces major changes in health and healthcare that occurred in the context of efforts to enhance international development in the three decades following World War II.

Presence

Historical work benefits from ethnographic sensibilities, but historians lack access to experiential knowledge about place, local meanings, and affect that is available to researchers in disciplines like anthropology and sociology. Much that is sensible as a participant-observer remains opaque in the fragmented materials of an archive, no matter how rich or extensive the collections sourced. Even personal past experience and oral history are clouded by the ways in which memories get reconstructed over time. For a historical project interested in moral processes, this is a significant limitation. Years ago, I discovered a trove of papers collected by Dr. Leona Baumgartner, an engaged participant and prolific observer who, I suspected, could be the eyes, ears, feet, and guide for such an investigation. She serves, in a way, as an ethnographer. While infant mortality is a refractive analytic, Baumgartner is the narrative presence through which I articulate the variety of perspectives involved in globalized sites. As a healthcare worker and administrator, she also reveals changes in her own views, approaches, and attitudes over the crucial period from 1950 to 1975. Hers is the "view from somewhere," for a work that necessarily covers a great deal of ground.[6]

Born in 1901 and raised in Lawrence, Kansas with a worldly orientation, Leona Baumgartner rose to a position of authority in the international institutions of health and development by the middle of the twentieth century. She was, by virtue of the opportunities

[6] While developing this project I have often thought of Michael Jackson, *Life within Limits: Well-Being in a World of Want* (Durham [N.C.]: Duke University Press, 2011).

available to her, an expert in maternal and child health. Navigating substantial gendered obstacles throughout her training and career, she held a masters degree in bacteriology, a doctorate in immunology, a medical degree, and two decades of experience in public health administration at the head of the New York City Department of Health by the time she accepted the appointment of Assistant Secretary of State and Deputy Director of the new United States Agency for International Development in 1962. She knew how unusual such a path was for a woman of her generation, and how many obstacles she had passed. As she noted on the back of a photograph taken at her swearing-in ceremony at USAID, her position was the highest government office held by a woman in the United States at that time. As her international career took off in 1951, Baumgartner believed infant mortality was the ideal problem for attracting comprehensive responses that would promote both the health of the individual and the welfare and stability of society. Well aware that across the United States, as around the world, the benefits of modern medical science were not equitably enjoyed, she hoped that focused attention on the problem of infant mortality would dispel social inequalities that were often hidden by national averages.

It is worth noting explicitly, given present ambivalence about biography as a historiographical method, that this dissertation is not a biography.[7] The story is told with Baumgartner, but is not principally about her. For her network capacity, observatory skills, and engagements in international institutions, Baumgartner is a valuable historiographical presence. Her viewpoint on the problems, debates, and ideas of the time was characteristic of prominent medical Progressives at midcentury. She was well positioned -- as a woman, pediatrician, and public health administrator -- to participate in discussions about infant

[7] See, for example, discussion introduced by David Nasaw, "Introduction: Historians and Biography," *The American Historical Review* 114, no. 3 (June 1, 2009): 573–78.

mortality. For the purpose of historical research, it is fortuitous that Baumgartner lived a largely unaudited life. Her papers, for the most part, were not picked through before retiring to the archives. Indeed, her records are thinnest during the years when she worked in the State Department, her highest public office. A well-trained population scientist, she made notes when data was significantly missing: on the folder of letters she kept when her first husband died, for example, she wrote on the tab that hundreds of other documents had been destroyed. In collections around the world, Baumgartner's notes and the marginalia she left in books do not seem to have been taken away as memorabilia. In part because of her lack of historical celebrity, she offers my investigation the advantage of seeing closely debates on infant mortality, social medicine, and economic development at a foundational moment in the history of global health.

Questions

At the core of the themes that Baumgartner helps to explore is the variability and elasticity of infant mortality's meanings. As historians and anthropologists have noted, there are multiple ways to understand infant mortality. In one sense, infant mortality is a universally applicable technical object. In international institutions of the twentieth century, the standard definition of the infant mortality rate was a simple ratio: For a given period of time and defined population, the infant mortality rate was a count of the deaths occurring within one year of birth, divided by a count of live births.[8] While the meanings of birth and death could

[8] Jeffrey P. Brosco, "The Early History of the Infant Mortality Rate in America: 'A Reflection Upon the Past and a Prophecy of the Future'1," *Pediatrics* 103, no. 2 (February 1, 1999): 478–85.

vary across local worlds, the events were universally possible to report.[9] At the same time, infant mortality is also a phenomenon. Across societies, infant bodies are particularly susceptible to death. How that susceptibility is explained, experienced, and responded to by their communities is locally specific.

The meaning of infant mortality as a metric can also change over time, inducing new subjectivities. As historians of early modern science have indicated, when 17th century London merchant John Graunt rendered the memento mori of the local church into the first Objects of infant mortality, the church Searchers who went door to door counting the death did not specify whether an "infant" meant a newborn or a mentally ill member of society. Both were "without voice" to pray for their own salvation. These lives, without ability to prayer, were the "precarious" lives in society. What really mattered to the Searchers was salvation, and that determined who counted as most vulnerable, and shaped the processes by which they were counted.[10] As Graunt's infant mortality Objects were rendered into modern statistics, the meaning of "infant" changed again, along with the way its mortality was counted. In the sooty streets of industrializing London and Chicago, physicians and social workers counted infant deaths to detect areas of vulnerability in the city. After inquiring into the social conditions in sites where infant mortality was especially high, the statistics and social knowledge were used to raise public awareness and lobby government support. But

[9] I thank Anand Bang for our conversation on this point, which convinced me that it is socially accurate to claim this kind of universality for the infant mortality rate. Bang and his parents Abhay and Rani Bang are well known for their community health work in India's Gadchiroli district, significantly reducing infant mortality with their communities. Personal Interview, Delhi, NIHFW, August 26, 2014.

[10] Peter Buck, "People Who Counted: Political Arithmetic in the Eighteenth Century," *Isis* 73, no. 1 (1982): 28–45.Peter Buck, "Seventeenth-Century Political Arithmetic: Civil Strife and Vital Statistics," *Isis* 68, no. 1 (1977): 67–84. Theodore M. Porter, *Trust in Numbers - The Pursuit of Objectivity in Science and Public Life* (Princeton University Press, 16).Peter M. Briggs, "John Graunt, Sir William Petty, and Swift's Modest Proposal," *Eighteenth-Century Life* 29, no. 2 (June 27, 2005): 3–24.

the meaning of infant had reduced to newborns alone, as modern European and U.S. societies increasingly blamed vulnerability on personal failings. Through the late nineteenth and twentieth centuries, infant mortality was adopted as an administrative metric of state authorities to describe the size and predict the growth of their populations, and to monitor empires and epidemics. As fertility fell across Europe's working class and the middle class "American" race in the United States at the beginning of the twentieth century, state officials and social scientists concerned about population decline in Europe and "race suicide" in the United States counted infant deaths with increasing anxiety. In the United States, the infant mortality rate maintained purchase on the public eye through major cultural shifts from thrift to consumption, across ideological divides between individualism and socialism, and through moral debates between pacifists and manly adventurers. For many, the infant became a "national resource."[11] But it is also known that not all government or charitable responses were equally allocated, received, or adequate among the people, identified as "Negro," "Indian," "Japanese" or other categories that did not count as "American." Meanings of infant mortality across politically excluded, enslaved, and colonized populations are particular and complex.[12]

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[11] Allen Freeman Davis, "Spearheads for Reform the Social Settlements and the Progressive Movement, 1890-1914" (1959, 1959).Susan Cotts Watkins, *After Ellis Island: Newcomers and Natives in the 1910 Census* (Russell Sage Foundation, 1994).Gretchen A. Condran and Harold R. Lentzner, "Early Death: Mortality among Young Children in New York, Chicago, and New Orleans," *The Journal of Interdisciplinary History* 34, no. 3 (January 1, 2004): 315–54.Samuel H. Preston, *Fatal Years: Child Mortality in Late Nineteenth-Century America*, NBER Series on Long-Term Factors in Economic Development (Princeton, N.J.: Princeton University Press, 1991).

[12] Martha Ann Hargraves, "The Social Construction of Infant Mortality: From Grassroots to Medicalization" (Ph.D., The University of Texas Health Sciences Center at Houston School of Public Health, 1992).Karen Kruse Thomas, "'Law unto Themselves': Black Women as Patients and Practitioners in North Carolina's Campaign to Reduce Maternal and Infant Mortality, 1935-1953," *Nursing History Review : Official Journal of the American Association for the History of Nursing* 12 (2004): 47–66. Zeina Omisola Jones, "Knowledge Systems in

No quantitative measure had been developed for vitality; it was endpoints that caused worry and gave cause for counting. The many meanings of infant mortality gave it particular power to attract attention and compel response. While studies have investigated the implications of infant mortality's meanings in the nineteenth and early twentieth centuries, few historical investigations have been made into the implications of infant mortality's multiple meanings in globalized settings after World War II. Debates about how to count infant mortality and what it means are central to my investigation.

The second driving question in this dissertation is directed towards the relationship between health and development, which changes character between 1945 and 1975 as new structural development theories came to define the programs of modernization. Through this change, health maintains a position of importance. What are the implications of the seeming centrality of health in development and the maintenance of this arrangement over time? The idea of liberal development has theological roots in 19th century holistic worldviews articulated by Prussian idealistic philosopher Georg Hegel.[13] This system-oriented view took on divergent meanings and practices over the next two centuries.

Conflict: The Regulation of African American Midwifery," *Nursing History Review : Official Journal of the American Association for the History of Nursing* 12 (2004): 167–84."Birth behind the Veil: African American Midwives and Mothers in the Rural South, 1921-1962 - ProQuest," accessed August 15, 2017.Johanna Schoen, "Fighting for Child Health: Race, Birth Control, and the State in the Jim Crow South," *Social Politics: International Studies in Gender, State & Society* 4, no. 1 (March 1, 1997): 90–113.Susan Lynn Smith, *Sick and Tired of Being Sick and Tired: Black Women's Health Activism in America, 1890-1950*, Studies in Health, Illness, and Caregiving (Philadelphia: University of Pennsylvania Press, 1995).Lara Marks and Michael Worboys, *Migrants, Minorities, and Health: Historical and Contemporary Studies*, Routledge Studies in the Social History of Medicine ; 2 (London ; New York: Routledge, 1997)."The Political Life of Black Infant Mortality - ProQuest," accessed August 15, 2017.David Shumway Jones, *Rationalizing Epidemics: Meanings and Uses of American Indian Mortality since 1600* (Cambridge, Mass.: Harvard University Press, 2004).

[13] Amy Staples, *The Birth of Development: How the World Bank, FAO, and WHO Changed the World, 1945-1965* (Kent, Ohio: The Kent State University Press, 2006).

Envisioning a system of interdependent effects, stabilized by feedback and response, mathematicians and engineers from the late nineteenth century developed a control theory that spread widely.[14] Control theory influenced military operations and corporate management practices, as well as humanitarian initiatives fundamentally grounded on notions of peace and practices of collaboration. This systems thinking was at the heart of public health and social medicine in the United States and Britain after World War I, shaping the emergence of systems biology in concert.[15] During World War II, development systems thinking incorporated new information computing technologies that influenced not only military and industry but again, also biological and social sciences. At the same time, a new economics based on quantitative information and a market-based system grew powerful in policymaking, while new modernization theories were promoted in reaction to Marxist theories of staged growth with increasingly rigid structural elements. [16] While historical work

[14] David A. Mindell, *Between Human and Machine: Feedback, Control, and Computing before Cybernetics*, Johns Hopkins Studies in the History of Technology (Baltimore: The Johns Hopkins University Press, 2002).

[15] Dorothy Porter, "Social Medicine and the New Society: Medicine and Scientific Humanism in Mid-Twentieth Century Britain," *Journal of Historical Sociology* 9, no. 2 (June 1, 1996): 168–87.

[16] Jennifer S. Light, *From Warfare to Welfare: Defense Intellectuals and Urban Problems in Cold War America* (Baltimore: Johns Hopkins University Press, 2003); Geof Bowker, "How to Be Universal: Some Cybernetic Strategies, 1943-70," *Social Studies of Science* 23, no. 1 (February 1, 1993): 107–27; Philip Mirowski, *Machine Dreams: Economics Becomes a Cyborg Science* (Cambridge ; New York: Cambridge University Press, 2002); Agatha C. Hughes and Thomas Parke Hughes, *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, Dibner Institute Studies in the History of Science and Technology (Cambridge, Mass.: MIT Press, 2000); Lily E. Kay, *Who Wrote the Book of Life?: A History of the Genetic Code*, Writing Science (Stanford, Calif.: Stanford University Press, 2000).Eden Medina, *Cybernetic Revolutionaries: Technology and Politics in Allende's Chile* (Cambridge, Mass.: MIT Press, 2011); Nils Gilman, *Mandarins of the Future: Modernization Theory in Cold War America*, New Studies in American Intellectual and Cultural History (Baltimore: Johns Hopkins University Press, 2003); Bill Rankin, "Infrastructure and the International Governance of Economic Development 1950-1965," in *Internationalization of Infrastructures* (Delft University of Technology, 2009), 61–75.

has been done on the political and social application of development systems science after World War II, little has been done to study the implications of cybernetics for the public health sciences.

My approach to this question is global, by which I mean that I seek to describe and understand these changes and their implications as not only the work within policy institutions or of epistemic communities that come to populate them, but also considering the effects of implementation challenges and successes. In what ways do local interactions influence policy change and priority agendas at governing institutions? In what ways does gender matter? Beyond policy, how do these processes affect the people working for these institutions? Baumgartner offers an opportunity to study this question as the investigation follows her closely over time.[17]

Relatedly, the postwar period was a time of intense ideological conflict about the form and function of the state, manifested not only internationally but also globally. My investigation is sensitive to the significance of the global Cold War and the particularities of post-colonial relationships to health and healthcare in the immediate postwar time period. Technologies and tools of measurement mediate these ideological debates and clashes of authority, and often do so across great social, moral, and material distances. As anxieties

[17] For institutionally-bounded theories of policy change see: John W. Kingdon, *Agendas, Alternatives, and Public Policies*, Updated 2nd ed., Longman Classics in Political Science (Boston: Longman, 2011). On theories of epistemic comunities: Peter M. Haas, *Knowledge, Power, and International Policy Coordination*, Studies in International Relations (Columbia, S.C.) (Columbia, S.C.: University of South Carolina Press, 1997). On discourse collectives: Maarten A. Hajer, *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process* (Oxford [England] ; New York: Clarendon Press, 1995). Also on a discourse approach: James Ferguson, "The Anti-Politics Machine: 'Development,' Depoliticization, and Bureaucratic Power in Lesotho" (University of Minnesota Press, 1994). Consider, as an alternative approach, the broad informative history by Randall M. Packard, *A History of Global Health: Interventions into the Lives of Other Peoples* (Baltimore: Johns Hopkins University Press, 2016).

grew, the technical interventions were designed to represent the ideology of the government providing the "aid." One of the earliest motivating problems of this investigation was how culturally inscribed tools from the infant mortality statistic to the incubator are appropriated across different local contexts with different moral, social, and material ecologies. I am interested in this problem as it relates to tools of statistics, medicine, and public health. The question can be applied to larger structures like health systems as well. Though health technologies were treated as neutral "exports" in post-war aid, abundant anthropological and historical studies have explored ways in which technologies are embedded with values and not neutral. [18] What can we learn about how technologies were made appropriate in new contexts by looking not at either diplomats or the implementation of policies on the ground, but by linking these? In what ways did such interactions influence policy and health? How do attempts to navigate post-colonial demands for self-determination fare in the face of powerful interests of not only governments but also industries and religious organizations?

Finally, the dissertation crosses traditional historiographical boundaries. Geopolitical divisions have typically been drawn between the United States and post-colonial settings, centers and peripheries, Global North and Global South, province and metropolis, Third and First World. Infant mortality is not just a problem of international health, with disparities evident nationally between the United States and poorer nation-states, but also within the United States. Though both the problem and the metric of infant mortality

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[18] Claire L. Wendland, *A Heart for the Work : Journeys through an African Medical School* (Chicago ; London: The University of Chicago Press, 2010).Vinh-Kim Nguyen, *The Republic of Therapy : Triage and Sovereignty in West Africa's Time of AIDS*, Body, Commodity, Text (Durham NC: Duke University Press, 2010).Lundy Braun, *Breathing Race into the Machine: The Surprising Career of the Spirometer from Plantation to Genetics* (Minneapolis: University of Minnesota Press, 2014, 2014).Jeffrey P. Baker, *The Machine in the Nursery : Incubator Technology and the Origins of Newborn Intensive Care* (Baltimore, MD: Johns Hopkins University Press, 1996).

became a problem of foreign aid in 1950s, disparities within the United States across categories of race and income persisted. Among those people identified as "Negro" or "Indian," rates have been nearly two-fold higher than among those identified as "white." In the 1960s, these "inequalities" became a source of widespread public anxiety and attention again as moral, demographic, and economic changes brought previously segregated people into close proximity amidst movements for civil and human rights. This dissertation not only seeks to understand these processes of crisis and denouement within the United States, but also how they can be understood as global phenomena. I seek new ways of understanding maps, distance, power, interest and their relationships in global health.

Through such themes and questions, this dissertation describes and interprets the complex processes taking place in globalized sites that repurposed infant mortality from a universal indicator of social inequity to a moving target. Baumgartner becomes a valuable observer for communicating these changes.

Itinerary

Baumgartner's itinerary becomes the cases through which I study the questions and themes above. This organization is chronological but overlapping. Beginning in New York City in 1951 with a description of Baumgartner's worldview as she begins her international career. Baumgartner explained to public health and social welfare organizations as she traveled across the country why she believed infant mortality, and in particular prematurity at the interface of maternal and infant health, was an attractive problem for comprehensive and integrative development of a new public health linking grassroots public engagement with clinical and preventive medicine, social science, private enterprise, and public institutions.

Following Baumgartner to Quito, her first excursion as a visiting health expert, the story lands in a project site of the Institute for Inter-American Affairs, the first bilateral health agency of the United States Government. Based on the liberal ideas of Rockefeller Foundation health experts affiliated with the field of social medicine, the IIAA jointly administered cooperative health services with state health ministries or, when they were missing, the next most similar health authority. These servicio programs were envisioned as demonstration projects, a typical form of intervention for U.S. philanthropies invested in public health. Through technical assistance, comprehensive environmental, medical, and training services were planned and implemented with the intention of promoting higher levels of health and interdependent stability in the hemisphere. Baumgartner visited a maternity hospital equipped with advanced perinatal medical technologies intended as one part of a development system extending from city to people in remote mountains, jungles, coastlines. Her visit was short, her advice was confident, and though the experience advanced her career with an appointment to a World Health Organization committee on maternal and child health, her advice about premature infant care and the implicit system on which it was based encountered different meanings, determinants, responses across a diverse array of Ecuadorian communities.

As the experiences of the IIAA programs in Ecuador and elsewhere in Latin America led to revisions of international health development strategies, Baumgartner's authority as international health expert grew. In 1955, she was commissioned by the Population Council to advise the Indian Ministry of Health on their population policy. In this recently post-colonial context Baumgartner watched her advice for a comprehensive approach to health based on infant and child health services undermined, while new

scientific practices that met the challenges of development gained authority amidst pressures of time, material resources, and political antagonism powered by the intensifying Cold War.

Baumgartner's work in India continued over the next decade, and in the revision of international policy by the New Frontier administration, she was hired to the position of assistant secretary of state at the newly constituted USAID. Amidst new theories of development based on a complex mixture of interests, Baumgartner found health now marginalized on the agenda of development institutions. Representatives of industry invested in redefining the overseas development professional, leaving health workers and educators out of the potential pool of professions. Baumgartner, from her seat at the table in USAID and through her international networks, strategized ways to return health to development priorities.

Baumgartner soured towards the development institution as her efforts left health in a marginalized, if still seemingly important, position in international development. Infant mortality had become a tool serving priorities other than individual and population health, and a target rather than an "entree" into Baumgartner's comprehensive vision. Quitting USAID, she accepted a job at Harvard Medical School, where she set out to build a neighborhood health program and a social medicine curriculum, eventually convinced to take on the executive directorship of a Great Society regionalization program intending to rationalize health services in the Tri-State area. Influenced by her work in international development, she collaborated with information scientists and engineers to build a new "health systems" approach. Amidst the racialized violence that grew to a violent conflagration at the end of the 1960s, Baumgartner's professional authority, strong two decades earlier, was eviscerated.

The Global

Historians are experimenting with how to describe and understand global phenomena that cross time, place, and culture. Nation state histories have hobbled us, because ideas and practices move across traditional boundaries. Crucial interventions each have strengths and weaknesses. While international histories can provide diplomatic perspectives, they struggle to access local culture and meaning. Locally bounded studies, while they can provide deeply contextualized interpretations, may struggle to elucidate their claims about what is global and what is particular in their work.[19] Post-colonial histories that by default assume a hegemonic interpretation of international work blur the differences in meaning and intention that different actors and organizations bring to care and collaboration.[20] Some tend towards conclusions that stop short at cynical conclusions without attending to ways that "resistance" can mask a desire for dignity or self-determination that are not intended to be exclusive of healthcare.[21] Attempts to flip the tables on imperialist history and provincialize former centers of interest and power risk repeating the problems of "othering" and opaque interpretations of different categorizations.[22] Global histories that rely on people in motion generate insight into networks but may limit their focus to those who are privileged to travel. Migration approaches in other forms may be constrained to the catastrophic situations during which people are forced to migrate to save their own lives, missing the everyday ways

[19] Julie Livingston, *Improvising Medicine: An African Oncology Ward in an Emerging Cancer Epidemic* (Durham, NC: Duke University Press, 2012).

[20] David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley: University of California Press, 1993).

[21] James C. Scott, *Weapons of the Weak : Everyday Forms of Peasant Resistance* (New Haven: Yale University Press, 1985). A similar observation is made by Nguyen, *The Republic of Therapy*.

[22] Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference*, Princeton Studies in Culture/Power/History (Princeton, N.J.: Princeton University Press, 2000).

that global influences interact with everyday life. Disease histories are analytically powerful as comparative work but may struggle for narrative connections across cases.[23] Richly populated studies risk may show a wide array of perspectives but lose the sensitivity to nuance needed speak to the complexity of singular actors and interpret their meanings beyond thin-descriptions of what they say and do. Histories that attend masterfully to culture and context across broad sweeps of time and place face similar constraints on the ability to attend to individual people.[24]

This dissertation is an attempt to address traditional limitations and strategize with ways to do new kinds of global history. Through Baumgartner, I attempt to attend not only to the debates and historical changes but also to the actor facing limitations in agency and undergoing change over time. I stray away from her to find perspectives that she does not or cannot hear. At times, I pause her action to provide historical context for words, things, or people she references only in passing. These asides situate her worldview and challenges in much longer histories of humanitarian intervention, public health and social medicine, and women and gender in science and public life. The case studies in the dissertation are selected from her itinerary and while I did make choices to focus on some sites where she was present while leaving others in the background, the narrative connection between the cases reveal a path she actually took, not imposed by my interpretation. Infant mortality, as the primary object of inquiry, is a phenomenon that links private homes to multinational institutions. It is bounded enough to track and compare but variable in its meaning and

[23] Christian W. McMillen, *Discovering Tuberculosis: A Global History, 1900 to the Present* (New Haven: Yale University Press, 2015).Daniel Immerwahr, *Thinking Small: The United States and the Lure of Community Development* (Cambridge, Massachusetts: Harvard University Press, 2015).

[24] C. A. Bayly, *The Birth of the Modern World, 1780-1914: Global Connections and Comparisons*, Blackwell History of the World (Malden, MA: Blackwell Pub, 2004).

effects. It is the most important of the many "keywords" that reveal the diversity of meanings at work in each of the globalized sites.[25] By carefully watching infant mortality, I can attend to not only the ideas and practices that traveled with Baumgartner, but also those that fell outside the scope of her observation, were not circulated by elite international networks, or were once important but gradually marginalized and rejected in the shifting meanings and approaches to health and healthcare.

In many ways, this is a story about loss, culminating in the loss of a social way of knowing in the sciences of public health. As I was finishing the dissertation, I began to think of what happened to the infant mortality rate with the metaphor of a geological mine. A capacious metric, full of value and potential, accessible to many interests, over time was exploited, depleted, and closed. Or perhaps it collapsed. This dissertation seeks to explain not just what was lost, but how the loss happened.

[25] I appreciate the idea of "object without an essence" from Projit Bihari Mukharji, "The 'Cholera Cloud' in the Nineteenth-Century 'British World': History of an Object-Without-an-Essence," *Bulletin of the History of Medicine* 86, no. 3 (December 13, 2012): 303–32.

Chapter 1: Approach

Science, the Baby Boom, and Liberal Development

"Is this state of inequality really necessary in the richest Nation in the World, where doctors boast of the best medicine in the world?" Standing before the Indiana Public Health Association in May 1951, Dr. Leona Baumgartner interrupted a general air of celebration.[1]

In a graphic labeled "Chart T-3, Infant Mortality, 1915-49," produced that year by the federal Children's Bureau, the General Security Agency, and the Social Security Administration, strong lines dropped steeply to the right. For every thousand infants born living in the United States in 1915, more than one hundred infants had died within one year of birth. By 1949, that number had fallen to thirty deaths for every thousand live births.[2] Many of Baumgartner's colleagues across the country read these trends as a matter of general celebration and reason for self-congratulation. After all, the new World Health Organization, committed to overseeing the "complete physical, mental, and social well-being and not merely the absence of disease or infirmity" of the world's population, had recently reaffirmed the infant mortality rate as the most robust indicator of overall population health.[3]

The findings fueled a growing celebrity for Baumgartner. Director of the New York City Health Department's Bureau of Maternal and Child Health for the past twelve years, she was a rising authority in both perinatal health and public health administration. Zooming

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[1] Leona Baumgartner, "The Future of Children and Youth." Speech to the Indiana Public Health Association May 1, 1951. Box 39, Folder 2. Talk #16: 13. Leona Baumgartner Papers, Countway Medical Library (Henceforth referred to as LBP).

[2] United States Children's Bureau, *Charts on Infant, Childhood and Maternal Mortality, 1949*. Children's Bureau Statistical Series. No. 9 (Washington: 1951).

[3] "Editorial," *Bulletin of the World Health Organization* 1, no. 1 (1948): 5.Julius Sigurjónsson, "Trend of Infant Mortality in Iceland," *Bulletin of the World Health Organization* 2, no. 4 (1950): 723.

in from national data to New York City, where the population was booming with new births, the general trends still looked good. When the American Public Health Association surveyed health conditions in 1951, New York City had the lowest overall infant mortality rate of the nation's ten most populous cities.[4] During the previous year, Baumgartner had led the Children's Bureau while its director, Martha May Eliot, advised the newly constituted World Health Organization in Geneva. Baumgartner's travel schedule had grown busy since then, as a rising tide of interest in science, pediatrics, and international health lifted her to a position of public authority.

Baumgartner's intention, facing the Indiana Public Health Association, was not to downplay achievement but to draw attention to issues beyond the positive data. "We can of course be proud of the record of saving mothers' and infants' lives in this country," she said. "That record looks good, but when we look closer we see much that still needs our attention."[5] The federal report, and others like it, communicated a story about what was happening in public health that was confident by design, and it took work to convey the limits of the graphed data.

Peering into the simple claims of clean modern lines, Baumgartner was neither satisfied nor assured. The persistent inequalities she knew to exist within the average mortality decline ignited her moral sensibility. Even as infant mortality had dropped 42% nationally since 1935, dramatic disparities appeared when the data was grouped according to various social identifiers required on birth and death certificates. Baumgartner noted, for example, variation by State. Infant mortality and maternal mortality both stood three times higher in some States than others. The data was also organized into categories of race. "It is

[4] APHA, "Staff Consultation Reports," New York City Department of Health Study, 1952. Edward M. Cohart Papers, Yale University Library.

[5] LB, "The Future of Children and Youth," 12.

three times as risky to have a child if you are a Negro mother than if you are a so-called white mother," Baumgartner commented, revealing a glimmer of her skepticism about the soundness of racial categorization.[6] She pointed to a line unlike the others on the graph that she had added the previous year while leading the Bureau. Over the course of the year, in her many speeches, Baumgartner would draw particular attention to the last line on the graph. Labeled "Under 1 Day," the line ran flat in parallel with the bottom of the page, before angling a few degrees above the tick labeled 1935, and leveling off. It was curious and discordant with the other lines, all descending steeply, on the page.

In the wake of the second world war, many leaders debated how to approach an uncertain future. While some pushed for isolation, and others were sure that building highly structured plans for the future would be best, Baumgartner believed that the only way to foster democratic stability was to embrace an interdependent world and encourage more open societies. In 1951, as her schedule filled up with travel as a consulting expert, Baumgartner took advantage of her burgeoning renown to propose a "new public health" that, she promised, would drive the development of human social relations and economic markets. With a bit of dramatic flair, she argued that infant mortality – and in particular the emerging interest in the problem of premature birth -- would be an ideal test case for the promotion of peaceful development, while reducing the likelihood of violent revolution.[7]

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[6] LB, "The Future of Children and Youth," 13.

[7] For example: She made the immunization of Elvis Presley part of the New York campaign against polio, regularly hosted a radio show on public health while Health Commissioner of NYC, and appeared as a character herself in public safety advertisements. One, intended to warn against the risks of plastics for children, was a close-up photograph of her face, panicked and trapped in a suffocating plastic bag. A public health celebrity, she was even the answer to a clue in the *New York Times* crossword puzzle.

She put the weight of the world on a moment of life that was mysterious and brief, and apparently, relatively easy to record and track.[8]

If any group was prepared to carry out this work in 1951, Baumgartner believed herself among them. Although public media made much of her grandmotherly cheer and her fine taste in hats, she had the city's respect as a serious health authority. Baumgartner was fifty years old in 1951. Her pragmatism was tightly knit yet to a powerful idealism.

Authority Rising

In the twelve years since Leona Baumgartner had begun working at the New York City Department of Health, the agency had stopped expecting epidemic death. In 1939, still primarily concerned with infectious disease, the Department's annual report noted proudly that its Bureau of Records conducted weekly analyses of infant mortality rates across the city to get early warnings of potential epidemic outbreaks.[9] The lives of the recently born were especially sensitive to their environments, which made a sudden uptick in the infant mortality rate a useful indicator of changes in the social environment and its pathogens. By 1951, the character of infant mortality in the department's public discourse had changed. Instead of counting on death, the annual report highlighted a higher infant survival rate than ever before. Observing the greatest yearly reduction in tuberculosis ever recorded in the city, and notable reductions in diphtheria, scarlet fever, and whooping cough, the Annual Report focused on the department's investment in bacteriological technologies from diphtheria

[8] Pierre Bourdieu and Alain Accardo, *The Weight of the World: Social Suffering in Contemporary Society* (Stanford, Calif.: Stanford University Press, 1999).

[9] New York (N. Y.). Department of Health, *Health for 7,500,000 People: Annual Report of the Department of Health, City of New York for 1937, and a Review of Developments from 1934 to 1938* (New York: Department of Health, 1939).

toxin, to new immunizing agents against poliomyelitis, to a new antibiotic drug, isonicotinic acid hydrazide, used in the department's tuberculosis clinics for the first time in 1952.[10] The falling infant mortality rate brought pride and excitement; a timeless social problem had been mastered with technical solutions. Though the focus on health technologies exacerbated a growing antagonism between the Department of Health and the Department of Welfare, which continued to point out the poor living conditions in much of the city, popular and scientific attention were globally focused on the cutting edge of medical interventions and their impact on epidemiological findings. The Health Department's priorities were shifting from people dying of infectious disease to people living with chronic conditions.[11]

A few blocks to the north of Baumgartner's office, her husband Nat Elias ran a laboratory behind a flat gray façade on Broadway. A chemical engineer by training, Elias had been raised in the Polish Jewish neighborhood on the Lower East Side, worked on dyestuffs in the laboratory of Thomas Edison briefly, had two children named Barbara and Peter with a first wife who died without public announcement, and opened his own laboratory where he manufactured products "in the interest of the working person." He now had patents on items from hand creams to windshield defogging materials, not to mention the pessaries and spermicides he manufactured through his small enterprise, Durex Products, at a time when

[10] New York (N. Y.). Department of Health, *For You and Your Neighbors: Report of the Health of the City of New York for the Years 1951-1952* (New York: Department of Health, 1953): 7-8. For more on new TB technologies see: David S. Jones, "Technologies of Compliance: Surveillance of Self-administration of Tuberculosis Treatment, 1956–1966," *History and Technology* 17, no. 4 (January 1, 2001): 279–318; David Shumway Jones, *Rationalizing Epidemics: Meanings and Uses of American Indian Mortality since 1600* (Cambridge, Mass.: Harvard University Press, 2004); Christian W. McMillen, *Discovering Tuberculosis: A Global History, 1900 to the Present* (New Haven: Yale University Press, 2015).

[11] For epidemiological transition in U.S. see: John Christopher Feudtner, *Bittersweet: Diabetes, Insulin, and the Transformation of Illness*, Studies in Social Medicine (Chapel Hill: University of North Carolina Press, 2003); Evelynn Maxine Hammonds, *Childhood's Deadly Scourge: The Campaign to Control Diphtheria in New York City, 1880-1930* (Baltimore, Md.: Johns Hopkins University Press, 1999).

pharmaceutical companies concerned about the Roman Catholic lobby would not touch them. During the war, Elias and Baumgartner had met over a friend's piano. The week after they married, he had left on government assignment with the Pauly Mission to investigate the industrial capacity of emerging nations. In 1947 he had spent months in Nuremberg, Germany poring over the documents of I.G. Farben, before testifying against the chemical company for complicity in Nazi war crimes.[12]

Public interest in the "scientific vocation" was not limited to new medical science and technology in 1951. On the back of a meteoric rise in industrial research spending through the first decades of the century, wartime demands for technical skills had fueled a demand for "manpower" more generally. Wartime science had unleashed a nuclear firestorm across two cities in Japan, but it had also developed lifesaving antibiotics. On the idea that national security depended on science and engineering, the 1944 Servicemen's Readjustment Act, better known as the G.I. Bill, promising veterans tuition, low-cost mortgages, low-interest entrepreneurial loans, and unemployment compensation, served to increase the supply of scientific manpower to populate the future with a technical outlook. Government resources poured into what would soon be called "Big Science," or applied research for national security ends. [13]

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[12] United States vs Carl Krauch et al, "Case No. 6 Tribunal VI, Roll 3 Target 2 Volume 5 p 1340,698 Sept 30-Oct 3, 1947," accessed August 30, 2017, http://www.profit-over-life.org/rolls.php?roll=3; Center for Jewish History, "CJH Digital Collections," accessed August 30, 2017, http://access.cjh.org/home.php?type=extid&term=476122#1; Elias Family Personal Papers (Henceforth EFPP). Shared, courtesy of Paul Elias (Cambridge, MA, July 2013).

[13] Alice O'Connor, *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century U.S. History*, Politics and Society in Twentieth-Century America (Princeton, N.J.: Princeton University Press, 2001); Jon Gertner, *The Idea Factory: Bell Labs and the Great Age of American*

New York City's already massive population was on the verge of explosive growth in 1951. Already, at the beginning of Baumgartner's tenure at the Department of Health, its annual reports had gaped at the 7,500,000 people living in the city. In 1947, the newspapers rolling off the presses of the *New York Times* had celebrated the U.S. birth rate at its peak.[14] Another decade later, the World Health Organization's public outreach magazine would feature a pictorial story on Baumgartner: "Safeguarding the Health of 8 Million People." It was, as later noted by historians, "an age that could only be understood in bulk."[15] Dr. Baumgartner worked with "5000 colleagues" to serve not only the 8 million residents but also the "hundreds of thousands" of national and international travelers and commuters in New York, surges of immigrants including "the current wave of Puerto Ricans who now number 600,000," and "a new baby born every three minutes."[16]

After decades of concern about the declining birth rate in the United States, this influx of infants helps to explain the highlighted social value of infants and children and the rise of pediatrics as a specialty in medicine. The first edition of Dr. Benjamin Spock's *Common Sense Book of Baby and Child Care* was selling off the charts, popularizing the idea that infants were people, different from adults, with particular needs and demanding constant attention.[17] Throughout Baumgartner's lifetime, what to do for infants and children had

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Innovation (New York: Penguin Press, 2012); Steven Shapin, *The Scientific Life: A Moral History of a Late Modern Vocation* (Chicago: University of Chicago Press, 2008).

[14] "US Birth Rate at Peak," *New York Times*, Feb 25, 1948; "1950 Death Rate at a Record Low as Births in Nation Continue High," *New York Times*, March 13, 1951:33.

[15] Sarah Elizabeth Igo, *The Averaged American: Surveys, Citizens, and the Making of a Mass Public* (Cambridge, Mass.: Harvard University Press, 2007).

[16] "Pictures of Health in New York: Safeguarding the Health of 8 Million People." *World Health* (Publication of the Division of Public Information of the WHO, Sept/Oct 1958). Box 2, Folder 2, LBP.

[17] Ann Hulbert, *Raising America: Experts, Parents, and a Century of Advice about Children*, 1st ed. (New York: Alfred AKnopf, 2003); Elizabeth M. R. Lomax, *Science and Patterns of Child Care*,

become a metaphor for national progress. In the early consumer movements of the Progressive Era, infant protection had been used by women to petition for license to form cooperative organizations. A "Milk Consumer's Protective Committee" had held a Baby Carriage Parade with the Henry Street Settlement, to pressure the New York governor and the Department of Agriculture to license a Consumer-Farm Milk Cooperative. In the 1920s, Co-Operative Banks had used infants as the symbol for thrift when encouraging citizens to invest in national stability by buying a home.[18] By 1944, the infant was a symbol of the consumer economy. The Congress of Industrial Organizations had declared, "our economy feeds and grows on purchasing power as a baby does on milk." In a consumer economy, infants were a burgeoning market at the dawn of the baby boom. The G.I. Bill, ensuring housing and education for soldiers returning from war, also enabled more people to establish home lives and raise children.[19] By the middle of the 1950s, Baumgartner was familiar with new theories that lifelong patterns of trust could be dependent on mother-infant early interactions early in life. In 1951, she inserted material into a talk for the Child Welfare League on the "infant stage of emotional growth, that is, the sense of trust." The name "John Bowlby" began appearing in her notes.[20] Among Baumgartner and her peers, infants held a special social and political priority.

Series of Books in Psychology (San Francisco: WHFreeman, 1978); John F. Cleverley, *Visions of Childhood: Influential Models from Locke to Spock*, Rev. ed., Early Childhood Education Series (New York, N.Y.: Teachers College Press, 1986).

[18] Boston Architectural Club and United States Housing Corporation, *Book of Homes* ([Boston, Mass.]: published by Boston Herald and Traveler, 1920).

[19] Lizabeth Cohen, *A Consumer's Republic : The Politics of Mass Consumption in Postwar America*, 1st Vintage Books edition (New York: Vintage Books, 2004), 34, 116.

[20] LB, Talk 20, Child Welfare League, May 28 1951, Box 39, Folder 2, LBP.

On 43rd Street the scaffolds and shining glass grid of the new United Nations headquarters, with postal address "United Nations, New York" overlooked the swirling eddies of the East River on property bought by the city's most famous capitalist, Nelson D. Rockefeller and cleared of its former slaughterhouses. To structure peace in place of the last half century of international conflict and violence, physicians, scientists, diplomats and philanthropists were engaged in building the moral and intellectual scaffolds of a "new world order."[21]

Baumgartner remarked that year on a new liberal attitude that had grown viable against terrible alternatives in the past fifty years, giving life to an unprecedented "concern for the welfare of fellow man." Her teachers and mentors were among the early 20th century biologists and physicians, including Julian Huxley, Conrad Waddington, Henry Sigerist, Milton Winternitz, Janet Vaughn and John Ryle. These were leaders on the political left of science and medicine forming a discipline that would be called "social medicine," all of whom believed scientific means, guided by ethical deliberation, should be applied to the promotion of human health for the good of society. Troubled by the use of science in "total war," after World War I, they had gradually come together in hopes of re-purposing science for "total health." Hoping to build a "New World Order" based on the concept of "social man, not "economic man," they were nevertheless influenced by economist John Maynard Keynes's ideas about the management of society and the mutual dependency of nations.[22] Connected through international work mediated principally by the Rockefeller Foundation, these physicians traveled in overlapping circuits as expert health policy consultants. Sigerist

[21] "Tax Gain to Recoup City Outlay on U.N., Wagner, Moses Say," *New York Times*, Nov 12, 1951: 1.

[22] Dorothy Porter, "Social Medicine and the New Society: Medicine and Scientific Humanism in Mid-Twentieth Century Britain," *Journal of Historical Sociology* 9, no. 2 (June 1, 1996): 168–87.

and Ryle had met while consulting the colonial government of India, facing the nationalist resistance movements and reconsidering its century of "laissez-faire" policy on public welfare.[23]

As clean as the lines, as sane as the arrow seemed on the moral compass, and as confident as Americans were in their technical "know-how" after the war, the matter of post-war internationalism was suffused with uncertainty. By the 1940s, an upwelling in the circulation of a neo-romantic English-language "adventure" literature was clear to those tracking cultural trends. That adventure genre described movement into spaces unknown, full of risk and uncertainty, and encounters with strange and foreign "others." It was not only adults targeted by the fictions, and not only books being produced. There was an explosion of magazines and cheap paperbacks targeting children -- boys and girls -- with adventure stories.[24] Some were backed by Christian organizations selling salvation narratives; some were pure pulp, narrating tales of danger and capture. Many were targeted towards children. By some accounts, the most-read book by boys in America in 1926 was *Treasure Island.* While most centered on far-flung geographic exploration, so too did others focus on knowledge and discovery. The bestselling 1926 book by microbiologist Paul De Kruif,

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[23] Elizabeth Fee and Theodore Brown, "Using Medical History to Shape a Profession," in *Locating Medical History: The Stories and Their Meanings*, ed. Frank Huisman and John Harley Warner (Baltimore: Johns Hopkins University Press, 2004; Sunil S. Amrith, *Decolonizing International Health : India and Southeast Asia, 1930-65*, Cambridge Imperial and Post-Colonial Studies Series (Houndmills, Basingstoke, Hampshire ; New York: Palgrave Macmillan, 2006).

[24] Richard Phillips, *Mapping Men and Empire: A Geography of Adventure* (London ; New York: Routledge, 1997) notes that the Nancy Drew series began in 1930; Andrea White, *Joseph Conrad and the Adventure Tradition: Constructing and Deconstructing the Imperial Subject* (Cambridge [England] ; New York, NY, USA: Cambridge University Press, 1993). A genre of imperial adventure literature in Britain when the nation was at the height of its imperial reach had been joined by adventure stories in America following the example of Teddy Roosevelt. Where Conrad's *Heart of Darkness* was based on British imperial notions of "the other" on the African continent, the topology of the U.S. adventure map was shaped by the adaptation of the "manliness" ideals to the myth-making around the North American frontier.

Microbe Hunters, which famously inspired a generation of physicians and scientists, referred to its heroes as "bold and persistent and curious explorers and fighters of death."[25]

"Adventure" was ripe in the popular culture of science and liberal internationalism. At mid-century, Broadway and Hollywood were bursting with it. James Michener's 1947 *Tales of the South Pacific* had been made into a blockbuster musical by April of 1949. By the late 1950s Mitzi Gaynor and Rossano Brazzi and John Kerr were singing on film about the racism that had "to be carefully taught," through the exotic setting of the wartime transplantations of Americans and French in the Southern Pacific islands. Taking up the themes of uncertain wandering and international, "cross cultural" exchange, the musical *Paint Your Wagon,* set in the California Gold Rush, opened on Broadway in New York in 1951. By 1969 it had been made into a Hollywood film starring none other than the American cowboy Clint Eastwood. And *The King and I*, which opened on Broadway in 1951 and stayed there for three years – a favorite of Baumgartner's -- followed a British schoolteacher named Anna to the court of a Siamese King determined to "modernize" himself and his subjects.[26] The moral self-help message of the story was that, in a context of strange and aggressive others, "you may be as brave as you make believe you are."

Baumgartner was not from New York City, and she had not come into the company of the leading lights in 20th century social medicine through a personal affinity for European socialism, missionary parents, or other family connections. She had wandered haphazardly

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[25] Paul De Kruif, *Microbe Hunters* (New York: Blue Ribbon Books, 1926); Jan Peter Verhave, "Paul de Kruif: A Michigan Leader in Public Health," *Michigan Historical Review* 39, no. 1 (2013): 41–69.

[26] James A. (James Albert) Michener, *Tales of the South Pacific,* (New York, The Macmillan company, 1947); Richard Rodgers, "South Pacific : The Musical Play" (Williamson Music, 1949); Frederick Loewe, *Paint Your Wagon : A Musical Play in Two Acts* (New York: Coward-McCann, 1952); Richard Rodgers, "The King and I; a New Musical Play." (London, Williamson c1951, 1951).

into medicine, a profession in the dark days of its acceptance of women.[27] Raised in the university town of Lawrence, Kansas, Baumgartner was close throughout her life with her father William, professor of zoology and a member of the Republican Party who frequently cited Lincoln as a moral example. Baumgartner recalled, when interviewed in the late years of her career by a college student named Julia Frank, that she and her father had traveled west each summer of her childhood in a chartered Pullman car to the Friday Harbor Marine Biological Research Station off the coast of Seattle.[28] She curated memories of a life of experimenting with him, not just on squid cells and sharks but also on the effects of tobacco on the rabbits in their backyard hutch. You could observe clear health differences in those exposed to smoke, she recalled, but her father "never could get that paper published."[29]

William and Olga Baumgartner were the children of Swiss Mennonite émigrés, and Leona Baumgartner, was an only child after a younger brother died in infancy. She was raised amidst strictly egalitarian principles and locally strange beliefs in racial equality. Baumgartner's classmates had appraised her, in her high school yearbook, as the one among

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[27] Regina Markell Morantz-Sanchez, *Sympathy and Science: Women Physicians in American Medicine* (New York: Oxford University Press, 1985); Elizabeth Fee, Ellen Singer More, and Manon Parry, *Women Physicians and the Cultures of Medicine* (Baltimore: Johns Hopkins University Press, 2009). The 1930s-1960s was considered the "dark ages" of women physicians. Though women entered coed medical colleges and women's medical colleges expanded 1890-1920, but gains were lost as women's institutions closed and coed schools raised entrance requirements. Between 1930-1960 it was difficult to get into medical school and even more so residencies and hired practice.

[28] Julia Bess Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962: With a Bibliography of Her Published Work, 1926-1972" ([New Haven, Ct.], 1977). Frank was a Radcliffe student who was introduced to Baumgartner by Historian of Science Barbara Gutman Rosenkrantz. While in medical school at Yale University, Frank chose Baumgartner's work in New York City as the topic of her thesis. Frank is now a psychiatrist affiliated with Georgetown University, and has been generous with her time, memories, and materials. Cassette tapes and transcripts shared by JBF are cited as "Julia Bess Frank, Interviews with Leona Baumgartner."

[29] Ibid., citing Julia Bess Frank, Interviews with LB, June 24, 1976.

them "most likely to save the world." Yet, what followed seemed to some an unambitious early career. Baumgartner later explained her apparent lack of initiative as a reflection of concern for her mother, Olga. A vigorous presence in Baumgartner's childhood, Olga's later life was marked by periods of depression. In her informal oral history, Baumgartner recalled that the first episode followed a hysterectomy and the careless comment of a physician who told Olga she was now "an old woman with the best of life behind her" – a sentiment that spoke to the cultural power of fertility in her time.[30] The surgery took place in Baumgartner's last year of college, and over the next decade, she went back and forth between caring for her mother in Lawrence and teaching high school biology in Montana.

Her forays into health science continued from an ecological perspective. In 1926, having left high school teaching to pursue a Masters in Science in bacteriology-immunology at Lawrence, she published with colleagues on an immunological conundrum among the Indian population, among whom there was commonly thought to be a "natural immunity" to scarlet fever. The incidence of scarlet fever was lower in Indians even though their serological and anti-toxin immunity levels were equal with non-natives, leading her to conclude that there was a third factor unrelated to agglutinating antibodies or streptococcal anti-toxin conferring immunity. The study expected inequality to be a latent environmental factor, and not a personal characteristic.[31] Accepting an instructorship at the University of Montana in Missoula she found an intellectual community among scientists studying Rocky Mountain Spotted Fever at Hamilton Laboratory. With conservationist biologist Morton

[30] Ibid., 15.

[31] Noble P Sherwood, Clara Nigg, Leona Baumgartner, "Studies on the Dick test and natural immunity to scarlet fever among the American Indians," *Journal of Immunology*, 11, 1926: 343-360.

Elrod, she visited the Salish and Kootenai tribes on the Flathead Reservation near Missoula and from him became fascinated with the contemporary anthropological sensibility.[32]

In 1928, she accompanied her parents to Munich as her father obtained a long-deferred doctorate with Karl von Frisch and she worked in scientific institutions where debates between holism and mechanized theories of disease played out. [33] In particular, she took a position in the laboratory of Irvine Heinly Page, who was head of chemistry in the Karsh Wilhelm Institute within the Deutsche Forschunganstalt für Psychiatrie started by neurologist Emil Kraeplin for the study of nervous and mental disease. Her work moved towards nutritional investigations of the effects of Vitamin D on tuberculosis and, by chance observation of her laboratory rabbits, on bone demineralization and fragility. Crossing conversations with international scientists, she claimed little interest in politics. Her family was shaken by the brown-shirt parades in the city. Her mother had attended one and come home disturbed. Baumgartner passed up an opportunity to hear Hitler speak when it arose, recalling that she went to a party instead.[34]

Inspired by the university laboratories and students she had worked with during her masters research, Baumgartner returned only briefly to the Midwest, following a "marked trail" to the East Coast in her early thirties to pursue a doctorate in immunology at Yale University, where she worked with professor of pathology Raymond Hussey on problems of age and immunity variation in rabbits. She was more skeptical of this work than some of her earlier research. "The thesis was largely a matter of statistics," she wrote in her diary, adding

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[32] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 22.

[33] Anne Harrington, Re-Enchanted Science: Holism in German Culture from Wilhelm II to Hitler (Princeton: Princeton University Press, 1996).

[34] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 29. Citing Saul Beninson, Interview with Leona Baumgartner, 1:1, 11-12, LBP.

that she "agree[d] with the man who says your common sense tells you most of the things statistics proves anyway."[35] At Yale, the dean and director of the Rockefeller-sponsored Institute for Human Relations, pathologist Milton Winternitz, convinced her to pursue a degree in clinical medicine.[36] She stayed on at Yale University to do so. On pediatric and obstetrical rotations with New York Hospital, she traveled back and forth between the tenements of the Lower East Side and the hospitals, where the city exposed her to new degrees of poverty. Pediatricians Grover Powers and Ethel Dunham introduced her to the emerging field of medicine for premature infants.[37] Having completed medical training and a doctorate in immunology, Baumgartner tried to get a research position at Rockefeller University. Bacteriologist Thomas Rivers introduced her vicariously to Rockefeller epidemiologist Leslie Webster, not mentioning name or gender, and Webster expressed great interest in her research and experience. After meeting Baumgartner in person, Webster "refused to consider giving her the job because she had 'cute legs.'"[38] She ultimately accepted

[35] Ibid., 43. Citing LB, Medical School Diary, February 14, 1932; January 31, 1932. LBP. The papers resulting from this work included: LB, "Qualitative changes in antibody during the development of serological immunity. Thesis, Yale, 1932. LB, "The relationship of age to immunological reactions," *Yale Journal of Biology and Medicine*, 6, 1934: 403-434. LB "Age and antibody production. I. Qualitative changes in antisera associated with age," *J Immunology*, 27, 1934: 407-16. LB "Age and antibody production. II. Further observations on qualitative changes in antisera associated with age," *J Immunology* 27, 1934:417-429. LB "Age and antibody production III. Quantitative studies on the precipitin-reaction with antisera produced in young and adult rabbits," *J Immunology* 33, 1937:477-488.

[36] A. J. Viseltear, "Milton C. Winternitz and the Yale Institute of Human Relations: A Brief Chapter in the History of Social Medicine," *Clio Medica (Amsterdam, Netherlands)* 43 (1997): 32–58.

[37] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 52.

[38] Ibid., 61. Citing Julia Bess Frank, Interviews with Leona Baumgartner, June 28, 1976, 139.

a position with the New York City Department of Health, eager to link immunology and pediatrics.[39]

Throughout these years, Baumgartner struggled to assess whether research or clinical practice did the most "good." "Undoubtedly, if I never do anything worthwhile," she said, "it will be because I always do see both sides of each story — and become so intrigued by both of them that I am ineffective."[40] Personally and professionally, she did not put great faith in structure. When talking about herself she pointed out that she "never chose" her career path, it "always chose me, some way or another."[41] With a self-aware humility she said repeatedly over the years, "What you did in life was get up in the morning and do whatever you had to do that day and do it as well as you could…Life took care of itself."[42] When in Munich she had journaled about the oppressiveness of the German institutional hierarchies. The hierarchies mattered to the science produced, she noted. Lab technicians, she discovered serendipitously during one set of experiments, were selectively reporting results that supported their principle investigator's desired findings.[43]

Through these paths, a blend of intention and chance, Baumgartner had come into the company of physicians concerned with the marginalized medical field that she variously

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[39] When she accepted the position, the Kansas City Star reporter who interviewed her for a local announcement in her hometown was eager to know why she had chosen maternal and child health as a career path. Baumgartner clearly stated that she had no particular reason and that the path was mostly a product of circumstance. Unsatisfied, the reported speculated in the article that the reason was a special affection and "natural" attraction of this woman doctor to babies. Joseph Kaye, "Woman Doctor from Kansas Guards New York's Health" Kansas City Star, March 21 1956: LB Papers Box 11, FF 18.

[40] LB, Medical School Diary, July 1933. Cited in Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 54.

[41] LB, Interview with Julia Bess Frank, June 28, 1976, 136-137.

[42] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 20.

[43] Ibid., 27. Saul Benison, Interviews with LB, 1:1, 13-15. LBP.

called preventive medicine, medical ecology, or social medicine.[44] She became fast friends with John Fulton, a British neuroscientist who would become a pioneer in scientific administration, and through him would develop long term conversations with Henry Sigerist and other left-wing physicians and academics.[45] Nat Elias ran in left-wing circles as well, attending dinners with Sigerist and collaborating with Margaret Sanger. In New York Baumgartner found a dedicated mentor in Eleanor Roosevelt, who happened to employ the neighbors, Joe and Trudy Lasch.[46] Years later, Baumgartner remembered Roosevelt stopping by 56 Washington Mews one afternoon while Elias and her father William, visiting from Kansas, were digging a sewer pit in the front garage. Roosevelt was interested to watch in case she needed to do the same for her own home, she said. By the late 1940s Roosevelt was chairing a committee for the new United Nations organization that would produce the Universal Declaration of Human Rights. Baumgartner was sensitized by her powerful and charismatic mentor. She carried a set of anecdotes demonstrating how Roosevelt treated all people she met as equals. Later, when President Kennedy appointed Baumgartner to lead the Human Resources and Social Development office at a new State Department Agency for

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[44] John R. Paul, "Preventive Medicine," *The Scientific Monthly* 70, no. 3 (1950): 195–98, doi:10.2307/19977; Public Health Association of New York City, *Tomorrow's Horizon in Public Health; Transactions of the 1950 Conference.* (New York: New York, 1950); Jane E. Coulter, "Tomorrow's Horizon in Public Health," *The Milbank Memorial Fund Quarterly* 29, no. 3 (1951): 377–80; D. Carleton Gajdusek, "Hemorrhagic Fevers in Asia: A Problem in Medical Ecology," *Geographical Review* 46, no. 1 (1956): 20–42, doi:10.2307/211960; Warwick Anderson, *The Collectors of Lost Souls: Turning Kuru Scientists into Whitemen* (Baltimore: Johns Hopkins University Press, 2008).

[45] Fulton is a central figure in the history of psychosurgery, and like LB among the successful scientific administrators of the mid 20th century. Jack David Pressman, *Last Resort: Psychosurgery and the Limits of Medicine*, Cambridge History of Medicine (Cambridge, U.K. ; New York: Cambridge University Press, 1998).

[46] Joseph P. Lash, *Eleanor and Franklin; the Story of Their Relationship, Based on Eleanor Roosevelt's Private Papers* (New York: Norton, 1971); Joseph P. Lash, *Eleanor: The Years Alone* (New York: Norton, 1972).

International Development, Roosevelt would share advice and gift Baumgartner a framed photograph of herself for her desk.[47] Some in Washington, Roosevelt noted, would appreciate seeing her face around. In Eleanor's worldview, liberal and humanitarian, Baumgartner found a kindred spirit.

Fragmenting Health

Though Baumgartner's authority was rising at mid-century on the tides of science, medicine, children's wellbeing, and liberalism, she was uneasy with the culture in which she was gaining authority and power. Despite the professed interest in internationalism and development, social concerns for welfare in the public health practices of the city and in world affairs were generally in decline. Growing up in Lawrence, her family had been unusual in their beliefs in racial equality. Her agitation at international inequalities had been evident since the end of the war. She was sick, she wrote to a friend in October 1945, to think of the abundance of food in Kansas beside the starvation she knew to be still plaguing Europe.[48] To Baumgartner, these inequalities were a problem not only of acute local suffering among "others," but also of chronic political instability in an increasingly interdependent world. "It is not only for humanitarian reasons but because I think it is important to our own future that I think it essential we keep trying to help out the rest of the world," she wrote. Baumgartner pinned the larger problem, of which resource scarcity was a symptom, to a "narrow" concept of self-interest and a defensive sensibility. "I have been thoroughly

[47] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 131-132.

[48] LB to Virginia Mackie, letter, October 19, 1945. Box 72 Folder 19, LBP.

shocked to see the apparent attitude here in New York that the war is over and the rest of the world can be forgotten," she explained.[49]

The nuclear cloud hung over the ideals that fueled her authority. Science, population, and the international world were ominous as they were impressive. Still mobilized after two generations of war and a new conflict on the Korean peninsula, the Public Health Emergency Division of the New York City Office of Civil Defense had organized for preparation and response to an enemy attack on the city in September 1950, and all medical personnel in the Health Department had completed a course on "medical aspects of atomic explosions" by the end of the year.[50] An event with the American Council on Education that Baumgartner had attended in September 1951 had dubbed the 1950s the "Defense Decade" on the cover of its program.[51]

Defense was not only responding to new physical sciences in a nuclear age. Demographic and economic changes also raised conflict and confusion. They tore at everyday life in New York and triggered racist anxieties as a surge in human migration brought people seeking opportunity and justice from the southern States and Caribbean Islands. Many soldiers, segregated during military service on grounds of race, had also been audience to the lofty international declarations of human equality and Four Freedoms at the end of the war. They returned committed to the "Double V" – victory over oppression not only abroad but also at home -- and married the Great Migration northwards with a nascent

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[49] Ibid.

[50] John F. Mahoney (Commissioner), *Report of the Department of Health City of New York for the Year 1950* (New York: Department of Health, 1951), 240.

[51] American Council on Education, "Women in the Defense Decade," September 27-28, 1951, Box 39, Folder 2, LBP. On the cover: "A point of departure on the way which the whole nation takes for the mobilization of people to carry the responsibilities and the opportunities that the nation is going to face in the days ahead."

movement for civil rights. Racial tensions grew out of not only insidious discrimination but also gruesome lynching well north of the Mason-Dixon line, giving lie to the illusion that racism was not serious in the North. Harlem, the neighborhood in northern Manhattan previously known as the "pride of the Negro world" was coming to the end of its "golden era" and still reporting maternity deaths three times higher and infant mortality eighty-two percent higher than the city averages, which spoke to other injustices.[52]

These realities challenged confidence gained through the processes of World War II in the ways of life and know-how of the United States people. The federal government, which had initiated a foreign assistance program in cooperative health services with Latin American governments during the war, expanded its bilateral "technical assistance" programs with the Point IV program in 1949, but the optimism of these initiatives was contradicted by the war developing in Korea by 1950. This new war against a rising specter of Communism not only threw the effectiveness of technical assistance into doubt, but also darkened confidence in the stability of the U.S. authority and impression of world welcome. The evident influence of international communist organizations on politically marginalized groups, not only in post-colonial Cold War theaters abroad but within the United States as well, stirred anxieties about the rising power of the Soviet Union and internal threats to capitalist economic systems.[53]

Baumgartner's colleagues detected "defensiveness" in the rise of a biomedical model of disease that had great authority in the United States. In the late 19th-century, the discovery

[52] "Mothers at Syndenham Eat Law of Averages," *Ebony* 1946:42; Allan Morrison, "Hope for Harlem," *Ebony* 1963: 168-178; Cohen, *A Consumer's Republic*; Eric Foner, *Give Me Liberty!: An American History*, Fifth edition. (New York: WWNorton & Company, 2016).

[53] Joseph Masco, *The Theater of Operations: National Security Affect from the Cold War to the War on Terror* (Durham: Duke University Press, 2014). See especially Chapter 1: "Survival is your business: Engineering Ruins and Affect in Nuclear America."

that the reported infant mortality rate in the United States was significantly higher than the countries it considered most "civilized" in Europe was taken to indicate a problem with the social and economic health of the country. Some, for whom populations were understood to be interdependent communities and individuals to be inherently social beings, proposed political reform as the best approach to national welfare. Such suggestions challenged popular ideological preferences for "rugged individualism," which valued independence over social cohesion and distrusted state regulation and social reform. George Rosen, one of Baumgartner's colleagues at the New York City Department of Health, wrote in 1948 that the deep-pocketed philanthropic foundations, tied to capitalist corporations including Rockefeller Oil and Carnegie Steel, had offered a tempting alternative. Championing economic growth and thriving business as the best approach to national well-being, these philanthropies invested in sciences and practices that they believed would optimize the productive health of the labor force, shaping prestigious institutions of health and human science in line with management culture and its values of efficiency. In the reorganization of medical education, the inception of a public health profession, and academic social science, Rockefeller-funded institutions sought visible and unambiguous results quickly, universal interventions distributable to wide markets, and individually-targeted interventions that did not require regulation or challenge the existing power dynamics in the political economy.[54]

[54] George Rosen, "Approaches to a Concept of Social Medicine. A Historical Survey," *The Milbank Memorial Fund Quarterly* 26, no. 1 (January 1, 1948): 7–21. George Rosen, "Social Medicine in America," \iCanadian Medical Association Journal 61, no. 3 (September 1949): 316–23; Jean Alonzo Curran, *Founders of the Harvard School of Public Health: With Biographicalnotes 1909-1946* (New York: Josiah Macy JrFoundation, 1970); Elizabeth Fee, *Disease and Discovery: A History of the Johns Hopkins School of Hygiene and Public Health, 1916-1939* (Baltimore, Maryland: Project Muse, 2016); Conevery Bolton Valenčius, *The Health of the Country: How American Settlers Understood Themselves and Their Land*, 1st ed. (New York: Basic Books, 2002).

The approach promised to serve social ends with innovative science and technology, directed at individuals while remaining free of "politics" and other "corrupting" social forces. The pathophysiological concept of disease empowered in the process of institution building -- reductionist, mechanistic, universalizing, and centered on modern bacteriology and the germ theory of disease causation -- came to be referred to as the "biomedical paradigm."[55] One bacteriologist triumphantly proclaimed that this shift in priority from environment to individual vaccines and therapeutics was a "new public health."[56]

Even as it remained obvious that social environments interacted with bodies to produce patterns of health and disease, social ways of knowing about collective welfare had little grip on the professionalizing health institutions in the United States. The priority on control through visible targets, clear demonstrations of effectiveness and mechanism, and ostensibly universal applicability that gave authority to the "new public health" in the early decades of the Progressive Era persisted as popular values shifted from thrift to consumerism through the New Deal.[57] When movements for national health insurance were

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[55] Viviane Quirke and Jean-Paul Gaudillière, "The Era of Biomedicine: Science, Medicine, and Public Health in Britain and France after the Second World War," *Medical History* 52, no. 4 (October 2008): 441–52; Allan Brandt and Martha Gardner, "Antagonism and Accommodation: Interpreting the Relationship between Public Health and Medicine in the United States during the 20th Century," *American Journal of Public Health* 90, no. 5 (May 1, 2000): 707–15.

[56] Hibbert Winslow Hill, *The New Public Health*, Open Collections Program at Harvard University. Contagion (New York: Macmillan, 1916). Bacteriologist Hill, then chair of the Committee on Laboratories of the APHA and involved in developing the *Journal of the American Public Health Association*, said: "The essential change is this: The old public health was concerned with the environment; the new is concerned with the individual. The old sought the sources of infectious disease in the surroundings of man; the new finds them in man himself." See also: Lily E. Kay, *The Molecular Vision of Life: Caltech, the Rockefeller Foundation, and the Rise of the New Biology*, Monographs on the History and Philosophy of Biology (New York: Oxford University Press, 1993); Robert E. Kohler, *Partners in Science: Foundations and Natural Scientists, 1900-1945* (Chicago: University of Chicago Press, 1991).

[57] Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, Mass.: Harvard University Press, 1998); Cohen, *A Consumer's Republic.*

launched in the first decades of the twentieth century, first to compensate workers for time lost to injury, and then to mitigate rising medical costs for the middle class as health care grew more expensive, no significant public outcry rose to counter resistance from the professional medical organizations. Having operated autonomously over the last half-century, these feared losing authority to government. Private insurance companies feared losing revenue, and eventually the labor unions worried about losing power over their members if health support was available through government provisions. Henry Sigerist, hailed as the world's leading historian of medicine in the first decades of the twentieth century and a traveling health expert for the Rockefeller Foundation's new International Health Division, identified the resistance to public service and state control in medicine as an indication of "inquietude."[58] Witnessing the dissolution of social responsibility in the debates over national health insurance and the fragmenting fields of medicine, public health, and social work in the United States, he grew increasingly disenchanted with medicine in the United States.[59]

Baumgartner exchanged letters with Sigerist, having come to know him through social events at the home of John Fulton while at Yale, and had watched as the early 20th century collective of medical ecologists fragmented along ideological lines. Some, like Sigerist and John Ryle, the first chair of Social Medicine at Oxford, developed the field of social medicine, an explicitly left-wing philosophy of social reform, jeopardizing their relationships with the American Medical Association and the Rockefeller Foundation. Sigerist had diagnosed the problem as greed among organized medicine. "The great medical associations, progressive bodies at the time of their organization, have developed in many countries into

[58] Henry E. Sigerist, "L'inquietude Actuelle Dans Le Monde Medical," *Schweizerische Medizinische Wochenschrift* 65 (n.d.): 1007–10.

[59] Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982).

conservative groups afraid of any change in the traditional routine," Sigerist observed in 1935. "They look at medical problems, not from the point of view of the society they are called to serve, but from the narrow angle of the doctor's office and pocket-book."[60] He made these arguments in a volume praising the Soviet system of socialized medicine, alienating himself from the AMA and other professional organizations.[61] Sigerist was criticized for the rosy filter with which he overlooked the social suffering inherent in the Soviet's economic development plans, even as he praised their medical model. But Sigerist was not alone. Sir Arthur Newsholme, another longtime activist and pioneer in industrial-age social medicine in Great Britain, had written in support of "Red Medicine" at the same time.[62] The sociologist W.E.B. Dubois, who had insisted for decades that the health inequalities in the United States were not a "Negro affair" reflecting an intrinsic characteristic of people with African ancestry, but a social pathology, had grown beyond

[60] Henry E. Sigerist, *Socialized Medicine in the Soviet Union,* (New York, WWNorton & Company, incc1937, 1937), 16. This attention to the capitalists in the information of medicine in the United States would recur through the historiography. See: E. Richard Brown, *Rockefeller Medicine Men : Medicine and Capitalism in America* (Berkeley: University of California Press, 1979).

[61] Elizabeth Fee, Theodore Brown, and Theodore M. Brown, *Making Medical History: The Life and Times of Henry E. Sigerist* (Baltimore: Johns Hopkins University Press, 1997). For comparison of medical ecology in the USSR to elsewhere in the 1960s, see: Max Brandt, *Soviet Studies in Regional (Geographic) Pathology.*, Monographs in Soviet Medical Sciences ; No. 5 ([New York]: Fordham Univ, 1964), 2. As the US developed the biomedical, clinical model of health care, the USSR maintained a medical ecological tradition that located the specificities of pathology in the local context.

[62] John M. Eyler, *Sir Arthur Newsholme and State Medicine, 1885-1935*, Cambridge History of Medicine (Cambridge ; New York: Cambridge University Press, 1997); Arthur Newsholme, *Red Medicine : Socialized Health in Soviet Russia* (Garden City, NY: Doubleday, Doran, 1934).

frustrated, joined a communist party organization, and relinquished his U.S. citizenship to move to Ghana, in the midst of anti-colonial struggle.[63]

Baumgartner did not see a peaceful future in a world divided into "us" and "them." While public anxiety about social, demographic, economic, and political conflicts rose, Baumgartner asked her audiences to consider the sources of the anxiety not as immediate "enemies" but as manifestations of longer-term change -- "come upon us gradually," in her words, "so gradually, in fact, that many of us have not faced its reality."[64] Baumgartner attributed the "social struggles of their time" to the recent acceleration of gradual worldwide changes that had been taking place since the mid-nineteenth century.[65]

Baumgartner did not detail historical political events, like the famine that had ravaged Ireland and colonial India under British trade policies, spurring nationalist movements. While the second Sikh War waged against empire in South Asia, worker uprisings across major European cities fueled new revolutionary moments in Germany and France. Latin American rebellions shook off centuries of Spanish imperialism that had decimated indigenous ways of life, while the "Indian Wars" raged in the North American Midwest as the indigenous communities there resisted colonization and destruction. Immigrants had flowed to the cities of the United States at the same time that abolitionists

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[63] Peter Kihiss, "Dr WEB DuBois Joins Communist Party at 93," *New York Times*, 23 November 1961; "WEB DuBois Dies in Ghana; Negro Leader and Author, 95," *New York Times*, 28 August 1963; W. E. B. Du Bois, *Efforts for Social Betterment Among Negro Americans*, W.E.B. Du Bois Anthology (Atlanta, GA: The Atlanta University Press, 1909).

[64] LB, "The Future of Children and Youth," 1951: 2.

[65] E. J. Hobsbawm, *The Age of Revolution: Europe, 1789-1848*, History of Civilisation (London: Weidenfeld and Nicolson, 1975); Jan De Vries, "The Industrial Revolution and the Industrious Revolution," *The Journal of Economic History* 54, no. 2 (1994): 249–70; C. A. Bayly, *The Birth of the Modern World, 1780-1914: Global Connections and Comparisons*, Blackwell History of the World (Malden, MA: Blackwell Pub, 2004).

organized against human slave labor and the country moved steadily towards civil war over the slave economy sustaining plantation life in the southern states.[66]

Baumgartner focused on the new technologies, politics, and morals emerging through those times, which, she said, had destabilized old orders and made the future unpredictable, even within a single generation. The shortened time horizons between previously distant peoples, knowledge, and objects made strangers suddenly more immediate, she said, across contexts in which people disagreed about principles "as simple as a concept of 'a good life for children.'"[67] She gave examples from the anthropological studies she had eagerly read, of communities in the South Sea Islands and the Tohono O'odham in the Southwestern United States, whom she referred to by their colonized name, "Papago." The tensions produced by these encounters, Baumgartner said, had been answered over the last fifty years with reactionary, destructive responses from people defensive against change. She could see their signatures in the rise of fascism and two shattering "world-wide" wars.

What was essential, Baumgartner believed, and disappearing in the present state of public health as products like vaccines, administered at Health Centers, replaced social presence like visiting nurses in the home, was a process of care that she traced to ancient Greece and the Hippocratic philosophy and practice of hygiene, a time historians working with Christian calendars would mark as the 5th century BCE.[68] An empirical way of knowing, hygiene was a process of inquiry into both material and social conditions. This

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[66] Michael N. Barnett, *Empire of Humanity: A History of Humanitarianism*, Cornell Paperbacks (Ithaca, N.Y.: Cornell University Press, 2011); Gary Jonathan Bass, *Freedom's Battle: The Origins of Humanitarian Intervention*, 1st ed. (New York: Alfred AKnopf, 2008); N. Krieger and A. E. Birn, "A Vision of Social Justice as the Foundation of Public Health: Commemorating 150 Years of the Spirit of 1848.," *American Journal of Public Health* 88, no. 11 (November 1998): 1603.

[67] LB, The Future of Children and Youth, 1951: 4.

[68] LB, History of Child Hygiene (fragment). 1951. Box 9 Folder 23, LBP

science considered disease and health to be products of environment, constituted by what was consumed, the substrata or conditions of place, and human behavior in a particular locality.[69] Health was – at its most basic – a manifestation of "airs, waters, and places." Observing a patient and taking careful record of their personal and environmental conditions, the Hippocratic physician then considered these conditions against recorded histories of past cases in order to deduce patterns and guide diagnosis, prognosis, and treatments to keep the body in balance. This was an ethic of present watching, repetition, and responsiveness that the future would conceptualize as "care."[70]

The Social Measure of Health

Baumgartner, living amidst the fervent rise of scientific interest in infancy and pediatrics, was especially interested in the meaning of the child in the history of this ethic. As a result, she began drafting a paper on the topic in 1951. It seemed to her, from the books she read, the anthropologists she consulted, and the texts she studied, that the child in all societies had been the subject of specific practices of care. Even in societies where infanticide was a reality of conditions of economic scarcity, there were nevertheless "charms, tokens, elaborate rituals connected with birth, washing babies, feeding them" lavished even on children who were to be sacrificed. She cited a German text by mid-19th century anthropologist Hermann

[69] Hippocrates, "On Airs, Waters, and Places: Part 1," trans. Francis Adams, 400BCE, classics.mit.edu//Hippocrates/airwatpl.html; Charles E. Rosenberg, "Epilogue: Airs, Waters, Places. A Status Report," *Bulletin of the History of Medicine* 86, no. 4 (December 23, 2012): 661–70, doi:10.1353/bhm.2012.0082.

[70] Florence Nightingale, *Notes on Nursing: What It Is, and What It Is Not* (Boston: William Carter, 1860); Jean Watson, *Nursing: The Philosophy and Science of Caring*, 1st ed. (Boston: Little, Brown, 1979); Joan C. Tronto, *Moral Boundaries: A Political Argument for an Ethic of Care* (New York: Routledge, 1993); Arthur Kleinman, "Caregiving as Moral Experience," *The Lancet* 380, no. 9853 (November 3, 2012): 1550–51.

Ploss, *Das Kind in Brauch und Sitte der Völker*, as well as the works of Margaret Mead on contemporary "primitive" societies, and ancient artifacts depicting the care of infants and children. In medieval Europe, she wrote, the child – or *kinder* in Germanic languages -- emerged in artistic renderings of the infant and Virgin as an ideal of "mankind." Baumgartner noted a foundling hospital built in Milan in 787, and medical books devoted to children from Italy, Prussia, and England from the fifteenth and sixteenth centuries.[71]

Baumgartner did not remark, in her essay, on the emergence of the statistic for the death of infants, joking that during the medieval era man had become so concerned about his soul that he forgot about his own body and couldn't be bothered about those of children. She associated civilization with bodily intervention and missed a crucial continuity of the processes of care. The infant – idealized as a baby with mother -- had remained a significant class of life in Europe when new tools for aggregating social observations took shape in the early enlightenment. Bearing witness for the church, Searchers went door to door, observing and recording births and deaths that represented the accounting balances of God. The infant – meaning literally without a voice – had no means to pray for its own forgiveness and salvation, and as such was an epitome of the precariousness that conditioned of all human life.[72] While Baptism ritual could bring infants to a pure status, the deaths of infants "under

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[71] She named Pietro Bagellardo of Padua's *De aegritudinibus infantum* (1477) and Barthomeo Metlinger's *Regiment der Junger Kinder* (1474) – noting that it went "through 7 editions over the next 60 years." In English, the first book, she wrote, was Thomas Phayre's *The Boke of Children* (1545).The full citation for "Das Kind" is Hermann Heinrich Ploss, *Das Kind in Brauch und Sitte der Völker: Anthropologische Studien*. (Stuttgart: A. Auerbach, 1876). LB, History of Child Hygiene (fragment), 1951.

[72] Didier Fassin, *Humanitarian Reason: A Moral History of the Present* (Berkeley: University of California Press, 2012). Citing Alain Rey (ed.) Dictionnaire historique de la langue francaise. Paris: Le Robert (2006/1992:2898): "'Precarious is borrowed from the legal Latin *precaria*,, 'obtained through prayer.' This signification, which implies an intervention from above and hence the absence of inevitability, results in the sense of 'unstable, passing.'"

the burden of equal crosses" was a manifestation of the will of God.[73] Recording the deaths of infants was an important practice of testimony and bearing witness, or a measure of religious health.

In the industrious world of 17th-century London, where knowledge of the city's population and overall welfare were based on speculation and anecdote, merchant John Graunt had been inspired by neighbor Francis Bacon to generate more rigorous observations of the community in which he lived.[74] Applying Bacon's logic and the bookkeeping methods of his "shop arithmetic" to the recorded observations of births and deaths, Graunt had produced "Objects" that abstracted these phenomena, generating numerical descriptions of the aggregate social world of London. Graunt expressed some considerable frustration that he could not tell, from the Searcher's records, whether their witness of infant deaths referred to babies or to anyone without "voice," which could include the mad or otherwise infirm people in society. This ambiguity in the records complicated his efforts to build a life table. The age distinction had not mattered to the Searchers, whose concerns had not been about the length of life but its precarious quality. The baby was but a symbol of the vulnerability of mankind more generally.

Graunt's trade was haberdashery, or the exchange of small objects used in sewing. Needles, threads, buttons, these items were referred to as notions. Graunt believed the numerical Objects he made from records of Searchers were good notions not only because they could generate representations of phenomena that were too diffuse for an observer to

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[73] See: Sir Thomas Elyot, *The Boke Named the Gouernour*, 1537; Saint Augustine, Bishop of Hippone, *Two Bokes of the Noble Doctor*, 1556 (accessed via Early English Books Online).

[74] Peter Buck, "People Who Counted: Political Arithmetic in the Eighteenth Century," *Isis* 73, no. 1 (1982): 28–45; John Graunt, *Natural and Political Observations Mentioned in a Following Index, and Made upon the Bills of Mortality*, Early English Books Online (London: Printed by ThoRoycroft for John Martin, James Allestry, and ThoDicas, 1662).

see at once, but also because they could stitch together symbolic connection between beholders and communities, inspiring what he referred to as "passion by consent."[75] At the same time, these amulets could be moved around the world like other merchant's objects. While Graunt was frustrated that he did not know how the Searchers were defining infant he did not *worry* that, according to his calculations, one-third of London's population regularly died in infancy. That was accepted at the time as the natural balance of God's accounts.[76]

Baumgartner interpreted the significance of the child with her contemporary definition of infant, reporting that it was not until the later Enlightenment that the educated classes became "concerned with the common man outside the church and university." She focused on Jean-Jacques Rousseau's bildungsroman *Emile*, calling in 1763 for the education of children and liberty, and a group in society "so concerned with the rights of man that a French Revolution occurred."[77]

Baumgartner skipped over changes in the meaning and use of the infant and its vulnerability brought about in the wake of the French Revolution. Since the Revolution, acting on "passion" and moral sentiments had become associated with a reign of terror and political corruption.[78] Intellectual elites transpired to re-make rationalities that had been infused with affect into technocratic rationalities. With a teleological view to history, and inspired by the physical sciences, a group of political and scientific authorities calling

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[75] Peter M. Briggs, "John Graunt, Sir William Petty, and Swift's Modest Proposal," *Eighteenth-Century Life* 29, no. 2 (June 27, 2005): 3–24.

[76] Philip Kreager, "New Light on Graunt," *Population Studies* 42, no. 1 (March 1, 1988): 129–40.

[77] LB, History of Child Hygiene (fragment), 1951, 5. Baumgartner states elsewhere that she learned to develop a casual style of speaking for public audiences, which at times becomes glib. See: Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 79 fn192.

[78] Emma Rothschild, *Economic Sentiments : Adam Smith, Condorcet, and the Enlightenment* (Cambridge, Mass: Harvard University Press, 2001).

themselves "physiocrats" sought universal natural laws with which to guide "scientific" governance. In Paris, philosopher Auguste Comte, born in the wake of the French revolution, rejected the divine rights of kings and developed a positivist theory suggesting that societies, becoming civilized, ought to follow a particular three-staged path to reach an advanced state of civilization, no longer guided by animistic or metaphysical logics but by positivist reasoning.[79] Mathematicians took up the numerical objects available from Graunt's innovation. Applying the metaphor of the center of gravity to population statistics, for example, Belgian astronomer Adolphe Quetelet conceptualized a mathematically generated "average man" who represented the "golden mean" of a given society. These means guided the normalizing policies of the state. Lives outside these normals were pathological.[80] Claiming to remain indifferent to passions, the physiocrats mathematically achieved indifference to context.

In place of context, individual identifiers were used to visualize differences among the different social classes. In the early 19th century, physician and economist Louis-René Villermé in France thought to apply survey methods that welfare economists had long used to collect information about household welfare, such as income, to the objects of average mortality, comparing the different classes of society.[81] Using social logics to build scaffolds

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[79] Geoffrey Hawthorn, *Enlightenment and Despair: A History of Sociology* (Cambridge, [Eng.] ; New York: Cambridge University Press, 1976); Kenneth Thompson, *Auguste Comte: The Foundation of Sociology*, Making of Sociology Series (New York: Wiley, 1975).

[80] Ian Hacking, *The Taming of Chance*, Ideas in Context (Cambridge England ; New York: Cambridge University Press, 1990); E. H. Ackerknecht, "Villermé and Quetelet," *Bulletin of the History of Medicine* 26, no. 4 (1952): 317–29; Georges Canguilhem, *The Normal and the Pathological* (New York : Cambridge, Mass.: Zone Books ; Distributed by MIT Press, 1991).

[81] George J. Stigler, "The Early History of Empirical Studies of Consumer Behavior," *Journal of Political Economy* 62, no. 2 (April 1, 1954): 95–113; For a discussion, see: Angus Deaton, *The Analysis of Household Surveys : A Microeconometric Approach to Development Policy* (Baltimore, MD: Published for the World Bank by Johns Hopkins University Press, 1997).

into his data, he found striking inequalities across the framed differences. Survey by class made mortality differences visible for groups whose life conditions fell outside the golden means of society. Infants persisted as a class of lives who were different, inherently pathological, albeit with a specific and powerful symbolic valence: Dispassionate in theory, in practice Graunt's objects retained a strange power to compel response.

In the face of continued destruction of feudalism and absolute monarchies, social movements vying for influence amidst 19th century industrialization and empire building seized survey data as means of knowledge production. Where charity movements viewed inequalities as natural, liberal humanist movements, many reflecting Georg Hegel's notion of the "organic unity of life," saw inequalities as produced and maintained by social, political, and economic conditions. Though Hegel's philosophy emphasized spirit and phenomena, students carrying forward humanitarian worldviews preferred to make their arguments on more culturally persuasive economic terms.[82] Where charity maintained the status quo, liberal humanism sought remedy for intergenerational inequalities. Capitalist philanthropies organized to make subjective decisions about who was worthy of care with objective studies, reports, and evaluations based on values of efficiency, while humanist movements focused on people whose life conditions fell outside society's norms and sought local knowledge about social, political, and economic conditions. Where philanthropy claimed biological theories supported competition as a natural ethic for a good society, and gave charitable aid to the "worthy" poor as recompense for the "natural" inequities of "social Darwinism,"

[82] Frank Huisman and John Harley Warner, *Locating Medical History: The Stories and Their Meanings* (Baltimore: Johns Hopkins University Press, 2004); Georg Wilhelm Friedrich Hegel, *Phenomenology of Spirit* (Oxford: Clarendon Press, 1977); Karl Marx, *The Communist Manifesto*, Rethinking the Western Tradition (New Haven: Yale University Press, 2012); Gareth Stedman Jones, *Karl Marx: Greatness and Illusion*, First Harvard University Press edition. (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2016).

humanism claimed that evolutionary theories supported cooperation and "mutual aid."[83] To charity-based organizations, where class-based differences in mortality were generally attributed to the moral character of the class constituents, infant mortality retained a universal claim on caritas. To emerging humanist movements, infant mortality was taken up as evidence of the need for revolutionary reform. Many of the reforms, however, were based on ideas that were inherently moderate: "evolutionary" without challenging the existing status of the political economy.

Baumgartner gave no mention of this political history. Instead, she simply commented that there was some agitation centered on child health in 19th century continental Europe. She acknowledged the work of Nils Rosen von Rosenstein of Sweden, whose 1764 text on children's diseases was widely used, and Johan Peter Frank, whose work she knew well but was skeptical about for its sweeping policy vision. [84] Her colleague George Rosen focused on the work of Rudolf Virchow when he narrated the history of social medicine. Virchow had used survey and history to justify a sweeping liberal theory of political reform.[85] The first "real progress," in Baumgartner's account, occurred in England.[86]

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[83] Petr Alekseevich Kropotkin, *Mutual Aid: A Factor of Evolution* (New York: McClure, Philips & co, 1902); John S. Haller, "Outcasts from Evolution: Scientific Attitudes of Racial Inferiority, 1859--1900" (University of Illinois Press, 1971); J.D.Y. Peel, "Introduction" in Herbert Spencer, *On Social Evolution; Selected Writings.*, The Heritage of Sociology (Chicago: University of Chicago Press, 1972).

[84] Leona Baumgartner and Elizabeth M. Ramsey, "Johann Peter Frank and His System Einer Vollstandigen Medizinischen Polizey," *Annals of Medical History*, no. December/January (1933): 69–70.

[85] G. Rosen, "What Is Social Medicine? A Genetic Analysis of the Concept," *Bulletin of the History of Medicine* 21, no. 5 (1947): 674–733; Dorothy Porter and Roy Porter, "What Was Social Medicine? An Historiographical Essay," *Journal of Historical Sociology* 1, no. 1 (March 1, 1988): 90–109; RC Virchow. *Archiv für pathologische Anatomie und Physiologie und für klinische Medicin*. Vol 2. Berlin, Germany: George Reimer; 1848;143–332. For an English translation, see Virchow RC. *Collected Essays on Public Health and Epidemiology*. Vol 1. Rather LJ, ed. Boston, Mass: Science History Publications; 1985:204–319. For an online version, see: Social Medicine, 1(1), February, 2006: 11-27.

In England, Baumgartner said, humanists and physicians invested in the development of population statistics for the scientific administration of government, founding the London Epidemiological Society. This evidentiary approach, to Baumgartner, seemed more directly engaged in "facts" and local contexts than the theoretical approach advised in Virchow's socialist medicine.[87]

Epidemiologists identified the infant mortality rate as the best available indicator for overall public health. Crude mortality, which counted all deaths in a population, could be misleading if a population happened to be mostly elderly or mostly young, in which the majority of deaths occurred. The fact that the infant mortality rate could be limited to a specific age group – defined at the time as those human lives between birth and one year of life – controlled for variation in the age distribution of a population without need to extra age-adjustment calculations. Infant bodies, sensitive in more visible ways to common disease and environmental conditions than adults, would respond more quickly and dramatically to changes in the social environment than other segments of the population.[88]

Reformers worked to shift the ethics of infant mortality from a normative loss to a critical but solvable problem through public and private action. George Newman, first Chief Medical Officer of Health to the Ministry of Health in Great Britain, declared in 1906 that infant mortality was a "social problem" tied to the "social life of the people" and not only

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[86] Baumgartner's unwillingness to make exclusive political claims was evident in the way she noted that she would leave it up to the political and social judgment of her audience to decide if this was due, as Sigerist suggested, to England's strong central government

[87] Leona Baumgartner, "John Howard and the Public Health Movement," *Bulletin of the Institute of the History of Medicine* 5 (1937): 489.

[88] Richard Morris Titmuss, *Birth, Poverty and Wealth; a Study of Infant Mortality.* (London: Hamish Hamilton Medical Books, 1943), 24; Jeffrey P. Brosco, "The Early History of the Infant Mortality Rate in America: 'A Reflection Upon the Past and a Prophecy of the Future'1," *Pediatrics* 103, no. 2 (February 1, 1999): 478–85.

poverty and housing. Indeed, "in all classes infant life is very precarious," he wrote.[89] Arthur Newsholme, following Newman, promoted the infant mortality rate as a "thermometer" of public health. The infant mortality rate was the "absolute" measure of social health that could be taken in any world community, just as the Kelvin thermometer popularized at the same time could take the absolute temperature. Like the thermometer, infant mortality could not diagnose or remedy a problem. It could only drive attention to a potential site of concern, and ambiguously indicate small changes in the database with great sensitivity, amplifying the innate human sensitivities to human conditions. Newsholme famously stated in the 1909 report of the Medical Officer of Health of the Local Government Board that "infant mortality is the most sensitive index we possess of social welfare and of sanitary administration, especially under urban conditions."[90]

Newsholme's statement echoed around the world, reiterated and restated, taking on a range of tones and meanings as it reverberated through different contexts. The indicator was used to survey the conditions of colonies as well as continental subjects. It was interpreted as an index of materiality and morality, not only because of the virtue of hygiene but because infanticide, condemned by the church and by governments seeking population growth, was common in many areas including the working class wanted for the factories and militaries of growing nation-states. With international conferences and movement of physicians, use of the metric spread beyond the British empire. In the United States, reform offered opportunities for public work to women expected to stay in domestic domains. Settlement workers like Jane Addams, Florence Kelley, and Julia Lathrop used the infant

[89] George Newman, *Infant Mortality, a Social Problem,* The New Library of Medicine (London: Methuen, 1906), vi and 187.

[90] Eyler, *Sir Arthur Newsholme and State Medicine, 1885-1935*; Arthur Newsholme, Annual Report of the Medical Officer of Health, of the Local Government Board, 39th Report, 1910, Cd5263 (39), supplement on Infant and Child Mortality.

mortality rate to draw attention to social inequality in the cities.[91] When Lathrop became first director of the new federal Children's Bureau for which she had advocated, she extended the infant mortality survey nationally. In the federal government's first published report on infant mortality in 1913, Lathrop repeated Newsholme's famous admonition. "Infant mortality is the most sensitive index we possess of social welfare and of sanitary administration, especially under urban conditions."[92]

Empire was not only a phenomenon across oceans. In the United States, sociologist W.E.B. Dubois focused, in a study of conditions in Philadelphia, on an "undeniable fact that in certain diseases the Negro has a higher rate than whites," noting "infantile diseases" in particular. At the same time, organizations inspired by racist science and social Darwinism explained the differences as an endogenous problem of "Negroes" living in white civilization, while representatives of women's Christian charity organizations complained that the African-American infants "spread like locusts" and turned away their charity for infant mortality to people living outside the borders of the United States.[93] Dubois protested that the high infant mortality rate was not a "Negro affair" but "an index of a social condition."[94] The National Association for Colored Women, organized in direct response to the overt racism of white women's organizations, responded to differences in infant mortality with social "up-lift" initiatives tied to reconstruction self-help and the influence of

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[91] Allen Freeman Davis, "Spearheads for Reform the Social Settlements and the Progressive Movement, 1890-1914" (1959, 1959); Jean Bethke Elshtain, *Jane Addams and the Dream of American Democracy : A Life* (New York: Basic Books, 2002).

[92] The Causes of Baby Deaths in Johnstown. *The Survey*, 33(20), Feb 13, 1915: 528.

[93] Martha Ann Hargraves, "The Social Construction of Infant Mortality: From Grassroots to Medicalization" (Ph.D., The University of Texas Health Sciences Center at Houston School of Public Health, 1992); Eva Payne, "Protecting 'Little Wives': The Age of Consent Campaigns in the United States and India" (Ph.D., Harvard University, February 2017).

[94] Du Bois, *Efforts for Social Betterment Among Negro Americans*.

settlement reformer Jane Addams.[95] This social orientation to differences in mortality spread to medicine. Community-oriented physician Richard Cabot, who remarked on his admiration of Addams, described infant mortality as a socially specific problem. In 1909, Cabot published a paper in the *Boston Medical and Surgical Journal* in which, with social worker Ida Cannon, they analyzed variations in infant mortality by "race" – a proxy for nationality and time since immigration.[96] They explicitly described ways that infant mortality measurements "by race" in Boston in the first years of the 20th century were contingent and required follow up to characterize specifically and address successfully.

Even so, intuitions of empire were built into the intellectual scaffolds that organized empirical ways of studying the problem. But they made "Negro" a category separate from the category of "American." "Jewish" was its own category as well. Cabot explained that "races" like Germans, Irish, and Scandinavians, would be counted as "American" after two generations of residence in the United States. The "Negro," and the "Jewish," regardless of generations of residence, were excluded without explanation in the structures of Cabot's science.

After World War I, anxieties about demographic change, economic depression, military might, and efficiency lent weight to theories of fitness supported by social and racial hygiene growing in European universities. In the United States, concerns about "race suicide" prompted negative eugenic policies and charitable "aid" responses to the poor, instead of broader political or pronatalist policies undertaken in Europe.[97] Physicians

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[95] Hargraves, "The Social Construction of Infant Mortality."

[96] Richard C. Cabot and Edith K. Ritchie, "The Influence of Race on the Infant Mortality of Boston in 1909," *Boston Medical and Surgical Journal*, 162(7):199.

[97] Richard A. Meckel, *Save the Babies : American Public Health Reform and the Prevention of Infant Mortality, 1850-1929* (Ann Arbor: University of Michigan Press, 1998).

surreptitiously conducted hysterectomies on women they deemed unfit to reproduce, a procedure euphemized as the "Mississippi Appendectomy."[98] Reformers closely allied to the priorities of the corporate philanthropies characterized infant mortality as a waste of national "resources" and a threat to national security. Citing concern for humanity and efficiency, these reformers, too, recited the words of Arthur Newsholme.[99]

Among the international organizations of the early twentieth century, powered by philanthropies and economic notions of security, infant mortality had emerged as a key reporting metric. A measure of community health, economic efficiency, military strength, moral welfare, as well as an experience of personal and community loss, it stood for many things but, as a number, could be shared and compared across vastly different contexts.

As Baumgartner knew well by 1950, when she temporarily stepped in as director at the Children's Bureau, some interpretations of the meanings, determinants, and responses to infant mortality were more powerful than others. Experts with a record of a broader vision and idealist humanistic values accommodated their approach to what seemed possible in practice. Newsholme, for example, between his 39th and 42nd report, had come to say that infant mortality was best addressed through interventions on not the overall environment, but maternal hygiene -- the infant's immediate environment -- which seemed most practicable. Lathrop, at the Children's Bureau, also made pragmatic trade-offs that had not

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[98] Gregory Michael Dorr, "Defective or Disabled?: Race, Medicine, and Eugenics in Progressive Era Virginia and Alabama," *The Journal of the Gilded Age and Progressive Era* 5, no. 4 (2006): 359–92; Johanna Schoen, "Between Choice and Coercion: Women and the Politics of Sterilization in North Carolina, 1929-1975," *Journal of Women's History* 13, no. 1 (April 1, 2001): 132–56; Martin Pernick, "Eugenics and Public Health in American History," *American Journal of Public Health* 87, no. 11 (1997): 1767–72; Alexandra Minna Stern, "Making Better Babies: Public Health and Race Betterment in Indiana, 1920-1935," *The American Journal of Public Health* 92, no. 5 (2002): 742–52.

[99] Burton J. Hendrick, "Solving the Problem of Infant Mortality," *Harper's Magazine*, Oct. 17, 1917: 723-729.

been essential in the smaller settlement projects.[100] Opting for "representative" sampling of infant mortality rather than direct observation of all. The choice of observations reflected the biases of the funders. The Children's Bureau also accommodated political constraints. The Bureau had initially advised social interventions, from mother-education to social hygiene as means of preventing infant mortality, institutionalizing these practices with the Sheppard Towner Act in 1921.[101] The American Medical Association, concerned that social workers were taking work from physicians, had pressured the administrators of the Children's Bureau to take a technical approach to the problem of infant mortality and employ physicians to carry out preventive medicine. As preventive medicine developed and new infant care technologies, such as incubators and vaccines, became funded by state health boards, the medical profession argued that the Sheppard-Towner Act had become redundant.

Baumgartner observed that among health professionals, technology tended to "put out of focus" the wider humanistic practices that constituted her idea of care. People living in communities isolated from the averaged living standards in the United States, whether labeled "Negro," "Indian," or "Indigent," were often ill at ease with the "baby-saving devices" and questioned the motives of outsiders offering aid. The devices were at times more expensive than impoverished communities could afford. But even when federal allowances removed the barriers of cost, the sources of resistance were also grounded in subjectivities, like a preference for holding infants rather than putting them in coffin-like incubator boxes, and material conditions that could not support the imported technologies, like lack of clean water for nutritional formulas or electricity for baby warmers. The

[100] The Causes of Baby Deaths in Johnstown, *The Survey*. 33(20). Feb 13, 1915, 528.

[101] Meckel, *Save the Babies*.

interventions developed by expert reformers could be awkward, painful, or impossible for the local communities.[102]

This disconnect undermined confidence in the ability of visiting health workers to honestly listen and negotiate an adequate response. Failure to countenance, or count, different determinants and meanings shifted blame for infant deaths to individuals.[103] The scaffolding around infant mortality data could act as a pillory. But it was difficult to challenge the dominant claims about determinants and the meanings of responses to infant mortality, in part because authorities didn't listen, but also because it hurt to talk about them. Many, Du Bois argued, internalized this suspicion. In a powerful essay narrating the death of his own infant, Du Bois described a "veil" through which he interacted with the world, acquired through early experiences. He rationalized the death of his son as an "awful gladness" that his child would not have to suffer a society that saw him yet as a slave. The universal infant mortality rate – a numerical count of deaths -- left out the local conditions of the phenomenon of infant mortality and what John Ryle and other late Victorian practitioners had called "incommunicable knowledge."[104] It enabled the failure to account for the contextual specificities of the lives of others that Du Bois labeled "indifference."[105]

The descending line on the infant mortality graph was powered by both logic and affect. For some, it was a sign of progress within sight but not within reach. For others, it

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[102] Hargraves, "The Social Construction of Infant Mortality;" Jeffrey P. Baker, *The Machine in the Nursery : Incubator Technology and the Origins of Newborn Intensive Care* (Baltimore, MD: Johns Hopkins University Press, 1996).

[103] Lawrence Hsin Yang et al., "Culture and Stigma: Adding Moral Experience to Stigma Theory," *Social Science & Medicine* 64, no. 7 (April 1, 2007): 1524–35.

[104] Christopher Lawrence, "Incommunicable Knowledge: Science, Technology and the Clinical Art in Britain 1850-1914," *Journal of Contemporary History* 20, no. 4 (October 1, 1985): 503–20.

[105] W. E. B. (William Edward Burghardt) Du Bois, *The Souls of Black Folk: Essays and Sketches*, Social Theory (Chicago: ACMcClurg, 1903).

provided a comforting reason to not focus on the social conditions, the history of neglect, and the persistent political inequalities in the United States. Infant mortality, a tool useful for its ability to aggregate and be exchanged across distance, also had the potential to aggravate social distance.

Open-Mindedness and Precision

Baumgartner saw two broad challenges growing around broader approaches to infant mortality. First, as confidence in technical responses grew and more infants were born in hospital, medical data was becoming a preferred way of knowing about infant mortality to social grassroots work. Where information was collected determined which conditions of healthcare would be counted in the scientific analysis of infant mortality's causal influences, leaving little way to evaluate diffuse social conditions and environmental conditions outside the clinic. In 1938, the New York City Health Department had merely "hoped" that the increased collection of information would be "helpful in determining factors influencing maternal and infant mortality."[106] By 1950, the annual report expressed more certainty that clinical data would hold answers, "expected to shed light on variations in results of pregnancies depending on amount of prenatal care received."[107] Second, Baumgartner noted the animosity between welfare and public health departments. Welfare continued to argue for the importance of changing standards of living and general welfare, now reluctant to acknowledge any contributions of medicine to the reduction of infant mortality.

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[106] New York (N. Y.). Department of Health, *Health for New York City's Millions: An Account of Activities of the Department of Health of the City of New York for 1938 with Comparative Vital Statistics Tables* (New York: The Dept, 1939).

[107] John F. Mahoney (Commissioner), *Report of the Department of Health City of New York for the Year 1950,* 230.

Baumgartner herself was careful, editing her speeches in 1951, to cross out the word "health" and replace it with "welfare" if concerned her audience might associate references to health as a purely clinical prerogative. Baumgartner chalked up the persistent failure of welfare and health to cooperate to a difference in methods, with the methods of public health "not being ones of the individual."

With new expectations of life expectancy and survival, the New York City Health Department worried less about infant mortality, and shifted focus from mortality to morbidity. As an institution it had begun to seek new means of producing knowledge about health across the city. As fewer people died of their illnesses, the annual report announced, mortality rates were "less useful indicators of the health of a community" than they had been in the past. The department sought technical precision, the kind that could be conducted through quantitative data and methods. But plans to pilot a new approach to neighborhood health data collection with several hospitals in the city had been interrupted as health resources were reallocated to military mobilization for the conflict on the Korean peninsula in 1951. "Obviously" the next step after the war ended was better data collection on "illness extant in the community."[108] As the department anticipated new approaches in measurement, it was expressing less interest in social outreach. "In the long run, improvement in the city's health depends in a very large measure on the extent to which each resident makes use of the newer knowledge in medicine and allied sciences, so readily available from private, voluntary, and public sources in this great city of New York."[109]

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[108] New York (N. Y.). Department of Health, *For You and Your Neighbors: Report of the Health of the City of New York for the Years 1951-1952,* 232; "Milestones Along the Road to Mobilization," *Pathfinder*, January 10, 1951: 11.

[109] John F. Mahoney (Commissioner), *Report of the Department of Health City of New York for the Year 1950,* 8.

Baumgartner's inclination to make public health methods suited to "the individual" aligned with broader trends in social medicine, though the meanings of "the individual" varied. Many of those appointed to the first institutional units and chaired appointments in social medicine were Rockefeller Foundation protégés, like René Sand in Brussels and Milton Winternitz at Yale's new Institute for Human Relations at Yale University. Their work reflected the Foundation's concerns with efficiency, technical solutions, and targeted intervention, even at the same time that the physicians expressed interest in medicine for the "whole person."[110] The emerging leaders approached social medicine in ways that did not rile the popular sensibilities of medical and popular culture. Milton Winternitz, for example, was a pathologist and bacteriologist who saw promise in the new sciences of behavior, expecting that the "whole person" could be studied and manipulated through individually targeted interventions rather than attention to social and economic determinants of health.

Although Winternitz's Institute for Human Relations folded, failing to attract interest medical students to clinical prevention, prominent voices in medicine nonetheless continued to call for an authoritative social science of medicine that could pull together the fragmented practices of social science and medicine in the United States. In 1948, the President of the New York Academy of Medicine hosted a three-day conference on social medicine at which he called for "systematic coordination of our efforts to investigate the social factors responsible for disease."[111] Historian and physician George Rosen, attending the conference, argued for a "synthesis of the data from the academic health and social sciences – clinical

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[110] Abraham Flexner, "Milton Charles Winternitz," *The Yale Journal of Biology and Medicine* 83, no. 3 (September 2010): 161; Dorothy Porter, "How Did Social Medicine Evolve, and Where Is It Heading?," *PLOS Medicine* 3, no. 10 (October 24, 2006): e399.

[111] Rosen, "Approaches to a Concept of Social Medicine. A Historical Survey." George Rosen, "Social Medicine in America," Canadian Medical Association Journal 61, no. 3 (September 1949): 316–23.

medicine, public health, psychology, sociology, economics – to build a theory of social medicine" for the United States. Baumgartner, however, would take a different approach.

Baumgartner, too, was enthusiastic about quantitative data, and would advocate in her work for the formation of a population health database for New York City. But scientific authority did not reside in numbers for Baumgartner. Technically precise metrics were not, in Baumgartner's experience, the most comprehensive measure for the modern public health worker. She sought "social precision," meaning a deep knowledge of the conditions in which mortality and disease occurred. Baumgartner's expertise came from going back and forth between neighborhood health stations and City Hall. The specificity of health lay in social conditions that could not be conveyed merely by the kind of numbers her database aimed to collect. No two communities were exactly alike, even if their infant mortality rates on average were equal, and there was no "average" solution. She had spent time as a medical student working with pediatricians on the Lower East Side and described it as place with significant obstacles that could not be overcome independently. It was, she said, "a different world, the kind of place where you didn't get a job by working very hard."[112] Services varied widely by community in her experience, depending on locality, needs, and the "progressiveness or conservatism of its leaders." Environmental sanitation remained a varied problem across the city. The numbers that the city claimed were "less useful indicators of the health of the community" as epidemiological patterns shifted had never given indication of their meaning or the effect any intervention would have. And yet it was clear that inequalities persisted and old problems still lingered despite the introduction of new knowledge and tools.

[112] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 53.

The problem with *technical* precision was that the "scaffolds" organizing the data limited broader observations that included social variables more difficult to measure. The city's Bureau of Records organized its charts according to the social logics of the city. Scaffolds were constructed around the data from identifying information on birth and death certificates. "White" and "Colored" were the two major columns on the chart. White could fall into White-US or White-foreign, which included not only European but also Mexican nationals and Puerto Rican émigrés. Colored was subdivided into Negro, Indian, Japanese, and Chinese. In 1941, the mortality rates in infant data labeled Colored was thirty deaths for every thousand live births; among infant data labeled White, it was nineteen. Ten years later, that difference remained.[113] It was clear that the general social conditions of life for the people grouped by these scaffolds – Negro, Indian, Japanese, and Chinese – were poor. One needed only to look. But it was equally clear that many among those grouped in what Baumgartner referred to as the "so-called White" category also had risky life conditions. The scaffolds in the data abstracted social facts into evidence that, out of context, could be used to rationalize existing biases without requiring a discussion of politics.

The most important work of population statistics, Baumgartner suggested, was not technical, but social. While at the Children's Bureau she encouraged states and communities to analyze the facts in their own localities "with a view to finding out 'why.'" She was adamant "that physicians and nurses do this part of the job themselves."[114] Health professionals needed exposure to conditions to make adequate assessments and responses to

[113] John F. Mahoney (Commissioner), *Report of the Department of Health City of New York for the Year 1950*; New York (N. Y.). Department of Health, *An Account of Twelve Months of Health Defense: Containing the Activities of the Health Department of the City of New York for 1940, with Comparative Vital Statistics Tables and a Review of Developments since 1934* (New York: Department of Health, 1941), Tables 224, 232.

[114] Leona Baumgartner, "Nation-Wide Plan for Reduction of Infant Mortality," *Journal of the American Medical Association* 146, no. 10 (July 7, 1951): 893–96.

problems, and to carry with them in their work the knowledge about health and disease that could not be contained in technical boundaries.

Baumgartner referred to this distinction between technical precision and social precision as an "approach." "It's the approach that is important," she would write a half-decade later, in conversation with a colleague in the Indian Health Ministry.[115] "Approach" was the term that Baumgartner used throughout her career to refer to the way a person not only conceptualized but also interacted with the world around them, not only ideology or worldview but also the spirit with which one acted. Different "approaches" allowed different degrees of flexibility and susceptibility to others. Baumgartner called this susceptibility "openmindedness."[116]

Many claimed the "open-mind" as characteristic of the inter-disciplinary liberal scientific approach at mid-century.[117] Baumgartner's "approach" was particular within this ideal. What was needed to invoke change, she specifically articulated, was not only engagement and exchange across academic disciplines, but open collaboration with communities at the grassroots of everyday life. This engagement, she told a group at the 8pm evening session of the Brooklyn Council for Social Planning in 1951, was what made democratic states different than totalitarian ones. She praised the gathering for being a "people's conference," not "as the totalitarian state defines one – with programs and

[115] LB. Letter to Dr Jungalwalla, Deputy Director of Health in India. June 8, 1964. Box 77 Folder 1, LBP.

[116] LB, Future of Children and Youth, 21.

[117] Jamie Nace Cohen-Cole, *The Open Mind: Cold War Politics and the Sciences of Human Nature* (Chicago ; London: The University of Chicago Press, 2014).

resolutions prepared at the top and handed down," but "a truly grass-roots and sidewalks conference in which the people themselves study facts and decide what action to take."[118]

She illustrated her concern by focusing on 'a good life for children.' "At first thought it seems as if we would all agree quickly on the essentials for so simple a concept," she said to her peers. "Further study makes us recognize that the definition of 'a good life' has varied in time and varies today in various cultures."[119] A good life needed to be defined "in very broad terms if we are to make use of possibilities inherent in people and at the same time encourage the flexibility with which they must face the various and ever-changing nature of their environment."[120] The requirement for this engagement between experts and local specificities was another deceptively simple but challenging idea. "As thoughtful people," she said, "We must discuss the future."[121]

Care as Social Experiment

Through 1951 Baumgartner lobbied for her approach to social medicine with citizens, public health officials, physicians, and researchers, drawing on her authority as a scientist, a public health leader, and an international consultant. She understood, she told an audience at the Indiana Public Health Association, that based on her background in immunology, pediatrics, and public health administration, they would assume that what she called "health promotion" would imply the utilization of advances in technology, like "new antisera and

[118] LB, Release of the draft talk of LB, Assistant Commissioner, New York City Department of Health, before "Little White House Conference for Children and Youth of Brooklyn," April 24, 1951. Box 39, Folder 2, LBP.

[119] LB, "The Future of Children and Youth," 4.

[120] Ibid.

[121] Ibid.

vaccines, antibiotics, or drugs, or the universal pasteurization of milk." But she assured them there was "much more to this job of health promotion."[122] In Baumgartner's vision of modern public health, the work was not about policing, characteristic of the "death control" approaches of the past, but about learning and judgment through social ways of knowing. "Modern workers aren't leaving to police problems of drug addiction," she said, "but are probing deeply into this great public health problem with the help of the psychiatrist, the social worker, and the judge."[123] To attract "scientifically trained people" out of the laboratory and clinic and into the streets,[124] she cited the need for "grassroots" neighborhood-based work and the study of "facts" as "experiments."

Baumgartner invoked the language of the late 19th and early 20th century American Settlement Movement to frame a pragmatic, openminded approach to scientific health practice. The settlement movement in the United States drew inspiration from the pastoral humanist movements in England and in Russia. In contrast to charity's approach – "aid" to "others" from a position outside of the neglected communities – the settlement movement attempted to have socially privileged volunteers inhabit these communities. The envisioned goal was reintegration of a segmented society and reduction of inequalities. The theological underpinning were the idea that by fostering an "organic whole" the reformers could enact the "Kingdom of God" on earth.[125] Trading a rising ethos of competition for one of cooperation, these social reformers set out to reduce the gaps between rich and poor through education and moral regeneration, and to counter the mechanization of everyday

[122] LB, "The Future of Children and Youth," 7.

[123] LB, "The Future of Children and Youth," 9.

[124] LB, "The Future of Children and Youth," 21.

[125] Davis, "Spearheads for Reform the Social Settlements and the Progressive Movement, 1890-1914."

life in industrializing cities by bringing culture and pastoral beauty to the working class slums.

Though the principles of their vision were theological, the settlement movement's leaders were vehemently secular in practice in order to integrate with diverse neighborhoods as equals not as outsiders and others. Jane Addams, whose Hull House settlement in Chicago's south side gained world renown, insisted that "the people must and can and will save themselves."[126] The purpose of the settlement, she said, was to "make social intercourse express the growing sense of the economic unity of society and to add to the social functions of democracy." Focusing on the vulnerable in society, from industrial workers exposed to unusual toxins to children whose bodies were unusually susceptible, the settlement workers gathered "facts" and conducted their work as "experiments in democracy" based on the "theory that the dependence of classes on each other is reciprocal." Their interest was raising the status of the vulnerable, not determining which among the "unfortunate" were worthy of care.

To carry out their work they began with settlement-based experiments, and gradually infused new policy into government. Using the facts they gathered in settlements, workers advocated for wider institutionalized political reform, with themselves as the leaders of new institutions. Julia Lathrop, working with Jane Addams in Chicago, thus became first director of the Children's Bureau, tasked with the social welfare of the nation's children and located in the Department of Labor. Baumgartner directly compared her own approach to that of Alice Hamilton, who had lobbied for industrial safety reforms.[127] Baumgartner's mentor, Eleanor Roosevelt, had worked in the Rivington Street settlement as a nineteen-year-old

[126] Ibid., 12.

[127] LB, The Future of Children and Youth, 8.

woman with aspirations to promote equality not only within but also across nations. Not only had the poverty she encountered there made a great impression on her, the settlement approach had introduced her to a community who shared her protest, which continued through the war, of the gap between government rhetoric and the experience of women, children, and other socially marginalized groups. [128]

While charity work had given women opportunities for international experience through religious mission work in colonies, settlement work had given women opportunities for civic participation, escape, and opened doors to international exposure through the spread of "home economics" in work for the State Department. Taking on the risk of care outside their own homes gave women access to the gendered public world and claim to the "masculine" narrative of "adventure." Baumgartner was typical in her reliance on not only the rhetoric of "good work and a positive attitude" to stay afloat in the gendered institutions of politics and science through the war, but this romantic rhetoric of adventure.[129]

To attract "scientifically trained people" into community work and guide them to her particular idea about how "modernity" should be exercised, Baumgartner played up the association between adventure and experiment "Just as lives of all were affected by the great adventurers of the past," she said, "so these experimenters of today will affect our lives tomorrow." "Adventuresome souls," she said, would "stretch horizons," taking tools from physicians and biological sciences, "joining hands with the social scientists," and finding new ways of "truly providing health, not just preventing or treating disease." She also wanted to re-animate the mechanized ideas that had come to characterize clinical work. "The

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[128] Margaret W. Rossiter, *Women Scientists in America : Before Affirmative Action, 1940-1972* (Baltimore: Johns Hopkins University Press, 1995), 21.

[129] Ibid., 17; Naomi Oreskes, "Objectivity or Heroism? On the Invisibility of Women in Science," *Osiris* 11 (1996): 87–113.

adventuresome obstetrician is veering away from absorption in birth as an act of a piece of complicated machinery located in and around the pelvis," Baumgartner explained, "and is talking of preparing parents - both father and mother - for the joys and responsibilities or parenthood, for pre-conceptual examination and psychological adjustment to a very natural physiological act, that of giving birth, which modern technology may have tended to put out of focus for a time." For the scientific approach, Baumgartner found, adventuring removed the illusion of being able to control the environment, and re-located control in the observer's own self-control. Self-control was an ability to maintain an equanimity or balance in the encounter with changing conditions. Her goal was crossing new frontiers, not controlling people within old norms. Adventurers were "pioneers," not "police," she said. They would be integrationists, not just interdisciplinary, going beyond surveillance and sequestration of specific health problems to creating the conditions for healthy lives.[130]

Baumgartner expected that "adventure" could serve as a "cognitive map" that used the ideals of the national myth -- pioneering, frontier expansion, domestication of nature – as a way of relating her vision across ideological differences. She made a point that a pioneer ideally utilized both planning and skilled reaction to chance. "To venture guesses as to what the future on from 1951 holds for children and youth, for us as human beings, or as public health and welfare workers, may well be folly," she said. "Nevertheless, failing to chart a course takes neither the frailest nor the stoutest craft through the storm." Her pioneers would self-consciously navigate both the social and the economic terrain of the future. "To solve more effectively the problems we as pioneers met in the forests of colonial New York,

[130] This terminology of "cognitive map" is from Frederic Jameson, "Cognitive Mapping," in *Marxism and the Interpretation of Culture*, ed. Cary Nelson and Lawrence Grossberg (Urbana: University of Illinois Press, 1988); Fredric Jameson, *Postmodernism, or, The Cultural Logic of Late Capitalism*, Post-Contemporary Interventions (Durham: Duke University Press, 1991).

on the plains of Indiana or in the high Sierras. And we need pioneers today -- " she said, "bold adventurers who can steer a course through our social and economic peaks and valleys." Taking the cultural framing of post war medicine as optimistic, full of opportunity for knowledge and discovery, masterful of skills through treatment, technology, and targeting of pathology, she worked to apply this frame to engender excitement in prevention, community, and social determinants of health. "The really great adventure which lies ahead for the medicine and public health of the future," she told the room full of public health professionals in Indiana, was "how it will aid not only in ministering to man's ills but improving his health. And what do I mean by such an enigmatic statement?" She elaborated further to clarify. "Simply that we stand on a frontier. A frontier that leads to journeys as exciting as those a Jules Verne, a Louis Pasteur, or a Columbus, ever started on." The engagement she hoped to gain through this narrative was, she believed, essential to public health work. Reflecting on her work with the Health Department, she noted that "if a health department is to maintain its efficiency, deliberate steps must be taken to counteract the dullness of unchanging routine, to broaden the horizons of interest, to re-instill the desire to mold the future and to establish enthusiasms which mean a ready and willing acceptance of change when the change means more effective work."[131] Years later, when discussing her work in communities, she noted, "I found that on First Avenue to keep twelve mothers awake you had to be pretty interesting."[132]

Adventure was not to be confused with "adventurism," the accusation levied at the "irrational" political and military actions of antagonist governments. Adventurism had been

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[131] Leona Baumgartner, "In-Service Training for Doctors and Nurses," *American Journal of Public Health and the Nations Health* 29, no. 6 (June 1, 1939): 597–602.

[132] Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 79.

a fault of Hitler, and through the 1950s and 1960s the Communists in the Soviet Union and China were accused of adventurism. Some in Nehru's India accused China of the same.[133] Baumgartner meant something different. Her vision was constituted by openness to new ideas and different values. The excitement she described in the work was the potential of change and being changed. Baumgartner's adventure required control over oneself, not over others, and could only be experienced interpersonally, through flexibility and tolerance.

Baumgartner's test case for adventure scientific outlook on public welfare was infant mortality, and in particular the problem of death following premature birth. Understanding the authority she gained from her identity as a pediatrician, both in the public eye and across the health professions, Baumgartner believed that mother and infant programs were the ideal magnet for the demonstration of the importance and effectiveness of the new social medicine. While Director of the Children's Bureau, Baumgartner drew on her experience developing programs for premature infant care in New York City over the previous twelve years to propose a nation-wide plan for reduction of premature mortality. In this proposal, she gave scientific, political, and moral reasons why premature birth was a good case for beginning her vision of broader reform.[134]

Politically, she saw abundant rationales for centering attention on prematurity. First, prematurity had a powerful affective valence. "The public has an enormous interest," she

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[133] "Communist Party Has a New Program," *New York Times*, June 24, 1928: E6; "Goebbels Built Up Lurid Nazi Dogma," *New York Times*, May 3, 1945: 10; Leslie Stevens, "Symptoms of Soviet Alarm: Kidnapping Seen as Indication of Concern Over Dissatisfaction," *New York Times*, April 20, 1954; "Peiping Decries Course in Kennedy's First Year," *New York Times* December 31, 1961: 2; "Delhi, Peking, and the UN," *New York Times*, October 27, 1962: 18; The Ecuadorian President deposed in 1963 would be accused of Communism, and faulted for his "political adventurism." "Coup in Ecuador," *New York Times*, July 13, 1963: 16.

[134] Baumgartner, "Nation-Wide Plan for Reduction of Infant Mortality." (Presented before the Kings County Medical Society and the Academy of Medicine of Brooklyn, 17 April 1950.)

said. Physicians tended to record "premature birth" as a "cause" of infant death on death certificates, when no other explanation was evident, and so there was a rough record estimating the prevalence of premature mortality, which had become the leading reported cause of infant death and the eighth cause of death overall in the United States. As infant mortality in general declined, baby activists had responded to alarm with the relative rise of premature mortality, convincing themselves and the public that there was a "new" epidemic of prematurity.[135] Among physicians, infant medicine was an exciting challenge. Pediatrician Mary Ellen Avery, a resident at Johns Hopkins in those years, recalled perinatal medicine being "the new frontier."[136] This public interest was bolstered by the high modern technologies associated with the care of premature infants, Baumgartner said, noting the "much publicized" incubators, ambulances, oxygen, transfusions, and premature centers that had rapidly been introduced. These technologies were particularly significant in dramatizing the fact that premature birth was "always an emergency."[137] There was indeed no time to delay when an infant was born prematurely, if the goal was to save its life.

Baumgartner believed that attention to prematurity would drive complex, integrative, and coordinated systems building. There were general principles to reducing infant mortality, she said, that were shared across all social contexts even as local conditions varied. These general principles could guide overall coordination of local approaches to the problem, from knowledge production through response. As an emergency, premature birth would require rescue services but it would also require long-term planning and widespread attention to

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[135] Meckel, *Save the Babies*.

[136] Lawrence Gartner, Interview of Mary Ellen Avery, 4 April 1998. (American Academy of Pediatrics, 2009) Available at www2.aap.org/sections/perinatal/pdf/Avery.pdf. Accessed 18 September 2013.

[137] Baumgartner, "Nation-Wide Plan for Reduction of Infant Mortality," 894.

prenatal care. Finally, though the exciting technologies of incubators and ambulances had technical value as well as emotional value, with a record of improvement in infant survival, the next steps in perinatal care would require study and action into service organization outside the clinic. She hypothesized "some kind of regionalized service" in which there was general training for infant care at all hospitals and among all general practitioners, and a few high-tech hospitals to which cases requiring specialty care and expensive services could be referred.[138]

Such coordination reflected Baumgartner's approach to scientific inquiry. To understand the contributing factors to premature birth, doctors and nurses, states and communities would not only need to look into local conditions. They would also need to plan continuously, with regular discussion, critique, and reform. This would need to take place amongst a broad range of parties. She listed state and local health agencies, medical, public health nurses and child welfare workers and "'aid to dependent children,'" and citizens and members of various public and voluntary agencies and professions. In a strategic approach to staging an intervention, Baumgartner suggested, as a first step in the nation-wide plan, that local medical societies and local public health boards – notoriously antagonistic as the professional divide in health practice widened -- work together on studies of the phenomenon of premature birth in their communities.

There was already evidence, Baumgartner argued, that this project – though not yet in "high gear" -- would drive more federal funding into healthcare. States were paying for premature centers where they existed, even though the services were very expensive. In the leading premature center in the country, in Colorado, the average cost of care ranged from $199 to $827 per infant, varying with the birth weight – the proxy for gestational age, which

[138] Ibid, 895.

was too hard to know. Moreover, the next steps of research would be too costly for local communities and would require federal money for research into prevention. Building a national response to premature mortality would "make States realize the need to pay."[139] In short, the notion of prematurity would act as a technical, political, and ethical stitch, pulling together political entities that current practice treated as separate and fostering the ethical synthesis that Baumgartner hoped for between rescue and prevention, individualism and equality. Raising the standard of care for premature infants, she was confident, meant women also would receive better care, because of the increased attention that addressing prematurity would put on prevention through prenatal care and women's health initiatives. This would inevitably have spillover benefits for reducing the persistent tragedy of maternal mortality. Better premature care would also raise the standard of care for full-term infants, for women, and for other groups whose health indicators on average were far below the national average. In other words, attention to premature mortality would foster an approach to public health that addressed the patterns of early death in the population more generally.

Speaking at the University of Michigan School of Public Health in 1951, Baumgartner noted three ways that mother and infant health were a new kind of problem for public health. First, they focused on the "promotion of individuals' health" and "not merely in ridding people of disease." They were different from the programs of "fluoridation or milk pasteurization or isolation of a typhoid carrier," she said, because they focused not on the presence or absence of a single agent but on process and the work done between individuals: the "care of the individual and the care he gets between himself and his own family." Second, they focused on a "group of special risk," by which she meant

[139] Ibid.

vulnerability.[140] There were various groups of special risk in all societies, whose life conditions were different than the norms on which that society was built. But infant lives were inherently different in all societies, with vulnerabilities that were drastically visible. What made infants an especially promising magnet for reform was not only their especially obvious vulnerability, but the unlikeliness of their being held personally responsible for their own suffering. The Children's Bureau, for example, was a rare example of successful elevation of a special segment of society. A member of the Bureau of the Budget had commented on this political power in 1943, when a wartime bill was passed to fund medical care for the wives and infant children of servicemen. "There's nothing like babies and soldiers. And when you combine them you've got something that will appeal to everybody."[141]

The third way, Baumgartner reasoned, that mother and infant care programs directed at premature birth were different from orthodox public health was that infants were widely accepted as " kind of pilot plants for a great deal of experimentation." Infants were subjects for whom novel social policies had been successfully enacted, despite failing for the population more generally.

> "I have had great fun in the last few years checking with every social anthropologist I could find, asking if there were a culture at any time that anybody knew about that didn't allow for social experimentation around child bearing with certain kinds of activities developed around the things that society did to the pregnant woman and her newborn child. These activities were frequently different from the often forecast future for what one did for the rest of society."[142]

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[140] LB, "Some Facts and Thoughts about Maternal and Child Health," Report of a talk given at the Assembly of the School of Public Health at the University of Michigan, October 1, 1951. Box 39, Folder 2, LBP.

[141] Interviews with Martha May Eliot, MD, 1973-1974: 106. Family Planning Oral History Project Interviews. Schlesinger Library, Radcliffe Institute, Harvard University.

[142] LB, "Some Facts and Thoughts about Maternal and Child Health," 2.

Baumgartner was confident that attention to infants could demonstrate new ways of health promotion for not only the United Sates, a "refreshing center of interest" with the resources to undertake such experimentation in the wake of the war – but in the burgeoning international projects of the bilateral and multilateral health institutions. "This happens to be a favorite interest of mine," Baumgartner announced.[143]

Baumgartner was careful to articulate that social medicine, as she envisioned it, was still consistent with core constitutional values of the United States. Her approach, she said, alluded to a "much broader, more absorbing" vision than the "kind of uninspired debate that fills the ether today about being for or against so-called 'socialized medicine,' whatever that well-worn phrase may mean to a particular debater at the moment."[144] To smooth over the major adjustment she hoped to make in popular conceptions of health, which were bound to disrupt vested interests within the institutional structures of health and welfare, Baumgartner reassured her colleagues and the public that the New Public Health still aligned with the essential values of individualism, innovation, and democratic self-governance. She was careful to qualify what she meant by each: Individualism meant the maximum freedom of the person, not above all else, but as related to the well-being of the nation; adaptability meant not immutability in dynamic contexts but a personal susceptibility, marked by the ability to change in the face of alternate ideas, interests, preferences, and material conditions; self- governance meant grassroots citizenship.[145]

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[143] Ibid.

[144] LB, "The Future of Children and Youth," 11.

[145] Ibid.

Even as Baumgartner joined the avant guard of medical scientists and clinicians calling for new attention to the conditions of premature mortality, the attention to these "individuals" was shifting with ideas of risk present in the language Baumgartner used. In the first years of the twentieth century, physicians interested in premature birth referred to it as the "pathology of pregnancy." This "fetal pathology," wrote J.W. Ballantyne in his 1902 *Manual of Antenatal Pathology and Hygiene*, "is one of the last provinces of medicine to have emerged from a kind of medieval wonderland into the realm of science."[146] The pre-viable fetus itself marked a failure of medical science.[147] By 1931, physicians were questioning why this should be so, speculating that it was because "the newborn life falls between the attention of the obstetrician and that of the pediatrician, and is little understood by the general practitioner."[148] Second, it was harder to determine "causes" of pathology in this invisible period, making them seem "much more obscure as to origin and development" than the pathologies attributable to injury and infectious disease in infant mortality.[149] By the 1930s, a study at the Harvard School of Public Health deemed "more than fifty percent of neonatal deaths were preventable" and noted the dearth of good data, partly due to physician reporting practices.[150] At the Boston Lying In, physicians were not content with the "inability of our present methods to lower further the number of premature infant deaths" and

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[146] J.W. Ballantyne, *Manual of Antenatal Pathology and Hygiene: The Fetus*. New York: William Wormwood and Co, 1902. TM Rotch, "Report on the Diseases of Children," *BMSJ* 143, 1 November 1900: 449-452.

[147] Reports of Societies, *BMSJ* 148, 9 April 1903: 397-400. JL Morse, "Progress in Pediatrics," *BMSJ* 190 May 1924: 931-936.

[148] HC Stuart, Stillbirths and Neonatal Deaths in Boston, 1929. *NEJM* 204, Jan 22 1931: 149-154.

[149] Ibid.

[150] Williams and Holland. HSPH Study 1929, read at the American Medical Association Meeting in Detroit, June 1930. HC Stuart, "Stillbirths and Neonatal Deaths in Boston, 1929," 149-154.

concluded that "new means of attacking the problem must be found."[151] A hunch grew in the medical community that maternal factors were the responsible agents, but the future of fetal viability was still envisioned in obstetrics. The premature infants themselves were particularly vulnerable and very different, distinct from normal infants with "peculiar physiological characteristics" such as "the ease with which bleeding can take place" and "the marked inefficiency of the immature respiratory system."[152] The best available solution to their "failure to thrive" was to ensure strong and healthy structures around them.

By 1941, the attention had shifted to care of the individual infant.[153] Imaging technologies like the Roentgenogram ray, biochemical diagnostics like routine serological tests for syphilis, and improvement in reporting of causes of death all contributed to an emerging sense that problems could be known about in advance of birth and addressed through direct action. In complicated pregnancies, "stereoentegenometric examinations have proved of inestimable value in determining the "risk" for both the mother and the baby." This technique built legitimacy around the idea that birth weight could be a proxy for developmental maturity. At the intersection of these material and statistical visibility of prematurity, physicians also cited a greater number of autopsies contributing more data points to the information about prematurity in the population. [154] The language of "risk" for

[151] Stewart H Clifford, "A Consideration of the Obstetrical Management of Premature Labor," *NEJM* 210, March 15, 1934: 570-575.

[152] Ibid.

[153] New Hampshire Medical Society, *NEJM* 225 August 21, 1941:290-299.

[154] R.C. Eley, "Advances in Pediatrics," *NEJM* 215 9 July 1936: 82-86; DA Sampson, "Allergy to Tubercle Bacilli as a Possible Cause of Acute Pulmonic Consolidation," *NEJM* 222, January 11, 1940: 58-60.

both the mother and baby" replaced "pathology." And the medical literature held forth on "considerations in the care of the prematurely born infant."[155]

By the time Baumgartner offered her proposal, there were efforts to target prematurity with defensive strategies of isolation from handling and the environment. Prematurity programs were included in state level funding which made these expensive technologies like incubators feasible.[156][157] And the matter shifted from a welfare issue to a health issue in the late 1940s when the federal government legislated departments of public health would now pay for such programs.[158] The neonatal period was "the most hazardous in life: here the mortality rate exceeds that of any other time, and the danger of permanent central-nervous system damage is ever-present." Infants were not only at special risk, and not only symbols of the nation, they posed risks to the future population.

Baumgartner took advantage of rising public interest to ask provocative questions that stood out more than the nuanced insights behind them. The project intended to address inequalities more generally. Since infants carried such significant emotional valence for the public, she understood opportunities in the rhetoric of rights for infants. Citing the 41,000 deaths attributed to premature birth in the year 1947, she stated that an epidemic of that proportion would "call for the concerted attention of all the nation's doctors and nurses, of national, state and local governments, and of citizen's groups everywhere." She posed the

[155] New Hampshire Medical Society, 290-299.

[156] Baker, *The Machine in the Nursery*.

[157] Baker, Jeffrey P. The Machine in the Nursery: Incubator Technology and the Origins of Newborn Intensive Care (Baltimore: Johns Hopkins University Press, 1996).

[158] Maternal Child Health Provisions of the Social Security Act. Cited in: Baumgartner, "Nation-Wide Plan for Reduction of Infant Mortality."

ethical question and left it open: "Why should we do less because the cause of death is premature birth?"[159]

Implicit Theories

"Public Health is changing!" Baumgartner optimistically jotted into her notes for a talk on American public welfare at the Staten Hotel in November 1951.160 This was followed by a prediction that in the future there would be a closer working relationship between health departments and welfare departments, which had "so much to contribute to eachother." In her view, both were "moving towards the approach called social medicine from which they sprang." Social medicine's approach to public health at that time was "not widely developed," she said, but was "attempting to study and modify the total environment" (she had crossed out the technical term "regulate" in her notes) and "not just look to those who suffer because of it." If health departments took on this work, welfare departments could take responsibility for locating "groups of vulnerables" for these health experts to tackle."[161] Social medicine entailed "looking at the total environment – a real relatedness of society to individuals," she wrote.

This relatedness between society and individuals was central to her vision: not an "either or" approach to personal and social determinants of health, but a "both and" vision conducted in the presence of care. Venereal disease was one success, she said, and wondered aloud if children could be the next. She jotted a note about the studies of Luther Gulick, a leading figure in the science of public administration who had been appointed by Franklin Roosevelt

[159] Ibid. 893.

[160] LB, American Public Welfare, Staten Hotel Speech, 1951. Box 39, Folder 2, LBP.

[161] Ibid

to re-organize the executive branch of the federal government according to his management theories, and worked with John Maynard Keynes on post-war international economic management and the emphasis on free-trade, which she said were "clear cut."[162]

While some called for a new interdisciplinary theory and a new coordinating concept of social medicine at mid-century, as the new world order rose in the scaffolds Baumgartner's colleagues had prepared for it, Baumgartner thought the problem of premature mortality already was the ideal concept through which to lead a more open, democratic approach that would attract participation and ideas from across the political spectrum. There were no easy fixes for the future reduction of prematurity, she was sure. While infants in New York were still dying under conditions that hospital technologies did not solve, however, financing structures at hospitals in New York were set to be revised in 1951 to expand technical care for premature infants, in particular to make possible new congenital heart surgical services.[163] Eager to avoid what she called "totalitarian" or imposed structure, Baumgartner believed concerted attention to prematurity would bring about politically diverse discussions, systems building, and more equal health outcomes.

But there were oversights in Baumgartner's expectations with which she did not clearly reckon. Some were historical. Mid-19th century reformers had also used infant mortality as a tool to bring more equal approaches to governance, but as Baumgartner observed, social inequities had been reproduced. Relatedly, Baumgartner's prediction that prematurity would bring health and welfare closer together was based on an idea that it was

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[162] Ibid. For Gulick's approach to administration see: Luther Halsey Gulick, *Papers on the Science of Administration,* (New York: Institute of Public Administration, Columbia University, 1937); Luther Halsey Gulick, *Administrative Reflections from World War II* (University, Ala.: University of Alabama Press, 1948).

[163] John F. Mahoney (Commissioner), *Report of the Department of Health City of New York for the Year 1950,* 51; Baumgartner, "Nation-Wide Plan for Reduction of Infant Mortality."

their different methods – those of public health being focused on populations rather than individuals – that kept them from working together. But the polarization of political cultures had produced the different methods. She also did not contend with conditions in the present that contradicted her expectations. Significant investments had already been made in treating the premature infant as a target and not the "whole person," or social individual, that Baumgartner envisioned, and powerful clinical interests were already claiming the problem.

Though she expected scientific management would broaden the response, management involved implicit theories about the world. Even in Baumgartner's approach, though she balked at the idea of theory-driven work, there was an implicit theory centered on collaboration in her expectation that attention to premature mortality would consolidate a comprehensive public health response.

Baumgartner's pragmatism was not simple hubris. Baumgartner's confidence in pediatric health, liberal adventure, and the potential of scientifically trained people to approach problems with "healthy skepticism, "honest experimentation," and an "atmosphere of freedom" were personal and affect-laden.[164] People she highly admired were scientists and engineers. She used a notion of adventure to motivate her own risk-taking. The health problems that crossed the threshold of her own life could not be reduced to their innate characteristics. And in the stories Baumgartner knew, Pasteur and Columbus were still cast as heroic individuals instead of problematic agents of institutions and systems. In drafts that she carefully edited for other content, she left analogies between her modern health professionals and the pioneers who met in the "colonial forests of New York and on the plains of Indiana and in the high Sierras," without drawing any apparent connection to the devastating infant and maternal mortality rates on the Indian reservations and among the

[164] LB, "The Future of Children and Youth," 21.

"Negros" that she cited in the same discussion.[165] The idealistic stories of science and discovery in her world of experience were distant yet from reflections on inhumanity, deception, and other ethical tragedy.

In October of 1951, Baumgartner received an invitation from Brock Chisholm, Director General of the World Health Organization, to serve as a member of the WHO Expert Advisory Panel on Maternal and Child Health. "I may add," he wrote, "that your Government has already concurred with your appointment."[166] Baumgartner routed the invitation through the New York City Commissioner of Health Mahoney, with a suggestion that he grant her approval. "OK. Congratulations. JM." He signed the route slip.[167] By mid-November, Baumgartner had accepted. "It gives me very great pleasure," she wrote to Chisholm, excitement evident in the uncharacteristic emphasis she put on her own typed sentiments. "I shall be very happy to do anything I can to be helpful to this Panel for I believe so wholeheartedly in the worked that the World Health Organization is doing."[168]

Meanwhile, Baumgartner was growing cramped in domestic government work and was considering a job with the New York Foundation. The letter she drafted to Henry Sigerist in 1952 gave an explanation. She would not be leaving her government position because of the internal politics, she insisted -- on the contrary she still quite enjoyed the "scrapping" it entailed. She would leave for the Foundation job because she had "become more and more convinced that progress in the next few decades will come more through new approaches than through the interdisciplinary approach." That approach, which she

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[165] LB, "The Future of Children and Youth," 11.

[166] Brock Chisholm to LB, Letter, October 25, 1951. Box 39, Folder 7, LBP.

[167] LB to John Mahoney, Route Slip, November 6, 1951. Box 39, Folder 7, LBP.

[168] LB to Brock Chisholm, November 14, 1951. WHO Expert Panel on Child Health. Box 39, Folder 7, LBP.

faulted for being too cloistered in academic institutions and not engaged enough at the "grassroots," had somehow allowed the inequalities she saw in her data and its graphic representations to persist and new knowledge was needed. She expected that more experimentation could solve this, and that "the experimentation that has been possible in government circles since the New Deal days [was] not going to be possible for the next decade."[169]

[169] LB to Henry Sigerist, letter, July 17, 1953. Box 73, Folder 2, LBP. Also cited in Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962," 109.

Chapter 2: Demonstration

Cooperation, Coordination, and Human Engineering in Quito

In March of 1951, Baumgartner landed on a simple airstrip at the periphery of a mesh of narrow colonial streets in the shadow of the Pichincha volcano. Her husband, Nat, had been commissioned to travel to South America as a consultant for the President's Material Policy Commission, tasked with surveying local rubber resources for the United States Government. On deciding to travel with him, Baumgartner had written to her friend Paul Harper in the Maternal Child Health Division of the Johns Hopkins Department of Public Health Administration. "I would be glad for anything you can do in the way of helping to orientate me about the situation down there," she wrote.[1] Harper sent back a list of suggested reading; an article from the *Journal of Ethnology* and a tourist guide produced by the Coordinator for Inter-American Affairs. Harper also suggested Baumgartner contact Fred Soper at the Pan American Sanitary Bureau to see if he might have some work for her to do while she was there.[2] Baumgartner's confidence resonated in the letter she sent off to Soper that same day. "I remember Paul Harper tried to get some things started down there," she wrote. "If there is anything useful I can do, I might be interested."[3] In Soper's weighty opinion, Baumgartner's expertise would be well placed advising new maternal-infant demonstration projects in Colombia and Ecuador, including a scientifically cutting-edge and expensive maternity hospital nearing completion in Quito, Ecuador.

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[1] LB to Paul Harper, Letter, Jan 24, 1951, Box 82, LBP.

[2] Nancy Stepan, *Eradication: Ridding the World of Diseases Forever?* (Ithaca, NY: Cornell Univeristy Press, 2011). Soper (1893-1977) was an epidemiologist who ran campaigns for the eradication of infectious disease for the RF and became director of the PASB in 1947. He introduced Baumgartner as a "good friend." Fred Soper to Mario León, letter, Jan 31, 1951. Box 82, LBP.

[3] LB to Fred Soper, Letter, Jan 24, 1951, Box 82, LBP.

The new hospital filled a rectangular footprint of 2441 square meters at the corner of Columbia and Sodiro Streets.[4] A park spread from the other side of the intersection, then more streets and scattered squares and rectangles that trailed off on the dark terrain of the volcano which dominated the landscape to the west. From the street, the white facade of the Maternidad rose three stories on land donated by the city's Junta Central de Asistencia Publica, amidst scaffolds funded by the United States government. Inside there were long hallways, spacious modern wards, and angular equipment donated from the United Nations Children's Emergency Fund. The Maternidad's Directive Committee had recently decided to name the new facility in honor of Dr. Isidro Ayora, an obstetrician who, as President, had brought modern obstetrical methods to Quito from Germany and consolidated the spirit of a social movement to shift power from a plutocracy to a modern state with institutions and policies designed to serve the public.[5]

This Maternidad Isidro Ayora, or the MIA as it became known, was the first contracted project of the United States Government's first bilateral health program, administered by the Institute for Inter-American Affairs established in 1943.[6] The bilateral device was called a Servicio Cooperativo Internacional de Salud Publica, or an International Cooperative Public Health Service. Contracted with Ecuador's Ministry of Social Prevision, the Quito project was just one of eighteen contracts signed with "friendly neighboring

[4] Project Agreement No. ECUA-48-Q, Maintenance and Operation of the New Materity Hospital of Quito, Built by the Servicio under Project No. 18-Q. January 18, 1951. AP-0395, Museo Nacional de Medicina Eduardo Estrella (Henceforth MNM)

[5] Act of Inauguration of the Maternidad "Isidro Ayora." March 28, 1951. AP-0395, MNM.

[6] Little has been written on the IIAA. It is briefly mentioned in: Anne-Emanuelle Birn, *Marriage of Convenience : Rockefeller International Health and Revolutionary Mexico*, Rochester Studies in Medical History, [v. 8] (Rochester, NY: University of Rochester Press, 2006); André Luiz Vieira De Campos, "The Institute of Inter-American Affairs and Its Health Policies in Brazil during World War II," *Presidential Studies Quarterly* 28, no. 3 (1998): 523–34.

states" since the creation of the IIAA. An evaluation of the initiative on its tenth anniversary by the Public Health Service would reflect, in 1953, on the significance of the program. "There is reason to think," the report's introduction read, "that when the history of these troubled times is finally written, the careful historian will see in the emergence of the cooperative health programs in Latin America a development of considerable significance in the Western Hemisphere's search for higher levels of health and stability."[7]

The Maternidad was planned as a demonstration project, a public health reform strategy that Baumgartner knew well from her work in New York City's Health Department. As policy mechanisms for administering joint-programs between the United States Government and the government of a second nation-state, the demonstrations were intended to persuade local authorities that coordinated healthcare could drive social development and markets, with a politically stabilizing effect not only within but between nations. Infant mortality, a matter all agreed was important, was a problem expected to stitch together this coordination across politically diverse contexts. Tensions in expectations and outcomes, however, would erode the initially comprehensive medical care plan, even as they focused greater attention on infant mortality.

Social Responses to Infant Loss

Before Baumgartner even reached Quito, the frustrations of travel had already begun to test the limits of her highly evolved open-mindedness. On stationery taken from the Hotel Nutibara in Medellin, Colombia, where she and Elias made their first stop on the trip, she wrote to her assistant back in New York. "What you could teach them about efficiency!" she

[7] Public Health Service: Dept of Health, Education, and Welfare, *10 Years of Cooperative Health Programs in Latin America: An Evaluation* (Washington, D.C., 1953), ix.

huffed, her normally even temperament uncharacteristically flustered. "I really loose *[sic]* my mind after 30 minutes of trying to phone!"[8] Still, she was impressed by what she was seeing. "I've seen some amazing hospitals and 'health centers,'" she wrote, adding that she had also had time by the swimming pool on the weekend.

The morning following her arrival, Baumgartner connected with an American nurse named Helen Parker, who was working with the local Servicio, and Dr. Luís Alcivar D., who also served on the Directive Committee of the Maternidad. While Nat set out to investigate local plants, Baumgartner followed Alcivar on a tour of the city.

In the morning they visited the cool stone hallways and calm interior gardens of the Spanish hospital San Juan de Dios in the old town quarters, whose buildings spread steeply up the side of the looming Pichincha. Baumgartner's travel book – the first such English-language book for Latin-American countries, "at a time when tourism [to Latin America was] non-existent" -- noted that this volcanic activity at times cracked the walls of buildings in town.[9] In the afternoon, winding back down through the weave of narrow streets, they passed the thresholds of tight dwellings with dusty old decorative details. At Ambato 1128, a social worker reported, an unmarried woman named Lastena Almeda left her newborn with no supervision while she went back and forth to her work as a local cook. Women in Quito had done so for decades.[10] Illegitimate infants were forbidden in the kitchen of the family

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[8] LB to Hannah (Assistant in NYC Health Department office), Letter, Undated but betwen Feb 21 and March 8, 1951, Box 52 Folder 82 LBP

[9] Earl Parker Hanson, *The New World Guides to the Latin American Republics,* (New York: Duell, Sloan and Pearce, 1943); *Review of* The New World Guides to the Latin American Republics. Sponsored by the Office of the U. S. Coordinator of Inter-American Affairs, by Earl Parker Hanson, *Geographical Review* 33, no. 4 (1943): 696.

[10] A. Kim Clark, *Gender, State, and Medicine in Highland Ecuador: Modernizing Women, Modernizing the State, 1895-1950*, Pitt Latin American Series (Pittsburgh, Pa.: University of Pittsburgh Press, 2012).

that employed Lastena for sixty sucres a month plus food. After the infant survived six months, Lastena requested a daytime space for him in the local Casa Cuna.[11] Just a few steps away from Ambato 1128, according to the notes of another social worker, a woman with five children was about to give birth to a sixth. Living on the slope of the Panecillo, the hill from which a gigantic aluminum statue of a winged virgin overlooked the city and traded shadows with the Pichincha over the course of a day, this experienced mother returned quickly to work. A peon in the city's Public Works, she worked alongside her eldest child Olga Maria. The social worker who visited their home eight months later reported that her husband was disabled and the mother's income amounted to only five and a half sucres per day, and Olga Maria's just two. This family requested and was approved for milk supplements from the Gota de Leche, the local milk dispensary.[12]

In Quito there was no doubt that many infant lives were lost. Since independence from Spain in 1802, the State and the Roman Catholic church counted infants and attended to their social provision. The church was powerful in Ecuador but particularly so in the isolated Andean highland city. Medicine, religion, and the State were deeply intertwined. Physicians, many trained in the clinics of France, had played important roles in the revolution; for nearly the next century the church had administered large haciendas, where indigenous people were enslaved and national income was grown and exported. A liberal revolution formally separated church and state in 1895, and new laws moved responsibility for civil records from the church to public offices, but the priority of care for children was preserved. As in many nation states in the early 20th century, the populace was perceived to be one of the primary sources of national wealth. Here, state authorities spoke of infants as

[11] Social Worker Reports to the Junta for Public Assistance 1951-1953. AP-0750. MNM.

[12] Ibid.

la pequeña planta humana, convinced that the death of infants was depopulating the nation. The State delegated care of children to the Hermanas de Caritas, an organization of nuns with a strong presence in the city, and placed abandoned infants into the homes of wet-nurses. Record keeping was sparse across Ecuador's Amazon jungle, Andean highlands, tropical coasts, and inland communities, but in Quito efforts were made to produce records of infant death.[13]

As cacao prices fell during World War I and worker strikes were violently suppressed by the plutocratic state that had swelled since the liberal revolution, a new Juliana Revolution led by nationalistic mid-level military officers and workers turned over the State and opened a period of dictatorial institutional reform.[14] Physicians again played important roles in the revolution and subsequent government, including Dr. Isidro Ayora who trained in obstetrics in Germany between 1905 and 1924 and assumed the presidency of Ecuador in 1926. With a goal of centralizing the nation, the Juliana governments regulated working conditions, granted women full political rights, and moved the Sanitary Service from coastal Guyaquil to inland Quito in the Andes. To mark a change from the notion of charity to public entitlement to state services, they renamed the Public Benificiencia the Junta Central de Asistencia Publica and established provincial delegations tasked with extending public health services into remote regions beyond the cities.[15]

Institution building for child welfare in the interest of the future nation increased. In Quito, two agencies expanded state services for the care of children's health. The Gota de

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[13] Clark, *Gender, State, and Medicine in Highland Ecuador*.

[14] Germán Rodas Chaves, *Revolución Juliana y Salud Colectiva* (Corporación Editora Nacional - UASB-E, 2014); A. Kim Clark, "Genero, Raza y Nacion," in *Palabras Del Silencio: Las Mujeres Latinoamericanas y Su Historia* (Quito, Ecuador: ABYA-YALA : UNICEF, 1995).

[15] Linda Alexander Rodríguez, *The Search for Public Policy: Regional Politics and Government Finances in Ecuador, 1830-1940* (Berkeley: University of California Press, 1985).

Leche, which dispensed sterilized milk, was considered a "curative" measure and overseen by the Junta Central de Asistencia Publica. The Casa Cuna, which gave children a place while a mother worked, was a "preventive" measure, overseen by the Sanidad. The goal was to create a structure of state care, and abandoned infants who had previously been given to domestic wet-nurses were now reassigned to a collective state facility. Authorities noted that all orphans died who were institutionalized before the age of one. A similar phenomenon was noted among other Latin American pediatricians. In Mexico, this phenomenon of technically administered state institutions was referred to as "dying from sadness."[16] Where there was no state activity, there were no state records. Despite the promises of Juliana revolutionaries that their class struggle would benefit the indigenous and remote areas of the country, hygiene bureaus and institutions of assistance remained chronically in debt and disconnected from each other through the mid-century. Public services available in the city never materialized for the people, often indigenous and uncounted, living in remote communities. While neglect left people without health services, at the same time modern public health legitimized the identification of their neglect. The modernizing of the state continued the liberal nation-building project of *blancamiento*, or whitening. Liberal landowners had enslaved indigenous people to work on haciendas and plantations while they launched a campaign for a single national *raza*. Unlike biological constructions of race taking shape in the United Sates, where by the middle of the twentieth century race was construed as a static personal characteristic, *raza* was plastic and could be "improved" both through cultivating modern behaviors and lighter skin colors. This project had sponsored not only schools for

[16] A. Kim Clark, *Gender, State, and Medicine in Highland Ecuador: Modernizing Women, Modernizing the State, 1895-1950*, Pitt Latin American Series (Pittsburgh, Pa.: University of Pittsburgh Press, 2012); Diego Armus, *Disease in the History of Modern Latin America: From Malaria to AIDS* (Durham: Duke University Press, 2003).

the indigenous, but also legitimized rape of dark skinned women by light skinned men, the cloistering of light-skinned women to domestic spaces, and the neglect of darker skinned people who were said to be hardier and less in need of care. Missionaries had kidnapped indigenous children with the beneficent goal of raising them to be civilized. [17]

Claims that the people in remote regions did not need or want care were contradicted by the people actively demanding their rights, often doing so in the name of infants. To escape the derogatory assumptions about the "Indian" identity and the need for "whitening," indigenous people adopted the class-based identity of "workers" but continued to use paternalistic rhetoric to plea for the attention of the State.[18] Their letters filtered into the offices of the Director of the Sanidad in Quito. The president of the Committee to Defend the Rights of the People complained of poor conditions in the areas outside the city in Baños and Tungaragua.[19] In Mera and Canelos, another plea arrived on the desk of the Sanidad director from Puyo, there was no permanent doctor so it was hard to follow a rigorous public health program. "We're speaking in order to end the criminal need of elemental knowledge of hygiene, above all puericulture."[20]

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[17] Frank Salomon and Stuart B. Schwartz, "Andean Highland Peasants and the Trials of Nation Marking During the Nineteenth Century" (Cambridge University Press, 1999); Barry J. Lyons, *Remembering the Hacienda: Religion, Authority, and Social Change in Highland Ecuador*, 1st ed., Joe R. and Teresa Lozano Long Series in Latin American and Latino Art and Culture (Austin: University of Texas Press, 2006); Elizabeth F. S. Roberts, *God's Laboratory : Assisted Reproduction in the Andes* (Berkeley: University of California Press, 2012); Nancy Leys Stepan, *"The Hour of Eugenics": Race, Gender, and Nation in Latin America* (Ithaca, NY: Cornell University Press, 1992); Rodrigo Fierro Benítez, *El cóndor, la serpiente y el colibrí: la OPS/OMS y la salud pública en el Ecuador del siglo XX*, 1. ed. (Quito, Ecuador: sn, 2002).

[18] Marc Becker, *Indians and Leftists in the Making of Ecuador's Modern Indigenous Movements* (Durham: Duke University Press, 2008).

[19] Presidencia de Comite Defensivo de los Derechos del Pueblo. July 13, 1933. SA-0687. MNM.

[20] Servicio Sanitario de el Puyo, Informe, 1945. SA-0657_2111. MNM.

Baumgartner's expectations had been built on the frames of a different history. She carried a travel book, the *New World Guides to the Latin American Republics,* which presented a placid image of the national context.[21] This travel book was produced by the Coordinator for Inter-American Affairs, the same agency designing the Maternidad she would visit. A review at the time of publication made clear that the purpose of the guides was to "create a demand" for international exchange, a partial explanation for the pleasant spin given to fraught moral and political violence through the guide.[22] "The majority of Ecuador's presidents have been patriotically devoted to the development of their country, and a number of them have made really great contributions to its cultural and economic life," the guide asserted. "If they have not been completely successful in obtaining their objectives it must be said that their task was probably greater than that offered by any other South American republic, for topographical and climatic contrasts occur in close juxtaposition in Ecuador, with a resultant lack of homogeneity among the common people." The people of the city were rendered into quaint sights, their existence "living at the fringes of the city" rendered into a form palatable to tourists, referring to them as artisans who "handmade" the "pleasing" adobe houses and hats for those who lived in the city. "One of the most vivid sights is that of the Indian men wearing bright red ponchos and white trousers, with long pigtails dangling to their waists, who hold the Incaic office of capariches or street cleaners," noted the guide. Describing the enslavement of the highland Indians in the agrarian hacienda system that began with the colonial period, the book explained that, "since the Ecuadorian Indians had been working for Incaic masters for a long time, this was no novelty. They

[21] Hanson, *The New World Guides to the Latin American Republics.*

[22] "Review of The New World Guides to the Latin American Republics. Sponsored by the Office of the U. S. Coordinator of Inter-American Affairs."

readily became Christianized, and the religion of Spain has never since lost its hold on them."[23]

Medical care was not among the social responses to infant mortality in Quito. Care of newborns was the responsibility of families and communities, and the rituals of care included spiritual practices that ministered to the pain of loss. Local conventions held that, so long as an infant had been baptized before the time of death, it would transition from life to the status of *angelito*. Conserved across Latin America and shared across boundaries of not only region but also privilege and ethnicity, the cultural form of the *angelito* traced to Spain's Andalucian region, where traditions reflected a Mozarabic influence. In early encounters of Spanish colonials and the indigenous of the New World, infant loss was devastatingly high, and the *angelito* status became a source of coping to grieving families and communities, bridging the pain of absence with the promise of eternal life. Mothers were encouraged to not mourn their lost infants as dead, but to celebrate them as new *angelitos*. Noted anthropologist Elsie Clews Parson, studying the Peguche outside of Quito in 1945, noted that infants who were lost without a baptism, whether stillborn or living, became *auca*, spirits who could bring harm to the community through blight, drought or other kinds interference with the environment.[24] While Baumgartner questioned the medieval preoccupation with souls over bodies in western histories of medicine, she was fascinated

[23] Virginia Creed, "Ecuador," in Hanson, *The New World Guides to the Latin American Republics,* 3-17; Ronn F. Pineo, *Ecuador and the United States: Useful Strangers*, The United States and the Americas (Athens: University of Georgia Press, 2007).

[24] Deborah Poole, *Vision, Race, and Modernity: A Visual Economy of the Andean Image World*, Princeton Studies in Culture/Power/History (Princeton, N.J.: Princeton University Press, 1997); Birte Pedersen, *Entrada al cielo: arte funerario popular de Ecuador* (Donostia-San Sebastián, Spain: Nerea, 2008); Elsie Worthington Clews Parsons, *Peguche, Canton of Otavalo, Province of Imbabura, Ecuador: A Study of Andean Indians*, University of Chicago Publications in Anthropology. Ethnological Series (Chicago, Ill.: University of Chicago Press, 1945).

with anthropological studies of spiritual acts of care in what she called "primitive" societies, citing Margaret Mead.[25]

In Loja to the south of Quito, photographer J. Reinaldo Vaca Piedra captured the experience and affect of these rituals. Vaca Piedra photographed family life between 1925 and 1950.[26] In his collection, hundreds of images of *angelitos*, fashioned in iconographic religious poses, stare out from the frame. In some pictures, it appears that families brought their *angelitos* to his studio to be photographed. Other photographs suggest he himself traveled to homes where *angelitos* had been posed for witness. Two of Vaca Piedra's photographs frame the inside of homes where an infant, dressed in a white gown, is propped on a table decorated with lace, calla lilies, and candles. Two women stand beside the baby, facing the camera with hard stares. In the other, two men and one woman appear to admire the infant while a second woman, standing closest to the infant, looks at the camera with wide open eyes.[27] After 1950, Vaca Piedra's photographs filtered north from Loja to Quito, eventually digitized into a database accessible in the Ministerio de Cultura.

Even without systematically collected data, local authorities raised no argument against estimates that Ecuador had one of the highest rates of infant loss in the Latin American world.[28] The League of Nations Health Organization had communicated the urgency of having statistics from Ecuador to include in its reports. But in the files of the Asistencia Publica and the Sanidad, the records of infant mortality remained fragmentary

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[25] LB, History of Child Hygiene (fragment): 1. 1951. Box 9 Folder 23, LBP

[26] Rosa Ines Padilla Yepez, ""Cuando Se Muere La Carne El Alma Se Queda Obscura:" Fotografia Post Mortem Infantil En La Ciudad de Loja (1925-1930)" (Facultad Latino Americana de Ciencias Sociales Sede Ecuador, February 2014).

[27] Colección de Fotografía (digitál). Ministerio de Cultura. Quito, Ecuador. Visited June, 2012.

[28] Clark, *Gender, State, and Medicine in Highland Ecuador.*

even through 1950, when the country attempted its first national census. Health authorities, while noting egregious loss of infant life, nevertheless remarked that Chile, held up as the example of advancement to other Latin American nations and having had decades of serious investment in its institutions of public health by the Rockefeller Foundation, had an even higher infant mortality rate.[29] In Chile, physician Salvador Allende, too, was pointing to the infant mortality rate as he led a shift in Chilean social medicine from the apolitical approach of the North American foundations to more revolutionary political and social reforms.[30]

Compared to other countries in the region, the international presence in Ecuador had been minimal in the 20th century. Ecuador had been the last country to be free of yellow fever and the eradication campaign in Guyaquil had soured relations with the Rockefeller Foundation, which invested less in Ecuador than other Latin American regions. Multinational U.S. fruit companies did not yet have interest in Ecuadorian crops. When the American Economic Commission offered loans during the recession of the 1930s, the state did not abide the contingencies on the loans or repay them, and tensions grew over financial and political debts.[31] Even as the Servicio was being established the United States Navy was evacuating a military base established on two islands in the Galapagos after attempting to replace an initial agreement to pay $20 million with favorable terms on an Export-Import Loan to be used for potable water, arguing that the "islands would be a fitting contribution

[29] Delegation of Ecuador in Chile to DG of Sanidad, Flyer "sabia usted?" SA-0646, 0591, MNM.

[30] Howard Waitzkin et al., "Social Medicine Then and Now: Lessons From Latin America," *American Journal of Public Health* 91, no. 10 (October 1, 2001): 1592–1601; Armus, *Disease in the History of Modern Latin America*.

[31] Pineo, *Ecuador and the United States*; Jorge Icaza, *Huasipungo. The Villagers, a Novel.*, Contemporary Latin American Classics (Carbondale: Southern Illinois University Press, 1964).

of Ecuador to hemispheric security."[32] Public sentiment was against giving the United States the islands, and the U.S. Americans were asked to leave. They did, dumping jeeps, radios, telephones, refrigerators, and ovens into the sea and hauling away the rest of the physical plant.

In the records of the city health services, these conflicts and tensions led to efforts to keep inefficiencies hidden from outsiders. "In the office corresponding to the Maternal Infant Service of Pichincha," wrote Dr. Carlos Manuel Garcia Velasco, "it can be seen daily the indolent meeting of employees that don't have anything to do." Imported equipment that people needed to do their expected work regularly broke down, from telephones to punch cards to ambulances, with no ready means of repairing them. Since no solution was forthcoming, Garcia Velasco proposed prohibiting these gatherings "which, to outsiders, give the idea of an excess of personnel without obligations." The nurses of Pichincha, he said, could "wait for their work in the director's office."[33] This was a process of demoralization that occurred across public health programs in the city.

Engineering a Demonstration

Even before the end of World War II the idea of the New World Order was in motion, constructing programs and institutions in which the sciences and technologies of health were envisioned as politically neutral utilities that could drive social development and markets. Guided by liberal values, these programs would foster not only egalitarian but also open and stable societies. Health experts from the United States, many of them supported by

[32] Pineo, *Ecuador and the United States*., 28.

[33] Carlos Manuel Garcia Velasco to Jose Gomez de la Torre, Technical Inspector of Sanitation, letter, November 4, 1946. SA-0806_2321, MNM.

Rockefeller initiatives in mid-20th century social medicine, played a significant role in developing these visions. While *Life* magazine showed images of Europe rebuilding itself from rubble and hungry masses forming food lines across Europe and Asia, the United States emerged the most economically stable Allied nation, in a position of responsibility to avoid the consequences of the kind of peace that had been forged after World War I. With surplus airplanes, a bloated industrial capacity, and businesses seeking new markets to maintain growth, the New World vision had both political and financial support. At the same time, the United States public was coming to have an increasingly quantitative approach to conceptualizing and comparing themselves to other societies at distances and scales greater than what an individual could perceive. Seeing poverty in photographs and statistical charts, the public assumed that the same New Deal innovations that they widely believed had solved poverty in the United States would be effective for solving poverty elsewhere. Medical technologies that had been tested during the war, from antibiotics to chemical agents against malaria and other pests, were mobile and exportable.[34]

The creation of the Institute for Inter-American Affairs was a diplomatic reaction to a panicked moment. Following the attack on Pearl Harbor in December 1941, the U.S. State Department convened an emergency meeting of the Ministers of Foreign Affairs of the twenty-one American states in Rio de Janeiro in January. These ministers, convinced that healthcare was a neutral utility that all could agree was important, decided on bilateral health agreements as an instrument for furthering "security and prosperity" of the hemisphere.[35]

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[34] Stepan, *Eradication*. Sarah Elizabeth Igo, *The Averaged American: Surveys, Citizens, and the Making of a Mass Public* (Cambridge, Mass.: Harvard University Press, 2007).

[35] Public Health Service: Dept of Health, Education, and Welfare, *10 Years of Cooperative Health Programs in Latin America*, ix. Drawing from Diario das Sessoes de Tercera Reuniao de Consulta dos Ministros dos Reacaes Esteriores dos Republicos Americanos, 1(1-17), 15 Janeiro – 7 Fevereiro 1942. Rio de Janeiro. RG 287 NARA.

The Institute of Inter-American Affairs was formed within the State Department, and within that the Division of Health and Sanitation. This Division was to operate by cooperative agreement with the collaborating Health Ministry. The operational units, Servicios Cooperativos Inter-Americanos de Salud Publica, promised technical assistance in the areas of health, not only building facilities and programs modeled on the state of the art practices in the United States but also placing expert advisers in the local government ministries. The specific projects were to be worked out locally; the intention was to be decentralized, non-imperial, and particular to wants and needs.

The idea of a bilateral agency sponsoring international health and science work had been anticipated for several years. For several years New York Governor Nelson Rockefeller had been lobbying the federal government for a Coordinator of Inter-American Affairs, a position he hoped to fill himself in order to build upon regional investments of the Rockefeller Corporation and other United States businesses and philanthropic foundations. A wartime demand for rubber, combined with anxiety about Nazi presence in the "back yard" of the United States seeking the same, had piqued interest in closer ties to Brazil and Ecuador in particular. The borders of these countries drew together major portions of the Amazon. The antecedent ideas shaped the priorities and design of the new programs. Drawing on Rockefeller social hygiene and sanitation projects, the IIAA could afford an unprecedented scale of operations and promise not public hygiene projects but also advanced medical care.[36] Matching the social health vision of the administrations immediately following the Julian Revolutions, these services also provided a means of controlling infectious disease among workers at potential rubber extraction sites. Technical

[36] Anne-Emanuelle Birn, *Marriage of Convenience: Rockefeller International Health and Revolutionary Mexico*, Rochester Studies in Medical History ; [v. 8] (Rochester, N.Y.: University of Rochester Press, 2006).

health interventions, backed by a confidence in American "know-how," had particularly transformative potential in the eyes of the designers of the New World Order. "The bilateral health device," the U.S. Public Health Service's evaluation of the Servicio program read, "was recognized and recommended as a means for closer ties and more effective inter-American cooperation."[37]

Collaborators regularly referred to the Servicio as a "cooperative demonstration project," a term whose meaning among United States health experts was historically grounded. In the years following World War I, philanthropic foundations like Kellogg, the Commonwealth Fund, the Rockefeller Foundation, and the Milbank Memorial Fund had staged "demonstrations" to experiment with social reforms, identifying promising "innovations" that had been effective on a small scale and bringing them to the attention of the public. Some demonstrations operated on a logic of exhibition, presenting attractive innovations and expecting them to diffuse into wider public use. The public health demonstrations Baumgartner knew best, however, operated on a policy-oriented logic of modeling, with a goal of convincing policy makers to replicate new social policies on a larger scale. These demonstrations provided education to shepherd citizens towards a desired behavior, but also shepherding the public officials with the authority to institutionalize the changes, and training health professionals to do community work. New approaches introduced at the scale of whole communities were learning opportunities, revealing what could go wrong in translation of attractive ideas into policy and practice, and how much such interventions cost. In the long run they were intended to prove the worth of the

[37] Public Health Service: Dept of Health, Education, and Welfare, *10 Years of Cooperative Health Programs in Latin America*, 2.

approach to policymakers.[38] Later in Baumgartner's career, these demonstrations would come to be redefined as "trials," but Baumgartner understood these to be "training" programs. Calling the demonstrations "research" projects was a means of attracting the interest of scientifically oriented individuals.[39]

The language of cooperation and the practice of shepherding had survived as an artifact of the settlement movements of the past century which were so in tune with Baumgartner's own ethic and the much older notions and practices of care on which these drew. Against the backdrop of class segregation in industrial societies and a charity movement guided by values of efficiency, liberal holistic movements based on humanistic, egalitarian values had gained traction and surfaced around the world in the second half of the 19th century. The cooperative ethic informed not only urban settlement movements but also "extension" work in which volunteers traveled to remote regions to provide education on modern scientific techniques from agriculture to hygiene.[40] In response to the dominant evolutionary theories rationalizing unregulated capitalism, in which competition was the key to survival, Russian extension worker Pieter Kropotkin formulated a cooperative theory of

[38] Peter Buck, "Why Not the Best? Some Reasons and Examples from Child Health and Rural Hospitals," *Journal of Social History* 18, no. 3 (April 1, 1985): 413–31. Daniel M. Fox, "The Significance of the Milbank Memorial Fund for Policy: An Assessment at Its Centennial," *Milbank Quarterly* 84, no. 1 (March 1, 2006): 5–36.

[39] Julia Bess Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962: With a Bibliography of Her Published Work, 1926-1972" ([New Haven, Ct.], 1977).

[40] For useful overview and collection of sources, see: G. E. Jones and C. Agricultural Extension And Rural Development Dept) Garforth, "The History, Development, and Future of Agricultural Extension" (FAO, 1997).

evolution. His theory, in which "mutual aid" was the essential strategy to survival and growth in contexts of scarcity, grew popular among the settlement workers.[41]

In the United States, the late 19th century settlement movement took on particular forms in cities around the country depending on the particular context and leadership of each locale, but shared a vehement commitment to secular work so as not to exclude the diverse residents of their neighborhoods by sect. From Chicago's Hull House, where Jane Addams led most famous settlement, to the Henry Street Settlements in New York to the West End Settlements in Boston, the settlement leaders agreed that their shared goal was to "become a 'Social Center for Civic Cooperation' and a rallying point for reform."[42]

Even as practice was secular, the vision of a cooperative society was based on theological principles. Jane Addams, for example, was a practicing Quaker. The Christian priority to the most vulnerable in Society and the notion of self-help, values espoused by Addams, also informed Baumgartner's antipathy for the term "foreign aid." Aid, Baumgartner would argue throughout her career, was a misleading way to characterize what she believed must be an interdependent project if it was to foster an egalitarian society. Though Baumgartner led a largely secular life, only joining a Unitarian Universalist church after she moved to Boston at the end of her career, she claimed to have learned her egalitarian values and spirit of volunteerism from her Mennonite parents. It had made an impression on her peers in Lawrence, Kansas, who voted her "most likely to save the world" in her high school yearbook. At the end of her career, even as her particular strategies for

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[41] Petr Alekseevich Kropotkin, *Mutual Aid: A Factor of Evolution* (New York: McClure, Philips & co, 1902).

[42] Allen Freeman Davis, "Spearheads for Reform the Social Settlements and the Progressive Movement, 1890-1914" (1959, 1959), 17. Citing Taylor, "A Social Center for Civic Cooperation: Chicago Commons," Commons, IX (Dec. 190), 585-94 and Mary McDowell, "Social Settlements: A Descriptive Definition," Commons, v (Aug 1900), 5-6.

reform became tired and friable, Baumgartner would still insist that people must be free to "make their own mistakes," echoing the insistence Addams' had voiced that people "must save themselves."

Settlement workers made use of both statistical survey and social investigation in their work. With statistical descriptions of an identified problem, like infant mortality, the workers would follow up on qualitative inquiries into the conditions where survey indicated problems, using their findings to bring problems to the attention of public authorities. When new institutions formed, the settlement workers were installed as directors based on their special knowledge of the problems. The Children's Bureau, for which settlement worker Julia Lathrop was the first director, was one success of this strategy, which also gave women access to political leadership in an otherwise repressive society.

Historical changes in the early 20th century gradually reanimated social work with an engineering rather than a social spirit. Leaders of scientific charity organizations had long criticized the settlement movement as being unscientific and sentimental, vague, and offering mere "cultural comfort stations;" one dubbed the movement a "weak solution of Ruskin, Prince Kropotkin, and Florence Nightingale."[43] But the challenges to settlement ideals were also not only external criticism. Through the economic crises of the early 20th century the settlements found it hard to avoid providing charity: friendly cultural cooperation was hard when some people were starving and others were not. Addams tried to institute a charity referral system for the settlements to keep this sense of patronage separate from settlement work, but by the early 20th century, amidst economic depression and new waves of immigration, the settlement movement increasingly adopted the terms of charity.[44] As society

[43] Ibid.

[44] Ibid.

mobilized for World War I and concerns about fitness inspired pugilistic culture, making pacifism unpatriotic, Addams's open and strictly non-antagonistic ethics fell from public favor.[45] The cooperative spirit of the settlements changed as social ways of knowing institutionalized as social science at the University of Chicago.

Progressive foundations across the United States after World War I combined social science with the logics of total coordination that had gained prominence in military operations to launch "demonstration projects" across the country to stimulate government reform. Drawing on a theory of control developed in mathematics and engineering as a model, the demonstration project analogized the settlement workers' Center for Civic Cooperation to a signal source in an engineered network, whose output registered at the citizen. In control theory, the goal was a stable system, which could be achieved by regulating signals in accordance with feedback.[46]

Health demonstration projects led by the Milbank Memorial Fund in New York City had a political agenda. Arthur Milbank, his chief executive John Kingsbury, and their allies in government set up demonstrations to show political authorities not only the benefits of integrating health and social services for whole communities, but also the value that improved health could have for both productive life and for the political organizations and individuals who supported it. In 1921, Rockefeller Foundation president George Vincent had declined the invitation to participate in these early demonstration projects, fearing they would "raise the question of the standard of living, distribution of wealth – the whole social

[45] Jean Bethke Elshtain, *Jane Addams and the Dream of American Democracy : A Life* (New York: Basic Books, 2002).

[46] David A. Mindell, *Between Human and Machine: Feedback, Control, and Computing before Cybernetics*, Johns Hopkins Studies in the History of Technology (Baltimore: The Johns Hopkins University Press, 2002), http://nrs.harvard.edu/urn-3:hul.ebook:NLIB_75849.

question."[47] Indeed, the leaders of the initiative asserted, raising the whole social question was the point. Demonstrations like these focused on the touchstone social health problems: tuberculosis control and prevention, services for pregnant women, prevention for infants and children, and new attention to cancer and cardiac difficulties.

The settlement methods were developed for demonstration needs and priorities. Making use of surveys in part to identify areas where needs existed, demonstration designers also deployed surveys to identify areas where demonstrations intended to sell their approach to the public would succeed and be measurable.[48] Social sciences were put to work not only learning about local conditions, but about whether programs were working. Politically savvy, the foundation officials worked with city officials behind the scenes so as not to challenge their local authority. Public health advocates like Hermann Biggs, who needed to think about practical realities as New York State Health Commissioner, identified value in the demonstrations not only because they showed if tuberculosis control was possible, for example, but also because they enabled a projection of how much such an undertaking would cost. Health service financing emerged in the purview of public health demonstration in the 1920s.[49]

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[47] Fox, "The Significance of the Milbank Memorial Fund for Policy, 11." Citing letter from Vincent to John D Rockefeller, December 21 1921, Rockefeller Family Archives RG 2, Medical Interests Series, Box 17, Folder 134, RAC.

[48] Buck, "Why Not the Best?" Elizabeth Toon, "Selling the Public on Health: The Commonwealth and Milbank Health Demonstrations and the Meanings of Community Health Education.," in *Philanthropic Foundations: New Scholarship, New Possibilities* (Bloomington: Indiana University Press, 1999), 119–30.

[49] This was a project of Biggs that emerged over time. See: Hermann Biggs, "Public Health Is Purchasable," *Monthly Bulletin of the Department of Health of the City of New York* 1, no. 10 (1911): 225–26. Daniel M. Fox, "The Significance of the Milbank Memorial Fund for Policy: An Assessment at Its Centennial," *Milbank Quarterly* 84, no. 1 (March 1, 2006): 5–36. Arthur Newsholme, *Red Medicine: Socialized Health in Soviet Russia* (Garden City, N.Y.: Doubleday, Doran, 1934).

In the 1930s, foundations sponsored not only demonstrations, or applied research, but also books and photographic studies. As part of a broader project on health systems, for example, the Milbank Fund sent Arthur Newsholme and photographer Margaret Bourke White, who would later launch a career with *Life* magazine and cross paths with Baumgartner repeatedly over the globe, to the Soviet Union, where they observed centralized health services and published the laudatory and controversial book *Red Medicine*.[50] The Social Sciences Research Council hired anthropologist Margaret Mead to produce a book investigating cooperation and competition in "primitive" societies.[51]

Whether they were willing to take on the "whole social question" or not, important philanthropic foundations in the United States, including the Milbank Memorial Fund, the Rockefeller Foundation, the Kellogg Foundation, and others, now became involved in international health organizing. With the participation of the deputy director of the League of Nations Health Organization, Milbank research on health indicators supported the notion -- widely shared among international health experts -- that collectivizing and coordinating health care services was in the interest of productive societies and should be informed by advances in biology and social sciences.[52] Even while agreeing ideally in this positive health vision, the specialty of social medicine attracted fewer adherents than clinical medicine and was not institutionalized in most countries. Without support, U.S. and European physicians in social medicine specialties "found it prudent to avoid controversial public debates about

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[50] Fox, "The Significance of the Milbank Memorial Fund for Policy." Newsholme, *Red Medicine*.

[51] Margaret Mead, *Cooperation and Competition among Primitive Peoples,* 1st ed., McGraw-Hill Publications in Sociology (New York, London: McGraw-Hill Book Company, 1937).

[52] Paul Weindling, *International Health Organisations and Movements, 1918-1939*, Cambridge History of Medicine (Cambridge [England] ; New York, NY, USA: Cambridge University Press, 1995).

how physicians' services should be organized and financed."[53] Though foundations claimed to remain interested, it became common to construe their international demonstrations as ostensibly apolitical "studies" towards the economic ends of productivity and budgeting. The particular areas of interest identified for these study-interventions were population and demography, food and nutrition, and community-based mental illness.

Baumgartner was intimately aware of the demonstration projects, crucial features of the public health landscape in New York City as she accepted her first position with the Health Department in 1938. As a director of staff training she had traveled back and forth from her office to the Health Units in East Harlem and Public Health Nursing Service sites around the city, and the health workers in these sites traveled, as Baumgartner had in the past, between the health units and homes.

When the IIAA was formed in 1942, the Servicios were envisioned as umbrella demonstrations that would administer both "impact projects," like disease control campaigns, and "demonstration projects."[54] The program acquired definition gradually, drawing on the example of demonstration projects that Baumgartner knew well. Much as they had been designed to be credited to local authorities in New York, the Servicios demonstrations were designed to be non-imperial: projects of the Government of Ecuador as much as the Government of the United States. Based on cooperative planning from the beginning, the majority of the staffing of the servicios was to be local people, trained by the Servicio. Local governments would progressively take ownership and ultimately take over the programs within two to three years, though experts would continue to be available after the termination of the cooperation to continue to advise the local government. They focused

[53] Fox, "The Significance of the Milbank Memorial Fund for Policy:" 18.

[54] Public Health Service: Dept of Health, Education, and Welfare, *10 Years of Cooperative Health Programs in Latin America,* 32-33.

on hygiene, sanitation, facilities, and training to address the manpower problem – all matters that Baumgartner herself was addressing with the New York City Health Department. The Servicio's central facilities in Quito were to train physicians and nurses who would then staff rural but centrally coordinated programs.

Still, there were meaningful differences between the methods of demonstration Baumgartner knew and the approach of the Servicios. The Servicio program was launched with unprecedented funding but without any prior survey of local conditions for either site selection or planning. In part a reflection of urgency, the foregone survey also reflected confidence among the designers that they knew how to address the problems. In part a conviction that technical health aid was politically neutral, this confidence also stemmed from the cooperative design, which was itself a source of local knowledge. The U.S. Secretary of State and Ecuadorian Minister Counselor of the Ecuadorian Embassy agreed that a small group of American experts "under the immediate direction of the Chief Medical Officer of the Office of the Coordinator of Inter-American Affairs" would be "sent to Ecuador in the immediate future" to "work in the closest cooperation with the appropriate Ecuadorian officials" to "develop a specific program" that would "contribute to the attainment of the objectives of that Government in matters of health and sanitation."[55] Anthropologists from the Smithsonian Institute of Social Anthropology were hired to study the programs as they were implemented. Led by George Foster, this group was eager to prove their relevance to technical assistance programs. Foster referred to the combination of technical assistance and social science as "human engineering."[56]

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[55] Ibid., 32-33. Citing: Sumner Wells, Bilateral Agreement conveyed to Eduardo Salazar, 24 February 1942.

[56] Smithsonian Institution. Institute of Social Anthropology, *A Cross-Cultural Anthropological Analysis of a Technical Aid Program* (Washington: Smithsonian Institution, 1951): 1."This paper

After World War II, interest grew in the "cybernetic" metaphor that construed the biological world mechanically, as a physical plant or system that could be steered. This metaphor had attracted the interest of not only biologists and physicians interested in institutionalizing a field of social medicine but also management theorists in business and anthropologists like Margaret Mead and Gregory Bateson.[57] Baumgartner knew this language from the management theories she was learning in the early 1950s, but attempted to correct herself when she used the contemporary cybernetic discourse to talk about demonstration projects and social medicine more generally. In her speech drafts from late 1951, when she discussed interventions on the "total environment," she crossed out her initial words about "attempting to regulate it." Revising, she wrote, "attempting to study it and modify it – not just look to those who suffer because of it." She evidently struggled to find the right way to express herself; she crossed out the latter part and changed her references to suffering to less compassionate language. "So that med need no longer supply," she tried writing, before crossing out the whole page with a sweeping scribble.[58]

By 1949, the IIAA Servicios were the model for a wider reaching technical assistance program directed at what had come to be called the "Third World" – a term that referred to

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deals with some of the theoretical implications of the growing social science of what may be called "human engineering."

[57] Steve J. Heims, *The Cybernetics Group* (Cambridge, Mass.: MIT Press, 1991); Agatha C. Hughes and Thomas Parke Hughes, *Systems, Experts, and Computers: The Systems Approach in Management and Engineering, World War II and After*, Dibner Institute Studies in the History of Science and Technology (Cambridge, Mass.: MIT Press, 2000); Geof Bowker, "How to Be Universal: Some Cybernetic Strategies, 1943-70," *Social Studies of Science* 23, no. 1 (February 1, 1993): 107–27.

[58] LB, American Public Welfare, Staten Hotel Speech, 1951. Box 39, Folder 2, LBP.

the "unclaimed" poor nations contested in Cold War theaters.[59] Suggested by a press officer for the IIAA in Brazil who had come to work in the White House, the "Point IV" program was announced by President Truman as the fourth point of his State of the Union address. Called a "mutual aid" program, in parallel to the Soviet aid programs descendent from Kropotkin, intended to promote social development and markets through technical assistance. Not just a matter of reconstruction, the Point IV Program intended to win the "hearts and minds" of the "miserable primitive" people of the world by "modernizing" both economies and the mentalities of the people living within them. Baumgartner had noted, in 1951, the extraordinary interest in "healthy personalities" she had observed while at the Children's Bureau in 1950. Despite the program's profound scope, designers of Point IV confidently expected, based on the success of the Marshall Plan, that the human development project would work quickly and universally.[60]

The Maternidad, hailed as a demonstration project, had been built on these confident postures and filled with their anxious hopes. Contracted in 1943 with the signatures of Leopoldo Chavez, Minister of Social Prevision, and engineer Wyman R. Stone, director of the Servicios Cooperativos Internacionales de Salud Publica (SCISP) program, hospital construction had begun energetically under the supervision of Ecuadorian engineers Luis Sanchez, Nelson Penafiel, and Whyting and Rafael Pazmiño. The facade was to be three stories high, freshly painted white, with a glassed-in balcony above the entrance. Inside it was to be equipped with technologies representing the state of the art in maternity hospitals in

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[59] The history of the term is currently explained in Chapter 3.

[60] Samuel Hale Butterfield, *U.S. Development Aid--an Historic First: Achievements and Failures in the Twentieth Century*, Contributions to the Study of World History ; No. 108 (Westport, Conn.: Praeger Publishers, 2004); Frederick Cooper and Randall M. Packard, *International Development and the Social Sciences: Essays on the History and Politics of Knowledge* (Berkeley: University of California Press, 1997).

the United States. With two operating rooms, a nursery, a kitchen, a laundry, a steam plant, a water softening plant, an autoclave, 163 beds distributed across common public rooms and private rooms with luxury service for the "women of high society in the city," the project promised to be "organized and administered in accordance with modern standards and be furnished with a technical staff and sufficient qualified personnel to assure its correct operation."[61] Design and construction, amounting to 6,375,000 sucres ($475,746), was paid for by the budget allotted to the Servicio by the US State Department's Institute for Inter-American Affairs. Because Ecuador, unlike most Latin American countries, had never organized a central ministry of health, the Ecuadorian commitments to the project were to be funded and administered by the Junta Central de Asistencia Publica. The projected operating budget for the first year, to be shared between JCAP and the Servicio, was 1,906,000 ($142,238), with the United States paying 800,000 sucres ($59,701) and Ecuador 706,000 ($52,686) – the remaining 37%.

So Coordinated It Needs to Work

In the early years of the contract, sewers were built in Quito and a water purification plant was set up, but nonetheless the demonstration project quickly ran into problems at the Maternidad. Three years after Chavez and Stone had signed the project into motion, the Maternidad construction had stalled in its scaffolds on nagging doubts from the project directors that there would be sufficient trained human resources to staff the hospital when it opened. At the same time that the maternidad was being built in the city, the rise of nationalism added yet another revolution to a quarter century encompassing twenty-nine presidencies, a civil war, a war with Peru, and popular riots. Another attempt to organize a

[61] Project Agreement ECUA-48-Q, Museo Eduardo Estrella, AP-0395_1065, MNM.

Ministry of Public Health failed in 1948 under regional objections from Guyaquil on the coast. Port interests were concerned about regulation and diversion of economic contributions received as part of sanitation campaigns by agricultural industrialists. With external interests in the Ecuadorian economy not prioritizing the people's health, and lack of organized social demand, there was little power behind the movement for a ministry.[62] After a two-year pause, construction on the hospital was restarted. Nonetheless, it was still unclear there would be enough trained people to operate the hospital, the situation was improving enough to go forward optimistically.[63]

As Servicio funds funneled into unexpected construction costs and manpower shortages remained painfully evident, there was an ongoing debate over whether medical services could reasonably be extended to the rural areas of the fractured and unstable nation. "Trust us," one letter from a rural community to the Director of Sanitation in Quito begged and warned, "that the sanitary authorities are convinced that the rural experiment is worth taking it into account, and is a labor not only generous for the abandoned people but also the only rational way of understanding anything about the national reconstruction."[64]

The World Health Organization watched the development of the Servicio programs, and wrote optimistically in 1951 about the prospects of the coordinated approach. The "world health consciousness" was growing with a "broadening of the general concept of the right to health," WHO director Brock Chisholm wrote in the annual report addressed to the World Health Assembly, its funding body. "Not only has the year produced much evidence that the improvement of health is more clearly conceived as a vital element in economic and

[62] Fierro Benítez, *El cóndor, la serpiente y el colibrí.*

[63] Boletin Informativo de la Junta Central de Asistencia Publica de Quito, January-March 1951, 47, MNM.

[64] Informe de Servicio Sanitario de El Puyo, 1945. SA-0657 – 2111, MNM.

social development," he wrote. "Countries are also adopting much more frequently than hitherto what may be termed the 'co-ordinated approach' to health matters themselves." He lauded the attention to not only prevention campaigns but also the construction of facilities. "More authorities," he wrote, "are becoming aware that many campaigns for the eradication of diseases will have only temporary results if they are not followed by the establishment of permanent health services in those areas, to deal with the day-to-day work in the control and prevention of disease and the promotion of health."[65]

Though there was reason for optimism, as well as the need to convey it at the international meetings, in Quito there were also early signals that the structures and expectations of coordination did not fully align with local priorities, meanings, and determinants. Local pediatricians expressed anxious doubts as the expectation became clear that this would be a hospital not only for mothers but also for infants themselves. Though there were many longstanding responses to infant mortality in Ecuador, medical care was not one of them. This was not for lack of sense or awareness that infant loss was causing suffering. Yes, it was extraordinarily prevalent, yes it was an increasingly important metric of international comparison, cried an article in *Pediatria Ecuatoriana* in 1947.[66] The statistics might have passed unnoticed by the grand majority, but they were available in the press and known all too well to the profession being held responsible for them. "It's really lamentable to have to record and know the elevated percentage of infant mortality," wrote one physician, Dimas Burbano Bowen. He argued that in *nuestra realidad* -- our reality -- therapies

[65] World Health Organization, *Official Records of the ... The Work of WHO, 1951. Annual Report of the Director-General to the World Health Assembly and to the United Nations.* (Geneva: Geneva, 1952), 1-2.

[66] Dimas Burbano Bowen. "La Defensa Biologica y Social del Nino Ecuatoriano." *Pediatria Ecuatoriana* Ano 1 No 2. August 1947. MNM.

reasonable elsewhere were unreasonable in Ecuador.[67] "Lives in bloom that are cut in enormous proportion in spite of valiant efforts of doctors and specialists. But what can the professional do against the Dante-esque [sic] painting of a little one unprotected, undernourished, not to mention abandoned, that doesn't respond in the majority of cases to his efforts and sacrifices? What can a professional do when a weak, raquita and sickly nature put in his hands, doesn't react to the action of medications and specifics that he administers?"[68]

Some called for services they saw utilized elsewhere. Pediatricians had just organized into a society in 1944 in Ecuador, much later than other countries in the region, but having long attended international conferences and watched their colleagues, particularly those in Chile, work with international funds, they knew of the social hygiene and sanitation measures that had characterized Rockefeller health interventions elsewhere on the continent. Pressure to take on the responsibility of curative care for infants was in Burbano's estimation the "result of the incomprehension of many who haven't come to appreciate the most beautiful postulate of preventive medicine: protect and prevent before cure."[69] Those who had "a perfect understanding of our reality" – he noted, for example, the President of the Sociedad Ecuatoriana de Pediatria Dr. Carlos Andrade Maria -- understood the need for education and prevention. How education could proceed, however, was also contested. In remote regions, physicians argued that extensions were essential to learn about what was

[67] Roberts, *God's Laboratory*. Roberts discusses this concept of nuestra realidad in conversation with Margaret Lock's local biologies and Bruno Latour's discussion of the global and the local. See: Margaret Lock and Vinh-Kim Nguyen, *Anthropology of Biomedicine, An* (John Wiley & Sons, n.d.); Bruno Latour, *We Have Never Been Modern* (Cambridge, Mass.: Harvard University Press, 1993).

[68] Dimas Burbano Bowen. "La Defensa Biologica y Social del Nino Ecuatoriano."

[69] Dimas Burbano Bowen. "La Defensa Biologica y Social del Nino Ecuatoriano."

needed for nation building. But Burbano called for technical aid provided by Rockefeller programs elsewhere on the continent: "an amplified campaign of cultural diffusion by press and radio, about preventive and hygienic ways that we could diminish the elevated percentage of infant mortality."[70]

The men of the Asistencia Publica saw enormous value and a grave dilemma in the medical services that the Maternidad portended. Behind the closed doors of their regular meetings, they discussed about the Maternidad with frustration a few months before it opened. The idea of increasing costs at a moment of economic recession appeared absurd. The project would nearly triple the costs of the old maternidad in the city from "something like 150,000" to "something like 437,520 sucres" even before the annual increases in personnel took place.[71] "Respectfully," Francoso began, "I don't know if the treasury of the junta is actually in capacity to make these expenditures." He went on. "It's said the incomes are eroding, that crops are bad, that the incomes for agriculture diminish, and we are thinking about these increases. Clearly these services are indispensible that are being brought in," Froncoso articulated the dilemma, "but we also need to proceed with provident sense, by observing the incomes, and estimate with that how to diminish the expenditures where possible, in order to see if the situation improves." He proposed that that the same two residents currently staffing the old maternidad move to the new one, and that the staff increase suggested in the draft budget be denied. "Naturally, the services will not be treated to the full extent of the case, but you have to make sacrifice in this jackpot situation." The

[70] Ibid.

[71] Act No. 40, Acts of the Junta for Public Assistance. August 23, 1950, AP-0069_473, MNM.

goal was a better public service, he said, and to achieve that would require adequate employees, but they needed to "see how far we can extend the blanket."[72]

Bustamente argued back (very politely, the minutes noted) that these measures Francoso suggested in the name of cost savings might compromise the integrity and potential of the whole project. The old staff would not suit all of the new services. "In the new building there are advised special things for the time in which we live," he reasoned. "The services are divided into aseptic and acetic, which does not exist in the current maternidad; special services for debilitated and prematures have been advised." In order for the modern financing scheme to work, Bustamente added, the services would need to be exemplary. "There's a large amount of private patients that are going to pay the hospital and if it's wanted that this works, they're going to have to be well attended." This, he said, would be too much work for two resident staff. They would need at least four, and even if these four were staffed in pairs on 24-hour shifts, they would still need to attend to their own clinics outside the hospital.[73]

Bustamente saw value in measures that would make the functioning of obstetrical services, currently in constant emergency, more predictable. He liked the suggestion of a physician to staff a new Prenatal Service. As it stood, he lamented, every sick mother or child who arrived at the hospital was a surprise. A doctor devoted to a prenatal service would not only provide care to a mother and the infant, he would make a record of the mother through serological exams of the blood, inquire if she had terminated pregnancies with hemorrhage in the past, and thus instill some predictability and increasing quality in the care of patients.

[72] Ibid.

[73] Ibid., 475-478.

Francoso cut in. "Yes, I recognize the service is indispensible," he agreed. "If the Assistencia Publica doesn't look after services of so much usefulness as these, its existence has no reason."[74]

As the conversation wore on, Bustamente escalated into an essential irony of the "collaborative" effort. "This building planned by the Americans," he ridiculed, "has the great advantage of not having enough rooms." And at the same time, he continued, the hallways were so long that the doctors would spend their time uselessly moving back and forth in circles.[75] What had worked in the United States would fail, he said to his colleagues, in Ecuador.

"Here is the serious point," Dr. Polit focused attention on the progressive local ownership of the program. "The cooperation of the Servicio Cooperativo, at the beginning is almost total, later is made partial, and at all times requires a commitment from the institution, principally concerning maintenance. All this is very good," he said, "because it signifies progress."[76] At the same time, he said, the project did have serious repercussions for the finances of the Asistencia Publica. As they revised their projected budget, he suggested, they should include only the minimum of expenses needed to make the Maternidad work.

To Polit, there was no choice but to accommodate the coordinated, modern plan. "If unable to cope," he posited, "the solution will be to say: we don't open the Maternidad." He immediately rescinded. "But this cannot be and frankly an effort needs to be made," he said. "It is all so coordinated, that it needs to work in agreement."[77]

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[74] Ibid., 478.

[75] Ibid.

[76] Ibid., 479.

[77] Ibid., 479.

The Smithsonian's anthropologists, studying IIAA programs in sites in Mexico, Brazil, Colombia, and Peru, had compiled their notes for George Foster. He noted that in several locations the Servicios had been surprised at the need to construct hospitals. In cities that had a more recent colonial presence, the report read, modern facilities had already existed. A significant portion of some Sevicio budgets had been "devoted to medical care rather than public health."[78] Furthermore, the anthropologists had discovered that film and other health education materials, which had been a significant aspect of international hygiene interventions in the past, were of little use in areas where the government was neither present nor trusted.

Concluding that the demonstration projects were not managing to have the effect intended on individual health behaviors in the community, Foster called for greater efforts to build a science of "human engineering" to predict and manipulate individual behavior, determining who was likely to cooperate, and how to enforce compliance. "American scientific know-how is sufficiently developed that ways of increasing food production, controlling rivers, eliminating endemic diseases and the like present no serious technological challenges," Foster wrote. "This is not the case when human beings are injected into the picture. Social scientists have made little process in uncovering the laws which govern human conduct." Foster's response was to redouble efforts to build theories of "human engineering." "The ultimate success of technical aid programs," he wrote, "depends on the ability to predict how people to be benefited will react to the proposals made to them, and how the human element may be manipulated to achieve a particular goal once it is set."[79]

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[78] Smithsonian Institution. Institute of Social Anthropology, *A Cross-Cultural Anthropological Analysis of a Technical Aid Program*, 6.

[79] Ibid.

Foster's approach, to predict reactions to prescribed programs, was quite different than Baumgartner's advocacy of grassroots engagement.

Nearly all of the investigators, observing skepticism about the preventive services offered at Health Centers outside of the central hospitals, wondered if these Health Centers should shift from purely preventive medicine to also treating sick children, as a way of gaining confidence of "people who are inherently skeptical of the good intentions of government programs." Although one Smithsonian anthropologist demurred, saying Servicio budgets should not spend scarce resources on treatment, Foster reported that even he agreed that "the mother who has seen a dangerously ill child restored to health is probably going to set more store by the doctor's advice to boil milk than is the mother who has been turned away because the Center does not treat the sick."[80] The Smithsonian anthropologists believed infant mortality to be a matter all could agree was important, and that skepticism of the local population was inherent, and not produced by transgressions and neglect over time.

The Maternidad was a center of interest even before it had opened its doors. With a preponderant claim on the Servicio budget, the hospital also held the possibility, in the eyes of the Smithsonian social scientists, of making progress on public trust. The United Nations Children's Emergency Fund, eager to invest in projects beyond its initial efforts in post-war Europe, volunteered to cover the costs of new equipment. With modern facilities and administration, the Maternidad was a symbol of the technocratic liberal project that the leadership of Ecuador, by the early 1950s, was eager to promote. "The contemporary public assistance is not an institution of charity," exclaimed Cesar Jacome M., Director of

[80] Ibid, 31. See: Geoffrey Rose, "Sick Individuals and Sick Populations," *International Journal of Epidemiology* 30, no. 3 (June 1, 2001): 427–32.

Maternidad, Prenatal Service and Home Care in a 1950 article in the *Boletin*. "It is systematic!" A photograph of the Maternidad illustrated the article, reinforcing the ideal without mentioning the problems many local physicians experienced in the plan. [81]

Advice

Baumgartner's arrival in Quito coincided with a wave of scientists, humanitarians, businessmen, pamphlets, advertisements, films, and money flooding into the country. Red Cross campaigns, including one directed by a young Danish doctor named Halfdan Mahler, crossed through Quito in their efforts to control the spread of tuberculosis in the Andes.[82] The country's first census had been conducted in 1950, and missionaries Jim Eliott and Pete Fleming, moved by reports of low levels of literacy, made their way to the reclusive Huaroni in the Amazon region.[83] Firms as diverse as pharmaceutical companies, tractor companies, and producers of respirators for dogs inundated the mail of the General Director of the Sanidad. And suddenly, in the early 1950s, the economy rose on a tide of bananas. Demand for the fruit had been whetted among U.S. consumers during World War II by the United Fruit Company, which created four short animated films of a sultry dancing Chiquita to advertise ways that Americans could eat this "exotic" fruit.[84] When blight devastated

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[81] Editorial, "Desvirtuando Prejuicios," Boletin Informativo de la Junta Central de Asistencia Publica, October-December 1950, 9-11. MNM.

[82] Cueto, Marcos. 2004. The Origins of Primary Health Care and Selective Primary Health Care. *AJPH* 94 (11):1864-1874; "Halfdan Mahler, Who Shifted WHO's Focus to Primary Care, Dies at 93," *New York Times*, December 15, 2016.

[83] "'Go Ye and Preach the Gospel' Five Do and Die". *Life*. January 30, 1956, 10–19.

[84] See https://www.youtube.com/watch?v=RFDOI24RRAE. Accessed 28 May 2017. Baumgartner sent hosts in Ecuador "the most recent advertisement concerning banana powder," among other items she sent such as New Yorker issues and painting materials. LB to Ake Burkhardt, letter, March 23, 1951. Box 82, LBP.

plantations in Central America and the Caribbean, Ecuador became the primary exporter of this now valuable crop. Concerns among U.S. leaders about socialism in Latin America and the Ecuadorian government's interests in fortifying its military against Peruvian border disputes threaded military as well as economic and humanitarian ties. As interests in the SCISP programs rose with not only new attention to the region but also the Cold War stakes in the Point IV program and WHO projects, more consultants were brought in to advise and evaluate the programs. The Smithsonian sent Charles Erasmus, who had spent time in Colombia observing the Servicios. The IIAA commissioned the United States Public Health Service to conduct a thorough review, and the team would include Mayhew Derryberry, who would become a confidant of Baumgartner's in the next decade's work in India. From Louisiana State University, Myron Wegman was lined up to study family life and public health later in the summer of 1951.

Although the Maternidad was not open when she arrived in March, Baumgartner was confident enough in her expertise, acquired through extensive grassroots work in New York, to give Alcivar three pieces of advice for Quito. One step, she advised, was to improve their vital statistics collection and standardize the training of their staff. Baumgartner had argued the previous year in her position at the Children's Bureau, and she would argue into the future, that the primary value of these statistics was to generate interest and even concern about the problem, and to motivate scientists, physicians, and nurses to look into the local conditions from which the data for these statistics arose.[85] A second step was to develop prenatal services. Her argument was just as Bustamente had explained to the Asistencia Publica. A prenatal service would form a social connection between women and

[85] Report from Expert Committee on Maternal and Child Health: Public Health Aspects of Low Birth Weight, First Draft 11/23/1960. Box 5, Folder 1, LBP.

the health care system before emergencies arose, as the leaders of the Asistencia Publica had suggested, and provide an opportunity to address and make record of any existing health needs of the pregnant woman. Third, Baumgartner suggested, the Maternidad ought to develop their facilities for premature infants. She had detailed at length while directing the Children's Bureau why she believed this would be a cogent strategy for attracting democratic discussion from the grassroots through the policy making authorities, driving reform of health care financing and provision in the United States. She indicated that she thought prioritizing premature infants would have the same effect in Quito. Baumgartner promised to send Alcivar materials on each recommendation upon her return to New York.

When she arrived back in New York, local responsibilities quickly swept her back into immediate priorities, but her correspondence continued. When she sent the materials, she did so not to Alcivar directly, but via pouch to the North Americans at the Servicio office, entrusting the nurse Helen Parker to decide which materials were appropriate to pass on to Alcivar and his Ecuadorian colleagues.[86] "We'll make this place just like New York! No?" Parker wrote back when she received the materials.[87] "In the meantime may I tell you," Baumgartner wrote to Alcivar directly, "that I am delighted to discover that a very able pediatrician and public health expert 'Dr Myron Wegman' is going to be in Ecuador for a few weeks this summer. He is one of my dearest friends and I am sure you will find him an able advisor as well as a delightful person."[88]

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[86] LB to Charles Blanks, Letter, March 21, 1951. Box 82, LBP. LB to HP, Letter, DATE, Box 82, LBP; LB to LA, letter, March 21, 1951, Box 82, LBP. She did not mention the reason for the indirect mailing to Alcivar.

[87] HP to LB, Letter, May 7, 1951, Box 82, LBP.

[88] LB to LA, Letter, June 27, 1951, Box 82, LBP.

Alcivar's response to Baumgartner belied a different expectation. His message was polite and gracious, thanking her for what she sent. "I have to mention especially the book "Premature Infants" that is very interesting and I think it is going to help me a great deal," he wrote. It was "very pleasant for me to let you know," he said, that the hospital was now seeing patients. He reported that "the publications in prenatal clinic and care of premature infants have already been used in our new Maternity Hospital."[89] He seemed self-conscious about Baumgartner's opinions. "Of course the organization is very far from perfection," he wrote. "But I am confident that eventuallity [sic] we will reach our goal." As he had before, he noted a hope that she would return "in the near future and then you can observe the improvement that we are making in Hospital organization."[90] Self-effacing and subtly defensive, Alcivar had also, in an earlier letter, asserted a special claim to local knowledge, a hint that there was more to understand than Baumgartner had witnessed on her visit. While valuing her advice, he wanted her to understand important differences. "I hope that you can come back for a longer visit to Quito," Alcivar closed a letter, "and then you will have an opportunity to see the insides of the medical profession in this city."[91]

Ecuador's major liberal newspaper, *El Commercio* reported after her visit that "the doctor Baum Garten [sic], Commissioner of Public Health of New York, has expressed high praise for this establishment when she was visiting."[92] Helen Parker clipped the piece out of

[89] LA to LB, Letter, April 3, 1951, Box 82, LBP. Others in Colombia also remarked on the short duration of LB's visits. Hugh Smith to LB, Letter, April 16, 1951 and John Elmendorf, Jr., to LB, Letter, March 28, 1951, Box 82, LBP.

[90] LA to LB, Letter, May 29, 1951, Box 82, LBP.

[91] Letter, DATE, Box 52 Folder 82, LBP

[92] "Se dará ayuda económica al primer niño que nazca en la nueva Maternidad," *El Comercio* (Quito) April [no date given] 1951, Box 82, LBP.

the local newspaper and mailed it to Baumgartner, who saved it in her files.[93] Even after returning home, despite her "worldliness," she had remained agitated by the trip's unexpected inconveniences. In the midst of her many responsibilities she wrote an exasperated letter to the airline company on which she had flown. "I want to let you know that on a recent trip to South America the *only* intelligent, courteous and effective service that we got in Colombia and Ecuador was from a most remarkable young lady Marlis Kruger in your Guyaquil office."[94]

Explaining the Coordination Gap

The visiting experts observed that, while local authorities were convinced of the value of the demonstrations, "coordination" was failing to effect the changes desired in the people's health behaviors. Often, the experts blamed these failures on the people themselves. Baumgartner's friend Myron Wegman, when he arrived from Louisiana State University, commissioned by the IIAA to learn about maternal child health in Ecuador with respect to family life and public health, concluded that the problem was in how the new medical technologies were being used by the local physicians. Wegman's three months in the country and was hosted by the same physicians and local health authorities who had greeted Baumgartner. In the time since Baumgartner's visit that spring, the hospital had opened and, with nearly half of the women of Quito already choosing to give birth on its wards. On the evening before he visited the Maternidad, Wegman scrawled in his field notes that Dr. Alcivar took him to the top of two separate hills in the city. It was a Friday, he scratched into his notepaper, that they walked "to the Panecillo with a plan of the city." The Panecillo was

[93] HP to LB, Letter, April 30, 1951. Box 81, LBP.

[94] LB to Tom Braniff (Braniff Airways, Inc.), Letter, March 26, 1951, Box 82, LBP

the large hill just to the south of the Maternidad, near the home of Lastena Almeda, on which the large aluminum virgin statue spread its wings over the city. "Most interesting view and analysis," Wegman wrote, not mentioning the gargantuan statue, "and up again on the slope of the Pichincha where we could identify things from another angle. Then to stone quarry, where we watched dynamiting and saw women and children lugging tremendous loads of rocks."[95] Though Wegman had observed the conditions outside of the hospital, the critique he wrote up the next day was limited within the walls of the clinic.

On Saturday morning he toured the hospital, making observations about the physical plant. "Struck by luxury and waste of space," Wegman scrawled into his field notes. "Large wards ok but no attempt made to isolate preemies while at breast. Primary nurseries okay but small." He fixated on the technology and the lack of attention to sterility. "Saw several Gordon Armstrongs but no Isolettes," he noted the glass boxes on wheels. Gordon Armstrongs heated and elevated oxygen but the Isolettes gave sterile separation. "General nurseries excessively large although patients well separated. Only 1 sink and that not used. Common bathing tables every where." He was baffled at the presence of nuns in the nursery, noting that there was a chapel next door for such things. A major problem was the lack of a pediatrician. "A pediatrician in charge of the nursery and nursery techniques appears to me of paramount importance," he wrote when he shared his observations with Charles Blanks, Chief of Party of the IIAA. "I understand efforts have been made to obtain a pediatrician but did not get clear why this has not been accomplished." He was oblivious to the financial concerns discussed in detail among the JCAP members. He griped that the "small 'milk laboratory'" was inadequate by current standards, with milk preparation done

[95] Myron Wegman, Handwritten notes, Box 8. Myron Wegman Papers. Bentley Historical Library, University of Michigan. (Henceforth MWP)

haphazardly at best, which he again attributed the deficiencies to "the lack of appointment of a pediatrician." He then wondered why the haphazardly prepared milk wasn't even being used. "Some of the things which I have noticed in the new Maternity Hospital and which have been reported to me by others," he wrote to Blanks, "make me feel that there is still a considerable distance to go before one could be satisfied with the standard of operations."[96] Still, he made no assessment or indication of what conditions outside the hospital might be compromising progress within.

Wegman interpreted the mismatch between his observations and his expectations for the medical measures exported to Ecuador as human error rather than conditions of context. When Wegman advised better standards in the Maternidad, for example, he insinuated that new rules were needed to solve an implicit laziness. "Adequate supplies of soap and paper towels are essential to avoid the excuse that it is too much of a nuisance to wash." Wegman did not indicate interest in whether the water supply itself was contaminated in the hospital or in the homes of those unaccustomed to hand washing. Similarly, he described staffing choices as resistance to advice that amounted to ignorance or willfulness. The upset he conveyed to Blanks at the presence of the nuns was particularly poignant.

> "It is my understanding that when the Sisters of Charity came into the new institution they were to be limited to non-professional responsibilities. They now appear to have taken over one nursery under the mistaken notion that knowledge of nursing was less essential here. This is a great error and leaves the hospital wide open to the possibility of epidemic disease in the newborn. I understand also that an operating room has been taken over by the Sisters for a chapel. I do not believe, even with all the luxury and space in the building, that this room can properly be spared for such a purpose, particularly when there is a chapel in the Hospital next door."

[96] Wegman to C.P. Blanks, Letter, No date. Box 8, MWP.

Wegman was not ridiculing, nor did he seem overconfident in his abilities. He submitted his critique attempting to be humble and generous. "As I said at the outset, these observations are based on brief visits and discussions," he reminded Blanks. "I should like to reiterate my personal opinion that the course which has been followed and the progress which has been made have been the most desirable under the peculiar circumstances existing." But Wegman's modest caution was the kind of nuance that fell away from the information in his report as it traveled. What stood out in processed reports were the failures he listed, not his sense of perspective on them.

Charles Erasmus, an anthropologist who had participated in the Smithsonian Institute of Social Anthropology's early observations of the IIAA's Servicios in Colombia, was sent by the Institute to Ecuador in 1951 to continue the development of a theory of human engineering, or cultural development, which George Foster had named as the answer to failures of the recipient programs to effectively utilize aid in the first years of the Servicio programs. To Erasmus, the problem with "this Ecuadorian fiasco"[97] was lack of authentic care among the program administrators for the welfare of the people in the community, a matter that infuriated him. Mincing no words when writing privately about the Maternidad project in Quito in late 1951 and early 1952, he wrote to Foster, his typing growing more impassioned, with more and more fragments crossed out in back typed X's. "It looked to me like the Servicio type of approach to date has been anything but "scientific," he wrote. "I asked a lot of people if they could tell me what the infant mortality rate of Ecuador was. Nobody knew, the Servicio didn't know and cares less. Fifty-two percent of all deaths in Ecuador are children below the age of five - a conservative estimate. Isn't this a problem?

[97] Erasmus to Lois Northcott, Letter January 13, 1952. Records of the Institute of Social Anthropology. Series 4 Box 5 Folder Correspondence. National Anthropological Archives, Smithsonian Institution (Henceforth NAA).

Why the hell doesn't somebody start worrying about what those kids are dying of." He expressed deep concerns about the attitude of technical "know-how." "What kind of a project is it that comes into a country to help them with their health problems and doesn't even insist on guiding the local governments to ascertain their nature," he wrote. "Where is our American know-how if all we can do is sit on our thumbs and wait for people to come in and offer third party money." Erasmus was wary of technical gifts that aimed to please. "If we only do what the local people want we are playing Santa Claus," he wrote. "We build nice buildings and make lots of water potable - but how does this improve the health of a country?"[98] Erasmus cast the "local" recipients as simple and child-like.

A few days later Erasmus wrote again to Foster in more tempered tones. "I still feel somewhat discouraged and let down all though I'm not exactly sure why," he began. "I had so many good ideas to start with that all seemed so hot to me and now they don't look so good." He was uncomfortable with the emphasis on water purification systems that were purchased from the Servicios by communities on half-payments and credit, with not enough capacity to meet these requests for all of the communities asking for it. He thought the Servicio would do better to focus on health education programs, which he believed would diffuse in ways that material intervention would not. He explained, "My entire bias has been in the direction of programs that accomplish something more than the construction of public works which after all is material culture and will not diffuse any know-how in the field of public health."

Erasmus considered the failure to convince funders of the value of social development work such as personnel training one of the major inhibitors to lasting change.

[98] Erasmus to George Foster, Letter, December 26, 1951. Records of the Institute of Social Anthropology. Series 4, Box 5, Folder: Correspondence. NAA.

"I would consider projects which train personnel as being more important and far more lasting, but of course, such programs are not the type which lend themselves to before and after statistics. They constitute nothing which you can point to as easily as a building." He speculated on how to redesign demonstrations so that such work could be made statistically visible. "The idea I had for a community enterprise might be conducted so that good statistics would result but I don't think the field party would ever be interested in such shenanigans."[99]

The team of evaluators from the Public Health Service, which included health educator Mayhew Derryberry, cited the inability to prove statistically that the programs were worth the investment. This was cited as a key problem in need of a solution. Another major failing was that the evaluation cited did not study and document local conditions prior to project initiation. In the urgency of the moment, the evaluation asserted, "the indispensable was dispensed with."[100]

Under the surface, doubts continued to roil. By the end of 1952, Erasmus's temperament and his observations left him pessimistic about the future of foreign assistance for health projects in general. "Oh, well," he wrote to George Foster in October of that year, thinking forward to the likely Republican victory after several decades of progressive Democratic administration. "On November 4th the voters will put us all out of our misery. Ike will be elected and that will be the end of Point 4 anyway. Frankly, between you and me and the lamppost, it will be no great loss to the world."[101]

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[99] Ibid.

[100] Public Health Service: Dept of Health, Education, and Welfare, *10 Years of Cooperative Health Programs in Latin America*.

[101] Erasmus to George Foster, Letter, October 28, 1952. Records of the Institute of Social Anthropology. Series 4 Box 5 Folder Correspondence. NAA.

Local doctors and administrators of the Maternidad were aware that their practice was not living up to American expectations. Their libraries stocked with scientific papers from North America and Europe told of the outcomes obtained in these foreign experiments, and of the standards of care that were achieved in their hospitals. Ecuadorian physicians, supported by Rockefeller Grants, had been traveling and trained in American institutions before returning back to their own, in some instances helping to build the American standards of infant medicine themselves. But there was value in the local meanings, significance in the local determinants, and reason in the local responses. The nuns Wegman was surprised to see caring for infants in the nursery remained active on the maternidad's directive committee until 1955.[102] An angelic image of a baby, likely intended to be an icon of the infant Jesus, was printed on the cover of the scientific journal *Revista Ecuadoriana Pediatria y Puericultura*, whose pages were filled with translated excerpts from *Chemical and Engineering News* and *JAMA* and the *Arch Dis in Childhood*. The problem was in part a translation of secular and technical U.S. medicine into a worldview in which spirituality was inseparable from everyday life, including medical and scientific practice. Different notions of care and response prevailed. Wegman was critical of the lack of attention to sterility and inadequate incubators. But the notion of sterility was inconceivable in life outside the hospital, and the common association with a baby in a box was an *angelito*. The matter was also material. In a context of not only mortal instability but resource scarcity, the fact that the nuns were less expensive than any of the emerging medical professionals Wegman preferred was critically significant. While a nurse director would receive 1200 sucres monthly salary and a nurse 800 sucres, the nuns were paid only 150 a month for their

[102] "50 Anos, Edicion Especial," Revista Medico-Cientifica del Hospital Gineco-Obstetrico Isidro Ayora, 2(2), 2001. MNM.

service.[103] With a budget already stretched beyond its means, no easy solution was apparent to the staffing shortages or inability to repair or replace broken equipment and windows when, as the tourist guide itself had noted, the rumbling of the nearby volcano cracked the walls of buildings in town.

Others attempted to communicate where standards were not aligning by discussing local conditions. Dr Luis Camacho published a paper in *Revista Ecuatoriana de Pediatria y Puericultura* in 1958 on "Some Aspects of Infant Mortality in Ecuador."[104] Camacho had studied in London, then at Johns Hopkins, and trained at the Chicago Lying-In on fellowship from the Children's Bureau.[105] He was now one of the pediatricians on staff of the Maternidad, and wished to share something "well known by all public health doctors...but not sufficiently divulged in the rest of the medical profession and much less among other groups." Namely, that the infant mortality rate failed as a measure in Ecuador. Camacho explained that the data for the measurement was required by the state and collected in local registries. Individuals were responsible for going to the registry to report births and deaths. Some of the barriers to effective data collection were technical and material, he explained, from inclement weather to distance, to utter lack of doctors to validate the cause-of-death diagnosis required to obtain a death certificate. But there was also another explanation. "The montubio and also the indigenous of the Sierra," he wrote, "do not give any value to registering the death certificate. And therefore there's no effort to meet this requirement." Camacho attributed the failure of the tool to the bad culture of the

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[103] Ibid.

[104]Luis Camacho MD MPH, Jerjes Vildosola, MPH, "Algunos Aspectos de la Mortalidad Infantil en el Ecuador," *Revista Ecuatoriana de Pediatria y Puericultura* 6(3), July- September 1958: 230. MNM.

[105] Luis Camacho, "Informe Sobre un Servicio Materno-Infantil Para El Ecuador," *Prevision Social*, Jan-June 1946, MNM.

indigenous. They were uncooperative and "primitive." This local conclusion was published not only in the Ecuadorian medical journal, but also selected to be translated into an English language publication of the Pan American Health Organization in 1959. The assessments of local doctors that confirmed expectations that failures were personal circulated without context or questioning of the authors' own potential biases.

Camacho did not discuss at length the greater efforts made to register the birth certificate, which was necessary prerequisite to obtaining a baptism. The article said nothing about the history of infant mortality that had made baptism, not death, the crucial moral event of infancy. Nor did it discuss the fact that the Catholic church maintained a particularly strong presence in everyday life in the region, providing both moral and material support, while the State was unstable and perceived as negligent by people in remote areas. And any public services available to those in the city were utterly lacking to the people, often indigenous and uncounted, living in rural villages. The conventions of public health did not align with the conventions that mattered most in everyday life, and the local people saw no need to coordinate since they were not getting benefit from the desired measures that the data they produced. The physicians, who wanted international opportunities and resources, exhibited typical biases towards the indigenous peoples and attributed the problem to the people themselves. Printed materials produced by Ecuadorian physicians reinforced the idea that even basic measures could not be obtained and utilized in the remote areas of Ecuador.

Other physicians attempted to communicate about local determinants that they believed shaped the biological characteristics of infant development. Nicolas Espinosa Roman, born in 1923 and trained in medicine at Quito's Universidad Central, had then studied puericulture in Spain before moving on to the University of Colorado, where he worked with the vanguard neonatologist Dr. Lula Lubcheno. Espinosa had participated in

the research that set the birthweight proxy conventions for premature birth, given that gestational age was impracticably difficult to determine accurately at a population level. Any baby under 2500 grams counted as premature, according to Lubchenco's charts. Categories of increasingly severe prematurity were grouped in 500 gram increments. Each category was assigned expected survival rates. When Espinosa returned to Quito and applied his training at the Maternidad, however, the conventions did not produce the results predicted by Lubchenco's charts or witnessed in U.S. hospitals. First, the percentage of infants born under 2500 grams was unusually high, even when compared against regional neighbors Columbia and Peru. Second, the extremely low birth weight infants had dreadful survival rates. Third, the infants between 2000-2500 grams had unexpectedly high levels of survival, and aside from their weight and length did not show any of the other characteristics of prematurity.

The high incidence of patients identified as premature, Espinosa wrote in an article published in a local journal in 1958, "surely is influenced by the altitude above sea level of this city (2820 meters) more than socio-economic or racial factors."[106] In other words, the babies were fully mature, but smaller on account of environmental determinants. This suggestion, that environment could be a specific cause of low birth weight, was highly unconventional in the orthodoxies of clinical medical science in the United States. Racist notions supported the conclusion that darker skinned infants fared better at "premature" birth weights because of a natural "hardiness."

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[106] Nicolas Espinosa R. Algunas Observaciones Acerca del Problema de la Prematurez en la Maternidad "Isidro Ayora." *Revista Ecuatoriana de Pediatria y Puericultura* VI (1), Enero-Marzo 1958: 18-22. See also: Nicolas Espinosa, Procediamientes generals del servicio de permaturos de la M.I.A., Actas de las II Jornadas Pediatricas Nacionales. Editorial Casa de la Cultura Ecuatoriana, Quito: 80. See also: Luis Camacho, Colaboracion Obstetrico-Pediatrica en la Asistencia de los Prematuros, Actas de las II Jornadas Pediatricas NAcionales, Quito: 180. MNM.

Espinosa's insistence that altitude, and not race, explained the variation from expected statistical patterns of mortality, was the one conclusion from his original paper that did not get translated into the English language summary of his article. On the other hand, where pediatricians a decade before had blamed the failure of Ecuadorian infants to respond to specific therapeutics as a result of weakly nature and a condition of the local reality, Espinosa now explained the overall greater rates of mortality among infants born under 2500 grams in Ecuador as a result of medical error or neglect.

The evaluations that blamed the problems on the people and the lack of discussion about local meanings, determinants, and responses had serious consequences for the Servicios coordination plans specifically and for notions of international cooperation more generally. First, the evaluations justified abandoning efforts on behalf people with whom it was deemed that cooperation was too difficult. In a report submitted to the Pan American Sanitary Bureau's chief of the Division of Public Health, Wegman concluded that the project should not yet be extended to the remote areas. "In view of the paucity of services presently available and the lack of trained personnel, the setting up of "demonstration areas," particularly rural demonstration areas, has many drawbacks," he wrote. In "a country like Ecuador where there is such great room for improvement in the urban services," he wrote, it seemed "a little rash" to attempt demonstrations in the even more challenging rural areas. He was not suggesting that rural areas be abandoned. "There are, of course, good reasons for providing services outside the capital and the largest cities where most services are usually concentrated," he explained. Rather, he argued that what was needed in Ecuador was not a demonstration, in the contemporary meaning of that word, but a program that used existing resources in the cities of Quito and Guyaquil to train personnel, and would be rolled out gradually over time to remote areas with continued support. "It may be a question of

semantics but I prefer to consider the recommendations of sites in which to concentrate efforts at the outset as the initial phase of a continuing program rather than as demonstrations."[107] Wegman critiqued the idea of "demonstrations" as a one-time package.

Wegman's memo circulated in Washington, and he received a response from UNICEF consultant L. Eloesser, who came up with an alternative. "I also regard 'demonstration' with some misgivings, for the value of a demonstration is in inverse ratio to ease of communication," Eloesser wrote in December 1951. He compared the country of Ecuador to a large town in the United States known as the site of an important public health demonstration. "What might be quite profitable and instructive in Framingham, Mass would be lost if it were attempted in Ecuador." Eloesser's solution was to develop less "exalted plans." "I think that possibly nurses and midwives formed on quite a low level from rural sources are more likely to be successful than attempts to bring graduates of nursing schools with three or four years training and High School preparation into the jungle."[108] Baumgartner herself would advise similar flexibility about the training of health workers but Wegman's long-term approach to unfolding health efforts in the work she would soon begin in India.

By the end of the decade, the demonstration project failed not because of an inability to convince the local authorities of its worth, but because of basic conditions that fell outside the scope of the planned "coordination." Further, frustration over financing and debt continued to be weakly masked behind language of improvement and friendship. By 1957, a tone of tentativeness and impatience was clear in the contract renegotiations sent by the Servicio to the Asistencia Publica. The United States would provide nearly 50,000 dollars

[107] Myron Wegman to A. Horowitz, Memorandum, September 12, 1951, Box 8, PAHO-Trip Reports, MWP.

[108] L Eloesser to Myron Wegman, Letter, December 11, 1951. Box 8, MWP.

(700,000 sucres) for the maintenance of the Maternidad, as it had been doing, in addition to technical consultation, "subject to the continuation of [the Servicio's] activities in the country during the current year and the availability of funds." But a stern caveat was added. "From now on," the contract read, "the Maternidad has to take all reasonable steps to assure that in successive years, fees are elevated, in a way that makes possible the gradual reduction of economic contributions of the Servicio for these objectives."[109] The reform was signed by Minister of Social Welfare and Labor Gonzalo Cordero Crespo, IIAA Director of the Division of Health Welfare and Housing Franklin Tello, and SCISP Director James D Caldwell. Once both a Spanish and an English translation of the document had been signed, Caldwell sent copies of both to the director of the Asistencia Publica for the records.[110]

The alternate translations reveal subtle but significant differences in how the transition was being framed to its respective collaborators. Where the Spanish language version read that the increased Asistencia Publica contribution would make possible a "gradual reduction of economic contributions," the English language version said that the chance would "permit the Servicio to discontinue its contribution to this institution."[111] The differences in meaning were significant. The former suggested a gradual change in relative contributions; the latter implied the end of the relationship.

[109] Programa Cooperative de Salud y Sanimiento Convenio de Proyecto No. 48-Q. March 25, 1957. AP-0457, 472-4. MNM

[110] Caldwell to Franklin Tello, JCAP Director, March 26, 1957. AP-0457, 471. MNM.

[111] Compare to Cooperative Health and Sanitation Program Project Agreement No. 48-Q. March 25, 1957. AP-0457, 475-7. MNM

Social Contexts

By this time, Baumgartner's international attentions had been redirected by world events to South Asia, where the fledgling Ford Foundation was eager for her assistance convincing the Indian Minister of Health to support a national policy on fertility control. By the middle of the 1950s skepticism about the Point IV technical assistance programs had grown in Congress. Public opinion did not counteract the disinclination. Though the Marshall Plan had achieved stability quickly in Europe, the Point IV program was failing to achieve cooperation through demonstration. Technical assistance programs under the Eisenhower administration shifted to loans and grant based programs.

After nearly a decade of relative administrative stability in the Ecuadorian government – the Presidents had completed a full term in office with no coup in both 1951 and 1956, for the first time in twenty eight years -- bad conditions for the poor both inside and outside the city of Quito had persisted and worker protests rose again in the late 1950s. Letters flooded in again to the public health agencies in Quito "Send medicines to the abandoned of our occidental mountains. Grippe."[112] One pleaded. "The people need attention."[113] An urgent letter from the province of Santa Barbara decried the "situation of abandonment in which the inhabitants of this eastern region find themselves."[114] The United States government began withdrawing from friendly cooperation in Ecuador, and in 1957 the SCISP gave up control of the Maternidad Isidro Ayora.

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[112] Pedro Narvaez and Julio Fonseca to DG Sanidad in Quito Carlos Perez Borja, Letter November 19, 1957. SA-0806 : 1171. MNM.

[113] Signature unreadable to DG Sanidad in Quito Carlos Perez Borja, Letter from Cumbaya Ecuador October 27, 1957. SA-0806: 1172. MNM.

[114] Nicolas Alberto Garcia to DG Sanidad in Quito Carlos Perez Borja, Letter, October 8, 1957. SA-0806_1176. MNM. Margarita R de B--- to Carlos Perez Borja, Letter, August 6, 1957. SA-0806_1185. MNM.

The social sciences approach to technical assistance and Baumgartner's own approach to social knowing were diverging. Though Baumgartner had been frustrated with her experiences in Ecuador, she continued to believe that management with grassroots interactions was the way to build cooperative programs. Her expectation continued to be that "humanistic values" and "honest science in an atmosphere of freedom" – science that was open to fundamental challenge and not driven by interested observations -- would bring stable progress. But defensive cries of nuestra realidad were joined by new statements, made by local doctors, that many of the infant deaths in their Maternidad were preventable and due to medical error.[115] Expecting people who were being blamed for failures that they felt they could not control, in high stakes scenarios in which the possibility of losing aid was real, to openly discuss ideas or experiences that were unconventional to the visiting experts, disregarded how quickly she herself had grown agitated at inconvenience and shut down, and how it felt to be caught in a statistic that made diffuse failures personal.

Appointed by Brock Chisholm to an expert committee on Maternal and Child Health after her return to New York and eager to share her observations on the demonstration in Ecuador, she increasingly emphasized the managed, progressive approach Wegman had delineated, trusting that values and a scientific management approach would bring success and stability. Her attention to matters of prematurity in world health continued, but as a matter of learning and not "demonstration" with top-down assumptions. In late November 1960, she attended a meeting of the WHO Expert Committee on Maternal and Child Health in Geneva and spoke again with Luis Camacho, who with Nicolas Espinosa was developing the medical science of prematurity at the MIA. Camacho

[115] Nicolas Espinosa R. Algunas Observaciones Acerca del Problema de la Prematurez en la Maternidad "Isidro Ayora." *Revista Ecuatoriana de Pediatria y Puericultura* VI (1), Enero-Marzo 1958: 18-22

presented their findings about the different patterns of survival in Ecuador when organized by the U.S. birthweight standards. As their papers had explained, their findings indicated that the "local weight limit for prematurity" in Quito was not 2500 grams, as international conventions based on US studies had concluded, but more like 2000 grams.[116]

At the international meeting, Camacho did not mention the argument that altitude was an important determinant of low birthweight at the Maternidad. He now attributed this to the fact that infants in Quito "belong to a biological group of smaller people." This way of stating the problem, leaving out the controversial argument about altitude, coordinated his local biological science, which held the size of people was a function of environment and behavior as well as inheritance, with the biological sciences in the United States, which were more likely to understand the difference as an individual characteristic. He left his listeners to make their own assumptions: what mattered most to him was showing that the prematurity indicators varied, and that knowing what the local limits for prematurity were mattered for decisions about how to allocate very expensive neonatal care.

Baumgartner, taking notes on her pad as she read through the papers to be presented, initially critiqued Camacho's paper for the validity of some of his statements on whether presentation of the fetus could be used to determine whether it was premature or full term.[117] A little while later, however, while reading a paper that discussed the insignificant impact of climate on birthweight, she reflected on what Camacho had written, and her experiences in the city of Quito high in the mountains, she wondered about his argument about local biology and birthweight limits. "Has anyone undertaken a study in

[116] Working Paper No 3: Prematurity and Birth Weight, Luis G. Camacho, MD MPH. Box 5, Folder 1, LBP.

[117] LB notes, Working Paper No 3: Prematurity and Birth Weight, Luis G. Camacho, MD MPH. Box 5, Folder 1, LBP.

altitude and its influence on incidence of prematurity?"[118] She had been in Quito, she knew the Maternidad, she had been raised on ecological sciences, and she was now open to the possibility.

Though Baumgartner and Foster had both emphasized the importance of communication in their vision of a better world, Foster's notion was different than the one Baumgartner described in 1951. Foster defined communication as "driving out or subordination of the old, bringing in of the new."[119] Where Baumgartner wanted her social science to be susceptible to debate, contest, and resolution, Foster was interested in a science of unidirectional, not shared, control. Communication was successful, he said, if it achieved gradual substitution of modern ideas of health and disease prevention for folk beliefs, a greater desire to go to the doctor for treatment, and more willingness to follow prescription. The measure of this modernization, he wrote, was an overall raising in the level of health, for which infant mortality was the widely accepted indicator.

The anthropologist Charles Erasmus began writing a book in 1957 analyzing his experiences with demonstration projects in Ecuador, Colombia, Chile, and Haiti in which he built a theory about how to manipulate what he called "cultural development," or behavior change. A fledgling philanthropic association, the Ford Foundation, had funded him to add a case study in Mexico to his research, which he published in a 1961 book he titled *Man Takes Control*. In this work, Erasmus identified infant mortality as an important site of

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[118] LB copy of Working Paper 6: Birth Weight studies in Singapore, Jean Millis, MD. Box 5 Folder 1, LBP. Altitude and physiology were surely connected according to e.g. David Forbes, On the Aymara Indians of Bolivia and Peru, *Journal of the Ethnological Society of London*, 2(3), 1870: 193-305. It was in the literature again after the 1980s, e.g. Nacyra Bonet Lopez, Imti Choonara, "Can We Reduce the Number of Low-Birth-Weight Babies? The Cuban Experience," *Neonatology* 95, 2009: 193-197.

[119] Smithsonian Institution. Institute of Social Anthropology, *A Cross-Cultural Anthropological Analysis of a Technical Aid Program*.

"manipulation."[120] The way to change behavior, he argued, was to show people a course of action that was more probable to achieve a desired outcome than their current behaviors. Survival, he said, was a universally desirable outcome. Noting that "the number of deaths among children below the age of five accounts for over fifty percent of the recorded annual deaths in Ecuador, as compared to less than ten percent in the United States," he attributed this difference only to medical knowledge, again ignoring the wider politics and alternative scientific arguments around the matter of health in Ecuador. "Obviously the knowledge of Ecuadorians about disease is much less probable than that of the Anglo Americans," he concluded.[121] Medical interventions on infant mortality, by his logic, would persuade essential behavior change.

Erasmus presented his analysis without any indication of the frustrations he had felt as a researcher on these projects. Despite his unchecked railing against technical assistance in the years he and Baumgartner passed through Ecuador, he began a section on the Maternidad in balanced tones. "At the Isidro Ayora charity maternity hospital in Ecuador, in 1952," he began, "I observed a public health program with both successful and unsuccessful aspects."[122]

[120] Charles J. Erasmus, *Man Takes Control: Cultural Development and American Aid.* (Minneapolis: University of Minnesota Press, 1961).

[121] Erasmus, *Man Takes Control.*

[122] Ibid, 29.

Chapter 3: Survey

Population, Centralization, and Data in Delhi

In late October of 1955, the *New York World Telegram and Sun* captured a cynical public attitude towards foreign aid. "Local taxpayers," a brief article quipped, "will be happy to know they'll pay Health Commissioner Leona Baumgartner's $22,500 salary while she spends two months in India serving as a Rockefeller Foundation consultant on maternal and child health."[1] The *New York Times* told a more cheerful story about Baumgartner's departure, focused on the surprise party that one hundred city health officials had attended to send her off, painting a picture of a hero's launch.[2]

Both Baumgartner's career and U.S. foreign policy had undergone considerable rearrangements over the previous two years. In 1953, Baumgartner had quit her deputy position at the New York City Department of Health -- saluting her colleagues at the Health Department for doing good work despite horribly low salaries -- to seek new opportunities to experiment with the New York Foundation. In 1954, Baumgartner had been convinced by the Mayor of New York to return to city service as the Commissioner of Health, with some urging from Elias that it would be "such fun."[3] In similar shifts, the federal government under Republican President Dwight Eisenhower had re-organized its technical assistance programs in 1953 to support "trade, not aid" policies, consolidating foreign development offices under a single Foreign Operations Administration and leaving international program administration to non-governmental organizations, which hired many

[1] J.M. Ripley to William C. Cobb, Letter, Nov 3, 1955. RF 1.2 Series 200, 14, 112. RAC.

[2] "Dr. Baumgartner Gets a Surprise Party Before Start of 2-Month Visit to India" *NYT*, Oct 27, 1955. 11/18 LBP CLM.

[3] Julia Bess Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962: With a Bibliography of Her Published Work, 1926-1972" ([New Haven, Ct.], 1977), 112.

government experts.[4] Advisors to Eisenhower had spurred the federal government to revise its own retractions and increase economic assistance. Citing the specter of communism in the armistice of the Korean conflict in 1953 and the retreat of France from Vietnam in 1954, the State Department and the National Security Council urged renewal of economic assistance programs. So, too, did economists Max Millikan and Walter Rostow at the Massachusetts Institute of Technology, via media magnate Charles D. Jackson, former director of the Psychological Warfare Division of the US Army, director of Time-Life, and publisher of *Fortune* who now acted as a liaison between the CIA and the Pentagon.[5]

An avid reader of the *Times*, Baumgartner saw the article about her optimistic send-off and clipped it for her files. She was traveling at the request of India's Minister of Health, Rajkumari Amrit Kaur, who had formally invited her "to discuss our health plans with me and my colleagues."[6] After nearly a century of colonial rule, the British Raj had relinquished direct control of India in 1947. The central institutions of government transferred to the Congress Party, a nationalist organization that had led movements for democratic self-rule. Kaur, a Christian Indian from a princely family in the northwest Ludhiana District, had been a secretary to Gandhi, the spiritual leader at the front of the non-violent "non-cooperation" movement who was widely credited for bringing together otherwise antagonistic sects. Kaur had met Baumgartner the previous year in New York while on tour of medical and welfare institutions. According to the *New York Times,* where Amrit Kaur was mistakenly referred to

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[4] Phyllis Tilson Piotrow, *World Population Crisis; the United States Response.*, Law and Population Book Series, No. 4 (New York, Praeger 1973, 1973); Samuel Hale Butterfield, *U.S. Development Aid--an Historic First: Achievements and Failures in the Twentieth Century*, Contributions to the Study of World History ; No. 108 (Westport, Conn.: Praeger Publishers, 2004).

[5] A. Leviero, "Eisenhower picks a Cold War Chief," *New York Times*, Feb 17, 1953, 16.

[6] Amrit Kaur to LB, Letter, April 26, 1955. RF 200 1.2 [0404], Rockefeller Archive Center (Henceforth RAC).

as a man, Kaur had asked Baumgartner to consult "on some of the serious health problems in that country, with particular attention to maternal and child health."[7] Accepting the invitation, Baumgartner promised Kaur she would contact India's Secretary of External Affairs, Mr. Pillai, as well as Colonel Lakshmananan in the Ministry of Health.[8]

Baumgartner's acceptance letter was uncharacteristically stilted and formal. What she knew and the New York newspapers did not was that she was being given an important role in the development of population science internationally, including the chemical and mechanical management of human fertility – a matter that was pressing on the minds of many watching the world population boom, but still taboo for United States government officials to directly address. India was considered by many to be a testing ground for new policies in this domain, not only for the "tropics," but for the world.[9] If Baumgartner did not already know that Mr. Pillai was working for the CIA, she would before the year ended.[10]

The trip would land Baumgartner at the center of debates over the meaning of "population" work, the moral conceptualization of Indian national development, and the use of population data in "scientific" development policy. A range of concepts and approaches

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[7] "Dr. Baumgartner Gets a Surprise Party Before Start of 2-Month Visit to India" *New York Times*, Oct 27, 1955. Box 11, Folder 18, LBP. The gendered error was reciprocated: Baumgartner's invitation to a Ministry of Health event inaugurated the Conference on Under-Graduate Medical Education on Nov 19, 1955 was addressed to "Dr. Leon Baumgartner." Box 41, Folder 6, LBP.

[8] LB to Amrit Kaur, letter, May 13, 1955. Box 41, Folder 7, LBP. Exemplifying the stilted tone, the letter begins: "Dear Madam: Your letter of April 26 is at hand."

[9] Sunil S. Amrith, *Decolonizing International Health : India and Southeast Asia, 1930-65*, Cambridge Imperial and Post-Colonial Studies Series (Houndmills, Basingstoke, Hampshire ; New York: Palgrave Macmillan, 2006).

[10] LB to Amrit Kaur, letter, "Sent Dec 15," 1955. Box 41, Folder 7, LBP. "Would a useful good CIA person – like your secretary Mr. Pillai – be useful on the field trial staff? The ability to lead others, to delegate responsibility one policy is determined and enthusiasm seem to me important in your 'top leader.' A broad approach to public health problems is also essential."

to development were reflected in the different meanings and uses of population data. To Baumgartner's surprise and dismay, as she participated in these debates she would witness the disintegration of the post-war development plan and the failure of the metrics of infant and maternal health to attract the broad and integrative liberal approach she envisioned. A data point all agreed was important and a symbol for national development, the infant mortality rate was shifting with the discourse of international development from an indicator of diffuse vulnerability to a risk avoidable by targeted intervention, political arithmetic, and calculated economic growth.

Baumgartner's Preparations

Civil servants of the former colonial regime staffed the new government of India, carrying over old visions of the best approach to national development.[11] Some argued for rapid industrialization of recently nationalized industries and programs to redistribute resources. Others supported agriculture and advocated for birth control as a "uniquely Indian" solution to a fear that the fertility of India's "backwards" population would quickly exceed that of its wheat.

Kaur prioritized human well-being. She had become convinced that as health programs progressed, and living conditions improved, unmitigated population growth would become a problem. Kaur did not think mechanical contraception would be effective or necessarily harmless -- the feasibility of new products was also contraindicated by popular education levels and product expense, living conditions and habits, and "prejudices among

[11] Sugata Bose, "Instruments and Idioms of Colonial and National Development India's Historical Experience in Comparative Perspective," *International Development and the Social Sciences : Essays on the History and Politics of Knowledge*, 1997, 45–63.

the people." Only sociopolitical changes would attract people to new fertility options, she believed, speculating that these changes would involve raising the marriage age of girls and boys, improving the standards of living, and fostering widespread education as well as recreational outlets for "youthful energy." As self-control, like the rhythm method, failed, she grew more open to being convinced that chemical or mechanical contraception was both practical and harmless. At the same time, she made clear that she and her Ministry were interested in fertility management only as part of a broader expansion of health services in India. "The study of the population problem should be developed on a much broader and fuller basis than that of birth control," she wrote to Douglas Ensminger of the Ford Foundation in early 1955.[12]

A young philanthropic organization, the Ford Foundation's leadership was eager to solidify its authority in Delhi and among the major U.S. philanthropies.[13] At Ensminger's urging, Kaur had decided to ask the Population Council in New York for help creating an Institute for "continuous and coordinated studies" on this broader concept of population work. She also requested they send two people to "talk things over with me and my colleagues in my Ministry. I would like one of these two," Kaur specified, "to be a woman."[14]

The Population Council's director, Frederick Osborn and founder, John D. Rockefeller III, had their own particular interests in population. Rockefeller had worried about fertility since the 1930s as immigrants flowed from Europe and impoverished

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[12] Amrit Kaur to Douglas Ensminger, letter, March 1, 1955, Box 41, Folder 7, LBP.

[13] Alice O'Connor, *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century U.S. History*, Politics and Society in Twentieth-Century America (Princeton, N.J.: Princeton University Press, 2001); Ellen Condliffe Lagemann, *Philanthropic Foundations : New Scholarship, New Possibilities*, Philanthropic Studies (Bloomington, Ind: Indiana University Press, 1999).

[14] AK to DE, letter, March 1, 1955. Box 41, Folder 4, LBP.

communities of the southern United States. He was ready to be convinced after World War II that the Rockefeller Foundation's International Health Division had a responsibility to invest in fertility studies, having contributed to population growth by improving survival. Not all on the Rockefeller Board agreed, considering lingering discomfort about the relationship between fertility and eugenics before the war, continuing public taboo on matters of sexuality, and a strong Roman Catholic lobby in the Northeast linked to historical anxieties about limiting Irish immigrant populations. The Rockefeller Brothers' Fund was used to form the Population Council as a separate organization. Osborn himself had founded the Princeton Office of Population Research in 1936, sponsored by the Milbank Memorial Fund and motivated by concerns about changing population dynamics in the U.S. after World War I.[15]

Choosing population experts to consult with Kaur was not difficult for Osborn and Rockefeller. They quickly approached demographer Frank Notestein and Leona Baumgartner, New York City's recently appointed new Health Commissioner. Neither were identified as "birth control pushers." Notestein was a giant in the profession of demography with a decade-long relationship with India and the Foundation. As director of the Princeton Office of Population Research, he supported research into fertility and population dynamics, but was among the demographers not wanting to cloud their profession by taking an activist stance on birth control, knowing its eugenic potential and political sensitivity. Since 1946 he

[15] Donald T. Critchlow, *Intended Consequences: Birth Control, Abortion, and the Federal Government in Modern America* (New York: Oxford University Press, 1999); John Sharpless, "Population Science, Private Foundations, and Development Aid the Transformation of Demographic Knowledge in the United States, 1945-1965," *International Development and the Social Sciences : Essays on the History and Politics of Knowledge*, 1997, 176–202; Susan Greenhalgh, "The Social Construction of Population Science: An Intellectual, Institutional, and Political History of Twentieth-Century Demography," *Comparative Studies in Society and History* 38, no. 1 (1996): 26–66; Eric B. Ross, *The Malthus Factor: Poverty, Politics and Population in Capitalist Development* (London ; New York: Zed Books, 1998).

had served as the first director of the UN Population Division. Baumgartner also met the criteria set by Kaur and the Foundation leaders. In private consultation foundation officers agreed among themselves that she was easier to work with than many educated women. Not only an expert in maternal and child health, she was also married to the chemical engineer Nat Elias, whose small business testing and manufacturing contraceptive products was an open secret and whose presence, in the estimation of the foundation men, would constitute added value.[16]

Partial understandings ran through the negotiated relationships between Kaur, the Foundations, and Baumgartner. Osborn considered "public health" to be merely a cover for the purposes of protecting Baumgartner's job in the United States. Osborn stated, in a letter to Dean Rusk, Rockefeller president and former Assistant Secretary of State for Far Eastern Affairs, "Kaur has always been anxious that so far as the public is concerned Dr. Baumgartner should be understood to have come over for public health consultation."[17] But to Baumgartner, the health orientation of this trip was as clear as it was to Kaur and she did not attempt to disguise that from her funders. After a phone conversation with Baumgartner, the Rockefeller Foundation director of medical education and public health and former director of the Atomic Energy Commission's division of biology and medicine, John Bugher, wrote an internal memo. "LB says she has a real interest in seeing a few things

[16] Ilana Löwy, "Defusing the Population Bomb in the 1950s: Foam Tablets in India," *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, Centre and Periphery in the Eighteenth-Century Habsburg "Medical Empire," 43, no. 3 (September 2012): 583–93.

[17] FO to Dean Rusk, Letter, Oct 5, 1955. RF 1.2 Series 200 14, 112. [0399] RAC.

in S.E. Asia in the health field for her own benefit, and if six weeks was as long as the Rajkumari could take, LB would take another two weeks to look around."[18]

Preparing for the trip, Baumgartner reached out to colleagues for contacts and insights. Martha Eliot at the Children's Bureau provided a host of names.[19] Retired Rockefeller Foundation medical officer Alan Gregg, who had spent many years of his career in India, wrote a list of "things to remember" about the culture of the Indian political elites.[20] Jessie Bierman, former director of Maternal and Child Health at the World Health Organization, who had visited India on a short-term WHO consultancy between February and April of 1955,[21] outlined her impressions, sent a report and an overview of the history of MCH in India. She strongly recommended that Baumgartner get in touch with Carl Taylor, a physician who had grown up in the Punjab in a missionary family. His parents had dragged a mobile clinic through the jungles along the Ganges River, which flowed down out of the Himalayas. Taylor had completed a medical degree and a doctorate in public health, and was now back in the Ludhiana District directing a Christian Medical College, developing preventive medicine curricula, and conducting an innovative study on "human ecology" with epidemiologist John Gordon of the Harvard School of Public Health and John Wyon, another public health physician who had grown up in India with missionary parents.

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[18] JCB, Memo on Dr. Leona Baumgartner, Commissioner of Health, New York City; Telephone call. Oct 5, 1955. RF 1.2 Series 200 14 112 RAC.

[19] ME to LB, letter, Oct 17, 1955. Box 41 Folder 7, LBP.

[20] The list included: "the concept of reincarnation," "the concept of time," the lack of "concept that what is good for a few is good for many," "the right of grandfathers and ancestors," "the approach of 'we haven't got it licked yet either,'" Health Officers Point of View" involved pride in improvement of self-government, control, responsibility to the people, and "anything Ghandi [sic] approved of," two names – Richard B. Gregg and O.B. Lol – and a statement that the government was "at the same status that the USA was in 1787." Allen Gregg to LB, Memo, June 20, 1955. Box 41, Folder 4, LBP.

[21] University of California, "Jessie M. Bierman," *In Memorium: University of California History Digital Archives*, 1996.

Baumgartner's preparation brought together a wide range of earlier interests, contacts and efforts, and she spent significant time hearing Bierman's perspective centered on maternal and child health. As she knew, the WHO approach had shifted away from the construction of central training hospitals extending into rural services. This comprehensive plan had proven impractical in the IIAA Servicios program. Now, in 1955, the WHO orthodoxy was that the most efficient way to comprehensive health systems was a phased operational design, beginning with an initial "public health approach" targeting a single issue and expanding over time as benchmarks were met. When Bierman and Baumgartner spoke on the phone, Bierman was frank in her opinion that the status of mother and child health services in India was terrible, urging Baumgartner to do what she could to speed the retirement of Colonel Bhatia, the director of MCH in the Ministry, whom she felt was obsolete and inefficient. In the official WHO report she shared with Baumgartner, marked confidential, Bierman's opinions had seemed more positive.[22] Here she reported a "much greater extension of services in past 7-8 years than in all previous combined." Departments of Social and Preventive Medicine had been established in Indian Medical Colleges in 1954-55. An All-India Institute of Medical Science was under construction. She had encountered Indians trained in the United States on fellowships, visiting experts, equipment and supplies in health centers and hospitals, dry milk, medicines – all "evidences of help." She expected that these tangible forms would allow India to improve their programs for mothers and children faster than Western countries had. Material expectations fed materialistic ideas, and her advice was limited to clinical, abstract, and mobile expert knowledge. She talked of nutrition laboratories and marketing strategies to improve quantity, biochemical qualities,

[22] Dr Jessie Bierman, MCH Report and "Random Notes to LB on INDIA." August 1, 1955. Box 83, Folder 12, LBP; WHO, "A Note on Maternity and Child Health Administration in India for Dr. (Mrs.) Leona Baumgartner," 5. Box 83, Folder 12, LBP.

and demand. She suggested hanging growth charts in the clinics to motivate behavior change. But in her private conversation with Baumgartner, such enthusiasm flagged.

Amidst her postal and telephone exchanges, Baumgartner walked down the hall at the NYC Department of Health to speak with Carl Erhardt, the Director of the Bureau of Records and Statistics, who responded later with a collection of population data that he thought "might be useful." Drawing from the UN 1954 Demographic Yearbook and the city's health records, Erhardt presented his tabulation with modest precaution. The selection of items was "of course," he said, "rather arbitrary, both as to the countries covered as well as the statistical items included. I was guided by the availability of the information for various countries as much as by other factors." He noted that, for some of the presented statistics, direct comparisons between countries were "extremely hazardous," urging that "great care must again be used in interpreting information." He knew Baumgartner would be interested in infant mortality rates, but among the countries he chose there was no infant mortality data available for India, as well as Burma, Chile, Brazil, and Mexico. Even for the countries where an infant mortality rate was available, he said, the numbers reflected not direct observation but calculations from population data. "That is the way the information is available in the U.N. reports," Erhardt explained.[23]

The Health Survey and Development Committee

As Baumgartner and Elias landed in Delhi in November of 1955, Dr. V. Ramakrishna from Mysore, who would soon be appointed to the All-India Health Ministry, sent a message of welcome. "Our infant democratic country badly needs the advice, sympathy, and support of

[23] Carl Erhardt to LB, Letter, October 25, 1955. Box 83, Folder 15, LBP.

the outstanding experts like you both."[24] Among nation builders, infant mortality was widely used as a symbol of value for the new nation. In the early summer of 1949, the *Times of India* had featured Dr. M.D.D. Gilder, the Minister for Health and Public Works in Bombay, addressing students at a new medical college in Baroda. "The nation was in a state of dynamic mobility," Gilder said, "and our independence was still a crying infant of which proper care ought to be taken." The affective valence of the statistic was powerful even when international definitions of infancy were not followed. "In India," Gilder was quoted, "50 per cent of infants under 10 years of age die." [25]

Carried over from the relationship between India and Britain's institutions of social welfare, the symbolic and pragmatic role of the infant mortality rate was re-inscribed in the first national health policy. Baumgartner acquired a copy during her visit. Fastened with a heavy brown staple and printed in unsteady type on long heavy pages, some considered the document odd for a country in which the Constitution stipulated that health was a responsibility of the states.[26] The policy was an ideological artifact of an earlier document, produced in one of the last acts of a dying colonial government, and for international organizations like the WHO, the design was already outdated.

In 1943, as the Quit India movement erupted among nationalist organizers, the colonial government had convened a Health Survey and Development Committee. Its mandate was to survey the health conditions in India and, based on this survey, to make recommendations for future developments to be implemented after the end of the war. Led by civil servant Sir Joseph Bhore, the committee also included John Grant, director of the

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[24] VR to LB, letter, Nov 6, 1955. Box 41, Folder 6, LBP.

[25] "Health Services in Rural Areas," *Times of India*, June 19, 1949: 3.

[26] Government of India Planning Commission, "Chapter XXXII: Health." The First Five Year Plan (Vol II). 1951. Box 83, Folder 12, LBP.

All-India Institute of Health since 1939. The war had pushed him out of China, where he had been raised as a child of missionaries and began a career with the Rockefeller Foundation doing rural health survey work. Baumgartner knew Grant well and the two would become good friends. Also on the Bhore Committee were K.C.K.E. Raja, K.T. Jungalwalla, R.C. Roy, Pandit P.N. Sapru, and A.L. Mudaliar. Baumgartner would come to work closely with Raja and Jungalwalla in their development work over the next decade. The government had also invited six international health experts funded by the Rockefeller Foundation to advise the Bhore Committee. This team included Henry Sigerist from Hopkins and John Ryle and Janet Vaughn from the Oxford department of social medicine, as well as Australia's Director General of Health J.H. L. Cumpston, UK Deputy Chief Medical Weldon Dalrymple-Champneys, and J. W. Mountin of the US Public Health Service. According to the *Times of India*, the government had also extended an invitation to an unnamed Russian health expert who had not replied by press time.[27]

The formation of the Health Survey and Development Committee was a response to a century of growing tension between the laissez-faire policy of colonial government and complaints about public welfare. No systematic health survey had ever been conducted in India. As colonial authorities built city hospitals to support the British and local elites and Civil Service in the 19th century, internal health and welfare services had been left to non-governmental organizations and a voluntary movement that rose here as in Britain, the United States, and Russia.[28] Baumgartner's contemporaries in India pointed out the spirit of

[27] "Medical Experts to Visit India: Assistance to Health Survey Committee," *Times of India*, October 20, 1944: 7; Amrith, *Decolonizing International Health*.

[28] Allen Freeman Davis, "Spearheads for Reform the Social Settlements and the Progressive Movement, 1890-1914" (1959, 1959); Salmaan Keshavjee, *Blind Spot: How Neoliberalism Infiltrated Global Health*, California Series in Public Anthropology ; 30 (Oakland: University of California Press, 2014).

volunteerism in both Hindu and Muslim ancient traditions, and Indian social worker Wahammudin Ahmed was among those who asserted that indigenous organizations had formed to resist the rising Western influence. Ahmed also noted that Western liberal ideas about "the value of every human being" also emerged at this time.[29] In Uttar Pradesh, the province west of Delhi and running up into the foothills of the Himalayas, Presbyterian missionaries had made footholds in the early 19th century, building hospitals and medical colleges and sending itinerant medical couples to evangelize communities in the jungle around the Ganges during the course of the century.[30] As economic depression in the early 20th century directed attention to rural health and agriculture, the Rockefeller Foundation set up health units as part of a new rural hygiene movement, dedicated to the idea that health would not be improved without community development, which entailed both education and a raised standard of living. The Constructive Program of Mahatma Gandhi advocated rural reconstruction through human development focused not primarily on economic productivity, but rather spiritual and social development and good nutrition.[31] The four volume report of the Health Survey and Development Committee, completed in 1946, proposed a health plan following the legacy of past rural hygiene work as well as advances in clinical biological medicine. The design was familiar to Baumgartner. She would credit this

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[29] Smt. A. Wahabbudin Ahmed, "Role of Volunteer Social Workers at Direct Service Level," in the Seminar on the Role of Volunteer in Social Work, Bombay, March 9-13, organized by the Indian Conference of Social Work and the Cleveland International Programme for Youth Leaders and Social Workers, Inc, 1964. National Council of Women in India, F-149. NMML. Jawaharlal Nehru, Foreward, August 20, 1954. Papers of Durgabai Deshmukh, Acc. #87, Collected with the Papers of Jawaharlal Nehru, Nehru Memorial Museum and Library (Henceforth NMML).

[30] "Administrative History," United Presbyterian Church in the U.S.A. Commission on Ecumenical Mission and Relations Secretaries' Files: India Mission. RG 83. Presbyterian Historical Society. Accessed at www.history.pcusa.org/collections/research-tools/guides-archival-collections/rg-83, May 12, 2017.

[31] Amrith, *Decolonizing International Health*.

approach later in her career to John Grant. The report prominently displayed infant mortality rate estimates for India as the essential proxy for population health.

Rather than ritually recognized and public as it had been in colonial Ecuador, infant death had been driven from public view in colonial India. The clash of local, missionary, and colonial health politics had sensitized attempts to collect information about infant death. Even before nineteenth century reform movements raised the status of infant mortality to a key state metric of public health, missionaries had pushed local practices of infanticide and in particular the biased disposal of female infants onto the colonial agenda. Although the practice also existed among communities in London, missionary workers allocated special attention to the practice in India and lobbied colonial authorities for response. Stigmatized as something even a "tigress" or a "she-wolf" would not condone, infanticide carried the threat for accused communities of losing the protection of the British Government and favorable connection with the East India Company.[32] Disputing local authorities subsequently reported on each other to draw colonial censor. Following the example of the Statistical Society in London in the mid-19th century, officials in India asked village watchmen to report regularly on births in the agricultural castes.[33] Because individual cases of infanticide were difficult to prove in British courts, the matter was treated as a 'statistical crime,' in which entire social

[32] John Wilson, *History of the Suppression of Infanticide in Western India under the Government of Bombay: Including Notices of the Provinces and Tribes in Which the Practice Has Prevailed* (Smith, Taylor and co, 1855).

[33] C. A. Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870*, Cambridge Studies in Indian History and Society ; 1 (Cambridge ; New York: Cambridge University Press, 1996): 177, 220; David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth-Century India* (Berkeley: University of California Press, 1993).

groups were indicted.[34] As in the United States and Ecuador, moral explanatory frameworks were applied to data, even as the specific conditions and categories varied.

As international attention to the infant mortality rate amplified after World War I, nationalist movements adopted the infant mortality statistic for the purpose of anti-colonial resistance. Major cosmopolitan newspapers in Bombay and Delhi had gaped at the rapidly diverging rates of infant mortality between London and the colony, whose most beautiful cities were among "the most terrible graveyards in the world for child life."[35] In 1919, a year of epidemic and famine, the infant mortality rate in Bombay was estimated to be 652.84 deaths for every thousand infants born alive. In the cities, leaders of voluntary organizations appalled at the high infant mortality rate, the quieting of infants with opium by factory women, and the lack of basic hygiene, organized Baby Shows in the cities, intended to educate women on hygiene and sanitation and inspire a moral approach to infant life.[36] At these exhibitions, women were "taught" how to bathe, feed, and soothe their infants in accordance with British customs. In the press a debate raged over whether Gandhi accepted or rejected western methods of public health and medicine in the face of the high infant mortality rate.[37] Nationalist movements recoiled at the Baby Shows as tamashas or

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[34] Bernard S. Cohn, *Colonialism and Its Forms of Knowledge: The British in India*, Princeton Studies in Culture/Power/History (Princeton, N.J.: Princeton University Press, 1996).

[35] See, e.g. "Save the Children II: Infant Mortality," *Times of India*, February 4, 1920:9; "Declining Death Rate: Mortality in England," *Times of India*, November 22, 1920: 12; "England's Healthiest Year," *ToI*, Feb 23, 1922:12; "Bombay Infant Mortality," *Times of India*, Feb 28, 1922: 8.

[36] "Twins Found in a Tin Can," *Times of India*, January 28, 1922:17; "Bombay Baby Week: A Full Programme" *Times of India*, January 12, 1924: 12; "Infant Mortality: Measures against drugging by women workers" *ToI*, March 12, 1925: 7; "Poona Baby Week Opens: "Amazing Enthusiasm" *Times of India*, June 15, 1925; "The Municipal Corporation: Obnoxious Practice Drugging of Infants by Mill-workers" *Times of India*, Nov 2, 1925:8.

[37] "Mr. Gandhi on Sanitation," *Times of India*, July 29, 1921:6; "Infant Mortality and "Fatalism," *Times of India*, Dec 13, 1928: 10.

manipulative performances designed to trick the international community into thinking the colonial government was legitimate, declaring that Mr. Gandhi had put a "patriotic ban on the procreation and rearing of any children so long as the satanic rule of this Sarkar lasts," calling it a "heinous crime against the cause of patriotic ethics to add to the already too numerous Indians rotting in slavery."[38] Some commentators raised the proposition that birth control was a better solution to infant mortality for India than infant welfare centers "more suitable to England."[39] The responses to resistance addressed the statistical problem of infant death, not the phenomenon of infant mortality. While much could be done to reduce infant deaths incrementally, the phenomenon was highly local and responses that effectively avoided some infant deaths could still neglect important determinants and meanings that shaped patterns of survival and efficacy, as well as how the people themselves felt about the interventions.

While the statistic of infant mortality featured in the Bhore Report as the best available proxy for population health, the response advised was a "total system." Such an approach would offer three integrated tiers of medical service to bring curative, preventive, and promotive health care "as close to the people as possible for the widest cooperation." An integrated system would enable special provisioning for the most vulnerable in society, as well as streamline the influence of health professionals on government policy, and to attend to the creation and maintenance of salubrious environments. Financed by tax revenue and free to the public without distinction, this system would achieve efficiencies through its spatial organization. The three-tiered scheme was "an ascending scale of efficiency from the

[38] Not a "Tamasha": Campaign Against Ignorance Filth and Superstition What the Baby Week Means. *Times of India*, Feb 15, 1926: 10.

[39] "Our Readers' Views: Birth Control to the Editor of the Times of India" *Times of India*, April 21, 1926: 15.

point of view of staffing and equipment." Flipping the priority of medical attention from cities to the remote areas of the region, the primary units providing health promotion activities "at the periphery" were co-served by secondary units offering basic preventive and curative medical care. All of these referred to a district hospital. Consulting, laboratory, and institutional facilities would be combined into group practices. Report authors stressed the importance of maintaining the "organic unity" of this design, even if it meant limiting the extent of the services. The health system would drive social development and economic productivity by improving social and personal health, and expanding markets to foster economic growth.[40]

Data collection constituted a crucial dimension of the proposed health system. The Bhore Committee explained how difficult it had been to conduct any comprehensive survey of health and health services in India. To improve the integration of local knowledge into the system, the authors urged employment of full-time local registers who were residents of the communities they measured. To ferry large amounts of population data to the state governments the Committee advised new electronic data processing machinery. Such machinery was already used by census operations in the United States, continental Europe, and Britain.[41] Without a word of care about the sensitized character of infant mortality data in India, the report displayed the infant mortality statistics not only from India but also Britain and the United States, for which the statistics were segregated into categories of "white" and "Negro." No comment was made on the sensitivity of this matter. The worldwide circulation of charts in which "white" and "Negro" were separate promulgated a

[40] J.W. Bhore, *Report of the Health Survey and Development Committee* (Delhi: Government of India Manager of Publications, 1946).

[41] Sarah Elizabeth Igo, *The Averaged American: Surveys, Citizens, and the Making of a Mass Public* (Cambridge, Mass.: Harvard University Press, 2007).

taken for granted difference by the designers of the charts, and made "white" the category that set the aspirational standard.

The voluminous and detailed Health Survey and Development Committee report was socio-politically simple not only in its stark presentation of psychologically fraught data but more generally in the way it took for granted that government, experts, and "the People" would necessarily and openly collaborate. After the war, colonial-era institutions and the civil servants who had staffed them were maintained across the transition of power.[42] Though the transition occurred "non-violently," without outright revolution, it had not been absent of violence. Preceded by revolts, political suppression, and devastating famines, the end of colonial rule was accompanied by extended sectarian violence. Muslims and Hindus, migrating to re-sort their communities according to new political lines dividing Pakistan and India, butchered each other as they crossed paths in the process. Over 1,000,000 people were killed in the Partition process. Gandhi himself was assassinated by Hindu extremists on the justification that his non-violent and inclusive approach would not preserve Hindu priority in the new India.[43]

It was typical of Rockefeller Foundation policies and demonstrations to scrupulously avoid sociopolitical matters and deeply harbored antagonisms. It was not only policy documents but also photographs by rising journalists that told this simpler story. Margaret Bourke-White, who had traveled to the Soviet Union with Arthur Newsholme and the Milbank Memorial Fund in the mid-1930s, now had a career as a magazine photographer.

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[42] Bose, "Instruments and Idioms of Colonial and National Development India's Historical Experience in Comparative Perspective."

[43] Francine R. Frankel, *India's Political Economy, 1947-2004 : The Gradual Revolution*, 2nd ed. (New Delhi ; New York: Oxford University Press, 2005); Nandan Nilekani, *Imagining India: The Idea of a Renewed Nation*, 1st American ed. (New York: Penguin Press, 2009).

She shot reels of film of India's Partition for *Life* magazine. With light mapped onto film, she framed piles of corpses, wooden cart migrations stretching to the vanishing point on a dusty horizon strewn with broken pots, and temples crowded with people seeking asylum. Channeling Christian iconography, one photograph displayed a mother on the back of a donkey, infant latched at her breast. Another woman, seated in a room strewn with bodies and fluids, held a limp child and stared out of the moment with gaping eyes. The Life editor selected some of the most tragic images from the shoot. Though murder had migrated in both directions, the only aggressor in the published photographs was nature. In an image of floating bodies, vultures tore at their flesh. The complex violence from which the photograph was extracted was simplified to a few sentences in small type at the bottom of the opening photograph, underneath a two-page photo spread of a "determined" man, "ailing" woman, and three children carrying heavy loads: the image of a typical modern family in the eyes of the photographer and *Life* editor.[44] It was the kind of picture that made Baumgartner and others who shared her worldview wonder why everyone did not send food to the starving masses, when there was so much of it in Kansas – as Baumgartner had exclaimed to a friend in 1945. By design, the photographs were indifferent to the conditions of the suffering displayed as they intended to evoke universal compassion. The iconography suggested the photographer and editors of *Life* expected all in their readership to agree on the need to intervene.[45] And yet, with imagery structured on norms that made the images

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[44] M. Bourke-White, "The Great Migration: Five Million Indians Flee for Their Lives," *LIFE*, Nov 3, 1947: 117. Unpublished photographs from this shoot are available in the LIFE Picture Collection, Getty Images. Some are hosted online by Google via images.google.com/hosted/life. Accessed October 20, 2016.

[45] Susan Sontag, *Regarding the Pain of Others*, 1st ed. (New York: Farrar, Straus and Giroux, 2003); Arthur Kleinman and Joan Kleinman, "The Appeal of Experience; The Dismay of Images: Cultural Appropriations of Suffering in Our Times," *Daedalus* 125, no. 1 (1996): 1–23.

highly relatable to life in the United States, it was possible to believe that food or other exportable solutions were adequate rather than conveying the political violence and complexity of social suffering. Sympathies did not lead to intervention, and *Life* magazine did not activate the public, given the evidence of continued public lethargy to international assistance that would frustrate Baumgartner throughout her career.

Misbehaving Data

In the hands of the Congress Party, the design for health-led development was translated into the thirty-second chapter of an economic plan for national development. Prime Minister Jawaharlal Nehru, leading the post-colonial transition, had been impressed over the last decade by the speed with which the Soviet government had achieved economic growth under a national planning approach, incremented in Five Year Plans. As early as 1936, while fighting for self-rule as a member of the Indian National Congress, Nehru had defined socialism not as a humanistic pursuit but as an economic vision. "I am convinced," he said, "that the only key to the solution of world's problems and India's problems lies in socialism and when I use this word I do not use it in a vague humanitarian way but as a scientific economic doctrine."[46] Subhas Chandra Bose, as President of the Indian National Congress with an ideology matching Nehru's own, had initiated a national planning committee years before independence. With an austere consideration, he explained, "We can at best determine whether this revolution, that is industrialization, will be a comparatively gradual one, as in Great Britain, or a forced march as in Soviet Russia." "I am afraid," he concluded,

[46] Citing Nehru's speech at the Lucknow Congress of April 1936: Narahari Kaviraj, *Gandhi-Nehru through Marxist Eyes*, 1st ed. (Calcutta: Manisha, 1988): 70.

"that it has to be a forced march in this country."[47] Nehru envisioned centralized reforms as not only pragmatic but also necessarily evocative. Planning itself was, in his words, a "bright and heartening phenomenon in a dark and dismal world."[48] To move people to action, he said, "Development must be a drama." To the chief ministers in 1953, he wrote, "More and more it is being realized in other parts of the world that we in India are engaged in a mighty adventure."[49] This term, frequently utilized by Baumgartner, took on different meanings in different political contexts. Where for Baumgartner and others in the United States for whom the national adventure myth was one of expansion of the nation to settle and claim new territories, in India, as Nehru described it, it was about developing the nation-state from within old colonial boundaries. Different national narratives drew different cognitive maps.

Like Baumgartner and her colleagues populating the twentieth century medical discipline of social medicine, Nehru was concerned about the instability of change, and like some of them he believed central planning could effect a stable transformation. Fearing the outcome if disenfranchised people in India awoke to the liberal notion that their relative position in society was not a "natural" order but a product of exploitation, he argued with the businessmen, contractors, and landowners who dominated the Congress party that agriculture in the new India must profit not only the wealthy landowners but also foster social and political transformation. He was not oblivious to the hardships of a "forced march" towards development, but guided by a "scientific temper." The plans, Nehru argued, would "sweep away" culture.

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[47] Rudrangshu Mukherjee, *Nehru & Bose: Parallel Lives* (Penguin Viking, 2014).

[48] Frankel, *India's Political Economy, 1947-2004*.

[49] G. Parthasarathi, *Jawaharlal Nehru: Letters to Chief Ministers, 1947-1964* (Delhi: New Delhi: Jawaharlal Nehru Memorial Fund, 1987): 252. The quotation continues: "To build up this country and to solve the problems of poverty and unemployment in a democratic way on this scale is something that has not been done anywhere."

The approach ultimately launched with the First Five Year Plan for India in 1951 combined Soviet-inspired economic planning with a Gandhian approach to social transformation. In particular, the Planning Commission looked to the community projects, agricultural demonstrations initiated in 1945 with U.S. technical assistance in Etawah. Initiated with the advice of American planner Albert Mayer at the end of World War II, the projects began as integrated rural development demonstrations.[50] Etawah was a site likely to be successful, as one of the regions where the Presbyterian missions had a long-established presence. When the Planning Commission first considered expanding the Etawah project in the First Five Year Plan, they proposed locating these demonstrations in sites near irrigation or natural rainfall sources where they were likely to work. Before the First Five Year Plan was launched, however, the initially small operation had been scaled up to meet Nehru's preference for sweeping reform. Even if the CDPs were not completely effective as resources stretched to cover this scale, Nehru expected they would inspire the people to take up the work of development themselves.

Though Nehru and his closest advisors publicly denied that there was any "population problem" in India, conservative voices on the Planning Commission insisted on the inclusion of fertility control policy in the national plan for public health, arguing that it was a "uniquely Indian" approach to the tensions between population demands and available resources.[51] Some, like the British-trained physician and statistician K.C.K.E. Raja, Director General of Health Services and former Bhore Committee Member, supported fertility

[50] Albert Mayer, *Pilot Project, India; the Story of Rural Development at Etawah, Uttar Pradesh,* (Berkeley, University of California Press c1958, 1959).

[51] RA Gopalaswami, Census of India, 1951 Volume I India Part 1-A. Government of India, 1953: 211-214. Gopal Room, National Archives of India. Private messages suggest Nehru's public position differed from private beliefs about population. "Excerpt from RFE memo on Far Eastern Association Annual Meetings, March 27, 1951, RF GC RG29GG) Box 464 Folder 3609, RAC.

policies for personal reasons. He saw his mother, who had died after giving birth to his eighth sibling, in the maternal mortality statistics.[52] Among the lawmakers, however, enough were concerned about the potential for abuse that a law in the new Constitution forbade sterilization unless deemed medically necessary. The ruling elite in India, predominantly high caste Hindu who had inherited colonial government institutions, had a history of discrimination against the political minorities who made up India's demographic majority.[53]

The central planners, wishing to base their "scientific" government on data, swept up the Bhore Committee's recommendations for a data registration system. Nehru's close advisors, in particular the physicist and statistician Prasanta C. Mahalanobis who directed the Indian Statistical Institute in Calcutta, were concerned about the dearth of Indian information on which to base the centralized plans.[54] According to Rockefeller officials who knew him at the time, Mahalanobis was "keenly aware of the serious handicaps India faces in its attempt to improve living standards because of the almost complete absence of the kinds of factual information about the country which have come to be taken for granted in most Western nations."[55] This information ranged from census data on population, agriculture, business, etc., through money flow, business and consumption practices, and distribution of resources. Mahalanobis and his Rockefeller affiliates agreed that this information was "very

[52] K.C.R. Raja, "Fond Memories: Of Dr. Kuttiettan Raja," K.C.R. Raja, kcrraja.com, 07/04/2011. Accessed April 10, 2017.

[53] Mohan Rao, *From Population Control to Reproductive Health: Malthusian Arithmetic* (New Delhi ; Thousand Oaks, Calif.: Sage Publications, 2004); Arjun Appadurai, *Fear of Small Numbers: An Essay on the Geography of Anger*, Public Planet Books (Durham: Duke University Press, 2006). For a primary source discussing this history see also: RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953: 213.

[54] C. R. Rao, "Prasantha Chandra Mahalanobis. 1893-1972," *Biographical Memoirs of Fellows of the Royal Society* 19 (December 1, 1973): 455–92; A. Mahalanobis, *Prasanta Chandra Mahalanobis* (New Delhi: National Book Trust, India, 1983).

[55] LCD note on Mahalanobis outreach to Survey Research Center. October 16, 1950. RF GC RG2(GC) 464 3278 RAC.

badly needed and could in considerable degree be provided by survey research techniques." Though it was state-level Minsters of Health who initially proposed in 1948 to build up the capacity for vital statistics registration, basing their request on the Bhore Committee's advice, the Planning Commission took over the idea in 1949, establishing a Population Data Committee to oversee "population statistics including vital statistics" for All-India. R.A. Gopalaswami, Special Secretary in the Ministry of Home Affairs, was named Registrar General and ex-officio Census Commissioner. On an Advisory Committee, K.C.K.E. Raja sat with physician Gyan Chand, acting Government Actuary A. Rajagopalan, and Mahalanobis, who would himself become a member of the Planning Commission in 1955. This committee constructed the All-India Census for 1951.[56]

Adapting a suggestion of the Health Survey and Development Committee, the census designers integrated household level data collection into the census for the first time. The intention was to enable richer inferences about the relationship between demographics and changes in living patterns over time. "The facts elicited during the course of this operation yield valuable scientific data of sociological importance," the Minister of Home Affairs Sardar Vallabhbhai Patel announced. "In many matters it provides a useful guide for the effectiveness or otherwise of our economic policies."[57] In contrast to past population censuses conducted by the British Raj, the first national census of the new and independent India was "no longer a mere counting of heads," he said, but a scientific endeavor.[58] Rather

[56] RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953.

[57] Ibid., 1-2.

[58] Past census efforts, compared to the phoenix, had been soundly criticized by former census commissioner M.W.M. Yeatts: "The system, if that word can be used here, is in brief that every 10 years some officer is appointed to conduct a census…in the third year the whole system is wound up, the officers and the office staffs are dispersed and India makes

than conducting these surveys in every household, the 1951 census included a National Sample Survey, for which only some of India's households would represent the whole. As the Minister of Home Affairs proudly announced, the survey was "not to be conducted in any old pigeon hole."[59] The census was a matter of pride and the first picture of the new India to the watching international world.

Though the Population Data Committee claimed to be applying the advice of the Bhore Committee, they adapted the methods in ways that changed the meaning of measurement and the way survey information was used. The Bhore Committee had advised full time registrars living as close as possible to the people in the villages. Baumgartner, similarly, had advised in her 1949 and 1950 reports on nation-wide infant mortality work that local nurses and doctors conduct surveys of their own communities to know the conditions of premature birth and death. The specificity of health conditions was in context, and the survey had been intended to guide inquiry. Rather than using survey data inquisitively, the Planning Commission's Population Data Committee intended to use survey data acquisitively, working from the data itself to generate demographic and economic models specific to India. "The theory of population is in itself an interesting part of economics," the Home Minister said. "The census helps us to test and adapt that theory to facts." Because the goal was to work from the data, not the local conditions of the data, the Population Data Committee concluded that, "this proposal may be abandoned, as it is likely to prove much too costly."[60] Enumerators were instead centrally selected and trained for the temporary purpose of the census, periodic disruptors to community life rather than integral parts of it.

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haste to discard and forget as soon as possible all the experience so painfully brought together." Ibid., iv.

[59] Ibid., iv-v.

[60] Ibid., 10.

The Bhore Committee had also made recommendations for building not only connection at the point of data production, but also between local areas and central government. Baumgartner had advised that the investigators of small local studies bring their knowledge into government policy discussions, and the Bhore Committee recommended populating government offices with physicians, nurses, and others with experience in local health conditions. The Planning Commission sent data itself to the government, not the people with social knowledge about the data's meanings and determinants. Distancing the enumerators from the analysts processing and interpreting the data into policy, the specificities of context did not accompany the data as it traveled from villages, through intermediary processing centers, across the continent to Gopalaswami and Jain's offices in Delhi. Where Baumgartner preferred small studies over large censuses because they enabled investigation into the specific meaning of data, the Census Committee preferred small samples because they were efficient in cost and time.

The Census Committee also adapted the Bhore Committee recommendations for maintaining the completeness of the data once collected. Though the Bhore Committee had advised survey administrators invest in new machinery to manage the data from the 70 million people counted in the census, the Census Commission had opted to not use machines. A footnote in the Census Report read that, while "in other countries, electrically operated machinery is used at this stage, thus rendering the employment of a large staff unnecessary," the proposal "was considered carefully and decided against, on the ground that it would certainly increase the cost and, in all probability, take more time."[61] A defensive statement was tacked on to the end of this explanation. "Subsequent experience," noted report author and Registrar General RA Gopalaswami, defending the decision to not use

[61] Ibid., viii.

machines, "has not indicated any reason to regret the decision to rely entirely on human agency."[62]

In their adaptation of social ways of knowing to technical ways of knowing, the Census Committee revised the notion of data quality. For Baumgartner, the qualities of health data were the local conditions in which it was produced. For the Census Committee, quality was a property of the data itself and could be achieved through mathematical manipulation to "clean" it.[63]

In early spring of 1951, 700,000 enumerators trained by 80,000 census supervisors and nearly 10,000 census charge operators were unleashed across the country to fill out Census slips for households across the subcontinent of India. The enumerators, whom the commission claimed to motivate by inspiring their sense of citizenship, had been supplied with instructions in relevant languages for their allotted registration districts. Local media had assisted in alerting people to the incoming census, and houses had been marked with numbers. Once the census slips were filled out, they collected in offices located one in each of 52 territorial units of the country. There the slips were transposed by sorters onto sorter's tickets. These tickets were then compiled by compilers into posting statement. The task amounted to an estimated 47,218 man-months of work.[64]

When the results were made public, it was evident that the data that survived the trip from the villages to Delhi was inconsistently missing with large sections of the population

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[62] See also: Ministry of Health, Report 1952-1953, Delhi, Feb 1953: 8. CSL. "A provision of Rs 1,500,000 has been included in 1953-54 budget on account of mechanical aid for Vital Statistics to Part 'A' States. It is proposed to give aid to Part 'A' States for the introduction of mechanisation for the tabulation of Vital Statistics accurately and speedily."

[63] RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953, x.

[64] Ibid., viii.

missing altogether. "A surprisingly large number of people," wrote Registrar General R.A. Gopalaswami, "decline even to make the attempt to figure out their own age."[65] Other criticisms were levied at the impracticality of Western indicators for Indian settings. Even the basic category of "village" did not carry the same meaning across India, Gopalaswami noted. "What is called a 'village' means one thing in one zone and another things in another zone," he noted in discussing a table of statistics comparing different geographic zones in the 1951 census data. "The next question is the meaning of the figures in the second and third columns. Is there a real difference in the living pattern? Are the villagers in some parts of the country more gregarious than other parts?" He concluded, "It would not be safe to read any such meaning into the figures, mainly because what is reckoned for all administrative purposes (and consequently also for the census) as a 'village' may or may not be the same as what we normally have in mind when we speak of a village."[66] The report read like an apologia, accepting the state of the results but blaming it on the recalcitrance of the people and the impracticality of the Western-based indicators they had to work with.

And yet, "it was no use," Gopalaswami explained, "merely saying that we do not have complete information and can, therefore, come to no conclusions."[67] The Planning Committee had to form its Second Five Year Plan.

With vanishingly little observational data to work with, the actuary S.P. Jain's role became what Gopalaswami described as a "high priest" who could "submit the returns of age thus secured to a kind of purification ceremony." Drawing on his "quarries" of data he

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[65] Ibid., 63. In such cases, the enumerators had been trained "to make the best possible estimate of age … with the help of bystanders." The method they were trained on was to state a "notorious" local event that anyone from that area was bound to remember, and let the citizen work out what he was like when the event occurred.

[66] Ibid., 43-44.

[67] Ibid., 79.

could "use complicated mathematical formulae in order to purge the returns of irregularities…and thus produce 'smoothed' Age Tables." As Gopalaswami readily noted, the "figures do not represent a simple computation from census data or registration data or both. They are something more complex than a computation," he said. "They constitute a judgment."[68] In what they called "purification" rituals, they omitted irregular data on the grounds that they would "secure data of maximum value and minimal cost" that was "specially adapted to our needs and resources." The techno-logic in this view prioritized the quality of the data "itself" over the ability of the data to represent local qualities in lived society.

The data was not entirely irregular at random. The "worst" data was associated with the most remote regions of the country and the most politically marginalized people. In Kashmir and the Part D tribal areas of Assam, there was no household level data. In Punjab, a region with many Christians and Muslims in addition to Hindu Indians, the data had been reportedly destroyed in a fire.[69] No data was more obviously missing than that representing infant lives. "Evidently," Gopalaswami wrote, "a great many births escaped registration, and so also, no doubt, deaths. The basic record is materially incomplete."[70] The problem was pervasive across all regions of India, he said, with "uncertainties of this kind…present in every state."[71] Because age report was only thought to be reliable within 10-year age groupings for adults, or 5-year groupings for children, there was no complete observational data set with which to calculate infant mortality, which required counts of the number of

[68] Ibid., 81.

[69] GoI Ministry of Home Affairs, Office of Registrar General, *Scheme for Improvement of Population Data*, 1952: 13. Gopal Room, NAI.

[70] RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953, 78.

[71] Ibid., 79.

infants who died before the age of 1 year. Where there was no data, it was generated by calculation. Jain applied estimation methods to generate data for this age group. "The sample," a later registrar general wrote in reflection, "did not behave."

In the report Gopalaswami prepared for the eyes of the world, the first statistical picture of free India, he responded to estimates of infant and maternal mortality with signals of shame. He remarked on the "appalling waste of life and maternal suffering, so largely preventable, [going] on day after day in all parts of the country," He transitioned away from the discomfort quickly. "Let us now leave these unpleasant figures behind," he wrote before quickly moving on.[72] Other passages suggest that his feelings impacted the choices made about how to discuss the data. The highly sensitive matter of female infanticide, for example, treated as a "statistical crime" in the colonial past, was skirted in the census report. The 1951 data indicated a pronounced male-biased sex ratio at birth. "Can we be sure that we are not being misled by the selection omission of female infant deaths? All things are possible," Gopalaswami wrote, "but we have to judge what is probable. Large and consistent differences...cannot be attributed to this cause."[73] Other parts of the world had also experienced a birth ratio slightly favoring males, he said, skirting quickly over the fact that in some areas in India the ratio was exceptionally skewed, with only 800 females at birth reported for every 1000 males, on average.[74] The apparent excess of males later in life, he explained, was most likely due to male migration patterns for the cities. For the general population and areas with few cities, Faced with the task of explaining this in a highly visible and politicized document, without the option of blaming it on error because, he wrote, it

[72] RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953: 188-189.

[73] Ibid., 61.

[74] Ibid., 60.

was "difficult to think of any kind of systematic bias which would lead to continuous and universal suppression of female births in such numbers," he concluded that "a deficiency of females arises in all parts of India as a biological phenomenon." This, he said, "must be accepted as a fact."

As the editors of *Life* magazine had done with Margaret Bourke-White's photographs of Partition, Gopalaswami simplified social tragedy into a force of nature. "Nature, having given rise to inequality," he wrote, "then appears to set about redressing it." In a footnote, he allowed that rigorous research by other scientists might have turned up some other explanation for the bias but that he, overworked, had not had time to do so. Time was both a reality and an excuse. "It is possible that some completely satisfactory explanation of these facts has been propounded by scientists who may have made a special study of them, but the present writer (who has not been able to make a detailed enquiry) has not come across any such explanation." It was then given, after an asterisk, that "there is an 'opinion' that males might be getting better care than females," but he refuted that 'opinion' without further elaboration as "plausible but is to be doubted."[75]

As the census survey failed in the face of different meanings, determinants, and responses to the measures than their administrators expected, the designers solved their problems by reversing the relationship between survey and demonstration. In Baumgartner's experience, a survey was conducted to identify areas of concern, where social inquiry could be directed, or areas likely to be functioning well, where new innovations could be demonstrated. Demonstrations were set up based on where people were cooperative, not where data was cooperative. Led by Mahalanobis, the Census Committee formed a Data Improvement Committee to devise strategies productive of "behaving" data in the future.

[75] Ibid., 62.

One proposal was to conduct an "experimental census," in which surveys would only be carried out in select districts where data was likely to be easily secured. The survey sites were to be selected by state governments, not necessarily representative of minority peoples within their constituency, with an interest in choosing sites where they would get data that put their administrations in a good light. The estimated cost of the new method, according to Gopalaswami and his advisers, would be one lakh of rupees, in contrast to the 150 lakhs of rupees that had been dispensed for the 1951 census.[76]

Infant mortality data was in demand internationally. Faced with the particular challenge of getting observational data on infant death, completeness of infant mortality data took precedence over understanding the nature of human vulnerability to which Baumgartner thought infant mortality would attract attention. The data quality committee suspected that future enumerators would not get reliable answers to direct questions about infant birth and death, in particular stillbirths. Infant mortality data were nevertheless to be framed so that it could "be used to work out age-specific death rates required by the WHO."[77] A modification was also ordered for infant death registration. In the 1951 Census, the Planning Committee noticed, stillbirths had been reported frequently and counted as deaths. For the 1961 Census, stillbirths were not to be reported as deaths, the committee instructed, in order to avoid unreasonable inflation of mortality statistics.[78] The choices made in the interest of improving infant mortality data promised to mute the meanings, determinants, and responses to infant death among the least tractable people in the national population, and leave those people outside the light of government responsibility. The

[76] GoI Ministry of Home Affairs, Office of Registrar General, *Scheme for Improvement of Population Data*, 1952: 3. Gopal Room, NAI.

[77] Ibid: 48. See page 55 for the chart of WHO-requested ASDR.

[78] Ibid: 69.

Health Survey and Development Committee had not been intended surveillance as an act of policing. It had been designed to enact trust, sensitive connection, and the ability to respond to local conditions. Responsibility required adequate local knowledge, not all of which would or could be captured as numerical data.

Notestein's trip began a few months before Baumgartner arrived in Delhi. His accounts reveal that confusion between what was said and what was actually happening was not only a problem of data collection in the villages, but of the impressions of visiting experts. Notestein visited the ISI – a "really big operation," he noted, "a 5-story building with large overflow buildings" – and learned that Mahalanobis was intensively working on developing computers for India, receiving assistance from Soviets as well as Americans. Notestein remarked in his diary on a production model for a calculating machine and a batch of 15 underway, along with a digital computer on which Notestein heard them say they had Russian help. The ISI already had an analogue computer, he observed, and the man in charge had been trained in both the US and Russia. The machines were intended to generate random numbers, to identify trends in population data for the purposes of planning and to help in the construction of economic models. He met with Mahalanobis, who referred to the computers as "institutions without posts." Notestein took Mahalanobis's comment to mean he was "afraid of the machines."[79] To the contrary, in his own writing and work, Mahalanobis was enthusiastic about the computers and working to negotiate their acquisition across the Cold War divisions.[80] What Notestein read as fear may better have

[79] FWN Notes from Diary, shared with LB, [undated summer] 1955: 7. Box 41, Folder 5, LBP.

[80] Nikhil Menon, "'Fancy Calculating Machine:' Computers and Planning in Postcolonial India," *Modern Asian Studies*, (forthcoming).

been understood, based on comments he made in his own writing, as a wise concern about the blinded automation that occurred with computer-based algorithmic analytics.

Understanding that the Planning Commission had interest in using population statistics to generate economic models of Indian development, he mentioned that two of his colleagues, Ainsley Coale and Edgar Hoover, would be arriving in India that fall for the purposes of constructing a demographic model of economic development for industrializing nations. An actuary at the ISI seemed pleased and Notestein heard him say that the Institute was "weak on economics."

On his trip Notestein encountered an idea that he immediately believed would be useful to Coale and Hoover. He spent an evening at the home of Registrar General RA Gopalaswami, who had a "magnificent place on the final edge of town, reached by running along dirt road lined with palm and paddy." In the home, Notestein found "a disappointed man."[81] Gopalaswami wanted fertility limitation programs instituted, and had proven that it would be impossible to improve conditions if the population grew – an idea he had ventured to include in the 1951 census report published in 1953. He proposed that fertility limitation could promote economic growth and reduce infant deaths. If limiting family size to three children, he wrote, resources could be spread across fewer people. "Mothers will live longer, healthier, happier lives," he wrote, "and children will be better fed, better looked after, and acquire an altogether better start in life. There will be an enormous reduction in the numbers of infants who die within a year of their birth."[82]

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[81] FWN Notes from Diary, shared with LB, [undated summer] 1955: 6. Box 41, Folder 5, LBP.

[82] RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953: 218-219. Discussion of the Planning Commission position begins on 213.

Gopalaswami had suggested that village health workers organized by the Central Social Welfare Board be transformed into family planning workers, using the attractiveness of mother and infant programs. Where Baumgartner had intended mother and infant health programs to attract broad responses that would serve the health of not only mothers and infants but the whole community, Gopalaswami was suggesting a semantic switch, using mothers and infants to achieve goals that he believed would obviate the need to attend to social determinants of health. "It will be essential for the success of the campaign that it should be launched and directed by a national organization of social workers, which should have actively helped earlier win the development of maternity and child welfare services,"[83] he wrote. "The campaign should be explained to the people in the villages, as well as towns as a national movement designed to achieve a social reform indispensible for assuring the safety of the nation and promoting the welfare of its mothers and children." He said nothing about historical tensions between infant mortality and the state, about infant deaths that reflected policy choices and not lack of household resources, or about other social factors, like maternal age of marriage, that social reformers had long insisted were important. "Why should we imagine," he asked, "that something which is demonstrably good for mothers and children would be rejected by our people, even when they are helped and encouraged by the state?"[84]

"No one has answered him specifically," Notestein recorded in his diary. "They just say he is wrong, but will not come down to cases."[85] Notestein was impressed that in

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[83] RA Gopalaswami , *Census of India 1951*, Delhi: Manager of Publications, Government of India, 1953: 219.

[84] Ibid., 224.

[85] FWN Notes from Diary, shared with LB, [undated summer] 1955: 6. Box 41, Folder 5, LBP.

Gopalaswami's "local" knowledge, social conditions could be ignored. "Nothing specified about age of childbearing," Notestein took down. He was also amazed at Gopalaswami's seeming lack of understanding that getting a fertility policy in place was a political process, and would take time and work, not just mathematical proofs. At the same time, he told Gopalaswami that Coale and Hoover might be coming through and interested in his mathematical ideas for their own purposes. "If they come," he wrote in his diary, "they would probably be received with open arms if they would answer this problem: Suppose death rates on course projected; suppose also that current rates of having 0-, 1-, and 2-child families etc were to continue. At what point – 3, 4, 5, etc. -- would all childbearing have to stop if population growth were to be avoided. He thinks the answer is three." [86]

International Trials and Accumulating Interests

At the same time that demands for data to feed policymaking rose in the Central Government, demands that the demonstration projects across India conduct data-based evaluations of their effectiveness rose among the major philanthropic foundations providing financial support. Historically, non-governmental organizations had aimed to use demonstrations to influence government policy after locally investigating problems that the reformers deemed worthwhile. The New Deal's social demonstration projects had not generally required quantitative effectiveness studies.[87] In the 1940s, as Baumgartner had seen in the IIAA projects in Ecuador, the administrators of demonstration projects had grown increasingly concerned with the problem of how to make people cooperate with the

[86] Ibid.

[87] Peter H. (Peter Henry) Rossi and Walter Williams, *Evaluating Social Programs; Theory, Practice, and Politics.*, Quantitative Studies in Social Relations (New York: Seminar Press, 1972).

intended interventions of the international system. It was not that everyone "cooperated" in New Deal initiatives. It was that non-cooperation by people whose values differed from those of the interventions, typically in the minority, could be ignored, rationalized, or coerced. In Ecuador, facing "non-cooperative" people who could not be ignored, the problem had become how to "democratically" enforce cooperation with health programs intended to drive social development and markets. In India, the priority was "cooperation" with desired patterns of fertility, which implied an imposed priority rather than a mutual interest.

International interest in India's fertility grew through the early 1950s, with particularly powerful representation from the U.S. philanthropic foundations and federal government in the residues of World War II. To leaders of the contemporary world order wanting to maintain the political status quo, and to humanitarians concerned about human suffering, population growth around the world at midcentury was particularly worrisome in particular regions designated by early twentieth century demographers as being in the weakest of three possible stages in a model of population growth and fertility change based on a closed system in dynamic equilibrium. This model gave a hierarchical order to the cyclical population theories published by Thomas Malthus in 1798. In 1929, U.S. demographer Warren Thompson was the first to devise a model that classified world regions (rather than social classes) into three groups. The first world category, in which Thompson placed the United States, Canada, and "Western Europe north of Italy," had low fertility and low mortality, with slowly increasing populations. The second was unstable, with high fertility and low mortality producing a rapidly growing population. Thompson put Italy, Spain, and the Slavic countries in this category. The third had high fertility, high mortality, and populations destined to surge in the future. In 1929, Thompson placed India, Russia,

and Japan in this category. He assumed all of Asia, South America, and Africa belonged here, too, but he did not have data on these regions.[88]

Thompson's concern, in the aftermath of World War I, was that instability during the population growth phase could spark another world war. In the years following World War II, after an attack from Japan, amidst the continued progression of Russia into a powerful antagonist of the United States, and observing the horrific Bengal famine in India, the last of the three named regions in Thompson's third world category, the director of the Princeton Office of Population Research had revived Thompson's theory and formalized it into a Demographic Transition Theory. This director was none other than Baumgartner's joint-consultant, Frank Notestein, who had traveled with the Rockefeller Foundation to India during World War II to survey population conditions in Asia.

By the late 1940s, Notestein had revised his theory to suggest that intervening on fertility could catalyze the demographic transition while reducing the potential for violent revolution and war in the process. Though professional demographers in the aftermath of World War II were reluctant to associate themselves with the political past of demographic science and its eugenic projects, the motivation to intervene on population was justified by the notion that instability left regions susceptible to communist ideology. He found corroboration among the Congress Party leading the new government of India, traumatized by the ethnic violence of Partition and threatened by international communist party members pamphleteering and sabotaging government projects in areas of India remote from the capital. When Ambassador Chester Bowles supported American planner Albert Mayer's

[88] Warren S. Thompson, "Population," *American Journal of Sociology* 34, no. 6 (May 1, 1929): 959–75. The linking of the three demographic worlds to the 18th century class concept of the "Third Estate" is also likely important: Christoph Kalter, "From Global to Local and Back: The 'Third World' Concept and the New Radical Left in France" *Journal of Global History*, March 2017.

proposal that the Government of Uttar Pradesh run rural integrated development projects, it was because he saw in these community development projects a demonstration of capitalist, democratic ideology that could out-perform the communistic ideology modeled in the rural development projects in China and influence fragile new states around the world.[89]

The emphasis on quantitative evaluations was in part a response to the need to work across vast differences on a large scale on limited budgets. In 1952, hoping to influence the U.S. government, the Indian government, and world affairs generally, the Ford Foundation made aggressive commitments to expand the Community Development Project. Referring to the projects as "experiment-cum-models," Foundation President Paul Hoffman declared that the first community development project in Etawah had "proved that, once properly started, such a program can be self-supporting. This means that there is no reason why all the 500,000 villages of India could not make an advance." The Foundation had sent Douglas Ensminger as a representative to build connections with the central government's Planning Commission and to extend the Etawah Project across 560,000 villages, 3000 cities and towns. Given the scale, the imagined political stakes in success, and limited finances, Hoffman had announced the need for efficiency in operation and in objective evaluation metrics. Across vastly different contexts, numerical input and output counts were the most efficient means of comparison. "We must administer aid in a thoroughly hard-hearted manner," Hoffman had said.[90]

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[89] Chester Bowles, "Asia Challenges Us Through India: Our aid is needed to help the Indians keep democracy as a bastion against communism," *New York Times*, March 23, 1952: SM7.

[90] "Betterment Plans for Etawah: Mr. Hoffman's Tribute," *Times of India*, Oct 27, 1951: 10. See also: "U.P. Development Projects: Centre to Train Personnel," *Times of India*, Apr 8, 1952: 5; "Foreign Aid of Two Billion Dollars Yearly Is Urged by Ford Foundation's Head," *New York Herald Tribune*, Oct 28, 1951: G69.

The Rockefeller Foundation turned to quantitative evaluation as it sought to justify investments in the study of human fertility, demonstrate the usefulness of contraception to the Indian government and the world, and build social sciences across different international sites. In 1953 the Rockefeller Foundation had agreed for the first time to sponsor a study of the biological and the social influences on fertility in human communities – what some referred to as "total epidemiology" or "human ecology." Carl Taylor, to whom Jessie Bierman had referred Baumgartner, ran the study with John Gordon, head of the Epidemiology department at the Harvard School of Public Health, and John Wyon, also from a missionary background, in the Ludhiana district of Uttar Pradesh. The Government of India co-sponsored the demonstration. The design of the Khanna study included "trials" of different contraceptives, with some villages given fertility control methods and others left as statistical controls.[91] Using counts of contraceptives administered and pregnancies diagnosed, these controlled trials could make the worth of the interventions tangible with statistics. The Khanna Study was an attractive site for visiting experts. Together with her husband and Amrit Kaur, Baumgartner spent a day visiting the site of a demonstration project she referred to as the "Ludhiana experiment." As Baumgartner later noted, it was possible for visitors to get closer to the people here than in other villages. There, she bought a pair of shoes from a local shoemaker that attracted a great deal of attention, she later noted, whenever she wore them back in New York City.[92]

To those who understood population work to be a matter of reducing numbers, the meaning of infant mortality was significantly different than in Baumgartner's holistic vision.

[91] John Gordon, "Progress Report: India-Harvard-Ludhiana Population Study," Dec 1, 1955, RF India Series 1.2 200 RAC; Matthew James Connelly, *Fatal Misconception : The Struggle to Control World Population* (Cambridge, Mass: Belknap Press of Harvard University Press, 2008); Löwy, "Defusing the Population Bomb in the 1950s."

[92] LB to Helen Gideon, letter, Aug 20, 1959. Box 41, Folder 6, LBP.

Notestein, for example, had different reactions than Baumgartner when he visited Khanna earlier in 1955. According to diary entries he shared with Baumgartner, he conversed with Taylor about the need to prove the efficacy of their interventions with proper controls. He was sure that maternal and child health was the "entree" to fertility work. In the coming years, Baumgartner saw maternal and child health problems not as vehicles to introduce fertility control, but as magnets that would have interdependent effects, attracting responses that would benefit the whole community. In subsequent years she would find that Carl Taylor and Helen Gideon, a nurse participating in the research at Khanna, shared her understanding. Notestein's ideas, however, were reinforced in media about the CDPs prepared by the Ford Foundation and the Government of India. Through 1955 they produced a series of films. Designed to convey information about a central training institute where educated Indians could train to go into the villages as community workers and teach new methods of agriculture and basic hygiene, inspire educated Indians to volunteer,[93] and instruct these volunteers in how to accomplish their task, the films encouraged community development workers to save the lives of children. This would, according to the films, earn the trust of the village panchyat. Film editors spliced images of smiling children with panning shots of abundant and undulating wheat.[94] In this orientation, child health provided simply the compelling image to instigate fertility control.

Not all were happy with the demonstrations. In public media and private conversations, people with doubts pushed back against the character of the development operations. "There appears to be a notion in some quarters that money is the crucial factor,"

[93] Elizabeth Cobbs Hoffman, *All You Need Is Love : The Peace Corps and the Spirit of the 1960s* (Cambridge, Mass: Harvard University Press, 1998).

[94] "Goan Sathis," [1956]; "India Awakes," 1956; "Village of Hope," 1956: Ford Foundation records, Audiovisual materials Series 1: Ford Foundation films, RAC. Viewed at the RAC on May 29, 2015.

wrote an editorialist in the *Times of India*. "This is not merely false, it is dangerous thinking. It tends to establish a direct relationship between expenditure and achievement."[95] The lack of permanent structures was questioned. Why not invest in bridges and industry, instead of impermanent village agriculture and cars that would be worthless as soon as they broke down, wondered another writer.[96] As Baumgartner's trip was being arranged in 1955, an anonymous editorial had foreshadowed a third concern, which she would come to share after a decade of work in India. Contrary to the vision of the Ford Foundation and the Planning Commission, the editorial urged "go slow" advice to the CDPs, discouraging the scale up in the impending Second Five Year Plan. "Targets are being achieved on paper, and wishfully accepted as genuine. The process, if it continues unchecked, would lead to disillusion and discontent."[97]

For Prasanta Mahalanobis, a major problem with the demonstrations was that they were centered not on the priorities of the All-India Planning Commission but on the priorities of the United Nations, skewed as these were in the aftermath of World War II towards the interests of American corporations. Mahalanobis wanted to bring Indian ideas into international systems. In the early 1950s, hoping to develop international collaboration in the social sciences as well as survey tools and methodologies specific to India, Mahalanobis had invited Rensis Likert, director of the Social Sciences Research Center at the University of Michigan, to come work with him for one year. It was not uncommon for U.S. academics in this time to travel to India with goals of "demonstrating" their theories. Likert had been developing pilot studies – small scale surveys – of public knowledge in the United

[95] "Experiments in Living: III – Men, Money and Attitudes," *Times of India*, Feb 19, 1952: 4.

[96] "Planning and U.S. Aid," *Times of India*, April 7, 1952: 4.

[97] "'Go Slow'" in Community Project Work Urged," *Times of India*, April 29, 1955: 6.

Sates, and he was interested in demonstrating the value of these studies in India.[98] Like many at the foundations, and like Mahalanobis on the Population Data Committee, Likert was confident that "raising standards in backward areas [was] not going to be solved merely by pouring in funds and machinery." Development work, he said, required "far more detailed information about local needs and potentialities and especially about the habits and desires of the local populations."[99] Baumgartner broadly agreed with such observations, but where Likert wanted to design methods for collecting this kind of information as data, Baumgartner had wanted this knowledge to be gathered through largely unstructured participation and observation.

Although the United Nations, the major corporate philanthropies, and the Central Planning Commission of India all had designs on a coordinated system that would engineer a stable transition and enhance national development, each envisioned a coordinated system with a different center of gravity and varying emphasis. The discordance between the models emerged when Roger Evans, Assistant Director of the Social Sciences Division at the Rockefeller Foundation, was consulted about funding Likert's travel expenses for the invitation to work with Mahalanobis. Evans, who was in Bangalore at the time, declared that Likert should come "because of the dire need here for systematic scientific work that could illuminate and provide a foundation for progress from the facts and ground up." The Rockefeller vision was to conduct studies that would support the local projects in which they were investing and align with their scientific methods. Mahalanobis, representing the Central Planning Commission, wanted to develop methods specific to India, and generate data that would serve the Planning Commissions interests for governance across All-India. Evans

[98] LCD Memo from conversation with RL in Cleveland, OH December 27, 1950. RF GC RG2 (GC) 464 3278, RAC.

[99] LCD to RFE, October 16, 1950. RF GC RG2(GC) 464 3278, RAC.

interpreted this as problematic, cautioning that Likert should be prepared to "throw his full weight and influence against the prevailing tendency [of Mahalanobis] to go global, to work from the top down, and even then to scatter energies to meaningless thinness and more futile reports."[100] Meanwhile, the Ford Foundation had been negotiating a United Nations Demographic Training Institute in Bombay to feed population data and enable demonstrations for the multinational system. In this model, the UN offices were the center coordinating the production of universal data, social scientific methods, and interventions.

Lack of consensus in the post-colonial politics bred resentment and mistrust. By 1955, conventional wisdom at the Rockefeller Foundation was that Mahalanobis was a person with a personal problem, not one with a different organizational vision. Though some members of the Planning Commission were in favor of the new Demographic Institute -- Notestein took suggestions at the Gokhale Institute of Politics and Economics on where the Ford Foundation was most likely to be able to establish the new institution -- Mahalanobis strongly opposed. As the planning for Notestein and Baumgartner's trip to India was underway, Mahalanobis interrupted the Ford Foundation's simultaneous plans for the Data Institute. Mahalanobis believed India needed better information before population studies could be useful. He wanted four institutes, not one, and wanted to reinstate the Population Data Committee from 1949 to administer them. When he met with Notestein in 1955, Notestein left feeling stung by Mahalanobis's critique: Notestein was more focused on UN interests, he said, while he himself was more focused on the interests of his country. It was on disagreements like these that Foundation officers based their assessments that

[100] RFE to LCD, Note, October 31, 1950. RF RG RG2(GC) 464, 3278, RAC.

Mahalanobis's "basic desire [was] to control or oppose."[101] This "personality type" had been described in recent findings of child development studies in the behavioral sciences supported by Rockefeller funds.[102] The casual evaluation of Mahalanobis as fitting the criteria for an "authoritarian" personality illustrated the potential to ascribe differences between collaborators to personal idiosyncrasy and psychology rather than politics and culture.

The Mercury Point of Public Health

As she spent more time in India, Baumgartner discovered that some here rejected the "Malthusian arithmetic" behind the claim that India's "population problem" was a matter of numbers, arguing instead that it was a matter of politics. Ever acquisitive, Baumgartner picked up an editorial by the Indian Medical Association published just weeks before she arrived, energetically underlining and punctuating in the margins of the paper in inky blue ballpoint.[103]A trade union of "Doctors of Modern Scientific System of Medicine," the IMA represented the Western medical tradition in India.[104] It was quickly clear from the editorial, which contained reflections on public health progress during the First Five Year Plan and recommendations for the Second Five Year Plan, that the authors supported planned development, with developed vital statistics registration, and saw value in the availability of fertility control techniques. However, their priority was human welfare, and they still

[101] MCB, Diary, October 1954: 4, Population Council General File RG IV3B4.2 Box 15 Folder 234, RAC.

[102] Theodor W. Adorno, *The Authoritarian Personality*, 1st ed., American Jewish Committee. Social Studies Series, Publication ; No. 3. Y (New York: Harper, 1950).

[103] Indian Medical Association, "Health Scheme Under the Second Five Year Plan," *Journal of the Indian Medical Association* (Supplement), 25(10), Oct 16, 1955: 421. Box 83, Folder 12, LBP.

[104] Roger Jeffery, *The Politics of Health in India*, Comparative Studies of Health Systems and Medical Care ; No. 21 (Berkeley: University of California Press, 1988).

expected the comprehensive approach described in the original Health Survey and Development Committee report of 1946. In their view this comprehensive health approach was necessary for improvement of health and welfare but also for the financial growth the Planning Commission was so intent upon achieving. "It has to be recognized," the IMA wrote, "that increased National Income may not always raise the standard of living of the masses without definite provision for equitable distribution." Income growth, they said, depended not only on technical development but the social and cultural development for the people. "The health system of a nation is not only an important index of its social circumstances, but it influences, as it adversely did in the past, the over-all production and also the national income."[105] "Secondly," they wrote, "the impact of concentration on building heavy industry is possible to be endured only when simultaneous progress is made in the sphere of social welfare including health, education, etc, which bring in material wellbeing of the masses revealing thereby the objective benefit envisaged in the plan itself." "If we can ensure to our masses sound health and adequate nutrition, we can do wonders, otherwise all our efforts at nation building are likely to come to naught. The problem of health of the nation can no longer be treated in isolation or relegated to the back ground."[106]

The IMA pushed back against not only the Planning Commission but the WHO's upbeat messaging about progress over the past five years. The Planning Commission had invested far more in economic productivity, the IMA reported, first with intensive agricultural development and now planning to amplify the country's industrial development. This economic attention, the IMA insisted, would not automatically lift the standard of living "for the masses" without "definite provision for equitable distribution" -- even if it achieved

[105] Indian Medical Association, "Health Scheme Under the Second Five Year Plan," 421.

[106] Ibid.

the "regionally balanced and socially equitable" economic growth it promised. Not only had the government neglected welfare, they had left implementing the public health plan to international agencies, with which the IMA was also not impressed. Although some progress had been made in India in malaria control and improving health services "to some extent and in some provinces," the public health conditions in India remained "none too encouraging." Bierman's WHO report stated that multilateral support for maternal, infant, and child health services was high, with "stimulation and technical and financial help from International agencies and groups such as the World Health Organization, UNICEF, and others," and detailed that there were 2000 Maternal Child Welfare Centers around India providing health supervision of infant and preschool children, in addition to prenatal and maternity services. Each serviced a population of 10,000, and had a health visitor, a midwife, and sometimes the part-time services of a doctor. Compared to 1947, Bierman's report said, this was a marked strengthening and expansion of mother and child services.[107] Baumgartner had noted, after a telephone conversation, that Bierman privately concurred that "the maternal and child health UNICEF projects are all fairly poor."[108]

The IMA wanted a coordinated, comprehensive system in which knowledge was produced and communicated to the government by health and welfare workers in the villages. This position had driven their advocacy to involve medical students since the early days of independence. M.D.D. Gilder, the Minister of Health and Public Works in Bombay who had addressed the students at the new medical college in Baroda, for example, had emphasized the responsibility of "all young men, especially those going in for the medical

[107] WHO, "A Note on Maternity and Child Health Administration in India for Dr. (Mrs.) Leona Baumgartner," 4. Box 83, Folder 12, LBP.

[108] LB, "Random Notes from Dr. Jessie Bierman on INDIA," August 1, 1955. Box 83, Folder 12, LBP.

profession, to put their shoulder to the wheel and help our country on the path to happiness."[109] One of the concerns Gilder voiced in 1949 was that the country was moving towards a nationalized health service, and physicians needed to do what they could to prove the value of their authority before it was lost altogether in a centralized health system. Reading the 1955 IMA editorial, Baumgartner underlined their demands for a better system of vital statistics collection and more developed health services in rural areas, better drainage and sanitary arrangements and protected water supply which were "the crying need" in many parts of India, investment in manpower training, and experimentation and observation to guide the State in place of "prejudiced sentiment and empiricism."[110] By this, they meant a comprehensive approach to health, not one targeting and avoiding particular classes of people and justifying effectiveness on selective information.

The IMA rejected the notion that fertility control was the priority for national development. Baumgartner marked with a question mark the fact that the IMA took a strong position against a national family planning policy, supporting family planning as an "individual policy" on medical and economic bases, but not a National Policy to solve the question of food shortage. In brackets, she noted the following explanation. The IMA attributed famines and instability on the failure to distribute available food and provide for social welfare.[111]

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[109] "Health Services in Rural Areas: Dr. Gilder on Role of Doctors," *Times of India*, June 19, 1949: 3; D. Banerji, "Social and Cultural Foundations of the Health Services Systems of India," *Inquiry* 12, no. 2 (1975): 70–85.

[110] Indian Medical Association, "Health Scheme Under the Second Five Year Plan," 421.

[111] Ibid., 424.

In the IMA report, infant mortality was referred to not as an entree, or a first stage, but as an *indicator* of global vulnerability: a "mercury point on the trend of national health."[112] Like a thermometer, the infant mortality rate was sensitive to small changes in environment, but it could not determine what was needed to assure health, or what kind of changes had occurred to affect outcomes data. Though the infant mortality rate in 1949, reportedly 122.8 per 1000 live births, dropped to 115.9 by 1954, what was absolute progress was still relatively dismal. "The comparative figures of 30 in the UK, 20 in Holland and Sweden, 25 in Japan, 29 in USA and 10 in USSR," the IMA wrote, "indicate that a big gap lies as yet between political freedom and its social correlatives through application of science."[113]

It was in the IMA's explanation of the need for local experimentation to build scientific knowledge that Baumgartner suddenly stopped underlining for a brief moment. In the middle of a paragraph where every other word was underlined, the IMA stated that these experiments should be conducted with the "proper use of controls." Baumgartner left this one phrase unmarked, apparently skeptical of the general applicability of controls for social experiments.[114]

Reporting and Influence

In late December 1955, Baumgartner authored a report based on conversations that she and Notestein had held with Kaur and her staff. Handing the document to Notestein, he then passed it to Kaur as a report on which he and Baumgartner were listed as co-authors, entitled "Suggestions for a Practical Program of Family Planning and Child Care."

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[112] Ibid., 421.

[113] Ibid.

[114] Ibid., 424.

Baumgartner believed that Kaur had moved considerably in her thinking about chemical and mechanical contraception, but told people consistently that the reports ideas were all ones that Kaur herself had reached. "She could not have been more pleasant and more frank and herself worked out a very reasonable and practical program for strengthening her maternal and child health, health education, and family planning services," Baumgartner relayed to a colleague at the U.S. Public Health Service's Division of International Health. "She then insisted that we put down on paper what had come out of the many hours of conversation with her and members of the staff."[115] The staff was pleased as well. K.C.K.E. Raja wrote to Baumgartner a week after Kaur received the report. "I have been through it with Dr. Notestein and consider it an excellent report."[116]

The report authored by Baumgartner nudged Indian health policy towards the initial goals of the Bhore Report, incorporating a plan for fertility-related services. Across twenty-six pages, Baumgartner's fingerprints were evident in romantic descriptions of "a spirit of hope and innovation in the villages" combined with demographic notes, integrative program designs linking local demonstrations and central planning, and chemical descriptions of contraceptive foams developed by Elias's company, Durex Products.[117]

Not surprisingly, the priority in the report was public welfare, and it reprimanded those who conceptualized population health as a simple matter of numbers. If the public health program was vigorously pursued --"as in all humanity it must be," Baumgartner

[115] LB to EFW, letter, Feb 21, 1956. Box 41, Folder 4, LBP.

[116] KCKE Raja to LB, Letter, Dec 22, 1955. Box 41, LBP.

[117] LB and Frank Notestein, "Suggestions for a Practical Program of Family Planning and Child Care, Submitted to Rajkumari Amrit Kaur, December 1955," 1. Ford Foundation Collection, Reports, Series 150, Box 9, Folder 153, RAC.

stipulated -- population would continue growing.[118] Therefore, the report read, health could only be presented in terms of population growth "provided we understand that the numbers stand for human beings."[119] Family planning services would fail if not "broadly conceived and energetically pursued." The services they described included not only means of fertility limitation, but also clinical abortion, maternal and prenatal care, and infertility clinics where couples could seek help conceiving. The report recommended a family planning board, advisory to the government. To keep free of government biases, the authors recommended that this board operate as a non-governmental organization, on a demonstration project basis, working experimentally and gradually introducing its findings into government policy.

As the Bhore Report had done, Baumgartner recommended not only demonstrations but also changing the government outlook through new staffing. In particular, she advised introducing maternal and child health experts into state and central governments. In an effort to broaden this field away from obstetrical medicine, she recommended establishing pediatric departments and child health institutes in the hospitals and medical schools promised in the Second Five Year Plan, while adding more "substantive material relating to child health" in course work for all medical professions, as well as recruiting younger physicians interested in pediatrics should be sought and supported into medical careers.[120]

Supporting social experimentation as a form of action, Baumgartner attempted to reset the growing emphasis on trial designs and narrow inquiries. While there was need for fundamental research and supporting facilities and trained personnel in "human genetics, the physiology of reproduction, problems of sterility and infertility," and means of controlling

[118] LB and Frank Notestein, "Suggestions for a Practical Program of Family Planning and Child Care, Submitted to Rajkumari Amrit Kaur, December 1955," 1-2.

[119] Ibid., 1.

[120] Ibid., 16.

fertility,[121] studies did not need to be done before village workers could begin addressing needs. "When action is delayed until study is complete, research becomes less an aid to action than a substitute for it," the report read. "Enough is known to make an actual start, and additional knowledge can be readily incorporated in practical work as it becomes available. Indeed much such knowledge can only come from experience."[122] The tone, language, and instruction were entirely characteristic of Baumgartner's writing and approach. The field of preventive pediatrics was new in India, she said, where efforts had been focused on cure instead of promotion of growth and development.

> "However, in India as elsewhere, more is already known about protecting and promoting maternal and child health than is put into practice. It seems wise to apply existing knowledge with vigor, while continuing research and providing for the use of the results as soon as it is practical and effective to do so."[123]

While Baumgartner recommended that the Central Government strongly support "careful experiments" that could generate knowledge on which to build policies at the local, state, and All-India level, only "a few" should be "research projects systematically planned to yield controlled information on specific topics." The majority should have "less elaborate provisions from a research point of view" and prioritize discussion over data-generation. Rather than being "weighted down with an elaborate structure of records which no research plan has been specifically designed to utilize," the projects were to be evaluated by discussion amongst the personnel engaged in the field trials. The point was not to generalize but to build criteria for evaluation. The disciple of the science came not from statistical

[121] Ibid., 14-15.

[122] Ibid., 14.

[123] Ibid., 3.

control and study design, but from self-control of the observers, who were to conduct their work on a "relatively non-emotional basis."[124]

To generate the best possible discussion, Baumgartner's report urged most experiments be "located mainly in states that are ready and willing to cooperate," where there were already successful Community Development Projects and strong health staffs. The field workers were to be "actively encouraged to report their views on the nature of the major problems encountered in their world and to give their suggestions for solving them."[125] These materials, she emphasized, should then be brought to the attention of administrators and personnel concerned with research work. A successful demonstration was one in which locally meaningful knowledge was conveyed to expert researchers and administrators, not one in which an intervention was "proven" to succeed or fail. The report advised a few demonstrations be set up across widely varying communities in order to gain experience about variations that would need to be addressed once government interest in the possibility of new policies had been raised.

Baumgartner and Notestein identified with different contributions to the report as Baumgartner had drafted it. To Baumgartner, her role had been to infuse the proper "spirit." From Nepal in mid December of 1955, she drafted a message to Kaur on the hotel pad taken from her room at the Hotel Cecil in Delhi. She had developed a severe cold and lost her voice completely and regretted not being able to call Kaur before her departure. "My head was so thick there may be omissions and I fear it does not have quite the spirit I had hoped," she wrote ruefully.[126] Notestein, on sending the report to Kaur, noted not the

[124] Ibid., 10.

[125] Ibid.

[126] LB to AK, Letter, Dec 15, 1955. Box 41, LBP.

"spirit," but the way the report reconciled public health and fertility control, which he spun as a benefit to a family economy. The report, he said, showed "the beginning of the way in which India can prove that the conquest of disease is fully compatible with rapid improvement in the quality of nurture, care, and education that parents are able to provide for each of their children."[127] He focused on determinants of infant vulnerability inside the home and family space, omitting the extensive attention the report had given to broader social determinants.

Baumgartner earned applause for changing Kaur's position on chemical and mechanical contraception. In early 1956, John Grant relayed to the Rockefeller Foundation that "Leona Baumgartner had reported a very successful trip to India, where she said she educated the Rajkumari to the point of action on: 1) an active population policy and 2) developing pediatrics as well as obstetrics."[128] In February, the Family Planning Research and Programmes Committee of the Ministry of Health convened and Baumgartner and Notestein's report was presented. KCKE Raja, Mukta Sen, Chandrasekaran, Lakshmanan, and Lakshminarayana were all present, and the report was well received by them. The person who was notably displeased with the report, in the eyes of Balfour, was Lady Rama Rau, who commented that it "presented merely the plans and ideas which have been discussed for some time." Mahalanobis and VKRV Rao were also present, and voiced annoyance at the fact that demographic questions were being handled by the Ministry of Health. They had

[127] FWN to AK, letter, Dec 23, 1955. Box 41, Folder 4, LBP.

[128] Memo 1/23-28/56, Box 14 Folder 112 RF Series 200 1.2, RAC.

come to protest the opening of a family planning research center in Bombay, wanting four centers not one.[129]

Baumgartner was praised for her positive influence; but the report she infused with the call and spirit of cooperation did not change anyone's understanding of either the priority of fertility control programs or the importance of a "broad and energetic" public health program.

The Ministry read the report as a health document in which fertility programs were part of a broad public health approach with both material and social aspects. "Your scheme in regard to family planning has been accepted and the Demographic Scheme is very shortly to be implemented," Kaur wrote to Baumgartner in March 1956, pleased with the notion of experiments run by non-governmental entities that could influence government policy. "I am therefore ever so happy that Dr. Notestein and you came out to us and we are all more than grateful to you both for your kind help."[130] Under the Second Five Year Plan, integration of family planning with maternal and child health services proceeded, and financial assistance was given to voluntary organizations for Family Planning Clinics and for research schemes including those in Demography and the evaluation of contraceptives.[131] Other health services continued. State governments opened training centers for Auxiliary Health Workers to carry out relatively simple technical procedures ordinarily performed by the Sanitary Inspectors, Laboratory Attendants, Dispensers and Vaccinators in remote areas. The United States Government, under the US-Indo Operational Agreement, provided

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[129] Marshall C. Balfour, diary excerpt, Feb 20, 1956, Box 41, Folder 4, LBP. MCB had been "convinced for some time that there can be no compromise with Mahalanobis and any accomplishments will be in spite of him and through channels which he does not control."

[130] AK to LB, Letter, March 22, 1956. Box 41, Folder 4, LBP.

[131] Amrit Kaur, Annual Report of the Ministry of Health, 1956-57: 87, 94. Central Secretariat Library, Delhi, (Henceforth CSL).

limited bilateral aid in the form of money to purchase material for the National Water Supply and Sanitation Program. Funds were established for pediatric training. These had already been set up in medical colleges in the southern States of Andhra Pradesh and Kerala, among the most left-leaning states. More attention was given to training of dais to improve their standard of practice. But community health services were centered on reproduction. "Efforts are being made," the Ministry's Annual Report Read, "to develop community health and welfare activities around family planning clinics and to educate the people by personal contacts individually and in group by trained workers and natural group leaders."[132]

Douglas Ensminger interpreted the report on which Baumgartner and Notestein's names were listed as a green light for his hope that the Government would implement more aggressive population control policies. While the centrally assisted Scheme for the training of Health Visitors for rural areas under the Community Projects that had been started in 1954-55 was expanded, the Ford Foundation began a program of reorientation of village health workers to center on family planning work.[133] The suggestion that non-governmental agencies administer experiments to inform the federal government, on an advisory basis, in his mind became a population control board in the central government with Ford Foundation representatives sitting on the Board. Ensminger believed this was the centerpiece of the report. He copied Baumgartner on a note he sent to Kenneth Iverson at the Ford Foundation about the meeting's decisions. At the bottom of Baumgartner's copy added in handwritten scrawl, as though he were inviting Baumgartner to his own dinner

[132] Annual Report of the Ministry of Health, 1957-1958, 97, CSL.

[133] Annual Report of the Ministry of Health, 1957-1958: 50, CSL.

table, "Dear Leona: you did it – Come again."[134] To Baumgartner, this was a triumph for her and her position.

Even Rama Rau wrote to Baumgartner, thanking her for instigating change in Kaur. "We are now having cooperation from her rather than the steady opposition we had to all suggestions for the expanding of the work."[135]

Though many meanings could be read into the report, some meanings were more powerful than others, and gendered expectations and stereotypes limited perspectives. In a village outside of Calcutta, Notestein was surprised to discover that "people think there is a considerable amount of abortion and that there is much talk of sterilization."[136] He treated that claim as hearsay, not common sense. Baumgartner was not surprised to learn about abortion in Indian life. Gendered dynamics favored certain perspectives, but also actively discounted others. Kaur's reluctance to adopt a population policy, for example, was interpreted not as a serious political position but dismissed as merely "sentimental" discomfort. Rockefeller official Marshall Balfour wrote to Notestein after touring Japan and Manila with Kaur in 1956. "The Minister may be resolved on birth control policy, but in spite of the influence of you, LB and others it is still sentimentally an unpleasant subject." Following this reductionist, dismissive, and stereotyped observation, he shared the news that Kaur's government position was in jeopardy. "Considerable opposition had built up to the Minister in Parliament," he wrote. "She has been under fire for many things: the jaundice

[134] DE to KI and LB, Letter, Feb 19, 1956. Box 41, Folder 4, LBP.

[135] RR to LB, letter, March 17 1956, Box 41, Folder 4, LBP.

[136] FWN Note 10, Calcutta, July 24, 1955. Box 41, Folder 5, LBP.

epidemic, though not a responsibility of the ministry except morally; her stand for modern medicine versus indigenous medicine; being a woman and a Christian are other factors."[137]

Baumgartner endured similar misrepresentation, and internalized its lessons. Public health institutions sought her out as a maternal and child health specialist and as a conduit to other women, not as the intensively trained, widely published, and broadly intelligent bacteriologist, immunologist, physician, and administrator that her experience warranted. In being rejected from the Rockefeller University and slotted into a maternal and child health positions with the city Department of Health, Baumgartner had been given a very small window through which to drive a big vision. As she took advantage of this window, what people heard was not the big vision she was projecting but the message they expected from a woman. Baumgartner did not write or speak about her experiences as a woman, but the lessons she learned emerged in her own advice about others. Writing to VR Kanolkar upon her return to the States, she commented on Dr. Pandit of the Medical Research Council. She noted ironically, "I have the greatest respect for her and for what India can do, but I realize how great the pressures are in all directions. Incidentally, I do hope the maternal and child health service can recruit young, well-trained male pediatricians."[138] Though she herself had been waylaid from career plans by gendered discrimination, using what she believed was her best judgment she used similar logics to undermine other capable women.

The limitations on her impact extended beyond gender and discipline. The authorities dominating the Indian government during the time of her visit did not appreciate Baumgartner's advice, scoffing at it even a year after Baumgartner and Notestein's visit. The *Times of India* ran an article on August 21, 1956 entitled, "What Makes One an Expert?"

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[137] MCB to FWN, letter, July 17, 1956. Box 41, Folder 5, LBP.

[138] LB to VRK, Feb 16, 1956. Box 41, Folder 4, LBP.

> "A member in the Rajya Sabha on Monday wanted to know if two American family planning experts invited to India were married or not to be convinced that they were really experts. When Mrs M Chadrasekhar, Deputy Health Minister, told Mrs Violet Alva that the experts had submitted a report, Dr PC Mitra asked Are they married or not? How many children have they got? There was no reply and the Chairman, Dr S Radakrishnan, called the next question on the list. Dr Mitra, insisting on a reply from the Minister, asked: How can you say they are experts? Good humoredly, Dr Radakrishnan said, 'quite right, quite right' and proceeded to the next question." [139]

There were also active misinterpretations of Baumgartner's report by authorities who had the power to selectively message its content. Baumgartner was surprised to discover, a year and a half after the report was submitted, that the Ford Foundation had circulated a summary action plan of the "Baumgartner Notestein report" in December of 1955 that significantly misrepresented its recommendations. Where the original report had emphasized that the family planning program should eventually include expanded clinical services including infertility clinics, meaning sites where couples could receive support to both conceive and practice contraception, the Ford summary stated that "more intensive services will be required, such as sterility and nonfertility clinics," allowing only prevention of pregnancy.[140] The action plan did not mention "medical" needs at all, except to state "a great need for fundamental biological and medical research." The original report had explicitly stated that fundamental research did not constitute the kind of studies needed at that time. A family planning board, which Baumgartner's report insisted should be independent of government, was instead "organized within the central Government."

Baumgartner's ability to speak out loudly about the mistranslation was limited by the taboo on contraception that still gagged conversation about these important matters.

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[139] MCB to FWN August 22, 1956 "Questions about the "experts" still arise occasionally, as you will observe." Clipping includd. Box 41, Folder 5, LBP.

[140] "Related Program Actions" accompanying Baumgartner and Notestein, "Suggestions for a Practical Program of Family Planning and Child Care." Stamped date of receipt of original report March 1956. Ford Collection Series 150, Box 9, Folder 153, RAC.

Through her secretary she dictated a letter to Douglas Ensminger asking him if Kaur would remain in government and commenting pointedly, as she had in the past, how different the Ford Foundation reports were from what was reported in the *New York Times*. On the back, she scribbled hastily:

> "I can't easily dictate stuff re Population at the office. Was curious as to how widely your account re "Baumgartner and Notestein" report is circulated. I always felt it was _very poor psychology to put our names on this – It was Rajkumari's report! – actually it was for I could never has [sic] put ~~it~~ parts of it this way – How much does the advisory nature of the Council make a difference? ~~It~~ That was <u>not</u> as agreed to – Dr Pandit of the Med. Res. Council can tell you."

She closed the note with a request that Ensminger use her home address for future correspondence. "We so thoroughly enjoy your Foundation reports."[141] She ended on a pleasantry, even as the triumph she had experienced went sour.

Baumgartner's meaning was undermined not only by intentional actions, inadvertent misrepresentations of her work, and limited ability to speak up on the topic, but also because she chose to continue working with organizations that had funding and supported what she still believed was progressive change. In her public life there was little to signal that she differed in any significant from the organizational position. She wrote to Rowan Gaither at the Ford Foundation in 1956 about a screening she had just done of "The Village of Hope," one of the films produced to depict the work of the community development projects in India. Baumgartner reported that she had shown it to "as aristocratic and conservative a group as you will find anywhere, as part of an informal talk on India which I presented at the annual meeting of a very select group of New York physicians. I think I have seldom seen a film that moved a group like this as deeply."[142] She also continued negotiating for the

[141] LB to DE, Letter, 1957, Box 41, LBP.

[142] LB to RG, Note, GC 1956 Reel C 1186 (Microfilm), RAC.

distribution of Durex products for Elias's company, and shared her notes and observations regularly with the Ford and Rockefeller Foundations when Indian visitors came to town.

A Disintegrating Approach

At the Bandung Conference in 1955, Nehru led young post-colonial nations in Asia and Africa in a movement for non-alliance with either the United States or Soviet Union. From the U.S. government's perspective, this neutrality was a new threat because it resisted "Americanization."[143] In 1957, the southern state of Kerala democratically elected a communist government. This political inflection exacerbated the priority for speed and the investment in development work.

With the Community Development Projects seen as a capitalistic comparison to the rural development projects in communist China, the importance of visible success raised the stakes of evident performance and drove up investments in expensive technological enhancements to agricultural projects. In the Ministry of Health, the new heading "Population Control" now appeared in the index of the annual reports. The sense of urgency stoked the appeal of innovative approaches and disrupted slower plans. Moye Freymann, for example, a graduate of Johns Hopkins medical school with a PhD in social sciences from Harvard, had joined the Ford Foundation staff in 1957, initially involved in sanitation and latrine building. But he quickly found it more interesting to do something "innovative" than to deal with public health bureaucracies, and shifted his work within the Foundation to the

[143] H. W. Brands, *The Specter of Neutralism : The United States and the Emergence of the Third World, 1947-1960*, Columbia Studies in Contemporary American History (New York: Columbia University Press, 1989).

Gandhigram Institute, where he would have the opportunity to pilot family planning programs.[144]

Douglas Ensminger wrote to Baumgartner about the growing urgency of population control work and his frustration with government slowness to act. Calculating the growth rate at 2% and not 1.4% as the Government of India was reporting, the Foundation was pressuring for action. He castigated the Population Council, too, for being "complacent and conservative." Looming large in his correspondence was the threat of losing the democratic government. Politically, he said, the implications were great if the "rising expectations of the people" were frustrated by "imbalance" between desires and resources. "There is also danger in the nation's leaders developing an inward concern about the nation being able to do the job through democratic methods," he wrote.[145]

At the same time that Baumgartner and Notestein were working with Kaur and the Ministry to draft their report, Ainsley Coale and Edgar Hoover had traveled to India to build a model of the relationship between population growth and economic development. With funding from the International Bank for Reconstruction and Development as well as the normal support the Princeton Office received from the Milbank Memorial Fund and the Rockefeller Foundation, Coale and Hoover had built a model of the relationship between population changes and the economic development of low-income areas, proving what Gopalaswami had proven several years before. Using a patchwork of data from the national surveys and demonstration projects, they also took up Gopalaswami's notion that the optimum number of children per family was three. The study was urgent, they wrote, because of the rise in aspirations for expanding output in low income countries and the

[144] Warren C. Robinson and John A. Ross, *The Global Family Planning Revolution: Three Decades of Population Policies and Programs* (Washington, D.C.: World Bank, 2007): 306.

[145] DE to LB end Feb 1958, Box 41, Folder 9, LBP.

rapidly declining death rates due to improved health conditions. The relationship between population growth and development could be clarified, they wrote in the introduction to their report, by studying the matter "in a specific context."

Coale and Hoover's notion of specificity grouped all of India as a single "context," and all of the quantitative data from the different sources and regions as equal. India was selected as their primary study site, they wrote, "partly because its demographic and economic data are relatively plentiful, and partly because from the analytic point of view the relationship between economic development and population change seems comparatively clear."[146] Because of India's size, they said, they could be less concerned with extra-national commerce of people and goods and assume all changes in economic conditions attributable to population change. Where Baumgartner believed the specificity of studies was in their local conditions, Coale and Hoover understood specificity to be met by having sufficient population data.

The one artifact of the broad health vision that remained in their economic model was infant mortality. They justified the absence of health in their model by arguing, as Notestein and others at the Princeton Office did, that although a mortality decline had preceded economic development in past models of industrializing societies, "innovations in the field of public health" had flipped that relationship. Poor environmental sanitation, widespread endemicity of infections diseases, and the absence of curative facilities were problems of the past, with no need to provide for their maintenance.[147] The infant mortality statistic, however, was too deeply engrained in their methods to avoid it. Estimates of birth rates depended on the estimated overall mortality rates, of which a significant proportion

[146] Ansley J. Coale, *Population Growth and Economic Development in Low-Income Countries; a Case Study of India's Prospects,* (Princeton, NJ, Princeton University Press, 1958): 3.

[147] Coale, 63.

was due to death in infancy. The ranges of infant mortality given in different census tables varied widely, with upper bounds around 250 and lower around 155. The National Sample Survey was not useful, they said. "Mortality rates – particularly infant mortality rates – determined on the basis of household survey are notably deficient."[1] This presented a major problem. "Uncertainty in the level of the infant mortality rate introduces an element of uncertainty in our estimates of all vital rates."[148]

The solution to uncertainty about infant mortality was to rely on their own expert judgment and the local expertise of the Indian authorities. They constructed a statistical sample from the "more or less direct evidence" collected in the special health units sponsored by the Rockefeller Foundation in Singur, Ramanagaram, and Sirur, which was "better than what was generally available in rural areas," and were content to find that this data had a linear relationship when modeled against the overall crude death rates.

Local expertise was privately selected and not publicly sought. In 1956, Notestein had written to KCKE Raja, who had been named director of the UN Demographic Institute that had been pushed through after all in Bombay, about the work the Princeton office was doing on population's relationship to economic development. They had sent one hundred copies to Tarlok Singh on the Planning Commission, who would privately circulate copies. Notestein hoped Raja would send his critiques, and expected he would find "stimulus" in the model.[149]

Interested in making a persuasive case for the generalizability of their model across different social and economic "contexts," Coale and Hoover turned to data collected by the Ford Foundation from study populations at agricultural development sites in Mexico.

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[148] Coale, 53.

[149] FWN to KCKE Raja, July 1956, Population Council General File RG IV3B4.2 Box 15, Folder 234, RAC.

Another low-income, high fertility country in the process of reorganizing its economic production, Mexico was distinct for its strong left coalition. With the application of their Indian model apparently successful, Coale and Hoover reached the conclusion that for any low-income country with a high birth rate "in the process of reorganizing its economy to a more productive form," reducing fertility would assure economic growth, and this distributed across fewer consumers would lead to per capita gains in welfare. Conditions of public health and political decisions about allocation of resources did not matter. "The differential advantage to be gained by reduced fertility is in the same general range," Coale and Hoover concluded, "whether the country is large or small, has just begun to reduce its mortality or has already made major advances in health, is relatively self-sufficient or rather heavily engaged in trade, and whether development is following a socialist or capitalist pattern."[150]

Coale and Hoover's model, published in 1958, satisfied the priorities of powerful institutions including the International Bank for Reconstruction and Development, members of India's own Central Planning Commission, and the international interests in fertility reduction. In their acknowledgements, 135 people were named. Four of these were women, of whom two were named as a pair with their husbands. None of the women were from the United States. Baumgartner was not mentioned. Gopalaswami, whose ideas had been remarkable to Notestein and sent to Coale and Hoover, was not either. As Notestein had told Gopalaswami when they talked, getting action on fertility policy was a political process.

Both the Planning Commission and the international development community made much of the 1961 Census results, which suggested that the projections of demographic experts had been wrong and population was growing faster than anticipated. The Planning

[150] Coale, 320.

Commission, deciding that health programs were not helping, proclaimed that they were not going to sit around waiting for the crisis of population growth to resolve itself. Health visitors were re-commissioned to be exclusively responsible for disseminating family planning information.[151] Rural area public health programs were flipped into population control programs and campaigns. In government, the central family planning board explicitly repurposed child welfare and maternity services to serve fertility control designs, their reason being that these attractive health services would ensure attendance at family planning centers. The dais trained to attend births were now expected to extend family planning services.[152]

Plans for these changes had been in motion years before the census was conducted. Internationally, planning by the UN Economic Commission for Asia and the Far East (ECAFE) for an Asian Population Conference had begun by 1959, as the secretariat was already "expressing concern over the accelerating rate of population growth in Asia and its implications for economic and social development."[153] It was decided that the meeting should not be held until after the 1960-61 census results were out, but the scope, organization, and agenda for the meeting were largely set in the 1960 ECAFE session.

Also by 1960, the Ministry of Health's Annual Reports no longer discussed health care, and "social environment" had become a euphemism for family size. "The Family as a primary unit of society is gradually being rediscovered," the 1961 report presented its

[151] Connelly, *Fatal Misconception: 192*. MC says that by 1961 family planning, which had been a sea of different intentions, was now a population control intention (p. 194). There were still a sea of different intentions.

[152] Ministry of Health Annual Report, 1962, CSL.

[153] KR Nair, Notice from Government of India Central Statistical Organisation, Population Division on the ECAFE Asian Population Conference, December 1963. Appendix I. 5 Nov 1962. RG 0286 P 459 Cont 1 [8511] National Archives and Records Administration (Henceforth NARA).

reductionist assessment. "People are realizing the necessity to have a family of the ideal size and to have cultural standards and incomes compatible with such a size. Social environments are being evolved to remove socio-economic handicaps of parents and children."[154] All shifts towards family planning were presented as the recommendations of experts. "It has been recommended that the family planning clinics should form an integral part of the maternity and child welfare services."[155]

By this time, the once-modern integrated rural development design had been deemed a failure. MIT economists Walter Rostow and Max Millikan had presented a proposal for a new modernization theory to the U.S. Senate in 1955, and this theory of staged economic growth, injected with capital at the early "take-off" stage, made the old integrated approach seem slow and less impressive than a plan to use modern technology to industrialize India within a few decades.[156] The new design for community development, again financed by the Ford Foundation, was Intensive Agricultural District and Community Development Programs, based on a resource -intensive technological approach to agricultural production. Their locations were selected based on whether they seemed disposed to successful agricultural modernization.[157] These projects were expensive, as the Ford Foundation paid for special fertilizer to improve the chances that agricultural output would be increased at significant rate in short time. While countries and organizations that could not afford these technologies provided structural and long-term planning aid, the Rockefeller Foundation continued to send visitors and the Ford Foundation continued to have representatives

[154] D.P. Karmarkar, Ministry of Health Annual Report, 1960-61, 107, CSL.

[155] Ibid., 109.

[156] Kimber Charles Pearce, *Rostow, Kennedy, and the Rhetoric of Foreign Aid*, Rhetoric and Public Affairs Series (East Lansing: Michigan State University Press, 2001).

[157] Lawrence Jacob Friedman and Mark D. McGarvie, *Charity, Philanthropy, and Civility in American History* (Cambridge, UK ; New York: Cambridge University Press, 2003).

working closely with the Indian government on family planning and the Community Development Projects, seated at Central Family Planning Board meetings.[158]

Where health-led development was deemed hard to quantify, likely to contribute to population growth, and slow, the Coale-Hoover hypothesis satisfied the priorities for speed, cost, and tangibility. Quantitative, innovative, and technical, the model promised an efficient answer to economic growth. The apolitical claim that this approach would automate the reduction of infant mortality, justifiable on average, provided a mathematical cover for the neglect of human lives that did not "behave" in the data production process, sustained by indifference to local conditions and mean solutions to averaged problems. Over the next three years, Coale and Hoover's model was widely circulated and became a highly influential theory of economic growth. Indeed, it would be credited as "the justification for birth control as a part of US foreign policy."[159]

Biopolitics Reanimated

In 1961, Baumgartner delivered a speech in Japan on social medicine and human ecology. "Public Health officials have always been interested in scientific knowledge," she said. "Already there is evidence that more is known than is currently put into practice."

Figuring out how to put social ways of knowing into practice in the new economics of development would preoccupy Baumgartner for the last decade of her career. As the holistic, integrative modern vision of public health disintegrated, attention nonetheless remained trained on the infant mortality rate. From its earliest conception, the infant

[158] Corrina Unger, "Modernization a La Mode: West German and American Development Plans for the Third World," *GHI Bulletin* 40 (n.d.): 143–59; Connelly, *Fatal Misconception*.

[159] Piotrow, *World Population Crisis; the United States Response*.: 15.

mortality statistic had crossed the boundary between economic and social ways of thinking – an Object, as John Graunt called it, which could inspire "passion by consent." In institutions working across great physical, social, and psychological distances, within which the meanings and determinants and responses to infant death varied, the statistic was now failing to attract inquiry into the nature of diffuse human vulnerability for which precarious infant lives were held up as the ideal. In the new development, rather than promoting life in the spirited, social, and economic sense of early nineteenth century liberal ideas about public health, the institutions of health, development, and the social sciences in India at the end of the 1950s trained their efforts on merely reducing the infant mortality statistic. Rather than the power to make infants live, the power of the new development was in making infants, *statistically*, not die.[160] The Data Quality Committee of the Census Committee accomplished this by not measuring communities where infant deaths were high and not counting infant deaths that could be classified as stillbirths. The World Health Organization's focus on infant health programs addressed the infant mortality rate by keeping infants alive through the cutoff of the statistic. The Coale-Hoover model was used to support a population control movement in which conception of births at a high risk of failing were prevented.

The new development emerging at the end of the 1950s was the product of the undermining of the earlier vision. The new politics of development was not a project without spirit, however. Rather, where the spirit of the development vision Baumgartner still held on to was a spirit of care, community, and collaboration, the bare artifacts of the older development vision were reanimated with the spirit heard in the aspirations of the Ford

[160] Michel Foucault, *The History of Sexuality*, 1st Vintage Books ed. (New York: Vintage Books-1990, 1988); Hans-Martin Jaeger, "UN Reform, Biopolitics, and Global Governmentality," *International Theory* 2, no. 1 (March 2010): 50–86; Giorgio Agamben, *The Use of Bodies*, Homo Sacer; IV, 2 (Stanford, California: Stanford University Press, 2016).

Foundation President when he called for "hard –hearted aid" or Nehru when he disavowed the "vague humanitarian" possibilities of socialism. The spirit of the new development was not care, but "indifference." W.E.B. Dubois had identified this kind of indifference half a century earlier when he felt the world's response to the singular death of his son.

The new system of economic development was empowered not only by the actions of those who shared this worldview, but also by the accommodation of people like Baumgartner who did not. Baumgartner, too, was changing as she negotiated her own agency in the complex interactions of a world expecting collaboration. She encountered the difficulty for a visiting expert of achieving the responsive, integrated, egalitarian system and the grassroots work she described in the early 1950s. She was more acquisitive than inquisitive, picking up tangible things more easily than trusting relationships. She carried home documents, shoes, she chatted by mail with other traveling experts about the things they carried. "I hear you got the most charming things in India," she wrote to Estella Ford Warner at the US Public Health Service's Division of International Health. "What fun it must be living with them!"[161] Given time, she did begin to develop human relationships and affective understandings with some people in some of the places she traveled. But that took time, and for the most part her substitutes for relationships with "the people" were strategic relationships with elite leaders who frequently misunderstood or misrepresented the people themselves. Baumgartner did not yet take seriously, because she had not yet been forced to, how it felt to be subject to the structures of a worldview different from her own, and to people willing to believe health could be politically neutral, exported and delivered to "others." She underestimated the ways her own gendered differences from the majority of her colleagues mattered. Her negotiations of agency would have new impact after she was

[161] LB to Estella Warner, letter, Feb 21, 1956. Box 41, Folder 4, LBP.

appointed director of Human Resources and Social Development at the United States Agency for International Development, a refreshed attempt at bilateral aid, in 1962.

Chapter 4: Agency

AID Contracting, the International Mind, and the Sociopolitics of the New Frontier

Moments after the August 17, 1962 edition of the *New York Times* announced Baumgartner's new appointment as Assistant Secretary of State, Director of Human Resources and Social Development at the United States Agency for International Development, telegrams and letters began arriving. Some went to her office in New York. Others went directly to the beach home Nat owned in Chilmark, Massachusetts, on the island of Martha's Vineyard where they were spending the end of their summer. Eleanor Roosevelt sent congratulations; Chairman James A. Farley of the Coca Cola Corporation sent good wishes and attached a recent speech to a local Rotary International chapter on the importance of free enterprise. Some letters were homemade cards from old family friends. Deputy Director General of Health Services Dr. Jungalwalla in New Delhi congratulated her on the news he had just read, as did H.G. Foster, Special Agent in Charge of the FBI. "It all just seems so natural," wrote public relations impresario Edward Bernays, "masses of suffering people on one hand, and one of our great servants of humanity ready to minister to their needs."[1] In the message from Assistant Secretary of Defense Frank Berry, a mildly ominous tone filtered through his words of encouragement. "I'm sure you will be interested in building up the health side again, which has dwindled to an appallingly small degree over the past years," he wrote. Baumgartner's terse response suggested her confidence and determination: "I certainly expect to give the health people some kind of help," she noted.[2] In the summer of 1962,

[1] Ted Adams to LB, letter, Aug 17, 1962, Box 68, Folder 17; Certificate of Appointment, Box 85; Eleanor Roosevelt to LB, Letter, September 13, 1962, Box 68, Folder 21; James Fawler to LB, letter, Box 68, Folder 17; N. Jungalwalla to LB, letter, Box 68, Folder 19; H.G. Foster to LB, letter, August 20, 1962, Box 68, Folder 19; Edward Bernays to LB, Telegram, September 27, 1962. Box 68, Folder 17, LBP.

[2] Frank B. Berry to LB, letter, August 21, 1962, Box 68, Folder 17, LBP.

there was a dearth of interest in health programs or experts among the development experts she was about to join in the Washington offices of USAID.

As unsupportive as the political climate was of "building up the health side" of federal foreign assistance, it seemed to be on the verge of getting worse. A month before taking her oath at USAID, Baumgartner wrote to a longtime friend in India that "incidentally, AID seems to feel that is should be dropping a lot of these health projects."[3] Still, characteristically optimistic as she tied up loose ends at her job in New York and toward her new role at AID, Baumgartner confided in Holmer Calver, Chair of the Democratic Committee, "there is still a chance of having a good health show if some pressure is put on the federal people to put it in the Federal Building."[4] She told the New York City public in a parting speech from her position as Health Commissioner, "My experience here will stand me in good stead in helping people in underdeveloped countries to achieve more successfully their own potentials for a better life."[5]

The interest in her hire from the Coca Cola Company and the Secretary of Defense, might have suggested just how challenging it would be to get the kind of "health show" she wanted. Over the next several months, as the institution was actively being built, Baumgartner and the powerful representatives of U.S. industries would separately articulate their different visions of the future of development. Both used the nationalist myth of "adventure" to frame and popularize their ideas about international development. Though they used common symbols – frontiers, pioneers, improvisation, others – they articulated

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[3] LB to Dorothy Nyswander, letter, October 4, 1962. Box 68, Folder 21, LBP.

[4] LB to Homer Calver (Chair of the Democratic Committee), letter, October 3, 1962. Box 68, Folder 17, LBP.

[5] Julia Bess Frank, "A Personal History of Dr. Leona Baumgartner Covering the Years 1902-1962: With a Bibliography of Her Published Work, 1926-1972" ([New Haven, Ct.], 1977).

crucial differences in meaning, with crucial implications for the meanings of "internationally-minded" development practices.

A New Agency

Through the last decade, the international world had become more ominous for many people in the United States. A civil defense program operated by the federal government had tinkered widely with the production of mass anxiety about the risk of nuclear destruction. Concerned that the public would become blasé about the dangers of a nuclear world, the Civil Defense Administration engineered a public relations campaign to keep the people of the United States fearful, but not paralyzed, through rituals of management in the face of nuclear ruins that they hoped would generate a common sense that there were things everyday citizens could do in the face of terrible events.[6]

At the same time, public and Congressional support for foreign aid had fallen to abysmal levels. From the Institute of Inter-American Affairs in the Roosevelt administration through the International Cooperation Agency in the Eisenhower administration, the organization of foreign aid had shifted from health-oriented programs like the Servicio in Quito to technical assistance and loans for economic development. By 1958, Senators John Kennedy and John Sherman Cooper, the Democratic from Massachusetts and the Republican from Kentucky, were in the minority as they pleaded with their colleagues to ensure the funds necessary to "underwrite the success" of India's Second Five Year Plan.[7]

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[6] Joseph Masco, *The Theater of Operations: National Security Affect from the Cold War to the War on Terror* (Durham: Duke University Press, 2014).

[7] Russell Baker. "New Aid to India Urged in Senate; Cooper and Kennedy Ask Step to Save 5-Year Plan," *New York Times*. March 26, 1958. Relevant discussion of public financing:

The notion of an altruistic foreign aid irked many in Congress, who saw no productive value in "no-strings-attached" donations to countries insisting on remaining ideologically neutral as concerns about the spread of communism rose. Those in support of foreign aid were partly motivated by Soviet messaging that the West could not sustain a high quality of life for all of the world with their capitalist system.

Senator Kennedy, in particular, saw a way forward in a "Proposal" that economists Walter Rostow and Max Millikan from the Massachusetts Institute of Technology's Center for International Studies (CENIS) brought before Congress in 1955. Rostow and Millikan had designed a "modernization theory" for international development that promised "mutual benefit" for both the United States and the recipients of its aid. Modernization theory, which Rostow later published under the title *Stages of Growth: A Non-Communist Manifesto*, was a teleological model featuring linear stages of economic growth.[8] A counterpoint to the staged transition model of Karl Marx and Frederick Engels describing an inevitable passage of societies from capitalist to socialist to an ultimately communist system, Rostow's modernization theory required external investments at the first "pre-conditions" stage, which could then support a society to the "take-off" stage, after which the society would automatically proceed to the final stage of "high consumerism." The system and the ultimate stage reflected what Rostow called "the American way of life."[9] Rostow, like Marx,

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Charles L. Schultze, *The Politics and Economics of Public Spending*, The H. Rowan Gaither Lectures in Systems Science (Washington: Brookings Institution, 1968).

[8] W. W. Rostow, *The Stages of Economic Growth, a Non-Communist Manifesto.* (Cambridge [Eng.]: University Press, 1960).

[9] W. W. Rostow, *Eisenhower, Kennedy, and Foreign Aid*, 1st ed., Rostow, W. W. (Walt Whitman), 1916- Ideas and Action Series ; No. 5 (Austin: University of Texas Press, 1985); Kimber Charles Pearce, *Rostow, Kennedy, and the Rhetoric of Foreign Aid*, Rhetoric and Public Affairs Series (East Lansing: Michigan State University Press, 2001); Samuel Hale Butterfield, *U.S. Development Aid--an Historic First: Achievements and Failures in the Twentieth Century*,

used publicly sympathetic imagery in describing his model. For Marx, the communist society was an infant, "which is thus in every respect still stamped with the birthmarks of the old society from whose womb it emerges."[10] For Rostow, the capitalist society was the infant, and the "injection" of capital that preceded the take-off occurred at the beginning of the "long gestation period."[11] Economists of the New Frontier still shared cultural growth metaphors with the theorists of infant and child development.

Faced with public exhaustion towards foreign policy and skepticism of its efficacy, following the conflict in Korea with another disaster unfolding in the former French colony of Vietnam, the architects of USAID nonetheless responded with soaring idealism. Kennedy made Rostow campaign manager in his bid for President of the United States in the 1960 election. Seeking to inspire the public with optimism after a grating ten years of mobilized anxiety, the Kennedy campaign ran on the rhetoric of "waging the peace," "closing the Economic Gap," and making the 1960s a "Development Decade" instead of a "Decade of Defense." Once Kennedy had won the Democratic nomination, the general campaign hired MIT information scientist Ithiel de Sola Poole's Simulmatics company to build a computer-based prediction model of the American voting public, constructed on the results of mass public polling, in order to advise the campaign on which positions Kennedy should take on

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Contributions to the Study of World History ; No. 108 (Westport, Conn.: Praeger Publishers, 2004); Rostow, *The Stages of Economic Growth, a Non-Communist Manifesto*.Nils Gilman, *Mandarins of the Future: Modernization Theory in Cold War America*, New Studies in American Intellectual and Cultural History (Baltimore: Johns Hopkins University Press, 2003).

[10] Karl Marx, *Critique of the Gotha Programme*, Marxist Library. [Vol.XI] (New York: International Publishers, 1933).

[11] W. W. Rostow, "The Take-Off Into Self-Sustained Growth," *The Economic Journal* 66, no. 261 (1956): 25–48.

potentially controversial issues, such as how to present his Roman Catholic religion in the face of a predominantly Protestant voting base.[12]

Once in office, the Kennedy administration promised to lead the country into the "New Frontier," continuing to build its policies on idealistic notions and shared myths that captured the imaginations of many in the U.S. public. The symbolism matching a national "adventure" myth was clear. Both foreign and domestic policy were depicted as moral quests led by the youthful "Camelot." The citizen, cast as a pioneering volunteer, was asked to take on individual risk to forward the quest through the Peace Corp program overseas and the City Corps programs in the "hard core" urban neighborhoods. The New Frontier referred publicly to knowledge and discovery, with Kennedy making inspiring speeches about space travel and sending a man to the moon. In the everyday work of government behind the public speeches, among the experts advising the administration were practitioners of a new school of economic thought.[13] Taking up New Deal economic notions of deficit spending in order to promote growth, the New Frontier economists replaced Keynesian planning with neo-classical market theories that freed people to spend and ostensibly exercise choice about their futures. It was new not only because it revitalized neoclassical theories of supply and demand, but also because it was predictive, and based on quantitative, mathematical methods. [14]

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[12] Robert P. Abelson, Samuel L. Popkin, and Ithiel De Sola Pool, *Candidates, Issues and Strategies; a Computer Simulation of the 1960 and 1964 Presidential Elections [by] Ithiel de Sola Pool, Robert P. Abelson [and] Samuel L. Popkin*, [Rev. ed.] (Cambridge: Massachusetts Institute of Technology Press, 1965).

[13] Sheila Jasanoff, *The Fifth Branch: Science Advisers as Policymakers* (Cambridge, Mass.: Harvard University Press, 1990).

[14] Paul A. Samuelson, "Economic Theory and Mathematics--An Appraisal," *The American Economic Review* 42, no. 2 (1952): 56–66; F. A. von Hayek, "Economics and Knowledge," *Economica* 4, no. 13 (1937): 33–54; F. A. Hayek, "The Use of Knowledge in Society," *The American Economic Review* 35, no. 4 (1945): 519–30; Joseph E. Stiglitz, "The Contributions of

This new economics supported the new foreign aid agency proposed in the Foreign Assistance Act of 1961.[15] Promising to combine the technical assistance and loan programs of the past iterations of foreign aid into social and economic arms of an overarching "economic development" program, the agency was based on a systemic vision that stressed comprehensive loans for overall development plans, to be drafted and proposed by country leaders, rather than the short-term technical assistance projects into which Point IV had eroded.[16]

The United States Agency for International Development aspired, like the other anti-poverty programs of the New Frontier, to assume a guise of political neutrality. When Kennedy spoke to the nation and world about his plan for foreign aid in 1961, he said that new nations needed help because "without exception they are under Communist pressure," sometimes directly and sometimes by a subversive breaking down of the "new -- and frail" modern institutions. Knowing that some nations were put off by the ideological battles between the Soviets and the Americans, he took care to say that the fundamental task of foreign aid was not primarily negative, to fight Communism, but positive: to promote growth and democracy. "Its fundamental task is to help make a historical demonstration that in the twentieth century, as in the nineteenth - in the southern half of the globe as in the north - economic growth and political democracy can develop hand in hand." A Task Force

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the Economics of Information to Twentieth Century Economics," *The Quarterly Journal of Economics* 115, no. 4 (November 1, 2000): 1441–78.

[15] Foreign Assistance Act of 1961 (P.L. 87-195) Sec 102.

[16] Phyllis Tilson Piotrow, *World Population Crisis; the United States Response.*, Law and Population Book Series, No. 4 (New York, Praeger 1973, 1973); Alice O'Connor, *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century U.S. History*, Politics and Society in Twentieth-Century America (Princeton, N.J.: Princeton University Press, 2001); Daniel Immerwahr, *Thinking Small: The United States and the Lure of Community Development* (Cambridge, Massachusetts: Harvard University Press, 2015).

convened to advise the President on foreign assistance and in particular on organizing the agency around contracting saw USAID as an effort to achieve the long-deferred goal of a nationally representative foreign assistance program. "The government stressed that these new overseas operations were to be more than just a Government activity," the President's Task Force on Foreign Assistance reported in August of 1961. "The whole nation was asked to participate, both through contracts with the Government and through continuing and expanding the large number of private projects and activities in foreign countries which business firms and non-profit organizations have been carrying on overseas for many decades." They had been intended to "provide a new leadership and a stimulus, and a much larger source of financial support" in contrast to their "private forerunners" like the Rockefeller Foundation projects. Nevertheless, the foreign aid programs "were not intended to be exclusively governmental performance."[17]

The ideals of national representation had not been met in the last two decades leading up to the "Decade of Development." "What we have achieved," the Task Force noted, "is limited and occasional private participation rather than the large-scale marshaling of the nation's institutional resources that was foreseen and that the size and character of the problem require."[18] The nation was politically diverse and culturally and intellectually wealthy, their argument went, and foreign aid should reflect that. "It is the wealth of American institutional life, and not alone the money we can afford to appropriate for foreign ministries, that constitutes the richest asset the United States can make available in the effort

[17] President's Task Force on Foreign Assistance Working Group on Contracting. Positive Contracting for AID: Marshaling and Strengthening the Nation's Resources for International Development, Aug 15, 1961, 2. FF R101314_2 (microfilm), RAC.

[18] Ibid., 3.

to help almost 70 underdeveloped countries to develop their social and economic future."[19] While there was much that these institutions could share, the rising Civil Rights movement was evidence that not all believed that the institutions across the United States adequately represented all of the people living there.

The Task Force insisted, nonetheless, that development aid needed to be organized on a contracting basis, rather than as programs directly operated by the United States Government. Otherwise, the authors of the report feared, the endeavor would appear to be yet another form of imperialism. Certain that the United States government should not make sensitive priority-setting decisions for host governments directly, the requirement of a development plan posed a dilemma. One of the conditions for receiving aid from the US Government would be coming up with a development plan, and yet "not more than a handful of the less developed countries today have the personnel or the administrative organization to prepare such development programs," the Task Force wrote. "Contracting" was their answer to the dilemma:

> "mak[ing] feasible many activities that are becoming increasingly difficult to carry on through persons employed directly by the Government of the United States…in such a way as to minimize rather than maximize the danger that the assistance and advice given will be suspected of ulterior motives, will be resented as an invasion of national independence, or will become an issue to be fought over in domestic policies."[20]

The Task Force's intention to maintain neutrality was supported by gestures of self-awareness in their document. "There are sure to be cynics and skeptics (not to mention our enemies) who will deride and challenge the motivation of the United States in giving such

[19] Ibid., 9.

[20] Ibid., 10.

assistance, no matter through what channel the assistance is given, but it is the part of wisdom to give such cynics and skeptics the least possible handles to grab hold of."[21]

Despite apolitical promises, and recognition that development priority setting was "a sensitive process close to the heart of national sovereignty" the Task Force report was internally ambivalent on matters of neutrality. The report did not mention that the new economics was an inherently ideological set of assumptions, envisioning world systems as free markets deemed more reflective of the "American way of life" than planned centralized economies reflecting "Russian" governance. What the Task Force did say was that the United Nations, established to avoid bilateral politics and lead the world collectively under a coordinated liberal system, was not effective in practice. "The fact is, however, that although several of the multilateral agencies can provide capital for economic development, there exists no adequate multilateral technical assistance program that can substitute for the bilateral program of the United States." The Task Force criticized the "complex and unwieldy administrative structure of the UN," stating that, "a program that is not multilaterally financed must soon cease to be multilateral in fact."[22]

As grand the idea was that the United States development program could be a demonstration project for the world, it was not new. The "American experiment" had long been cast as a demonstration of liberal democracy. What was new about this worldwide demonstration was its intention to show the compatibility of "political democracy" and economic growth – a repudiation of Soviet claims that capitalism could not sustain a high standard of living for all. Like other demonstration projects, however, the projects of USAID were to be set in locations where they were expected to work, on grounds of the

[21] Ibid., 11.

[22] Ibid., 15.

importance of efficacy. "Concentrated in countries that will make effective use of assistance, among those countries in greatest need," the cooperating countries were now primarily chosen in the Cold War theaters of the "third world." Where past foreign aid programs were criticized for being wasteful and ineffective, "consistent and informed" judgments of not only the value of the programs but the commitment of the participants were to be made at a distance far from where they were taking place, on the basis of seven criteria that could be quantified.[23] These criteria included increase in agricultural productivity through small farms, control of population growth, greater income equality, reduction of underemployment, increased literacy, and progress in combatting corruption. Even though the new economic development sharply reduced AID assistance in the health field, second among the listed indicators was "reduction of infant mortality."[24]

Recognition of the infant mortality rate as an indicator of not health development but economic development had spread internationally. In Ecuador, where physicians in 1951 had protested the incompatibility of international mortality metrics in their local settings, the editors of the journal *Pediatria Ecuatoriana* proclaimed by 1958 that infant mortality was "the best and most subtle indication that we have of the material and moral status of a nation."[25] The leading liberal newspaper of the President's home town, the *Boston Globe*, reported in 1962 that in the last 50 years, as the infant mortality rate had fallen under the influence of American medicine and standards of living, the infant had become a "more valuable national

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[23] Peter H. (Peter Henry) Rossi and Walter Williams, *Evaluating Social Programs; Theory, Practice, and Politics.*, Quantitative Studies in Social Relations (New York: Seminar Press, 1972); Walter Williams, "The Politics of Evaluation: The Case of Head Start," *Evaluating the War on Poverty*, 1969, 118–132.

[24] U.S. Agency for International Development. Proposed Program for Fiscal Year, 1963. This document is available at pdf.usaid.gov/pdf_docs/pdace289.pdf.

[25] *Pediatria Ecuatoriana*, 7, 1958: 49-50, Museo Nacional Medicina Eduardo Estrella (Henceforth MNM).

resource" than even crops or hogs.[26] A moral marker in Cold War competitions, infant mortality reduction was a priority condition for receiving U.S. foreign aid and a political promise deployed by the Kennedy administration in efforts to win conservative support for national health care in 1961.[27] Dr. Stewart Clifford, the head of infant care at the Boston Lying-In Hospital and chief of newborn service at Children's Hospital, returning from a tour of the USSR, stated that the Russians' infant and childcare programs surpassed those in the United States, and that the country likely had "fewer retarded children."[28] Noted British health officer Arthur Newsholme's statement that set conditions on the usefulness of the infant mortality rate was rarely quoted in full if at all. His claim in 1910 had been more tempered and localized. "Infant mortality is the most sensitive index we possess of social welfare and of sanitary administration, especially under urban conditions."[29]

The meanings of the infant mortality rate had shifted in the last fifty years. Julia Lathrop had quoted Newsholme in 1915 when nationalizing a program of infant mortality registration. As new Director of the Children's Bureau, she had explicitly qualified this use of the IMR:

> "Nationally the United States has as yet no means of measuring the extent and significance of its infant mortality. If it were practicable, it would be illuminating to visit each one of the 2,500,000 children who, it is estimated, are born in this country yearly, and to take note of the varying social and economic conditions under which some 300,000 of them die and the others survive. As this is manifestly impossible, the nearest approach is to consider certain communities typical of the whole, and it is believed that in the course of a few years' study such data can be presented as will give the United States a fairly adequate measure of the conditions under which American-born

[26] "Babies and Hogs," *Boston Globe*, April 14, 1962.

[27] "Rough Sledding for Kennedy Health Plan," *Boston Globe*, Feb 20, 1961.

[28] "Russians Called Superior in Child Care," *Boston Globe*, April 25, 1961.

[29] Annual Report of the Medical Officer of Health, of the Local Government Board, 39th Report, PP.1910, Cd5263 (39), supplement on Infant and Child Mortality, Report of Dr Arthur Newsholme.

> infants survive or perish, and of the possibilities of modifying those conditions by local action."[30]

When the editorial board of *Pediatria Ecuatoriana* quoted Lathrop in 1958, however, the meaning and scope of the IMR was significantly inflated from what she (and Newsholme) had articulated:

> "Julia Lathrop has said it precisely: 'Infant mortality is the best and most subtle indication that we have of the material and moral state of a nation. The infant mortality of a country gives the measure of intelligence, the health, and the conduct of fathers and mothers; revealing the level of death and hygiene, it testifies to the value of doctors, nurses, hygienists, and educators.'"[31]

By 1961, rising and falling national infant mortality rates were tracked like participants in a footrace. Not a deeply contextualized, contingent social *measure,* infant mortality was now employed only as a *metric*: a politically powerful, abstract, universal object.

Baumgartner's authority, too, was growing. "New York, with its ethnic diversity, its demographic concentration, she sees as a microcosm of the WHO's universal province," a publication of the World Health Organization reported of her in 1958, continuing that "the biggest city in the United States, and one of the biggest in the world, provides some of the world's biggest headaches for the people running its public health services." Of all the challenges, "the shortage of trained personnel is the biggest of them as it is in the less developed countries." Past waves of immigrants from Europe moved into the suburbs created by consumer culture, the G.I. Bill and the personal automobile, and as more people

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[30] The Causes of Baby Death in Johnstown. *The Survey*. Vol. XXXIII No 20. Feb 13, 1915: 528.

[31] *Pediatria Ecuatoriana*, 7, 1958: 49-50, MNM. "Julia Lathrop lo ha dicho con precision: "la mortalidad infantil es la mejor y mas sutil indicacion que poseemos sobre el estado material y moral de una nacion. La mortalidad infantil de un pais da la medida de la intelligencia, de la salud y de la conducta de los padres y de las madres; revela el nivel de la mortalidad y de la hygiene, astestigua el valor de los medicos, de las enfermeras, de los higienistas, de los educadores."

from regions south of the Mason Dixon and west of the Mississippi line filled in neighborhoods being left behind by the cities, the relief at rising fertility in general was shaded by anxiety. "The chief handicap in preventing the spread of contagious diseases is the swarming density of the city's population," *World Health* reported. "Tropical diseases are an important concern of the Health Department due to the almost continuous immigration of new groups such as the current wave of Puerto Ricans who now number 600,000."[32] Baumgartner thought a solution was the expansion of city industries into the countryside. She felt that what New York had learned could be a lesson to the developing world. "Tell people building new communities, new countries, to avoid our mistakes," she wrote. "Tell them to take their small industries into the country and keep the family together."[33]

Amidst anxiety about the nuclear bomb and the "population bomb," Baumgartner epitomized the citizen who remained both calm and alert, vaccinating Elvis Presley against polio in a public relations campaign in the same beat that she negotiated the release of "secret" statistics from the Soviets. In 1958, she had traveled to the Soviet Union with six other women physicians and amazed the *New York Times* by not only knowing that the Ministry of Health in Moscow was collecting statistics on matters like infant mortality and tuberculosis, when all they had shared was counts of physicians and hospital beds, but by gaining the agreement of the Minister of Health to share this data. Both had agreed there should be nothing secret about it. In the encounter's mediation, however, health data had indeed become a prop in the Cold War theater:

> "At an interview with the Health Minister yesterday morning, Dr. Baumgartner said the Soviet Union had made admirable progress in fighting

[32] "Pictures of Health in New York: Safeguarding the Health of 8 Million People." *World Health* (Division of Public Information of the WHO, September/October 1958). Box 2, Folder 2, LBP.

[33] Ibid.

> disease and should feel no hesitation in sharing its vital statistics with public health officers everywhere. The minister [Maria D. Kovrigina] said she agreed that there was nothing secret about such figures. 'I see no reason why you should not have them,' she told her visitor. Dr. Baumgartner drew up a list of unavailable figures she would like both for the Soviet Union as a whole and its provinces. Before leaving Moscow today she added greater detail to the list at the Russian's request. She felt hopeful therefore that her request would be met, yielding new data and further proof of the value of cultural exchanges."[34]

Baumgartner, of course, knew that the Health Minister of the Soviet Union would have data on social measures like infant mortality. Her exchange was in context quite mundane. The medical profession maintained relations and collaboration across Cold War divisions. But the *New York Times* awe at the data itself as a collected treasure, and portrayal of Baumgartner as a Cold War hero for not even obtaining, but merely knowing of its existence, is striking and telling of the abstract power the metric held in the public eye.

More generally, Baumgartner was known by her associates and in the public media as a person who could manage the vicissitudes of the modern international world. In addition to starting an unprecedented population statistics database on public funds, she had successfully led the fluoridation of New York City's public water despite initial public resistance. Her dense professional record supported the American Medical Association's 1958 proclamation that she was a physician who "reveres research."[35] While Commissioner, she had administered the collection of the "largest body of vital statistics of any single community or country, ranking second only to those collected by the US Public Health Service." The statistics, largely mortality information, were seen as "valuable tools for improving public health services" and were simultaneously fueling "53 research studies going

[34] "Soviet Promises New Health Data" *New York Times,* June 12, 1958: 20.

[35] "Pictures of Health in New York: Safeguarding the Health of 8 Million People." *World Health* (Division of Public Information of the WHO, September/October 1958). Box 2, Folder 2, LBP.

on, based on death certificate information." Running an "annual budget of $25 million, which is twice the size of the UN's WHO," Baumgartner was clearly capable of large-scale administrative reform. She was also determined to modernize the city's services. "We are trying to keep abreast of modern conditions, trying to handle TODAY's problems with TODAY's methods," she told the WHO. She was proud of starting the first medical research program funded by local tax dollars, a "unique new medical research program based on a long quiet survey of the city's needs. For the first time, a municipality is giving major tax funds to beef up research – a program which eventually envisions cash support to the tune of $1 per year per inhabitant." The only program of its kind, she hoped it would "serve as a pattern for other cities," believing it was "vitally important to broaden the base of support for medical research."[36] Baumgartner, with population statistics and emphasis on current problems, was still attempting to move care away from a narrow clinical focus and attend to inequalities around individual characteristics that were maintained in old practices and persisted. But unlike Baumgartner, who saw statistics as an entry to inquiry, the statistics themselves were the attraction for many, providing a distraction from rather than indication towards context.

Baumgartner had furthermore been in the parts of the world that most of the United States public only saw in photographs and statistical charts. Whether consulting Alcívar in Ecuador on the Maternidad, or the new Indian government on family planning and preventive pediatrics, she was a master of circulation, bringing people and books and manuals and taking away new ideas and models and advice for the US government about which health professionals to bring to the United States. In a letter received from the Indian Deputy Director General of Health Services Dr. Jungalwalla, he thanked her for giving their

[36] Ibid.

public health association "a little bit of what your research department in New York City was doing," and hoped "that something like this will be developed with us, also."[37] People around the world described her as inspiring, a momentary escape from the solitude and other challenges of public health work in distant places. Helen Gideon, working on the Khanna study in Uttar Pradesh, beamed through the page on a letter she sent, stamped with one red long horned cow and one green airplane. She had seen a picture of Baumgartner having lunch with Indian Vice President Radhakrishnan in their newspaper and it made her feel happy and connected. It had been "wonderful" to see, she wrote. "I felt I just had to write and tell you what happy memories that picture brought me."[38] Her children were in school; her husband was working in Delhi. "Sometimes I wonder at my own lonesome life in this quiet place, but the work makes up for it." She told Baumgartner. "Once I finish here, I'm hoping to have a 'normal' home somewhere." Though the Rockefeller Foundation had belittled Indians early in the 1950s for being more interested in international travel than in working in their own country, Baumgartner appreciated how human connections and a sense of inspiration were important to doing work in places that were far away from "home." Kaur, for example, even though she had grown up in Ludhiana and considered the village communities "her people," loved the symphony from her time in England and said they had nothing of the sort in Delhi. She asked Baumgartner if they could go together on one of her visits to New York. After Kaur and her colleagues had left New York, Frederick Osborn of the Population Council wrote to Baumgartner that they wanted her to go over to India again soon. "She says that they all feel the need of the great stimulus you give them,"[39] he wrote.

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[37] N Jungalwalla to LB, letter, August 28, 1962. Box 45, Folder 19, LBP.

[38] HG to LB, letter, April 11, 1958, Box 41, Folder 6, LBP.

[39] FO to LB, Dec 5 1958, Box 41, Folder 6, LBP.

The providers of services, and not just the people, sought comfort and care. Charismatic, present, and responsive, Baumgartner's gender was also significant for the kinds of conversations and connections it opened, even while foreclosing others.

Baumgartner managed all of this without seeming particularly abrasive to anyone, despite the wide range of people with whom she interacted. She could still be cast by the WHO's public relations media as an attractive grandmother with a knowing eye for hats.[40]As Helen Gideon said, Baumgartner seemed so comfortable in whatever setting Helen saw her, whether sitting with Nat and Kaur in a field in Ludhiana or sharing a coffee with Helen on Martha's Vineyard on a hosted visit. "The wonderful thing about you is that you are so natural," she told Baumgartner.[41]

All of these popular characteristics brought Baumgartner to the attention of the administrator of USAID, an agency in an administration that promised to not only reduce the "Economic Gap" but also to address the gender gap in the federal government.[42] Furthermore, USAID had a mandate to "assist census and other demographic assessment and evaluation efforts where, in the agency's judgment, population increases will have a significant impact upon the development prospects of a country" and "recommend potential sources of information and of assistance on the ways and means of dealing with population problems."[43] It was confusion about the meaning of the new agency's position on matters of

[40] "Pictures of Health in New York," 1958.

[41] HG to LB, April 11 1958, Box 41, Folder 6, LBP.

[42] Cynthia E. Harrison, "A 'New Frontier' for Women: The Public Policy of the Kennedy Administration," *The Journal of American History* 67, no. 3 (1980): 630–46; Irving Bernstein, *Promises Kept : John F. Kennedy's New Frontier* (New York: Oxford University Press, 1991).

[43] United States Congress, Senate. Committee on Government Operations. Subcommittee on Foreign Aid Expenditures. Population crisis: Hearings before the Subcommittee on Foreign Aid expenditures of the Committee on Government Operations. United States Senate, Eighty-Ninth Congress, Second Session, on S. 1676, a bill to reorganize the

population that led to her appointment. [44] Through the 1950s, though population growth was a topic of anxious debate within the Cabinet, and though in practice there was activity on population already, the official government stance on the issue was absolute silence, what insiders called the "do nothing-know nothing" policy on population.[45] By the end of 1961, the U.S. Government had acknowledged its interests in world population through AID Development Manual Order 1018.2, "Special Programs and Policies: Problems of Population Growth." Issued to each of the field missions, its instructions were two-fold: To conduct census research and to advise local governments on population.[46] Because contraception was politically sensitive, the order did not state an official position on population, nor did it grant permission to build any actual program. In the face of this intentional vagueness, "confusion over the meaning of the order arose," according to

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Department of State and the Department of Health, Education and Welfare, (Washington, DC: U.S. Government Printing Office 67-785 O, 1966).

[44] Russel V. Lee to LB, letter, March 15, 1962. Box 45. LBP.

[45] In the Minutes of the Conference on Population Dynamics for Staff of Agency for International Development, June 8, 1965, LB said that there was more activity than the USG acknowledged, being highly aware and keyed into the Ford and Rockefeller and Pop Council activities in the early to mid 1950s. See also: Governmental Policy in the US and Growth of the World Population. The President's Committee on Population and Family Planning. Second Meeting. September 13, 1968, Box 52, Folder 1, LBP; Dwight D. Eisenhower, "The President's News Conference," December 2, 1959. Available at www.presidency.ucsb.edu/ws/?pid=11587.

[46] United States Congress, Senate. Committee on Government Operations. Subcommittee on Foreign Aid Expenditures. Population crisis: hearings before the Subcommittee on Foreign Aid Expenditures of the Committee on Government Operations, United States Senate, Eighty-Ninth Congress, Second Session, on S.1676, a bill to reorganize the Department of State and the Department of Health, Education and Welfare. (Washington DC: U.S. Government Printing Office 67-785 O, 1966.) Available at www.archive.org/details/populationcrisis196604unit. The remainder of the quotation reads: " For the immediate future, reference might best be made to the United Nations, to governments with experience in the field of population control such as Sweden and Japan, and to interested private foundations such as the Population Council, Planned Parenthood, and the Ford Foundation."

Baumgartner, and the confusion led to her hire by AID the following year.[47] Baumgartner believed that she could use this position and mandate to clarify the meaning of "population" and use the authority of her position to leverage ethical change.

Ambiguities of Development

As Baumgartner was being hired, the implementation vision for development was still undefined. The President's Task Force on Foreign Assistance stated this frankly in their 1961 report. "There should be no underestimation of the lack of our knowledge about development administration." [48]

The theory of development was also a matter of contention, even among those advising the policies of the New Frontier. "One can not deny that in the 1960s development is one of the more important values sought by human beings the world around,"[49] stated Presidential Task Force member Ted Weidner in a talk delivered at the 1961 annual meeting of the American Political Science Association in St. Louis. But development, he spelled out over the next half hour, was not the model that Walter Rostow's modernization theory so confidently proposed. Where Rostow had hypothesized development as a teleological linear progression ending at high-consumerism, Weidner dissented. A scholar of intergovernmental

[47] Governmental Policy in the US and Growth of the World Population. The President's Committee on Population and Family Planning. Second Meeting. September 13, 1968, Box 52, Folder 1, LBP.

[48] Ted Weidner, "Notes on Agenda Items," in "Improving the Resource Base in the United States for Technical Assistance Overseas in Development Administration and Law: Agenda," for the Oct 26-27, 1962 meeting, 13, FF R101314_1 (microfilm) RAC

[49] Ted Weidner, "Development Administration: A New Focus for Research," 1961, excerpted in "Improving the Resource Base in the United States for Technical Assistance Overseas in Development Administration and Law: Agenda," for the Oct 26-27, 1962 meeting. Annex I (15), FF R101314_1 (microfilm) RAC.

relations who began his career at the University of Minnesota, Weidner carried a degree in political science through positions at UCLA and Michigan State University, where for the past eleven years he had studied technical assistance, educational exchange, and international development administration. At the time he attended the Ford Foundation's meeting, he was Vice Chancellor at the Center for Cultural Interchange Between East and West at the University of Hawaii.

Weidner's thesis was that development administration was difficult because development required change, and government agencies protected the status quo. Development was a value, he said, and not a target. Moreover, it was not the value of one exemplary community, but a value shared across groups, each with different priorities. Neither a polarity of values, nor a unity of values, development was a single kind of value -- to be discerned, he said, not postulated. This discernment was not primarily the work of social science, he said, which was designed to identify difference and specificity in communities. Rather, the work of discerning the development value was a matter of political science, which was tasked with generalizing from many different local values. This process of generalization was the job of the development administrator and entailed seeking out the relations of values across groups, and building alliances that were not inconsistent with the overarching development value. Not automatic, to be stimulated in an early stage of growth and then left to its own devices, Weidner said development entailed iterative, log-term management. What this required was policy, which was different than government based on science and the personal values of an elite ruling class, dictator, or democratic majority.[50] Weidner's analysis to this point resonated with Baumgartner's own. In Baumgartner's development vision, the fragility of infant lives had represented this overarching

[50] Ibid., 11.

development value – a phenomenon that mattered widely across diverse groups with different values.

Weidner drew on studies across institutions when he stated that confusion over the meaning of policy in the rising age of scientific governance had muddled development administration with the notion of the White Man's Burden, or the administration of development. This misinterpretation was a problem rampant in the development programs he observed, which he explained as reactions by different disciplinary groups to the current emphasis on the new economics. "Some administrationists," he wrote, "feeling insecure and inadequate against the onslaught of the economists, have seen development administration as referring to the administration of economic development programs."[51] Others pushed back against the emphasis on the new economics by emphasizing the social and political aspects of development, applying the term to all internal and domestic services of government. Facing the dangers of the modern world, still others insisted that the priorities of development should be military preparedness and international relations. Development administration, according to Weidner, neither economics nor a reaction against economics, referred to the processes of guiding an organization to the achievement of progressive political, economic, and social objectives that were authoritatively determined. Weidner did not define this authority, but went as far as to state his assumption that such authority rested in human judgment. "An assumption behind development administration is that man is at least partly a rational human being, and that he can select among a variety of goals those to which he wishes to give priority. It is further assumed that he can then select means that will help him maximize the possibility of attaining these goals."[52]

[51] Ibid, 2.

[52] Ibid., 11.

Lack of support for development was more typical than was commonly thought, Weidner wrote, not because of any particular character flaws, but because development was painful to individuals and organizations intent on maintaining the status quo. Development, by definition, implied change. "Development is never really complete; it is a relative, more or less of it being possible. Development is a state of mind, a tendency, a direction. Rather than a fixed goal it is a rate of change in a particular direction."[53] While development could have goals it wasn't itself a goal, and didn't have clear endpoints.

The failures of governance that resulted from resistance to moral change were subtle because they appeared to be incremental progress. "Practitioners and scholars have been concerned with personnel, budgeting, organization and management," he wrote. "The problem that has interested them is how to make these tools more effective, in a narrow sense." The tests of development effectiveness tended to be internal checks on whether targets were met or efficiencies achieved. "Good administration and good human relations have become ends in themselves," he criticized, separate "from the achievement of other values that they may or may not facilitate."[54]

Where Weidner saw the failures of development as a result of the difficulty and discomfort of political change, Ford Foundation officials studying the problem of development administration had arrived at a different explanation in early 1962. Blame for past failures of the bilateral aid program typically fell vaguely on the individual characters of the overseas staff, the administrators, and the procedures within the institution. The overseas workers were framed as "freewheelers" and "ne-er-do wells" with "attachment" and "authority" issues whose "ludicrous ineptitude" fed negatively into the institution.

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[53] Ibid., 4.

[54] Ibid., 10.

Improving the practice of development administration was a problem in which the Ford Foundation executives were eager to get involved. From their vantage in Asia, they had determined that an "injection of creativity" was needed to speed institutional change. "The normal evolution of our institutions is too slow to meet the problem," the International Affairs Division declared in a February 1962 report.[55]

As an initial solution, the report had declared the need for an "imaginative system" that would permit the "most expert Americans" to take on foreign service positions. Over the last several decades, it had been people largely at the margins of political culture in the United States who had taken on government assignments overseas.[56] The Foundation's concern was that "top professionals" had not been recruited. The reasons identified in studies over the previous decade were that overseas development work entailed significant risks for an individual's professional career. These ranged from losing one's place in a promotion ladder, to lack of built-in rewards and national recognition, to lower compensation and loss of benefits, to the "disapproval of wives" – a problem particularly noted when children were of school age. Conflict of interest between an employer in the United States and development work overseas was a major factor. "Owing to this situation," the Ford report read, "the nation must frequently settle for second and third rate individuals to staff the AID agency."[57]

The "imaginative system" hinged, in this early report, on an institute that would act as a processing center for overseas professionals. Not merely a "clearing house," the institute

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[55] International Affairs Division, Institute of International Service, Feb 19, 1962: 2, FF R101314 (microfilm), RAC.

[56] Margaret W. Rossiter, *Women Scientists in America : Before Affirmative Action, 1940-1972* (Baltimore: Johns Hopkins University Press, 1995).

[57] Ibid., 1.

would be an "operational center" to identify and provide competent individuals for the appropriate position at the right time." Using the military and scientific communities as a model, they proposed that this institute could make overseas experience a valuable experience for companies that retained their employees' benefits and accepted them back. "The individual expert or leader would return with much wider experience, broader vision, a sense of personal challenge, and enhanced leadership potential," the report speculated. Schools could be established overseas for children. For the problems of conflicting interests, the designers imagined an institute that was "non-partisan and free from political pressure." The experts and leaders drawn from business and private organizations would not be identified with their former business or organizational institutions during the time of service.[58] The report described a human factory that could produce *indifference*. This indifference was not a mere vernacular lack of concern, but a specific quality sought by the reformers that would remove attachments that normally formed between individuals and their social worlds. The ideal overseas professional would be able to move between jobs, home and away, growing in personal qualities without developing bonds or interests.

Not clear themselves on how this kind of indifference would be achieved, "conflict of interest" remained at the top of the report's list of problems yet to be solved.[59] Such conflicts defined their international work. Amrit Kaur had turned to the Ford Foundation when planning her trip to the United States in order to evade the efforts of evangelical missions in the United States to plan her trip, and when Foundation representatives realized this they commented that they were caught in the crossfire between the religious missions

[58] Ibid., 3.

[59] Ibid., 5.

and the government of India's desire to be independent.[60] In general, the Government of India had paired with the Ford Foundation more willingly than either the United States Government or the Soviet Union to suit its non-alignment policy. Being non-governmental, non-religious, and not-for-profit, the Ford Foundation was determined to be relatively free of conflicts of interests. They stated that their idea of an institute manufacturing politically indifferent overseas workers had "widespread, top-level support," including the Secretary of State, the AID administrator, UN representatives, leading lawyers, the AFL-CIO, and board members of leading corporations.

Even if the Foundation report's authors did not see this narrow company of organizations and individuals as a particular set of interests, their priorities were embedded in the designs they proposed. Though calling for an "imaginative system," they resorted to existing designs that the "new world order" would draw on traditional models. "There is a growing conviction that what is needed is an appropriate contemporary analogue to a colonial service," read a report produced the next month, in March 1962, by the Foundation's International Training and Research Department, spearheaded by longtime Ford official George F. Gant and Boston University professor I.T. "Sandy" Sanderson, who had been hired onto Gant's staff for this project.[61] In contrast to the President's Task Force on Foreign Assistance, which had emphasized the importance of avoiding any semblance of imperial intentions, the Foundation's team considered colonial services an "appropriate" model for their desire to "regularize overseas service on some kind of career basis."

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[60] e.g. J. Elwin Wright of the World Evangelical Fellowship to Rowan Gaither, August 16, 1955. FF 56121, Frame 7 (microfilm), RAC.

[61] "Personnel for International Development," March 13, 1962. FF R101314 (microfilm) RAC; Mosher, Memorandum for the Record, June 13, 1962. FF R101314_1 (microfilm) RAC.

The driving question Gant and Sanders wanted to answer was how to identify and make the optimal overseas professional, but the question they needed to answer before that was the nature of professional tasks and responsibilities. "Knowledge in the United States about the conduct of personnel in international development remains at a low level," their report stated. The Foundation had already invested in projects to learn about these roles through sponsored research. They provided grants to MIT, Syracuse University, and Cornell to experiment with different approaches to training programs, from overseas internships to "over-staffing" to action-research laboratories where development projects could be carried on at the same time they served research and training purposes. The Overseas Development Program was investigating the possibility of a field laboratory in rural development in India. At the Delhi School of Economics, a 1954 grant had established the Delhi Orientation and Training Center to test the assumption that training in the country of assignment would be most effective. Comparing results against the training centers run by the Business Council of International Understanding at American University, the ODP studies concluded that regionally based training was better. [62] The "psychological readiness" of the trainees was deemed important, but the question of what they were to be ready for remained unclear. "It is difficult to train people for roles that are inadequately comprehended," the report stated. "There is need for coordinated efforts to identify research needs in this field and to stimulate research."[63]

With that need in mind, Grant and Sanders took a three-day "expedition" to Washington, D.C. from June 12-15, 1962, to share ideas on development administration with leaders in government. Their neatly typed agenda, with broad blank spaces left to fill in

[62] ITR, Personnel for International Development March 13, 1962: 4-6. FF R101314_1 (microfilm) RAC.

[63] Ibid.

late-scheduled appointments by hand once they arrived in town, promised conversations with the likes of Deputy Attorney General Nick Katzenbach, Hamilton Fowler of the World Bank, Ed Fei, Roy Crawley, and David Bell with USAID, Adam Yarmolinsky at the Department of Defense, and a departing breakfast at the White House with Ralph Dungan and Dan Fenn, Jr. Their first meeting was with Frederick Mosher, Staff Director of the Committee on Foreign Affairs Personnel.[64]

In their meeting with Mosher, and through their follow-up notes and conversations, the men agreed that the question of personnel selection and training for development was unresolved. Both the government officials and the Ford Foundation officials remarked on the lack of clarity on the matter in Washington. Mosher told them that the committee hadn't looked much at this specific problem and was waiting "until such time as the dust had settled" in the new development agency before getting into it. [65] Sanders noted, "The people in AID seemed particularly confused about the type of person they are seeking." Some felt a person only needed to be "technically competent," while others held that a person working overseas needed to "understand the development process which differs in degree, at least, from working in the United States, since it involves a cross-cultural setting."[66]

Sanders, evidently expecting that success depended on personal characteristics not circumstances, was surprised that there were no studies to set forth "those characteristics which make for successful overseas service." Dr. Edith Lord, who sat in on a meeting with AID staff, mentioned a study with over 100 organizations employing overseas personnel that had suggested the best recruitment strategy was to find people with the "right qualities of

[64] Agenda, "Sanders Gant Expedition to Washington June 12-15," 1962. FF R101314_1 (microfilm) RAC.

[65] Mosher, Memorandum for the Record, 1962. FF R101314_1 (microfilm) RAC.

[66] Sanders. Rough Notes, Washington Trip June 12-15. FF R101314_1 (microfilm) RAC.

temperament and then give them technical background," rather than finding people with technical background and attempting to instill temperament. The idea of recruiting successful Peace Corps volunteers was raised. No one, Sanders noted, seemed to be highly pleased with "Operation Tycoon" — a program that had sought to recruit business executives into overseas assignments. Clancy Thurber, Associate Professor of Political Science at the Institute of Public Administration at Penn State, had suggested Gant and Sanders obtain a study produced by Hugh Level on the Role of Schools of Public Health in Overseas Development, but the AID personnel office was convinced that, while career positions should be created for "Foreign Development Officers" in the agency, the professionals doing implementation work should remain tied to their professions and be hired only on short-term contracts as "Foreign Development Professionals."[67]

While "professionals" were to remain with their professions, the Deputy Attorney General was optimistic that legislation pending with Congress would smooth the way for business entrepreneurs and executives to do government work. The legislation had been drafted to allow persons from "private life" to serve the Government "so long as conflict of interest does not arise in each specific case," he told Gant. He did not expect that stock holdings or salary and pension would count as conflicts of interest.[68]

Sanders and Gant's had stimulated interest in Washington and earned them a project. In his private record after the meeting, Mosher noted about the selection and training of overseas development professionals, "Our present feeling is that this is one of the most conspicuous personnel problems in AID and that we should undertake as soon as possible to remedy our neglect of it. We might co-opt Gant, Sanders or other resources available to

[67] Ibid.

[68] Gant, Notes on Discussions in Washington, June 12015, 1962. FF R101314_1 (microfilm) RAC.

them to go into this area quite thoroughly." He also noted the vagueness of their concept of development. "Their present thinking on the subject is frankly fuzzy," he noted in a memo. "They are not sure what the nature of the problem is, its dimensions, or how to attack it."[69] By the end of the month, the AID staff and Personnel Directors had an understanding with Gant that the Ford Foundation would be "channeling its renewed interest in development personnel through the Committee on Foreign Affairs Personnel."[70]

Over the summer months, Gant and Sanders began collecting information from economics departments and schools of business and public administration. The Harvard Graduate School of Business Administration sent a 21-page list of former members of the Advanced Management Program who were at that time employed overseas. The University of Chicago replied to an inquiry about development economists on their faculty and sent a list including Milton Friedman and a description of a program underway in Chile. At the same time that Gant was collecting information from western democratic countries in Europe suggesting that their organizations, too, were encountering increasing difficulties in meeting personnel needs in the developing countries, Fritz Mosher copied him on a Memorandum circulated to the Committee on Foreign Affairs Personnel in Washington.

In conversation with Mosher, Robert Oshins from the Department of Commerce had called for a complete rethinking of AID's contracting scheme. The centralized scheme would not work for United States foreign aid as it did in Russia, he said, because the "main streams of American strength and the existing systems of power in American society" were top grade professionals and business personnel, not the professions in which Government predominated – specifically "public health, public administration, and agriculture." Mosher

[69] Mosher, Memorandum for the Record, 1962. FF R101314_1 (microfilm) RAC.

[70] "For Committee Use Only," Memo, Crawley, Raterman, Rodum, Mosher, Maccoby, Harr. June 21, 1962. FF R101314 RAC.

relayed Oshins' opinion that, because people were not professionalized to share AID's goals of setting up markets and promoting economic growth through democratic government, "as long as AID undertakes to recruit personnel directly in these various professional and technical fields, it will get nothing but third and fourth graders." Oshin felt, and Mosher did not disagree, "that the majority of our AID technicians overseas are doing more harm than good." Oshins argued that corporate business should be allowed to handle foreign assistance for the United States. He had noted specifically that the work of four Ford Foundation employees in Pakistan were more effective than the work of 350 ICA people.[71]

Gant and Sanders' emerging preference was to reprogram education at the professional schools to suit their graduates for international work. From the beginning of their investigations into the problem, they had no intention of considering public health professionals in their development personnel study. Van Zile Hyde, Executive Director of the Association of American Medical Colleges and a close colleague of Baumgartner's, working with her to promote international membership in the APHA, eagerly responded to a letter from Sanders in August inquiring about a recent study on the recruitment of American physicians for overseas service. Sanders asked about the availability and motivation of physicians, the factors that loomed largest in their decisions, what measures might be taken to raise their interest, and if Hyde's impression was that there would be openings for American personnel overseas in the near future.[72] Hyde quickly replied with data and interest, sending datagrams on this study through the summer that showed favorable attitudes towards overseas service. But Sanders was not interested in physicians. Hyde's study, he said, only ran "parallel to an interest which George Gant and I are pursuing

[71] FCM, Memo for the Record, Aug 8, 1962. FF R101314_2 (microfilm) RAC.

[72] ITS to VZH, letter, Aug 3, 1962. FF R101314_2 (Microfilm) RAC. VZH to ITS, letter, Aug 7, 1962. FF R101314_2 RAC.

as part of an internal study which we are making with the Ford Foundation," though the indications of interest in overseas service were highly interesting to him and he hoped it was a trend that held across fields.[73] Gant and Sander's lack of interest in health professionals was not for lack of recognized need. In a working outline prepared on August 4, 1962 for Gant and Sanders by Ted Weidner, public health specialists were listed first on the shortages that existed, followed by program or development economists, loan officers, agricultural economists, and public safety specialists.[74]

As summer ended Gant and Sanders began sending out invitations for late autumn meetings to discuss the overseas development role: one, in late October with selected academics in law and public administration, and a second in mid-November with economists.[75] A third would be planned with the National Industrial Conference Board. All of these planned meetings and collaborators being invited to share their views were at odds with health and Baumgartner's simultaneous appointment at USAID.

The Human Factor

"I can't quite understand why so many people in this country seem to be against foreign aid," Baumgartner wrote to Edward Bernays, the public relations impresario whom she had

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[73] Received a Datagram in November from VZH. Association of American Medical Colleges, "International Personnel Resource Survey," Datagrams, Vol 4 No 3 Nov 1962. Clarence Thurber to John Howard (Director of ITR Program), Letter, Nov 14, 1962 would suggest that there was rising interest in overseas service. Ford R101314_2, 6 (microfilm) RAC.

[74] E.W. Weidner, "A Working Outline on Selection and Recruitment of Specilaized Personnel for US Technical Assistance Programs Abroad," August 4, 1962. Mailed to Gant by Dorothy Young Aug 6, 1962. Ford R101314_1 (microfilm) RAC.

[75] General Outline for a Series of Meetings in Selected Fields Personnel for Overseas Assignments, June 11, 1962. FF R101314 (microfilm) RAC.

worked with on fluoridation and other public health campaigns in New York City. "I have a feeling they don't know what it is all about."[76] The question had nagged at her since the end of World War II.

While Gant and Sanders removed public health specialists from their analyses for overseas development personnel, people in the in-country offices of USAID had new hope for social and institution-building activities in the first fall of Baumgartner's appointment. "A growing recognition of this indispensable element of development is evident," wrote Eugene Campbell, chief of the AID health division in Delhi, in a memo circulated to the AID Health Staff. "In fact, our Congress has unequivocally instructed this agency to give highest priority to the type of activity that develops 'education and human resource' aspects of joint undertakings."[77] Some had been concerned that foreign aid had been turning into a "banking operation." Seeing this new opportunity, Campbell advocated to the AID offices in Washington for programs that integrated and regionalized health facilities, describing John Grant's staging of a "total health" program in Puerto Rico, with regional hospital, "satellite" health centers with preventive and ambulatory services, and health posts. Contrary to those speaking with Gant and Sanders, who argued for decentralized foreign assistance, Campbell argued in line with Baumgartner's thinking that the fragmented "pattern" of services characteristic of the United States was "not well suited to the lesser developed areas," citing limited financial resources, personnel, and facilities.[78] He spoke against the arguments for contracted services managed on a competitive basis, stating, "It is hazardous to support the

[76] LB Letter to Edward Bernay. September 29, 1962, Box 68 Folder 17, LBP.

[77] E.P. Campbell to AID Health Staff, Memo Subject: A Compact Statement on AID/Health as the Base-Line for the Decade of Progress. "What should AID be doing in Health?" Sept 13, 1962: 1. RG 0286 P 460 Container 1, National Archives and Research Administration (Henceforth NARA).

[78] Ibid, 3.

fragmentation of health services resulting from competing systems of medical care." Contracting itself was a strategy limited by the biases it introduced against people whose interests were not represented by the kinds of institutions contracted. Contracting on a competitive basis put measureable performance over programs and practices that would be best on other humanistic value systems, or allow local knowledge to inform the broader contracting practices. Campbell explained as his letter continued.

Campbell's lingering concern was how to assess health programs going forward. "In the past, " he wrote, "we have measured participation effort on the part of other nations by the amount of money or material contributed to a joint effort (fair share)." Social programs were difficult to make visible on this accounting scheme. "Many of the important social and institutional activities could not qualify under these criteria," Campbell explained, "and resources were thus channeled into a variety of activities, leaving little for those with fundamental effects upon social development." AID was committed to assessments, but Campbell was concerned about how to set up adequate evaluations across all of AID's different program sites. "The real problem will be in our efforts to jointly set up an appropriate device or mechanism that will actually have the capacity to assess the social development values attained by the loan project." Good assessment could not be achieved, he said, by a periodic audit.[79] The best assessment measures were not metrics like the indicators proposed in the Foreign Assistance legislation of 1961. Infant mortality rates could not tell whether but more importantly how an intervention was working; that required process. Good assessments, Campbell said, lay in "the judgment of a group," he said, "not simple and clear answers." He echoed what Baumgartner had long argued about the need for open discussion. Based on his experience, he also gave an example of how current practices

[79] Ibid.

inhibited the openness needed, but did not explain how to ensure that discussion was more transparent.

Back in New York, Baumgartner was preparing an honorary lecture that she had been invited to deliver at the annual meeting of the American Public Health Association in October, one of the first speeches she would publish under her new title of Deputy Administrator and Director of Human Resources and Social Development at the new United States Agency for International Development. Though Baumgartner regularly worked with people like Edward Bernays, liberals who believed that society operated on the basis of competition, and that because it chose this and not rule by a "wise elite," the best way to maintain order was through leadership and propaganda, her meanings were crucially different.[80] Baumgartner was still attempting to lead society to political governance based on collaboration. As she brought her speech to the APHA together, she drew on the same rhetoric she had used in the past to relate to the public across the United States, explaining her understanding of development work using the popular and stimulating notion of "adventure." It was not merely New Frontier rhetoric for Baumgartner; it was the map she herself used as she navigated her life and career.

On October 18, 1962, Baumgartner stood in a hotel room in Florida facing the attendees of the American Public Health Association's annual meeting. The APHA members were predominantly interested in domestic affairs, despite Baumgartner's efforts to stimulate

[80] Edward L. Bernays, *Propaganda* (New York: HLiveright, 1928). "It might be better to have, instead of propaganda and special pleading, committees of wise men who would choose our rulers, dictate our conduct, private and public, and decide upon the best types of clothes for us to wear and the best kinds of food for us to eat. But we have chosen the opposite method, that of open competition. We must find a way to make free competition function with reasonable smoothness. To achieve this society has consented to permit free competition to be organized by leadership and propaganda."

international interests in the past.[81] "This is a good place to sense the presence of the rest of the world," Baumgartner began. "Up the coast is Cape Canaveral, rocketing our astronauts around the globe, at a height from which no international boundaries are visible. It is a short boat ride from here to the Bahamas, where we are welcomed as friends. Two hundred miles below us is Cuba, where we are not."[82] She did not mention the failed CIA attempt to overthrow the Castro government a year and a half earlier. It was still four days before the President would announce the presence of Soviet-installed nuclear missiles on the of Cuba, but tensions between the governments had been growing. Baumgartner alluded to the tensions instead of the failed coup. "The epidemics, the wars, the famines, always left enough people to keep civilizations going and the world's work went steadily on," she continued. "The present considerable possibility that we may terminate all civilization has become a challenge to solve problems on a scale never undertaken before."

Baumgartner, over the last decade, had learned how complex it was to implement even the most apparently simple notions in the "magic of modern science and technology. "We delight in the gadgets of science," she told her audience that day, "but know little of the processes of science." She had seen how the helpfulness of any technology or idea depended on open collaboration in its implementation. She had once thought infant mortality, a problem with wide and powerful political valence, could attract this broad-based, integrative collaboration. She had learned a lesson as she watched this metric erode, which was that implementation of health programs required social, political, and ethical work across different systems of meaning, determinants, and responses to human vulnerability. Now, as a

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[81] American Public Health Association, "Growth of International Health: An Analysis and History" (Washington, DC: American Public Health Association, 2003).

[82] LB, "The Emerging Adventure in World Health." Second Bronfman Lecture. APHA 1962: 11, Box 18, Folder 36, LBP.

development administrator, she attempted to foster that work by encouraging others to pay attention to these processes, while reminding them that the specificities of the processes would vary in local contexts.

She entitled her talk "The Emerging Adventure in World Health," drawing the rhetoric around its soaring idealism from the speech John Kennedy had delivered the year before when announcing the space program's plan to send human beings to the moon. "This adventure of world-wide health, world-wide social and economic development," Baumgartner said, "is perhaps the greatest adventure yet launched by man."[83] As she had in the past, Baumgartner articulated the meanings of each of adventure's symbols to inspire her audience towards her approach to modern human health care.

The Frontier, she said, marked the boundaries the nation drew around its sense of science and social responsibility. The actions of the adventure were "of learning, of experimenting, of applying the magic of modern science and technology in other countries," she said, insisting that this was "a complicated affair." Technical knowledge was not sufficient for expertise, she explained, as the "imaginative, vigorous, critical scientific approach which has characterized the growth of Western science," would not solve problems like the relationship between population health and economic growth. This also involved "political statesmanship, population research, and research into human motivations." Health care, she explained, was not only what one did, but also *how* one did it. She called for "sensitivity of the human spirit to, and respect for, the values other human beings hold dear" – "as important an area for research and study as space medicine, genetics, electronics," she said. "It demands more attention of our universities, professional schools;

[83] Ibid., 28.

yes, even high schools, or industrial, philanthropic organization, of foundations, of government."[84]

The pioneer in her adventure was a person who learned at the point of care and changed upon engaged reflection. She summarized what she had learned from experience over the last two decades. "Giving aid is a difficult thing," she said. "Those who believe that aiding in health programs in other countries is simply taking what we know and flying over there with it, to be received with open arms, are doomed to sharp disappointment."[85] She had learned this not only through the efforts to promote contraceptive use in India, but through the ambitious and initially well-equipped projects she had watched wither after she confidently deposited her advice in Quito. Through her continued interactions with Luis Camacho on the World Health Organization's committee she had heard and been open to his complaints that the birth weight standards set in the United States were not adequate proxies for the pathologies of early birth in Ecuador. "Many of the people we will be dealing with know that they are right and we are wrong," she told the listening members of the APHA. "Let us remember," she said, "our separation of curative and preventive medicine and our methods of payment for medical services may not be appropriate. Taking them for granted as "right" does not help."[86]

In the myth of adventure, the pioneer typically "improvised." In Baumgartner's narration, the innovation was not a gadget or a jerry-rig but a new system of continuous care, supported by long-range commitments -- an expensive but critical undertaking that the United States was in the unique position to realistically fund. "It is most important that we

[84] Ibid., 28.

[85] Ibid., 19.

[86] Ibid., 25.

remember in our governmental and private programs there has also been lack of continuity -- of personnel, of funds. This has been crippling," she said. "How can the public be brought to see that to do what must be done will take decades, and cannot be based on short-term plans, on annual appropriations, or one-time gifts? Let us accept that we are in the business of international development 'for keeps.'"[87]

The system Baumgartner described was not only practical, enabling careers in ways she hoped would solve the chronic manpower problems. The long-range commitment enabled a new self-reflexivity. Baumgartner believed that her work in places far away had served as a mirror to her work in the United States, and attempted to convey this to her colleagues. "Resistance to health programs, of course, is a characteristic not only of the less affluent nations; we encounter it here. Look at our failures particularly with the so-called 'hard to reach,' 'hard core' families in urban areas, or our migrant families."[88] Baumgartner knew these failures well, because they were her own as Health Commissioner of New York. "This experience brings something home which we need desperately -- a willingness to change our traditional patterns, a flexibility in finding new solutions."

As she had in the past, Baumgartner used infants as an ideal to exemplify the processes of development. She asked the APHA members to recall that their organization had sent maternal and child health teams to the Balkans after World War I. "A lot that we taught was accepted," she noted, "but one thing was not.

> "We tried to teach the mothers to feed babies at specified times of the day. We gave them schedules and told them to follow the schedules. The mothers rebelled. They had the quaint idea that babies should be fed when they were hungry. It took us a long time to realize that they were being sensible and we were not. Suddenly, there is evidence that bottled milk for babies does not

[87] Ibid., 21.

[88] Ibid., 20.

> even have to be warm, and does not that shake a cornerstone in our culture?"[89]

She drew, too, on her own observations. "I shall never forget seeing incubators for premature babies in a Calcutta hospital," Baumgartner shared. "They were made in the United States and had automatic controls for keeping the baby at a proper temperature and proper humidity. But it was already warm and humid in Calcutta -- just right for the baby. What a mistake this 'transplant' was."[90]

Baumgartner, mystified as to why more people did not support the link between development and health, raised one possibility. "The idea of strengthening the human factor seems to some less real, less visible than the silo, the road, or the stable currency," she said. What was missing from Baumgartner's description of the processes of implementation was the cultural and affective distances that she herself had been unable to bridge as a visiting expert, despite her own insistence on the need for work "at the grassroots." She herself had difficulty communicating the "human factor" to her audience. The best she managed, as she talked about the human subjects of her adventure, was a caricature that scripted the people she aspired to depict into melodramatic roles prescribed in the stories of adventure: emotionally simple people conjuring compassion while empty of the "human factors" of ambivalence and interest. "A member of the Rockefeller Foundation staff explained how they were looking in Nigeria for persons who had jaundice, or 'yellow-eye' as it is called," she recalled to the APHA. "The local inhabitants wanted to be helpful. They concluded it made the doctors happy to discover people who had 'yellow eye.' So they said they had it whether this was true or not – thus complicating the survey." In another story, she simplified uncooperative behavior into an artifact of culture. "We find people who will accept an

[89] Ibid., 27.

[90] Ibid., 26.

invitation to dinner (because it would be rude not to), but who will not appear at the appointed time (which is considered not as rude)."[91] She acknowledged that the relationships she had with the people receiving services were superficial – she told people in other forums how difficult it was to get close to people outside of the studies set up in Ludhiana -- but she did discuss that challenge when she described her adventure to the APHA.

While there were lessons Baumgartner intended to share from her experiences, there were also changes in her rhetoric from ten years before of which she was likely less aware. Rather than grassroots collaboration, she now talked of the need for the nation's "brightest minds." Instead of justifying aid on the basis of relative need and suffering, noting at the close of World War II that people were starving in Europe while Kansas had abundant food, she now made the case for foreign aid on terms of national security, the American way of life, and an exceptionally magnificent national compassion. "In our own country we do this," she said, "because it is a part of our tradition of giving the underdog a fair chance, because success is so essential to our own survival and because free independent societies will not materialize not survive without these efforts."[92] Though her field was still mother and child health, she did not mention, as she had in the past, the special health needs of women, focusing more on the infant ideal.

Encompassing the World

On October 26-27, 1962, with the public terrified over the ongoing nuclear crisis that had escalated between the governments of the United States, Cuba, and the Soviet Union, Gant

[91] Ibid., 20.

[92] Ibid., 28-29.

and Sanders nonetheless went ahead with their planned fall meetings. The first addressed the topic of "Improving the Resource Base in the United States for Technical Assistance Overseas in Development Administration and Law." Held in the Louis XVI Suite of the St. Regis Hotel at 55th Street and 5th Avenue in Manhattan, just a few blocks south of Central Park, a ten-minute walk north-west from the United Nations, forty-five from Nat Elias's laboratory if walking briskly, and a direct subway line from Baumgartner's office downtown, the gathering reasserted the importance of AID being a contracting organization to avoid imperial impressions, imagined or real.[93] Penn State professor of Political Science and Public Administration Clarence Thurber sat with Richard Neustadt from Columbia University and William Barnes of Harvard Law, Chairman of Williams College's Graduate Program, Vincent Barnett, Stanley Surrey of the Treasury Department and Dean Don K. Price of Harvard's Graduate School of Public Administration. Gardner Patterson, director of the Woodrow Wilson School of Public Affairs at Princeton had to leave early. Ted Weidner had circulated a packet of notes on the proposed agenda for the meeting, including his talk from the 1961 meeting of the American Political Science Association that articulated his views on development.[94] Two weeks later, as follow-up correspondence from the first meeting circulated, Gant and Sanders convened again in the Louis XVI Suite, this time with two-dozen personally invited participants from economics departments, social science institutes, and Washington think tanks, to discuss the topic of "Technical Assistance in Development Economics." Gustav Ranis from Yale's Department of Economics joined James Morgan

[93] GG to Weidner, Letter, October 18, 1962. FF R101314 (microfilm) RAC.

[94] Edward W. Weidner, Notes on "Agenda Items for Improving the Resource Base in the United States for Technical Assistance in Development Administration and Law," October 26, 1962. Ford R101314_1 (microfilm), RAC.

from Michigan's Survey Research Center, President Calkins of the Brookings Institution, and others.

From these exchanges, a practical vision of development administration emerged that participants referred to as "international-mindedness." Gant did not want to invest in region-specific institutions, he told Berkeley economics professor Andreas Papandreou, but in institutions that were "of regional value because of their quality."[95] He was open to the urging of James Morgan at Michigan's Survey Research Center to consider the value of the New Frontier economists for overseas social science. They were quite different from the New Deal economists, Morgan said, and useful for development work in overseas settings where information was sparse. "Engaged in empirical tasks, sometimes even collecting new information, not merely in applying economic theory to policy problems," they brought technical skills: "methods of improving the information" and "the sophistication of the analysis based on it" made them "doubly useful."[96] The quantitative ways of knowing that these new economists used to conduct their development analyses made them not only useful in data-scarce settings, but offered the possibility of comparable data across international settings. Clancy Thurber discussed the need to make more of the professions "internationally-minded" in the way that development economics had achieved.
For a truly national foreign aid program, Thurber argued, other fields such as public health, law, and education would need "internationally-minded" reprogramming. "I don't think it has happened in any of the principal professional fields that need to be deeply involved in development," he wrote.[97] Morgan assured Gant that the Foundation would need to "play

[95] GG to AP, letter, Nov 12, 1962. FF R101314 (microfilm) RAC.

[96] JM to GG, letter, Nov 14, 1962. FF R101314 (microfilm) RAC.

[97] CT to GG, letter, Nov 13, 1962. FF R101314 (microfilm) RAC.

the creative role" in changing the training of development specialties. The people at AID were too busy "putting out fires," he said, to have time for this programming work. Baumgartner would later remark, in different circumstances, that she had little time to get involved in matters important to her at USAID, as it was one crisis after another while she was there.

The meetings produced an atmosphere of cool in the face of crisis. Through all of the meeting correspondence, Clancy Thurber was the only one who mentioned the ongoing Cuban Missile Crisis.[98] "It was certainly very enjoyable to see you at the conference on development administration," Thurber closed a letter to Ford Foundation officer John Howard. "I also enjoyed our chance to chat about the Cuban situation."[99]

Nevertheless, Cold War tensions, heightened by the "Cuban situation," were prominent in the report of the next meeting Gant held on November 12 and 13, not as topics of conversation but as tools of rhetoric. This meeting was with members of the National Industrial Conference Board. Participants ranged from Board President John Sinclair to executives from the Monsanto Chemical Company, the Corn Products Company, Standard Oil New Jersey and Mobil International Oil Company, International General Electric, Time Inc, the Bechtel Corporation, International Telephone and Telegraph, Pfizer International, the First National City Bank, General Motors, American Radiator and Standard Sanitary Corporation, and two professors from Cambridge Massachusetts. Charles Myers was a professor of Industrial Relations at MIT, and Harry Hansen, a professor of Business Administration at Harvard University's Graduate School of Business Administration. "We have a responsibility as businessmen abroad in helping to counter the

[98] Graham T. Allison, *Essence of Decision; Explaining the Cuban Missile Crisis* (Boston: Little, Brown, 1971).

[99] CT to JH, letter, Nov 14, 1962. FF R101314 (microfilm) RAC.

Communistic efforts going on," the group stated in the report produced from the meeting, entitled "Increasing Effectiveness of U.S. Personnel Overseas."[100]

The meeting focused on the selection of individuals whose personal characteristics, in the assessments of industry, produced the highest likelihood of success in overseas ventures. As Baumgartner had recognized in her recent speech, the corporations that crossed national boundaries had decades of experience with overseas training. While Baumgartner was interested in their work training local health workers, however, this November meeting focused on the selection and training of U.S. citizens for overseas enterprise. Like Baumgartner, they leaned on the rising tensions of the Cold War to justify their expansionist vision, but where Baumgartner claimed to be open to other value systems, the industry report was aggressive, framed as a demonstration project of an ideology. "We ought to create nuclei of good policy, good integrity, and things people can look up to in communities we're operating in and beat the hell out of the communists. We are so much better than they are," the report stated, "and people working in the community want to be like us and work with us." Industry sought to assert and ideal moral compass for the world, based on market economies.

Like Baumgartner, the industry representatives conjured their visions of the development project with the particular symbols of the national adventure myth. Their meanings for these symbols differed. The frontier, not about land claims or knowledge and scientific discovery, was about markets.[101] "Just as when Columbus discovered America, he

[100] National Industrial Conference Board for the Ford Foundation, "Increasing the Effectiveness of US Personnel Overseas," (undated but noted it was based on the Proceedings conducted Nov 13-14, 1962 with the Ford Foundation. In the late November files of Gant and Sanders project): 6, FF R101314_2 (microfilm), RAC.

[101] James Ferguson, "Seeing Like an Oil Company: Space, Security, and Global Capital in Neoliberal Africa," *American Anthropologist* 107, no. 3 (September 1, 2005): 377–82; James C.

opened up something; we are opening it up, too. We suddenly realize there are customers on the other side of the street, and we're going across the street to sell them."[102] They, like the President's Task Force on Foreign Aid the previous year, sought a mobile professional able to engage without getting attached. "In substance, management feels that when it crosses national boundaries, it is not entering a strange, new world. Rather different is a matter of degree. Inasmuch as business has been able to adapt its outlook, to build organizational structures, to develop people to cope with problems of diversification, decentralization, and geographic dispersion in a country as heterogeneous as the US, it feels it will be able to do so on a world-wide basis."[103] Their bold innovations were not new systems developed interdependently, with a susceptibility to alternate values, but conservative translations of old methods and technologies. "The approach is evidently pragmatic: How can what worked in the past be adapted to a world-wide enterprise."[104] This was mechanical pragmatism, working to meet a target where Baumgartner's pragmatism was still highly idealistic, guided by an idea.

Industry representatives did not want their overseas professionals to be open to other value systems or compromise the ideals of business. In their files Gant and Sanders had collected papers published over the last decade by researchers Baumgartner would later come to know well after she moved to Boston and joined the faculty of Harvard Medical School. They reviewed the studies of Howard V. Perlmutter at MIT's Center for International Studies, engaged in a series of studies on "Personality Determinants of

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Scott, *Seeing like a State : How Certain Schemes to Improve the Human Condition Have Failed*, Yale Agrarian Studies (New Haven: Yale University Press, 1998).

[102] National Industrial Conference Board for the Ford Foundation, "Increasing the Effectiveness of US Personnel Overseas," 4.

[103] Ibid., 1.

[104] Ibid., 2.

International Communications" with the help of Ithiel de Sola Poole at CENIS and Henry Weinberg at Boston University.[105] They also considered the works of industrial psychologist Milton Mandell, then Chief of Administrative and Management Testing with the U.S. Civil Service Commission, who authored review papers with assistance of staff members Sally Greenberg, Pauline Duckworth, and Meyer Shultz.[106] Unlike in the early 20th century, when social workers investigating industrial hygiene and workers' health had attended to the conditions of industry, Mandell had studied the personal characteristics of individuals working in hardship situations. Studies in the wake of World War II, for example, had noted that certain "marginalized" individuals -- specifically African-Americans -- having "adapted" to conditions at home, revealed hidden "character flaws" when serving overseas. In later years, researchers would note that "neurotic symptoms" like alcoholism, gambling, and "rigid personalities" could best be explained by the moral paradox of living amidst racist discrimination in the army and country for which one was fighting, Mandell concluded that, "When forced to make an abrupt change in language, culture, living conditions, climate, and associates, such 'marginal' individuals frequently display, for the first time, basic defects in their personalities." Defining the problem as material changes, simulations were set up to accustom personnel to lifestyle they were expected to encounter overseas. The Arabian Oil Company, for example, "lodged [trainees] in barracks and crowded three in a room, on the theory that this stress may bring out character defects that would be inimical to satisfactory

[105] Howard V. Perlmutter, "Some Relationships Between Xenophilic Attitudes and Authoritarianism Among Americans Abroad," Psychological Reports, 3, 1957:79-87. FF R101314 (microfilm) RAC.

[106] Milton M. Mandell and Sally H. Greenberg, "Selecting Americans for Overseas Employment," Personnel, March 1954, 357-366. FF R101314 (microfilm) RAC; Milton M. Mandell, "Selecting Americans for Overseas Assignments," Personnel Administration, Nov-Dec 1958: 25-30. FF R101314 (microfilm) RAC.

adjustment in the field."[107] Using such simulations as tests, researchers identified characteristics of successful performers, closely tied to the ideals of American "manliness" that had defined the pioneer. Delivering lectures at academic institutions across the United States, their works informed the thinking of training industry executives like those who sat at Gant and Sanders meetings in late 1962.

The studies proposed features of successful overseas professionals grouped into a set of criteria. First, the motivation to go overseas needed to be a "healthy" one, considering the full employment rates within the United States at that time. Unhealthy rationales included escapism and romanticism. Because motivation was complex, and "people frequently hide even from themselves the real reasons for their actions," the study determined that the best measures were those inferred from the "life history" of the individual, to the extent that history was visible in their upbringing and controlled behavior, or "effective personality organization." The "healthy" person was a polished person: polite, cheerful, and unflappable. "Fortune magazine considers that unless "we mix good manners with our generosity and our ideals in our dealings with foreign peoples, American influence upon dependent areas may well prove to be horrendous."

Second, successful performers expressed a balanced curiosity, without a tendency towards criticism. They reflected on ideals developed by the Rotary organization in sending Americans overseas, not only to Europe but also to its colonial extensions.[108] "An article in the Rotarian," Mandell wrote, "stresses that Americans overseas must compromise between an attitude of definite and complete acceptance of new ways of doing things, deploring, on

[107] Mandell and Greenfield, Selecting Americans for Overseas Employment, 1954: 359.

[108] Victoria De Grazia, *Irresistible Empire: America's Advance through Twentieth-Century Europe* (Cambridge, Mass.: Belknap Press of Harvard University Press, 2005). Chapter 1 discusses the Rotarian ideas for European service; Mandell cites C.B., "Certain Americans in the Tropics" *Rotarian,* March 1943: 16.

the one hand, the tendency to surround one's self with Americans and to insist on maintaining all American ways, and, conversely, the tendency to 'go native' and lose all perspective." The middle ground was the ability to adapt, participate, and learn about "native ways of living," all while "maintaining the American perspective." Referring to personality assessment scales developed at Berkeley, Perlmutter argued against a person who was either too critical of others – an "authoritarian personality" – or too critical of the United States – "a xenophobe." Attraction to any person or place outside the United States was cynically cast in Freudian terms. Attraction to "others" was characterized as "anti-business" and rationalized as the product of conflict with parental authorities, a "freedom complex" expressed as the need to be "away" in a place where foreign authorities would present less conflict. "Attraction to foreign women," the study confidently generalized, was based on "a resolution of sexual conflict, more free expression of impulse, and distance from the Oedipal situation."[109] In the next decade, as Baumgartner attempted to work between the people at Center for International Studies (CENIS) and the people at Harvard's Medical School, she would struggle to find convincing language for other explanations of the motivations to do overseas work and the needs in development systems for human societies, falling into her own generalizations of "the human touch," "tender loving care," and "warmth" in the face of "the realities of modernization."

Baumgartner's approach was contradicted by a third criterion emphasized by Mandell, that good international aid workers showed no strong tendency towards human attachment. "The person who, when accepting overseas employment, still maintains strong ties to home apparently does not adjust as well overseas as persons with weaker ties. It may

[109] Howard V. Perlmutter, "Some Relationships Betwen Xenophilic Attitudes and Authoritarianism Among Americans Abroad," Psychological Report, 3, 1957:79-87. FF R101314 (microfilm) RAC.

be that those with strong home ties tend to view their overseas assignments as an interlude or even an interruption of their normal lives, keeping their minds fixed on their return home rather than occupied with matters which should be of immediate concern." Following prevailing gender norms and expectations, wives were thought to be a significant problem, because of their "total involvement" with communities, local institutions, practices, and tools. An observation crucial to Baumgartner's goals of bringing health back into development problems was that this "total involvement" tended to foster attachment in overseas doctors and health workers, too, in a way Mandell believed "business people" or "policy people" would appropriately avoid.

While these criteria constituted the model for a successful performance of an AID employee, the wrong model for overseas personnel was a scientist. At the end of the 1958 article by Mandell in the journal *Personnel Administration*, odd marginalia at the end of the article dug against using scientists in the important overseas roles. The small box of text featured a quotation, citing *Industrial Bulletin, Arthur D. Little, Inc:*

> "The Scientist: 'The public image of the scientists seems at best warped. Despite current enthusiasm for increased scientific education, sociological studies show that in the popular mind the scientist and his work are often held in fairly low esteem. Misconceptions range from the idea that the scientist has no social life whatsoever to the fact that he studies the heavens with a microscope.'"[110]

The box was entirely abstract in the article, a strange and subtle advertisement. There was no discussion of the text on the page. The reader was left to react to this negative image of the "anti-pioneer," dropped in out of context.

With these criteria from corporate-centered research in hand, the report that the industry representatives presented to Gant and Sanders concluded that what was needed was

[110] Milton M. Mandell, "Selecting Americans for Overseas Assignments," Personnel Administration, Nov-Dec, 1958: 30. FF R101314 (microfilm) RAC.

a someone who resembled their idealized visions of themselves as the "pioneer" or the "rugged individual."[111] "He has to have all the skills of management -- plus something else," one participant said. "MORE of the same attributes and capabilities that characterize any successful manager." He needed "cultural flexibility -- the ability and resiliency required to cope with and adapt to different modes and manners of living." This required different disposition than working on overseas business from a desk far away. "There's a difference between seeing a picture of a rice paddy and smelling one." With a "will to go overseas" and technical competency, their overseas professional was "marked by his ability to develop subordinates" and "the ability to spin on one's own axis -- a self-reliance that doesn't require community (or organizational) support." They coopted the notions that social medicine's disciplinary leaders had co-opted from the "total systems" of war. "Flexibility, stability, and what might be called an open-minded approach." A "sensitivity to cultural difference" was important, as it was to Baumgartner, but "adaptability to different business and social cultures" meant "not only the ability to understand the customs and values, but to acclimate to them without going native." The anxiety about "the other," constructed into the cognitive map of adventure in the United States, persisted in the vision described by the magnates of industry. "The man who succeeds overseas" said one participant, "has to have the make-up of an entrepreneur."[112]

The industry representatives, sharing unspecified impressions through their report, noted the importance of "inner resources," which they described as an ability to "improvise." Improvisation was more a practice of innovation than imagination. "The man

[111] National Industrial Conference Board for the Ford Foundation, "Increasing the Effectiveness of US Personnel Overseas," (undated but noted it was based on the Proceedings conducted Nov 13-14, 1962 with the Ford Foundation. In the late November files of Gant and Sanders project.) FF R101314_2 (microfilm) RAC.

[112] Ibid., 11.

without the inner resources is likely to crack" the report said. "Only those who have the ability to create a pleasant personal existence for themselves, independent of social contact, commercial recreation, and climatic conditions, should be hired for posts where conditions are undesirable in these respects." By definition, happiness did not depend on conditions. "He is the person who can be happy no matter where he is because he can improvise."[113]

Noting the importance of a "broad educational background," the industry report to Gant and Sanders advised a broad based reprogramming of education in the United States. In order for the entrepreneur-driven vision of growth to succeed, "international-mindedness" needed to be instilled in the "total population." The sense of having an ability to know and act, wherever one was in the world, was a mindset that needed to be instilled as early as possible. This required a reconsideration of educational programming in the United States. "Business will only be able to take its proper place in the international sphere if the total US community, through education, is prepared," the report stated. "Education has to be geared to turning all US citizens into people who are keenly aware of the relationships between themselves and people outside themselves' who are sympathetic not only to economic and sociological problems but to all facets of international problems." The report continued, "What is called for is the orientation of the youngsters for an international world at the earliest possible moment on the largest possible scale." With these qualities, local training that was necessary in the past might not be needed in the future. "If he's got it, he may even get along without cultural training and orientation," the authors of the report speculated. "Right after the war we drew from Army personnel in the office of army

[113] Ibid., 9.

information or the psychological warfare branch. The new ones are coming from colleges where they have had year-abroad programs or international studies."[114]

In this report produced by the industry representatives, they noted that there was no single explanation of the process of successful overseas work, but remained focused on individual characteristics of the overseas agents while oblivious to their social experiences and conditions. "In detailing these characteristics of the successful performer, it is not clear whether the conferees were actually describing the man who is successful or prescribing essential characteristics if he is to be successful. It may be that as long as he's successful and effectively carrying out the objectives, they haven't bothered to try to figure out why."[115]

The industry report worked to make their ideal overseas agent legitimate by drawing on the language of democratic cooperation, casting them as "good corporate citizens." In the report presented to Gant and Sanders, they were explicit about what they were doing. "As opposed to the "exploitation" mentioned above," they wrote, "the complementary objectives now stressed can be categorized as follows." The good corporate citizen provided a service and raised the standard of living in the host country. They mimicked local values by "visualizing whatever the criteria of a good citizen is of that country."[116] Some participants saw this as contributing to industrial development, but others cited the promotion of good education and health facilities, conformation to legal and social customs, or a generalized "getting along with the people" as criteria of good citizenship. Second, the good corporate citizen would develop nationals to run the business. "Implicit in this objective are the introductions of American technological methods and managerial concepts into this

[114] Ibid., 17.

[115] Ibid., 11.

[116] National Industrial Conference Board for the Ford Foundation, "Increasing the Effectiveness of US Personnel Overseas," 5.

country," the report stated. Third, a good corporate citizen would interpret and exemplify the "American Way of Life" in the new context. This meant to "set an example of our democratic attitudes and objectives."[117]

A dilemma did arise for the industrial representatives as they considered this formulation of a good corporate citizen, and noted persistent problem of conflict of interest. "How far to go in exemplifying and practicing American attitudes and values when these conflict with the customs and accepted mores of the host country evidently poses a problem for both expatriates and the companies they represent," the report stated. "One spokesman, conceding he might represent a minority point of view (but with articulate support from another participant), stated: 'We feel we have a real responsibility not to do what the Romans do in Rome if it's not the standard we would apply in this country (U.S.)'" Their rationalization was simple. "We bring nationals here to try to Americanize them."[118] The difference in meanings of international education and international, and the different meanings of a critical education at a university versus an enterprising for-profit industry, were lost in their argument.

The Ethics of Adventure

Baumgartner and the industry representatives described very different expectations about the qualities that would make the best development worker. Where the corporate industrial ideal of engagement was technical skill that could be universally deployed without sensitivity to local knowledge, Baumgartner's ideal was social engagement that could identify local specificities and meanings that determined the kind of responses that would be adequate.

[117] Ibid., 6.

[118] Ibid., 7.

According to the industry representatives, the analogy for the collaborators overseas was a politically neutral market to "open up." For Baumgartner, people and communities were complex and varied and to work with them required "the human touch." While industry representatives described their interests as long-term financial profits, Baumgartner's interests were long-term interdependent learning. Where the ethic of competition and individualism guided the way the industry representatives rationalized their work – they would "beat the hell out of the communists" – Baumgartner's perspective was of mutualism

Both Baumgartner and the industry representatives employed "adventure" as the narrative, or cognitive map, to communicate their different visions. Adventure was more than a public relations strategy. The frontier, open to the innovative and improvising pioneer, rich with resources and ripe to be settled, populated with others whose protests could be pacified with friendship, was the national legend that had been constructed over the last half-century. Though powerful, it was a myth. The pioneer was never an individual, but the agent of a powerful government-supported project to settle new territory already occupied by other people. The frontier was never a space empty of legitimate science and values, a moral vacuum conferred a natural right on pioneers to civilize and claim property with their own science and values through processes of assimilation.

Though Baumgartner interpreted the symbols of adventure with different meanings than the industry representatives, reflecting their different worldviews, there were deep values embedded in this cultural myth they shared that reveal assumptions about development and international work that were difficult for even people like Baumgartner with an open orientation valuing grassroots engagement. The adventure myth Baumgartner knew was constructed by a predominantly conservative society with a teleological vision of civilization led by white Christian men. This particular, historically grounded meaning of

adventure at mid-century in the United States had been deeply rehearsed through the first half of the twentieth century in children's books, musicals, and films and into the second half of the century.

Stories pose limits on attention and interpretation. Baumgartner knew the critiques of "adventurism," and the potential of power and human experimentation to make grave transgressions. She was limited in her perspective by her experience and the stories she had been taught. And at the same time, she had insights uncommon among many of the experts in the field she was attempting to change. What she did not yet know, she wanted to learn.

As Baumgartner began her new job at USAID, she attracted the interest of the Ford Foundation committees investigating the reprogramming of professional education for "internationally-minded" work. John Howard, director of International Training and Research at the Overseas Development Office, invited Baumgartner to join a meeting of fifteen or so people selected from the industry representatives and academics at their fall meetings to participate their plans. These plans aimed at replacing social ways of knowing, too prone to attachment and too specific for easy comparison and too costly to produce in geometrically, socially, and psychologically distant contexts, with ways of knowing ostensibly more suited to corporate overseas development work. Baumgartner would be seated at the table, and she would attempt to intervene.

Chapter 5: Strategy

Aid, Appropriation, and Moral Flight

"I am delighted that AID has seen fit to recognize the 'people' side of the program in the creation of this post."[1] Baumgartner delivered prepared remarks after taking her oath of office on November 1, 1962. As she stood next to AID Administrator Fowler Hamilton and took the oath of her new office, smiling broadly, she slouched casually to the right and clenched her left fist at her side.[2]

Speaking to her colleagues in the State Department, her messaging had changed from her lecture at the APHA meetings two weeks earlier. At APHA, she aimed to persuade people who worked with human populations to venture outside the boundaries of their typical responsibilities and participate in international development. At AID, she was delivering a critique to the development experts abandoning the centrality of health and medicine for modern development. She acknowledged the necessary work that their current organization carried out, but was clear about her own intentions and belief in the necessity of human well-being, not just economic growth, to promote the development of a society:

> "My interest in this complex business of foreign aid is people and the social institutions they invent to carry out their way of life. AID is busy doing a variety of things through which it hopes to help others develop environments which allow them to grow as they wish and allow us to pursue our own ends. I am naive enough to believe people are the chief resource of any country just as they are the beneficiaries of all AID efforts. The development of a country is dependent upon the aspirations and abilities of the people ultimately to meet these aspirations."

The soaring rhetoric of frontiers and pioneers was absent in her speech on that day, to that audience. This speech was a reprimand, not a promotion, and while she had urged

[1] Leona Baumgartner. Remarks at swearing-in ceremony. November 1, 1962. Box 3, Folder 18. LBP.

[2] Official photograph. Nov 1962. No credit given. Box 2, Folder 22, LBP.

public health workers to take on the frontier of knowledge and discovery about human health, this audience was comprised of people whose primary responsibilities were policy and administration. Her message to them was that application of technology towards economic growth was important, but not a sufficient or adequate response to the global needs of human communities. What some called "resistance" to the plans of development, she stated, was not primarily about Cold War politics. Rather, she said, resistance was a product of a failure of development to be helpful in the everyday and complex politics of suffering:

> The problem of developing countries is in part to adapt the magic of modern technology and science in ways that will help raise their standard of living - and this is exciting business. But hungry, sick people -- those without shelter, who have few skills with which to earn a living, cannot build a stable government, a growing economy. In fact, people so deeply mired in human misery care not what straw they grasp - what political belief they accept, what road their nation pursues, and what happens to their neighbors. So developing the economy and building the people and their institutions are interdependent - as everyone here recognizes."[3]

On that day, Baumgartner was determined to change hearts and minds in AID. But her authority in the past drew on an expertise based in public health and medical science. The power of this authority was slowly dissolving as the dominant culture of international development was redefined to center on "structural" economic programs. As Baumgartner began her attempt to reconcile health within this newly formulated post-war development vision, she adapted her public strategy, refocusing earlier efforts on infant mortality and maternal child health to the currently vogue problem of "population."

[3] Baumgartner, Swearing-In, Nov 1, 1962. Box 3. Folder 18, LBP.

Sunbeams from Cucumbers

Committees gathering in New York and Washington, D.C. were developing funds and designs for their new international development program, in which policy careers were separate from implementation positions, and expertise was based not in social ways of knowing but in "internationally-minded" quantitative methods. At the same time, many people in Washington, and in the local offices of AID's programs, remained invested in the humanistic priorities of development. Julius Prince, directed USAID's country office in Ethiopia. He still recalled, in an autobiographical interview three decades later, that there was an epistemic or a cognitive dissonance between those aspirations, still on paper, and the practices coming to dominate development. Eugene Campbell had voiced similar impressions from the local office in Delhi at the time. "I think that the Embassy had a tendency not to recognize the importance of being part of the country," Prince reflected "of being familiar with - and going to work with and listening to - people who were not higher up in the country's government administration." He was of the impression that "embassy-community relationships were not quite in touch with the real thinking and feelings of the Ethiopian people." Prince shared Baumgartner's resistance to the word "aid," he explained, because "it really is technical collaboration at all levels that has to be achieved." Health projects, he said, would not "have had a chance of succeeding without community collaboration." Prince found it "important to note," as Baumgartner had earlier in her career, that he believed collaboration meant not just receiving resources and services, but also partnering in the demonstration and evaluation, or "D&E," of programs. "A goodly

percentage of the staff that went on these D&E field trips and did much of the work were Ethiopians."[4]

Explanations for the cognitive distances between the Embassy-level officers and the implementers varied across the agents of international health organizations. Prince's understanding of the Foreign Service office's failure to understand the importance of community social connection was their lack of experience doing the work. "What you learn from this kind of experience is a kind of approach," Prince said. "You have to have a feeling for the humanistic socio-cultural aspects of what you are doing as well as the technical aspects of it."[5] Dorothy Nyswander, a leader in the field of health education with a doctorate in psychology, explained the difference not as the product of experience alone but as different desires for power that shaped career choices. Working for the WHO to develop health education programs around family planning in Jamaica, Turkey, Brazil, and India, she wrote to Baumgartner that the development world was broken into two kinds of people: the technical assistance people, and the people with a "power complex."[6] The technical assistance people were those providing services and engaging in situations where control was shared, as Prince described, with local people and uncertainties could not be avoided. Based on Nyswander's other writings advocating for "open societies," the "power complex" was the belief that uncertainty could be managed unilaterally.

Baumgartner saw her role as a catalyst, reducing the distance between the policy conversations of the offices of USAID in Washington, DC and the experience of people,

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[4] An Interview with Julius S. Prince, MD DrPH. The Foreign Affairs Oral History Collection of the Association for Diplomatic Studies and Training (interview by W. Haven North). Library of Congress. January 24, 1994.

[5] Ibid.

[6] Dorothy Nyswander. Letter to Leona Baumgartner. June 24, 1963. Box 77, Folder 13, LBP.

like Campbell and Prince, cognizant of the work of implementation in local settings. Knowing Baumgartner personally or by reputation, people in the field offices of USAID were enthusiastic about her potential to change the agency's direction. Baumgartner, however, would be quickly convinced after beginning at AID that her work would not be a matter of convincing others to see development from her viewpoint. As she said in her inaugural remarks, she believed that her new colleagues knew the importance of social as well as economic development. As she advised public health professionals to study processes of modern science and technology as they were introduced into local sites around the world – still quite similar to advice she had given to health workers in Chautauqua County in 1951 – she herself set out to make her vision of modern health central to the emerging system of the new economic development.

On Saturday January 19, 1963, Baumgartner attended a small meeting of about fifteen people selected by the Ford Foundation's International Technical Research division to discuss the overseas practices of the professions. Their stated goal was improving professional education to serve the international field. This time, the gathering convened in the Library Suite of the St. Regis Hotel. Baumgartner, thinking ahead, brought memos from colleagues at USAID as exhibits of some of the problems encountered by health professionals in overseas service positions. They gave a different picture than statistical averages. Case studies like these had been important in Baumgartner's work as a medical student and educator. She made a point of writing a special request three days later to the meeting's organizer, Ford Foundation International Training and Research director John Howard, to be included in the summaries that might be prepared of the discussion. Frequently left out of correspondence after meetings, she had learned to take the initiative. Howard replied that he had been pleased with the conference, which had helped them shape

their plans. He noted the particular usefulness of Baumgartner's anecdotes, agreeing that his group would stay in touch with her going forward.[7]

Even as Howard applauded the specificity in Baumgartner's memos, the Ford Foundation sent out proposals to commit $11 million over the next three years to the emerging vision for Professional Education, which intended to liberate overseas development professionals from local attachments and make them "internationally-minded."[8] International-mindedness was the aspiration to be a universal development worker, whose skills were not just mobile and applicable in any context, but whose knowledge could be readily shared and compared across context. Sanders traveled to MIT to meet with Max Millikan at the Center for International Studies, and the budget requests for the Professional Education Program rose to $5 million per year for the next three years, arguing that the professional schools were "among the last segment of the American educational system to retool for the demands of the present age."[9] Baumgartner, from her position, invested in "building the people and their institutions."

Baumgartner saw strategic usefulness in appropriating the quantitative approach of the new economics to make persuasive arguments about public health, but the adoption of statistical methods for public health work was not convincing to everyone. Particularly in the important matter of infant mortality, contributors to the *Indian Medical Journal* wondered at the trend they saw in May 1963. In a feature on the topic of infant mortality, the authors commented that India had sources of information going back at least to the mid 19th

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[7] LB to JH, letter, Jan 22, 1963. FF R1010314_2(microfilm) RAC. JH to LB, letter, Jan 30, 1963. FF R1010314_2(microfilm) RAC.

[8] Irwin Sanders to Cleon Swayzee, "Budget Requests – Professional Education for 1963-64, 1964-65, 1965-66." FF R1010314_2(microfilm) RAC.

[9] Irwin Sanders to John Howard, "Meeting with members of MIT staff, February 25," 1963, FF R1010314_2 (microfilm) RAC.

century, but neither India nor any international group had good data on infant mortality. "As one looks through the magnifying glass of statistics," they wrote, "it transpires that no adequate measure of the exact incidence of infant mortality for the total or any major part of the world is as yet forthcoming." A chart in the article estimated that only 10% of the population was reporting in Asia and the USSR, 26% from Africa, 29% from South America, 8%% from Europe and Oceana, and 96% from North and Central America. From the "statistical point of view," the authors stated, it was unfortunate that "countries experiencing higher incidence of infant mortality are precisely those for which the relevant data are either lacking or grossly inadequate."[10] Though the authors praised the "noteworthy attempts" of demographers S. Chandersehaker, Kingsley Davis, and "M/s Coale and Hoover" for applying technical methods to re-create "the course of Indian infant mortality, as it was, as it is and as it would be,"[11] still they cautioned the medical community against solving problems of data production with technical methods:

> "One is therefore cautioned to keep one's eyes open to the inevitable problems of under-registration and want of relevant details. This is the warning bell to all the research workers engaged in the field of infant mortality and they are advised to equip their 'cerebral auditorium' with adequate hearing aids so as to perceive even the faintest alarm of the bell. Unless an allowance for this factor is made no study on the subject will produce results which fall in harmony with facts. Such a study may reveal a wish or a feeling but will miss logic and convincability."

[10] "Infant Mortality " *Indian Medical Journal* May 1963 Vol 57 No 5:119-123.

[11] Ibid. "The non-official sources…on the subject are from those social scientists who in their zeal to further the cause of Indian demography have done much to tell in details the course of Indian infant mortality, as it was, as it is and as it would be. In this connection the most noteworthy attempts are those made by S Chandersehaker, Kingsley Davis, and M/s Coale & Hoover. The names of these trio will do in the annals of Indian Demography with an unprecedented glory and real achievement. Their respective works make the classics on the subject for all times to come from which research workers can draw as much as they like according to their capacities."

To make their point, the authors used an image from the British satirical adventure story, *Gulliver's Travels*. "One may as well raise sunbeams out of cucumbers as do mathematical acrobatics with bad data," they wrote.

The authors believed infant mortality, for as difficult as it was to collect carefully specified data, still had the potential to mediate important global discussions that would advance social knowledge about community health. "It may be emphasized that the concept of infant mortality is not the sole monopoly of the medical man," the authors wrote. "It is as much the concern of the demographer, or the sociologist, or the anthropologist, or the economist, the geographer, the biologist or the geneticist." To bring these disciplines in conversation, this author's proposal was that the scientists discuss their perspectives on the problem in everyday words. "The technical vocabulary of each of these specialized fields should be stripped so as to make an idea universally understandable - the sociologist not to use differential equations in defining a mathematical model of infant mortality," the authors wrote, somewhat contrary to the conclusions Baumgartner and the Gant and Sanders' committees were reaching in Washington. "Each should use, instead of his peculiar jargon, the language intelligible to one and all."[12] The author wasn't arguing for simplified ideas, just the clear and accessible way of talking about them.

Baumgartner agreed in essence with what these Indian physicians wrote, at the same time that she understood the appeal of information sciences. She had close ties to the people developing the work at MIT. Her adopted son, Peter Elias, whom she had cared for since marrying Nat in 1943, was chairman of MIT's Electrical Engineering and Computer Science department. Baumgartner, along with Nat, were close with Peter and spent time together regularly. Peter's appetite for mathematics was insatiable, and neighbors fondly remembered

[12] Ibid.

him years later sitting at the table in the house on Washington Square working on his formulae while Leona chatted and Nat worked on a project and Barbara, Peter's sister, played the piano.[13] Peter had studied business and engineering management at Swarthmore before the war, then enlisted in the Navy and served as a radio technician instructor. After long soul searching letters with Nat about his love for mathematics and uncertainty about what to do with his future, he had earned an engineering masters and doctorate from Harvard before joining the MIT faculty in 1953. There he led the development of information theory with Claude Shannon, itself an evolution of the control theory underlying mathematics, engineering, total war, and the total health systems visions bred in the early twentieth century. His influence on Baumgartner's quantitative sympathies was clear.

Human Development

Beginning early in 1963, Baumgartner strategized with a small group in the Washington offices of USAID to harness growing anxieties about population growth for health system development. Through the time of her advisory work in India, Baumgartner had observed ways in which researchers leading the Khanna study used population program funding to carry out projects related to individual well-being, in particular on infant mortality. "One day I hope to begin my pregnancy wastage study – perhaps by autumn," Helen Gideon had written to Baumgartner in 1958. "I'm preparing for it. I still have to find some funds for it, for it's not all a "contraceptive study" -- except that it will help and diagnose the pregnancies and therefore help to prove the effectiveness – and so life goes on."[14] Gideon had noted how many people in the villages had no real interest in contraception, taking anything

[13] Elias Family Personal Papers, Cambridge, MA (Henceforth EFPP).

[14] HG to LB Apr 1958, Box 41, Folder 6, LBP.

offered but then dropping the method eventually. "I am not broken hearted," Gideon had reflected simply. "The nation's population is no problem in a little village home – specially in the Punjab where everyone has enough to eat. We cannot expect them to do anything we think they ought to do." Carl Taylor had written to Baumgartner in February of 1959. "Today I have been reviewing the results of our Cohort studies on infants born during the study," he said of the work he was conducting with the support of the Rockefeller Foundation and the Harvard School of Public Health. "They relate strongly to maternal and child health activities, namely a feature which I term "weanling diarrhea." It was not clear whether it was related to the nutritional change when an infant switched from breast milk to other foods, or of infectious origins and related to inadequate sanitation. One would imply a need for improved environments while the other suggested a market for new food products. He had seen similar in the Arctic and in Guatemala, and hoped to discuss it with Baumgartner. "It is one of the important by-products of the population study," he wrote.[15]

Implementing population programs, even distribution of information about family planning with no medical services included, required knowledge about and access to individuals, which Baumgartner knew would demand a higher degree of service penetration than currently existed in the remote areas of India.[16] Baumgartner saw an opportunity to use population to develop health programs in the name of family planning. At the same time that she harnessed social forces like anxieties about population "explosion," she was careful to do so in a way that did not alarm others.

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[15] CT to LB, Feb 23, 1959, Box 41 Folder 6, LBP.

[16] Governmental Policy in the US and Growth of World Population. The President's Committee on Population and Family Planning. Second Meeting. September 13, 1968. Box 52, Folder 1, LBP.

Working "quietly" to avoid agitating a Congress already loathe to fund AID, Baumgartner, Dean Rusk, and Richard Gardner were prominent among those taking steps to mobilize US assistance for population control. Their first step was to produce official acknowledgement of the need for action on population growth. Conversations were held with congressional leaders, UN representatives, university leaders, and representatives of other countries. "If these State and AID insiders seemed at times a small, conspiratorial group, plotting with outsiders against their own bosses,' wrote Phyllis Piotrow, who worked as a legislative assistant on foreign policy for New York Democratic Senator Kenneth Keating at the time, "they played an increasingly important role in the policy process, shaping the suggestions and initiatives of the outsiders to conform with the more cautious context of internal executive agency policy making."[17] Beyond convening meetings and mobilizing private and transnational support, Baumgartner seized opportunities to circumvent the federal ban on population action. After one particularly rousing 1963 speech at the UN framing the "great need for additional knowledge on population matters"[18] in a way that supported the national interest, Baumgartner rushed to publish this speech as an official document. According to Piotrow, Baumgartner "was one of the first to see that here was a public banner under which AID policy could advance, even if high AID officials refused to clear AID cable" and allow new policy to be circulated. The speech and resolution were eventually reprinted as a pamphlet entitled *Population Growth: A World Problem*, subtitled

[17] Phyllis Piotrow, Oral History, interviewed by Rebecca Sharpless, Interview 1 of 2, 10/111 Population and Reproductive Health Oral History Project. Sophia Smith Collection, Smith College; Phyllis Tilson Piotrow, *World Population Crisis; the United States Response.*, Law and Population Book Series, No. 4 (New York, Praeger 1973, 1973): 68.

[18] Governmental Policy in the US and Growth of World Population. The President's Committee on Population and Family Planning. Second Meeting. September 13, 1968. Box 52, Folder 1. LBP.

Statement of US Policy.[19] Distributed globally, this publication undid the official "know nothing - do nothing" policy. For her own office, she changed the title from Human Resources and Social Development to Technical Cooperation and Research, emphasizing the research they were doing and its critical relevance to economic development.

The second step towards formalizing federal involvement in population control was to get approval to conduct research. In July of 1963, the Senate Foreign Relations committee amended a bill offered by Senator Fulbright to authorize "research in to the problems of controlling population growth" and "technical assistance to cooperating countries in carrying out programs of population control." The technical assistance was dropped and the language changed to indicate that funds could be used to "conduct research into the problems of population growth."[20]

Baumgartner's appointment had begun in a moment of sociopolitical crisis, and the shocks continued into the first year of her tenure. Military actions implicating the State Department continued in Southeast Asia, where American troops were stationed in fear of the spread of communism from China, and North Korea, now into the former French colony of Vietnam. Pleased with the changing public opinion and leadership of the President on the politics of contraception in the United States, Baumgartner was preparing in late November 1963 for travel to Delhi. The UN Economic Commission on Asia and the Far East's (ECAFE) Asian Population Conference, which had been formulating since just before the release of India's 1961 census results, had been set for December 10th through the 20th. She had read that India had launched its own space program earlier that month in a grand

[19] Richard Gardner. Population Growth: A World Problem, Statement of U.S. Policy (U.S. Department of State, Jan 1963):13. Box 52, Folder 1. LBP.

[20] Governmental Policy in the US and Growth of World Population. The President's Committee on Population and Family Planning. Second Meeting. September 13, 1968. Box 52, Folder 1. LBP.

display of the scientific power of the new nation. Then on November 22, 1963 everyday life across the United States stopped in shock at the assassination of Kennedy as he drove through Dallas in an open convertible. Two days later the suspect in custody was shot. A week later, Baumgartner left for India. Her abdominal pains and headaches were flaring. She suffered periodically from polycythemia, her bone marrow overstocking her circulatory system with red blood cells, and the condition had been gradually worsening.

In the months leading up to the Asian Population Conference, different agencies had proposed agendas to the meeting's organizers. In mid-November, the Ford Foundation's Health Consultant, Moye Freymann, had circulated an agenda set by the Indian Central Statistical Organization, triggering a flutter of paper as Campbell at the local AID office, which had proposed a different plan. Campbell had quickly forwarded the AID/Health proposal to Amrit Kaur.[21]

At the conference itself, debates roiled over the relationship between population and health and as tensions pulled at the political divisions in the room, infant mortality stitched through them as a common point of contention. An Indian delegate, pointing out that population growth was not new in India, argued against claims that the decline in infant mortality would fuel an explosion. Rather, he said, the infant mortality decline would ultimately lead to fewer children because fewer would be needed to secure the desired family size. [22] USAID circulated a document urging patience. Where Asia was modernizing, the AID position paper noted, families were lowering fertility, but the expectation that reduction of fertility would happen quickly was unrealistic. The more realistic vision, according to this

[21] Asian Population Conference, Preliminary Plan of Sessions. 10-20 Dec 1963. RG 0286 P 459 Cont 1, NARA; Moye Freymann to Eugene Campbell, Letter, Nov 13, 1963. RG 0286 P 459 Cont 1, NARA.

[22] "India" Item IB: Regional Summary of the Demogrphic Situation and Prospects. Dec 12, 1963. RG 0286 P 459 Cont 1, NARA.

document, was that in the context of continued health and access to modern schools, jobs, and agriculture, village leaders and heads of families might be self-motivated towards smaller families.[23]

Rao, also in the Indian delegation, agreed that the central government could not force changes in birthrate. "It takes a long time in a free society to make family planning effective in a statistical sense," he said. But his advice was not the broad vision of public health. Rather, he said that the conference should emphasize the enormous importance of economic development.[24]

Freymann, public health consultant to the Ford Foundation, argued directly against public health services and cast infants themselves as a threat to development. "Rapidly increasing population density," he said, "especially when this is caused by a large influx of susceptible newborns, can be expected to severely complicate the problems of mass disease control."[25] Leaning on arguments of efficiency, he argued that underdevelopment was a low efficiency stage, at which immediate needs must take priority. Population growth, he said, would just disrupt health planning, multiplying units of service need and potentially increasing unit costs required.

Myanmar national U Nyun, the executive secretary of the Economic Commission on Asia and the Far East (ECAFE), argued "again and again" against international cooperation from "outside" of Asia. Western demographers had been significantly wrong in their projections, he said, convincing him that population was "an Asian problem to be solved by

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[23] Irene Taeuber, "Asian Population: 1963-64. Problems, Policies, and the Role of AID." Declassified as of April 30, 1964: 3. RG 0286 P 459 Cont 1, NARA.

[24] Conference Highlights, Item IA: National Statements. Dec 12, 1963: 3. RG 0286 P 459 Cont 1, NARA.

[25] Eugene Campbell, Notes, Dec 11, 1963: 3. RG 0286 P 459 Cont 1, NARA.

Asians."[26] Skepticism from a colonial past and continued military actions toughened boundaries between Asians and outsiders.

Baumgartner spent the majority of the trip in bed in her hotel room, suffering fatigue, abdominal pain, and a headache, while receiving reports on the conference proceedings from her colleagues. When she arrived at the conference to deliver her talk, she broadened her discussion of health, stepping away from narrow notions of population and the intensive focus on infant mortality. "I deeply regret that illness has kept me from being here in person most of last week," she began, "but the days in bed have afforded the opportunity to read documents carefully and to ponder over the daily reports which I have received from members of our delegation, friends, and the Press."[27] So far, she observed, the delegates had laid out the dimensions of the problem of population from the viewpoint of different countries and different professional specialists. Each of these professional specialists, she said, "saw things largely from his own vantage point." The agriculturalist wanted to increase agricultural productivity, "(forgetting this takes time)." Some had suggested industrial development, "(which also takes time)." Demographers wanted a refinement of research, study of past trends and predictions. All of these, Baumgartner said, were longstanding positions. But a lot was already known in health, she reminded them. "The most urgent need is the fullest possible application of what is already known."

Crediting the motivation for the conference to the Asian leaders who had determined it was time to take action on population, she recognized the work of respected colleagues. "An excellent background has been set by our discussion leader, Dr.

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[26] Irene Taeuber, "Asian Population: 1963-64. Problems, Policies, and the Role of AID." Declassified as of April 30, 1964: 4. RG 0286 P 459 Cont 1, NARA.

[27] Statement made by Dr Leona Baumgartner at the Asian Population Conference, Dec 16, 1963: 1. RG 0286 P 459 Cont 1, NARA.

Chandrasekaran this a.m." She spent the majority of her time articulating advice, drawing on her credentials as an international expert with the authority of experience:

> "I suggest in the first place that we accept the fact that there is no one answer – that action must, and parenthetically whether we like it or not, will proceed on several fronts. I suggest that economic and social progress, laudable as they are, are not ends in themselves. They are means by which individuals, families, children, nations, may live fuller, happier lives. Neither is slowing down, increasing or stabilizing population growth an end in itself. Numbers alone are not the keys to happiness. I suggest that the goal for nations as well as families is human development. And human development, the development of individual human beings, is fostered by enough to eat, a job, shelter, responsible parenthood, some time for leisure, contemplation, development of the mind and innate capacities, and service to others. Advancing economies, changing social patterns, or stabilizing population alone will not help man reach his ideals – his full capacity for human development, but they will be essential to the achievement of his goals. To establish an adequate balance between numbers of people on one hand and natural resources available and man's ability to use them on the other, lies near the heart of our discussions."[28]

Baumgartner suggested that the conference might take up her strategy of making family planning the responsibility of public health workers, rather than allowing it to be dominated by other less humanistic interests. "This conference might perform a service," she said, "by identifying family planning as a new, distinct, and challenging frontier for public health workers -- realizing full well that many other groups will also be involved." But her enthusiasm was tempered significantly compared to past talks, and even while Baumgartner recognized the urgency of action, she simultaneously warned about the tendency for excitement about novelty to distract from realities:

> "May I suggest that the excitement of new expectations should not blind us to the fact that movement in economic, social, and human development are laborious and often heart breakingly slow. Perhaps the most important indication of Asian transformation in attitudes, policies, and actions is the

[28] Statement made by Dr Leona Baumgartner at the Asian Population Conference, Dec 16, 1963: 2.

> fact that sober realism rather than pessimism, is increasingly dominating planning and action in this field of human development so critical to the nations of the ECAFE region and the whole world."[29]

Baumgartner had, in the past, cited urgency and excitement as influences undermining her comprehensive vision of health and development. This speech was the first time she acknowledged that pessimism in the face of failure, too, was a risk that development experts would have to navigate.

No Lack of Enthusiasm or Interest

Back in Washington, the shock of the President's death had brought a tentative new willingness to collaborate among legislators.[30] Johnson pushed through Kennedy administration domestic initiatives, at the same time he refused to withdraw U.S. troops accumulating in Vietnam, determined to not "lose" more of the region. Baumgartner continued to work with her colleagues towards formalizing federal involvement in population work. At the Asian Population Conference she had suggested that progressive policy on the public availability of contraceptives was one of the legacies of "the late President," relating the needs and struggles of her own country to the others represented in the room. With authorization of the amended Fulbright bill by Johnson in December 1963, Baumgartner had official government support for demographic research. By April 1964 the field missions received an Airgram about the new "focus of public attention" on population, the centrality of Baumgartner's office in matters of population, and the willingness of AID

[29] Statement made by Dr Leona Baumgartner at the Asian Population Conference, Dec 16, 1963: 5.

[30] Alice O'Connor, *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century U.S. History*, Politics and Society in Twentieth-Century America (Princeton, N.J.: Princeton University Press, 2001).

to consider requests to support research activities and new research institutions for social science work. She had been clear at the Population Conference that knowledge about service delivery and implementation could only come through experience. It followed that the third step in her strategy was to get official approval to not only research but also actually build infrastructure to deliver health services and study the processes of implementation. By May 1964 the government issued an official policy statement that AID would support international cooperation in demography, medical research on reproduction, and establishment of general health services.[31]

Campbell was eager to lead the extension of rural health services and facilities in India, and wrote to Baumgartner in early May 1964 making a strong bid. As AID had no history of intervention in India's family planning programs, he said, and the Ford Foundation was already invested in that field, he believed the appropriate course of action was to focus on building the health context. There had been no formal request for USAID assistance in developing rural health services and facilities, he said, but there had been many discussions "indicat[ing] that the Government of India needs help, wants help, and other international sources will be unable to make the major contribution that is necessary." He called on Baumgartner's promises. "USAID/Health Division has repeatedly and clearly indicated that AID can make a major and needed contribution in this area," he said. "There is no lack of interest or enthusiasm on our part. We seek your guidance as well as AID/W's definitive policy."[32]

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[31] Piotrow, *World Population Crisis; the United States Response,* 81.

[32] Eugene Campbell to LB, Letter, May 4, 1964 RG0286 P458 Container 5, NARA; Paramedical Training Centers as major USAID contribution to GOI Health Program, May 15, 1964 RG0286 P458 Container 5, NARA.

A contest of priorities had been underway for months between the men at AID and Ensminger at the Ford Foundation. Six months prior, Ensminger had held a meeting with Roy Allen of the Rockefeller Foundation, James Blume of AID, John E. Fobes, Eugene Campbell, Irving Taylor, and John Holt to persuade AID to join with Ford in pressuring the Government of India to invest in family planning. The AID group took notes as Ensminger "kept stressing the psychologically advantageous boost" that a request from AID to move funds to family planning would have on "expediting" the Government of India's decisions and actions. Persuaded by Ensminger and the consultants he called upon, Blume, Fobes, and Holt from AID had agreed, "Only a co-ordinated representation to the GOI by the Ford Foundation and the U.S. Mission…would be useful or appropriate."[33]

This pressure resurfaced after Campbell's letter to Baumgartner requesting urgent support for a health plan. In a separate correspondence, Douglas Ensminger sent C. Tyler Wood his own ideas about how the AID program should orient its efforts, having learned of Campbell's vision. "Dear Ty," he began informally. In his evaluation, AID's concept of health training centers including sanitary inspectors, nurse midwives, etc. went beyond what was being considered by the Indian Government. Though the idea was "sound," he said, the Ford Foundation was unlikely to be able to give AID much support, as they were focusing on a project to strengthen the Institute of Rural Health and Family Planning that had been set up at Gandhigram. He proposed that the AID project might like to provide infrastructure for the Ford Foundation's family planning initiatives.[34]

Baumgartner picked up on this confusion and spoke with Tyler Wood in Washington to review the multiple crossing letters. From the conversation, she took away

[33] Memo: GOI Family Planning and Health Center Programs, Dec 4, 1964. RG0286 P458 Container 5, NARA.

[34] DE to CTW, letter, May 12, 1964. RG0286 P458 Container 5, NARA.

that there had been tensions in India, but that they were now "simplified considerably." The AID mission was "willing and eager" to help with Ensminger's family planning efforts. "Apparently," she wrote, "Eugene Campbell is now content with this." Her suggestion, circulated to her colleagues in the Washington, DC offices of USAID (AID/W) with responsibilities in India, was that they convene with "appropriate people on the India desk here to discuss this in some greater detail so that the situation is clarified in AID/W."[35]

Baumgartner's broader policy approach was to expand and humanize dominant notions of development. Though perpetual crises and unpredictable daily tasks interrupted her in bureaucratic spaces, in her public speeches she continued to emphasize human health and welfare as the broadest concept of development, not a piece of an economic program. Having set out a decade earlier to convince the public health community to reorient its responsibility to the social health of individuals, by 1964 Baumgartner was attempting to convince the U.S. public to expand their notions of health. She assured an audience at a lecture event at the Metropolitan Museum of Art in May 1964 that she trusted them to know that health and education were essential to societal development. "That health and education are major factors in the social and economic progress of any people has long been evident and with this audience it is not necessary to belabor this point," she said, turning the debate to make health the overarching concept for medicine and welfare, instead of economic development the overarching concept for social and economic programs.[36] "There are arguments, too, about what is a health project," she said, assuring her audience that investigations into the appropriate projects for health were underway. "Is building a better

[35] LN, Memorandum of Conversation with Tyler Wood, Mission Director, India, Concerning Family Planning. RG0286 P458 Container 5, NARA.

[36] She had changed to "people" from "population" in an earlier draft.Leona Baumgartner. Health and Economic Development, Talk #81. Delivered at the Metropolitan Museum of Art, New York. May 4, 1964, Box 46, LBP.

house a part of health? Digging irrigation ditches? Growing more food? And if one gets the money can one purchase the manpower needed? Can one stimulate change in age-old habits, some of which lead to disease and death?"[37] Baumgartner was clear in other forums that she already believed all were part of an interdependent project. Calling on others to investigate and learn for themselves – a key remnant linking her to the worldviews of Jane Addams and the settlement movement -- the processes by which the "gadgets of science" and the "magic of modern science and technology" were made useful for and by the people was part of her worldview.

Baumgartner continued to participate in the Foundation meetings and negotiate the institutional culture of the State Department. Johnson, impressed with the systems analysis that Defense Secretary McNamara had brought from his experience as a Ford Motor Company executive into military operations, insisted they be extended to other programs of government. Surrounded by the turn to information systems, Baumgartner felt the power of her own authority dwindling. In part, she believed, this was also attributable to gender-based discrimination. Greater numbers of women entered government offices as the second wave feminist movement rose on the tails of the creation of the President's Commission on the Status of Women in 1963. This wave of women was more bracing to institutional culture than singular exceptions like Baumgartner had been, and all women were subject to the effects.[38] This was the recollection of economist Alice Rivlin, who had earned a PhD in economics from Radcliffe College of Harvard University in 1958 and would come to know Baumgartner as she entered government work, first peripherally with the Brookings

[37] Ibid.

[38] Cynthia E. Harrison, "A 'New Frontier' for Women: The Public Policy of the Kennedy Administration," *The Journal of American History* 67, no. 3 (1980): 630–46; Betty Friedan, *The Feminine Mystique.*, 10th anniversary ed. (New York: Norton, 1974): 361.

Institution and later directly when appointed by Johnson as Assistant Secretary for Planning and Evaluation in the Department of Health, Education, and Welfare in 1968. Rivlin recalled that as she and the other women of her generation rose into these positions, Baumgartner was glad to see them coming.[39]

Baumgartner grew convinced that the way to preserve health in the institutional culture of the new economic development would be to mobilize the dominant discourse to incorporate health on the terms of the new economics of information. To accomplish this, she envisioned repopulating the offices of development agencies with multidisciplinary health professionals, trained in both medicine and economics, who could synthesize new approaches across two different ways of knowing. She activated this new strategy in a number of different ways. For her own office and for the projects of health implementers, she fought for funding on economic terms. Changing the title of her office from Human Resources and Social Development to Technical Cooperation and Research, she emphasized the research they did and its absolute relevance to economic development while avoiding references to words – like "human" and "social" -- that conjured the specter of socialism among many of her colleagues. In May 1964, Baumgartner argued before the Appropriation Subcommittee in the House of Representatives that the "$6 million limitation on research imposed by Section 113 of the Appropriations Act of 1963" be removed, insisting that the Agency had fixed their "inefficiency problems" and met the legislation's call for systemic inquiry into complex problems of foreign aid operations by "increasing our knowledge of the processes by which economic growth and modernization take place; devising designing and testing - with scientific methods - improved techniques and materials." As a final push, she added that, "ongoing analytical studies deal mainly with economics, an important

[39] Alice M. Rivlin, Phone Interview by Emily Harrison, Nov 7, 2016 5:00-6:30pm EST.

element in AID program decisions."[40] This statement was highly political, and verged on dissimulation for Baumgartner, who believed that the "people side" of development to which she was committed could not be adequately understood, communicated, or implemented through economic tools.

Accounting for Losses

In the local offices of USAID, lack of coordination and perceived offenses drained the patience of officers across the institution. Eager "innovators," as Gene Campbell from the Health office in India referred to the people devising new programs to run through or in parallel to AID, were interrupting ongoing projects and raising tensions in existing relationships. When the Peace Corps initiated a Health and Nutrition Program for Andhra Pradesh in the summer of 1964, Campbell wrote in complaint to C. Tyler Wood at the USAID offices in Washington. He had only gradually learned that this project had been devised with no consultation of AID, the expert personnel of the State Health Education Bureau of Andhra Pradesh, the expert assistance of the Central Health Education Bureau of the Ministry of Health in Delhi or the Central Planning Commission. Considering that for several years AID had conducted joint activities with the Central Health Education Bureau and the Health Bureaus of many states in training teachers and promoting the same work the Peace Corps Volunteers planned to carry out, he requested that the project be sent to AID's Health Education Specialist in Andhra Pradesh, Dr. Ramakrishnan who directed the Central Health Education Board, and Dr. Mayhew Derryberry of the AID Health staff – all of

[40] LB. Statement of Leona Baumgartner, MD Assistant Administrator for Technical Cooperation and Research, AID, before the Appropriaton Subcommittee, House of Representatives. 1100AM, May 28, 1964. Box 46, LBP.

whom, Campbell emphasized, were exceptional in their fields. Moreover, he was certain that the Peace Corps program should only go forward "with proper and adequate contact with, and supervision from, trained and expert personnel of the State Health Education Bureau of Andhra Pradesh, both Indian and American, as well as the expert assistance of the Central Health Education Bureau of the Ministry of Health in Delhi." This was the second time such a coordinating problem had come up, the first being the unexpected stationing of a team of nurses in Andhra Pradesh.[41] Authority was scattered across the different agencies and despite frequent telegrams, telephone calls, and letters, the people working in India felt unrecognized and disconnected. Much happened within each site whose significance could be easily missed at a distance.

It took three weeks for news of Nat Elias's death on October 16, 1964 at Martha's Vineyard Hospital to reach Baumgartner's colleagues in India and less than one day to travel to New York City. Elias and Baumgartner had been spending time at their beloved home in Chilmark. Letters and telegrams flooded her mailboxes again. Later, she put some of them, close to fifty messages, into a manila folder. She included the obituary from the *New York Times*. She labeled the folder and accounted for the missing correspondence without explanation: "Death notices. 800 letters + all destroyed." A photograph in the folder, found fifty years later, apparently quickly snapped, likely from that summer, showed an aged Leona and Nat on the beach, arm in arm, heads together, laughing. In the surviving letters there were heartfelt memories of Nat's humor and warmth, his deep concern for humanity, his goodness, and his amiability. RM wrote from Tokyo in a large and messy script.[42] Walsh and

[41] Eugene Campbell to C. Tyler Wood, John B Holt, William E. Schank, John A. Illinski, Thomas E. Naughton, Memo. Aug 19, 1964 RG0286 P458 Container 5, NARA.

[42] Robert Moses to LB, letter, Oct 25, 1964. (LB replied) Elias Family Personal Papers (EFPP).

Marion sent a telegram immediately and each sent a carefully penned personal letter two days later.[43] The cards from India arrived in the second week of November, handwritten from Sushila Nayar as well as typed from Doug.[44] Inez typed on stationary from La Fortaleza in San Juan, Puerto Rico. "Munoz and I love you, Leona," she closed the sad letter.[45] Sandy at the Milbank Memorial Fund included this: "Please be kind to Leona for a while, so that she can go on again soon – for there are so many Nat-and-Leona things to do and Nat will expect Leona to go on having <u>fun</u> doing them."[46] Many years later, she would confide in a friend that it took close to two years to grieve her loss.

Baumgartner was working again two weeks later, with a final push underway to establish fertility as a matter of reproductive health care, not human accounting. This was achieved in the face of growing resistance from Johnson, who felt that the issue of population was talked to death: AID officials were "emphatically advised not to send any more birth control advocates to the White House" following the 1964 elections.[47] A decade later, Baumgartner would state in an oral history that she had never been a birth control "pusher" but did support effective and accessible contraception and abortion services under a doctor's care at a time when such notions were often regarded as "heresy."[48] Her office confidently continued its work based on previous approvals for moving ahead. Corralling participation and political support of population and economic experts at the Agency,

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[43] Walsh McDermott to LB, Oct 19 1964. Marion McDermott to LB, Oct 19 1964. M and W McD, Western Union Telegram, Oct 17, 1964 6:03pm (LB replied) EFPP.

[44] Sushila Nayar to LB, letter, Nov 10, 1964. (LB replied) Douglas Ensminger to LB , Nov 9, 1964. (LB did not reply) EFPP.

[45] Inez (Mendoza de Munoz Marin) to LB, letter, Nov 1964. EFPP.

[46] Sandy to LB, letter, Oct 28, 1964. (LB replied)

[47] Piotrow, *World Population Crisis; the United States Response: 88*.

[48] Personal Interview of LB by Julia Bess Frank, 1976.

regional desk and mission representatives, representatives of the Department of State, Commerce and Health, Education and Welfare, the United Nations, several US universities and foundations and other private groups, the TCR office prepared a position paper on the issues presented by population growth trends in the less-developed countries to present at the AID executive staff meeting Dec 1, 1964. The paper's advice to extend policy to allow building programs was approved. The order sent out in the form of AIDTO Circular Airgram 280 specified that AID and its agents were now allowed "to provide on request, technical assistance for less developed country family planning programs. To the extent possible, such assistance will be given in the context of maternal and child health programs."[49] For Baumgartner, this was an achievement, even if her health vision in the policy hung on by a highly tentative thread.

Baumgartner also defended funding for new research into the design of program evaluations. In Gondar, Ethiopia, Julius Prince oversaw a long-term research program that was, he said, "the first time anybody had really tried to evaluate the impact of any of our AID programs in scientific terms."[50] A continuation of a project begun in the pre-AID days of development, the Ethiopia health program was "one of the most comprehensive of any TCA (and later AID) had undertaken up to that time, because it dealt not only with communicable disease control projects, but with administration, management, organizational development, and technical aspects covering the entire disease spectrum...maternal and child health, adult health, environmental health."[51] The program included a new form of

[49] Ibid, 94.

[50] An Interview with Julius S. Prince, MD DrPH. The Foreign Affairs Oral History Collection of the Association for Diplomatic Studies and Training (interview by W. Haven North). Library of Congress. January 24, 1994.

[51] Ibid.

operational research that Prince and Baumgartner were interested in developing, a Development and Evaluation (D+E) Project aimed at monitoring and assessing program effectiveness. In 1965, when the USAID Research Advisory Committee reviewed the project, its future fell into doubt. "The school of thought was to emphasize the prime importance of the economic aspects of development vis a vis other aspects," Prince remembered. "It was when Congress wanted AID to start cutting the budgets of all development projects funded by the Agency which were deemed to not contribute, as directly as others, to the economic aspects of development. This included health programs generally, and the Demonstration and Evaluation Program especially…It required a lot of conviction on my part and that of people like Dr. Curtis, Dr. Leona Baumgartner, and no doubt many other public health oriented people in AID/W, that it was important for this research to be approved and funded," said Prince. Baumgartner brought Prince to Washington to defend the project. Gathering AID Administrators and planners, "perhaps 8-10 people at that meeting and we certainly had a very serious discussion," Prince recalled. He credited Baumgartner with winning the argument. Towards the end of the meeting, she turned to the Administrator for Europe and Africa and said, '"What's the matter, Ed; you know perfectly well that this project is necessary. Haven't you got any money?' And he looked at her and kind of threw up his hands and said 'That's not the problem, but, okay, I don't think you are right but I'll just take a chance on it. There is only another $200,000 to $300,000 involved and $600,000 has already been spent. So Prince, you go out there and get this job finished; don't dawdle, get cracking."[52] Calling Baumgartner a "friend of the project," Prince credited her with saving the effort.

[52] Ibid.

Informed by what she learned and said at the Ford Foundation's meetings on Professional Education, Baumgartner began to teach health advocates to make their cases for funding on "Washington's terms." Representatives of industry having classified public health as a profession better suited to the "Russian way of government," the Ford Foundation did not include public health or medical schools in its first three-year projections for the reprogramming of professional education for "internationally-minded" development training. On an individual basis, Baumgartner began modeling language for long-time colleagues, teaching local leaders in recipient countries to include quantitative targets and statements of efficiencies when requesting AID grants. To the Undersecretary of the Ministry of Health and Social Welfare in Ankara, for example, she suggested in 1965 that, "from Washington's perspective, any proposal must develop *hard goals* relating to decrease in annual rate of population increase. Annual population increase must be cut by X percent by X years." She suggested family planning as one approach, given the funding priorities, stating that "the development of improved rural health services and other health units then might be needed in order to carry out some of the methods of developing family planning." In other words, family planning could lead to investments in health infrastructure. Detailed budgets were necessary, she told colleagues, as was an evaluation component of their proposed program. "Another problem that I am positive Washington would insist upon," she wrote, "is a continual refining of demographic information for the purpose of evaluating carefully the various steps towards the achievement of program targets."[53] She began hiring people into mid-level bureaucratic positions at USAID who were not only willing to work across disciplines, but who were themselves multi-disciplinary thinkers. In the reorganization

[53] Leona Baumgartner. Letter to Nusret Bey, Undersecretary Ministry of Health and Social Welfare, Turkey. July 23, 1965. Box 77, Folder 9, LBP.

of TCR, Baumgartner hired Phillip R. Lee, trained as both a physician and an economist. Later, after he had moved into a position in the Department of Health, Education and Welfare, he gave a keynote before Congress discussing population control. "We feel very strongly that these programs must be considered within the health context," he said with both economic and medical authority.[54]

Other health activists used infant mortality to counter arguments that family planning could substitute for comprehensive health. Carl Taylor had started a new Rural Health Research Project in Narangwal in 1960, for example, and from this study drew evidence to amplify a "child survival hypothesis."[55] Reacting to claims like those advanced by the Coale and Hoover hypothesis, in which health improvements were assumed if fertility was limited, Taylor argued that reduction of infant mortality would support fertility reduction goals because it would assure mothers that their children would survive.[56] Baumgartner did not take up this strategy. She regretted the past emphasis she had put on

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[54] United States Congress, Senate. Committee on Government Operations. Subcommittee on Foreign Aid Expenditures. Population crisis : hearings before the Subcommittee on Foreign Aid Expenditures of the Committee on Government Operations, United States Senate, Eighty-ninth Congress, Second Session, on S. 1676, a bill to reorganize the Department of State and the Department of Health, Education and Welfare. (Washington, DC: U.S. Government Printing Office 67-785 O, 1966). Available at: http://www.archive.org/details/populationcrisis196604unit.

[55] "Adequate MCH services help family planning indirectly by reducing infant mortality, and helping assure the mother that her children will survive." USAID Mission to India/ Public Health Division. Implications for Planning Health Programs Section IIB: 1. December, 1963. RG 0286 P 459 Cont. 1, NARA.

[56] RG Potter, JB Wyon, M New, JE Gordon, "Fetal Wastage in Eleven Punjab Villages," *Human Biology* 37(3) Sept 1965:262-273. JE Gordon, S Singh, JB Wyon, "Causes of Death at Different Ages, By Sex, and by Season, in a Rural Population of the Punjab 1957-1959. A Field Study," *Indian Journal of Medical Research*," 53(9), Sept 1965: 906-917. JE Gordon, H Gideon, JB Wyon, "A Field Study of Illnesses During Pregnancy, Their Management, and Prenatal Care in Punjab Villages," I*ndian Pediatics*, 2(9), Sept 1965. Reprints for Harvard University Center for Population Studies Contribution #5, 6, 13. RF India Series 1.2 200 RAC.

prematurity, because the isolated targeting of the infant segment of the population that was emerging had never been her intention. She did not anticipate, yet, that population, if handled in the context of public health programs, could face the same reduction.

Though Baumgartner negotiated both general health services and population onto the development agenda at USAID between late fall of 1962 and the end of 1964, the agency's ability to foster a comprehensive health vision stalled at piecemeal programs by technical failures to coordinate, lack of recognition of local expertise, and failure to ameliorate political tensions that undermined collaboration. Incremental steps were made in securing public health programs referred to as preventive medicine on the AID agenda. The agency began funding manufacture of the Sabin vaccine in India in 1963, continued to invest in nutrition laboratories, promoted health education programs, and funded an Institute for Communicable Diseases 1964-1969. Eugene Campbell remained determined to bring water sanitation programs cut by the U.S. government back to India.[57] In December 1964, while being briefed for a meeting concerning technical assistance programs, Baumgartner was informed that she would be asked to comment on how, a couple years before, some had felt that AID was becoming a "banking operation." In notes to herself, she scrawled that, from her point of view, this was now not true.[58] She, along with many of her colleagues, saw positive accomplishments in the work of the last three years. In a letter to Baumgartner in early 1965, AID's Health and Education advisor in India, Mayhew Derryberry, wrote

[57] The agreement to support Sabin vaccine production is a very important diplomatic interaction between Sabin himself, the US ambassadors, and the Indian Ministry that merits its own investigation. See: Henry Chuck to Eugene Campbell, Memo, Jan 17, 1963; Eugene Campbell to Nowshir Jungalwalla, Feb 19, 1963; Pfizer pamphlets; For Institute of Communicable Disease: Memo …486-AF-54_AD-5 "Communicable Disease Control" Draft E-1; For water sanitation: Eugene Campbell to 5th Conference of Public Health Engineers, New Delhi, April 22, 1964. All in RG 0286, P 459, Cont 4, NARA.

[58] Michael W. Moynihan. Memorandum to Leona Baumgartner. Subject: Briefing Discussion, Weds Dec 9 for Point IV groups. December 7, 1964. Box 46, LBP.

enthusiastically. "There is so much money now for research. I think health departments and schools of public health would collapse if it were withdrawn. Everyone is paid by a project."[59]

Though many of these targeted measures were credited with improvements in average survival, Baumgartner's insights about the need to study processes of implementation were neglected. The results that emerged from building programs narrowly and in disconnected, contracted forms were never adequately assessed. This strategy had been intentionally chosen to avoid acting or appearing imperial, and to work quickly and specifically. But the challenges underlying fragmented services persisted. Moreover, the reliance of so much of the educational system on funding from a corporate philanthropic team determined to build universalizing programs did bring a banking mentality into the health sciences, even if AID, as Baumgartner said, was not merely a banking operation. This was a particular kind of epistemological imperialism, even if the values of the people doing the work continued to be varied and often discordant with the constraints of the available tools.

The Rockefeller Foundation noted in internal memos that the people in the villages in India were "suspicious" that the most productive land in India was being given to the American demonstration projects. Though this was cast as a characteristic of "primitive" culture, it was not an unreasonable observation. As the stakes of the Cold War competitions rose after 1957, the Government of India and the Ford Foundation were locating agricultural projects in areas where the demonstrations of the technological prowess, such as

[59] Mayhew Dewberry. Letter to Leona Baumgartner. Easter Sunday, 1965. Box 77, Folder 9, LBP.

new seed technology, were likely to succeed.[60] So there was not only reasonableness, but also truth in these "suspicions."[61]

While Baumgartner continued to promote her ethic of cooperation, the ethic of competition also ran through the coordinated relationships, turning peers into "others" and devaluing local knowledge. Attempts to adopt the language and methods of the dominant culture in international development were ridiculed. Rostow himself published a memory of laughing with Kennedy over some foreign leaders' adoption of his "take off" vocabulary, for example, amused that they both of course knew that the "references had more to do with interest in aid money than in my virtue as a social scientist."[62] The studies that health professionals undertook in order to advocate for community health programming were criticized for being obvious and technically unsophisticated. Carl Taylor, for instance, had started a new Rural Health Research Project in Narangwal in 1960, committed to studying rural reception of medicine and attitudes towards doctors as a means of setting up care provision. But Taylor's studies were mocked by Foundation representatives. Lucien Gregg, Associate Director of the Rockefeller Foundation's medical and natural science division, wrote by inter-office correspondence to Robert S. Morrison, Director for Medical and Natural Sciences: "The attached report on Taylor's division included a note on the social science study of attitudes towards rural comprehensive medicine in India. "This is a

[60] Corrina Unger, "Modernization a La Mode: West German and American Development Plans for the Third World," *GHI Bulletin* 40 (n.d.): 143–59; Corinna R. Unger, "Towards Global Equilibrium: American Foundations and Indian Modernization, 1950s to 1970s.," *Journal of Global History* 6, no. 01 (March 2011): 121–142.

[61] On suspicion and reasonableness: Ruha Benjamin, "Innovating Inequity: If Race Is a Technology, Postracialism Is the Genius Bar," *Ethnic and Racial Studies* 39, no. 13 (October 20, 2016): 2227–34.

[62] Kimber Charles Pearce, *Rostow, Kennedy, and the Rhetoric of Foreign Aid*, Rhetoric and Public Affairs Series (East Lansing: Michigan State University Press, 2001), 117.

'scientific' approach to questions that some experienced observers wouldn't hesitate to answer confidently offhand." [63] This is an example of the active marginalization of qualitative observation and insight taking place in development settings.

As their plans to bring comprehensive health into economic development failed, health advocates began to fight among themselves about the approaches taken in the past. At a conference on population dynamics for AID staff on June 8, 1965, held at Johns Hopkins University where Taylor had taken a position, and co-chaired by Baumgartner and the Hopkins dean, Ernest Stebbins, the mood was tense and reflective. [64] Hanson, attempting to give some perspective on the last ten years, stated to the group "everyone of these men has had his head bloodied at some time in the last couple of years in the process of what he was doing. So they are speaking at a very personal experience in what they are saying." Taylor, for example, was negative about the prospects of population work given the difficulties, amidst foundation-supported "studies," of getting support for the health infrastructure that he believed to be morally and technically necessary.

Baumgartner took the gendered exclusion in Hanson's remark personally this time. "I go out every 5 or 10 minutes and spend a little time and come back and know all the answers. I in some ways have had my head bloodied a bit," she responded. "I think one of these days I am going to take the recommendations I made in 1955 and compare them to the ones I made in 1965 and I am sure there is a high percentage of duplication. But I think the people that are there all the time fail, Mr. Hanson, to see one other thing. That is the continuing progress that is made even out of the things that are called failures." She turned to Taylor. "Carl, I think you failed to realize that the Ludhiana experiment was something

[63] Rockefeller Foundation records, projects, RG 1.2, series 709, Box 1, Folder 1, RAC.

[64] Conference on Population Dynamics for Staff of AID, Transcript, June 8, 1965. ISN 76988 PN-AXX- xx AID. PN-ADL-190, ISN 76938. AID/POP Reference Library, NARA.

that needed to be done. It brought in the prestige of the Rockefeller Foundation and Harvard University to India to give a very careful scientific plan in the field of family-planning. Also, it got this accepted as a modus-operandi in India. These are the by-products that I think are not always seen that come out of so-called failures." Taylor, patience wearing thin, took the privilege of asking to close the session. "There is a whole area of unasked and unanswered questions in my mind as to what is the specific role of outsiders in this program," he left the conversation.

Taylor suspected Baumgartner of a conflict of interest between her relationship to Durex Products and her work as a visiting health expert.[65] Baumgartner dismissed the accusation by explaining that she had never made a profit from the company's earnings and that the patents had been gifted to the Population Council after Elias's death. But Baumgartner's interests were not contained in accounting sheets. As she had begun her international career accompanying Nat to South America, and traveled with him to India, and urged the Ministry to use Durex foams in its trials, she had not only trusted his science but had been happy to have projects with him. While he traveled for a year on the Industrial Intelligence mission for the Government shortly after they were married, she missed him, admired him, and envied his experiences.[66] Furthermore, she enjoyed the respect that came with knowledge about chemistry and biology, and she enjoyed the opportunity to exercise this aspect of her training in her population work. It was with pride that she corrected John Gordon when he credited her husband with the appendix detailing the chemical properties of the different contraceptive products in the report drafted for Kaur in 1955. "Actually the

[65] LB to CT, Letter, Oct 1966, Box 11 Folder 23, LBP.

[66] Personal Correspondence between LB and NE in 1943-1945, EFPP.

report was not compiled entirely by that husband of mine although he does contribute something to the problem that physicians do not," she had responded.[67]

Taylor knew Baumgartner well and knew of her husband's death, and the insensitivity at that moment may have had impact where she otherwise would have passed it off as a careless affront. It is also possible that Baumgartner saw some truth in what Taylor said. The competition, stresses, and traumas of the past decade bred a spirit of cynical indifference in even close colleagues. The accusations that flew and the fissures between colleagues were accommodations and morally undermining as well.

The month after the meeting at Hopkins, Baumgartner gave up on her commitment to collaboration and quit her job at USAID. To the public, the announcement was that, following Nat's death earlier that year, she needed to spend her energy wrapping up his affairs. In her words, she "couldn't spend her life on Eastern Airlines anymore."[68] To colleague David Bell, she suggested that she was tired of the Johnson administration's treatment of women. When she wrote to President Johnson of her resignation, she was skeptical that his response was even genuinely coming from him. "I'm well aware of its possible origin," she wrote to David Bell upon receiving it. "And frankly I did enjoy the words of appreciation of my efforts."[69] In her own files, she stapled her correspondence with Johnson together with a *Washington Post* article that week announcing her resignation as the second of a woman in the Johnson administration that week. The article raised an eyebrow

[67] LB to JG, Letter, March 1, 1956. Box 41, Folder 4, LBP.

[68] LB to JG, Letter, 1965. Box 77, Folder 10, LBP.

[69] LB to DB, Letter, July 14, 1965. Box 77. Folder 25, LBP.

at Johnson's unfulfilled promise of putting more women in high-level positions, and pointed out that Baumgartner would, in fact, be replaced by a man.[70]

In her resignation letter she attempted to define her legacy. She remarked on an exciting and rewarding three years helping to develop better ways of sharing our knowledge and skills with millions of people struggling towards a better life." The Foreign Aid Program was, to her, "a great adventure, helping human beings out of a dangerous ignorance, poverty, hunger and disease." She pointed to a need for Johnson's "staunch support and above all your deep understanding of human needs." In a striking display of administrative politics, she noted that she "found it especially satisfying" to be part of his administration, "for you have given women an opportunity to serve on a broader scale and in more varied fields of activity than any other President in our history." The response from Johnson's office noted that Baumgartner had "worked unstintingly to improve the quality and impact of the US technical assistance work abroad in agriculture, education, health and other fields," that she had established "an effective research program in AID," and that she had developed "sound policies for AID in the increasingly important area of population." She had been a leader in applying "modern science and technology to the human problems of the people of the developing countries."[71] Baumgartner had not mentioned population in her letter, and understood modern science to have a much broader meaning than the approach accomplished. Even in defining the work she had done, her agency remained profoundly limited.

Her replacement, Al Moseman, arrived as the former director of agriculture for the Rockefeller Foundation. His appointment was reasonable in a department named Technical

[70] Laurence Stern. Second Woman in Week Quits High-Level Government Post. *The Washington Post*. July 8, 1965. Box 3, Folder 18, LBP.

[71] Lyndon Johnson to LB, letter, Box 3, Folder 18, LBP.

Cooperation and Research in a way it would not have been a department of Human Resources and Social Development, the one to which Baumgartner had been hired. To those working in the AID field missions, Moseman represented a different approach. As Prince confided in Baumgartner from Ethiopia, he was worried because Moseman had a "different viewpoint" and no on-sight inspection experience.[72]

Moral Departure

By the mid-1960s health and development organizations were carrying out a vision, once holistic and integrative in concept, which had eroded to artifacts. This was evident not only in the narrowing focus on infant mortality, which had been intended as a measure towards overall population and individual health. It was also evident, relatedly, in the evolving nutrition programs. In 1949, Carl Taylor had added a groundbreaking study to modern public health science with his doctoral research conducted with John Gordon at the Harvard School of Public Health, positing a cycle of malnutrition and infectious disease. By the mid-1960s, a new public health concern had been raised in the field of nutrition sciences as they intersected with child development studies. Animal models for studies in protein deprivation had concluded that such malnourishment caused "permanent" mental debilities. A study at the Institute of Nutrition for Central America and Panama in Guatemala suggested that malnutrition was linked to broad and irreversible effects on mental development in children. Studies in Uganda and Mexico lended support to the "vicious cycle of protein-calorie

[72] JSP to LB, Letter, Sept 29, 1965. Box 82. Folder 38. LBP.

malnutrition and apathy."[73] The idea that population health could be improved by intervening on individual lives at the critical period of infancy was corroborated by these studies.

Cold War politics made these findings more urgent in both macroscopic and microscopic arguments. In India, famines and ongoing food crises continues, and the CPI(M) pointed to the Congress Party's policies as the source of the failure. In the United States, Congressional and international support for foreign assistance continued to fall and as those interested in maintaining the program struggled to "hold the line," a 1964 report on the food-population balance made the prospect of a Malthusian crisis before 1980 all the more clear to certain policymakers. AID's priorities shifted towards agricultural production, expanded population control policies, and food relief. While national and multinational organizations eager for fast and innovative solutions focused on food products, some in the public health field reacted to what they saw as a medicalization of welfare problems by insisting more loudly that the improvement in nutrition in European countries that had been important in the decline of infant and child mortality had been not a result of new food technologies but of improving standards of living that had changed access to nutritional foods, not recognizing the political and bioscientific work that went into food safety regulation and infant feeding.[74] Concerns with "mental retardation" that were given wings in

[73] See papers from the 6th International Congress of Nutrition Aug 9-15, 1963 (Rockefeller Foundation and UN Children's Fund) and others in the NARA files from this part of the collection RG 0286 P458 Cont 5, NARA.

[74] Thomas McKeown, *An Introduction to Social Medicine*, Blackwell Scientific Publications (Oxford, Blackwell Scientific, 1966); Renée C. Fox, "The Medicalization and Demedicalization of American Society," *Daedalus* 106, no. 1 (Winter 1977): 9–22; Simon Szreter, "Rethinking McKeown: The Relationship Between Public Health and Social Change," *American Journal of Public Health* 92, no. 5 (May 1, 2002): 722–25; Rima D. Apple, *Perfect Motherhood: Science and Childrearing in America* (New Brunswick, N.J.: Rutgers University Press, 2006).

the Kennedy administration when large amounts of federal funding opened a new National Institute of Child Health and Development reflected deep concerns about "falling behind" as a nation. Researchers latched on to the studies of kwashiorkor and concerns about "invisible injuries" to the brains of malnourished infants.

The new surge in Malthusian anxieties after 1964 led to changes at AID after Baumgartner left. Rostow himself later wrote of the new priority on dimensions of development "bearing directly on human lives," claiming that "from FY1966, AID shifted to a new emphasis on education and health as well as agriculture and population control."[75] He credited the new emphasis to Johnson's "empathy," drawn from early experiences among sickness and poverty in Texas. But a different story was told by those working in the field missions of AID at the time. Bud Prince wrote to Baumgartner in February of 1966. "Johnson's speech was capital and, as you say, it was easy for me to see that you had indeed won the battle to get health back into TCR. I guess it was a pretty close squeak and I don't know how to thank you enough since it meant so much to all of us here."[76]

Remaining involved with AID on a part-time consultant basis, Baumgartner was among the first to see the draft of the 1966 TCR report on Policy and Programming in Population.[77] It was full of the strategies and debates of the previous four years, integrating the main economic development discourse with the health discourse in official print. Refuting old claims that "public health programs which reduce mortality are irresponsible in that they increase the want and suffering of multiplying numbers of people," the report

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[75] W. W. Rostow, *Eisenhower, Kennedy, and Foreign Aid*, 1st ed., Rostow, W. W. (Walt Whitman), 1916- Ideas and Action Series ; No. 5 (Austin: University of Texas Press, 1985).

[76] JSP to LB, letter, Feb 1, 1966. Box 82, Folder 38, LBP.

[77] Outline, Guidelines for Planning and Programming AID Assistance in Population. 1966. Box 50, Folder 10, LBP.

stated definitely, “These arguments are false.” Instead, it argued, “declining mortality rates are solid evidence that programs of social progress can be implemented rapidly and effectively. More importantly, improved health has created economic advantage by improving productivity and permitting new lands to be opened for cultivation.” Finally, it stated that “the establishment of public health systems will permit their use for implementing population control programs.” The official government policy on population had become that health was not only good for people, and good for economic development; it was also useful against the “Population Bomb.”

Baumgartner’s legacy at USAID was complex. While she brought health back into the structural development agenda, it was not without compromises at the cost of core beliefs she had about development work. At the same time that the report reflected the integration of health into economic development, it also integrated quantitative metrics and claims of objectivity into the health discourse. "There may be some competition for limited funds between health programs and family planning programs as there is competition between, say, health programs and educational programs," it allows, before jarringly stating that, "allocative decisions of this kind are not moral questions; they are to be solved as technical matters within the frame of national development planning.” Claims that “absolute numbers of people illuminate and give reality to the existing pressures on available food supply, land and material resources” showed that numbers were now thought to adequately represent a complex world. The new requirement that lesser developed countries would now require a reduction in population growth in order to get economic development assistance was not based on emotions but “soundly based on evidence plainly visible throughout the world. To avoid the pitfalls of superficially attractive but inherently illogical doctrines it is important that the lesser developed countries government base its policies on an objective

determination of the economic value of a prevented birth."[78]

How different this language was from the speeches Baumgartner gave to the world in 1951 as she began her international career, and even from those she gave as she took office in 1962. Baumgartner recognized the discomfort this language would have for many committed to health care, as would become clear in the speeches she gave in the coming years, but she felt this shift was a necessity. She did not yet know the implications that claiming long term value could be assessed in short term outcomes would have for social programs.[79] The report focused on what was also pragmatically true, which was that long-term possibilities for health projects in the institutional cultures of the time were helped by the preservation of the D+E project. "What a hindrance to sound project planning it would have been if we had not been able to show, at a sufficiently early stage in our project development and implementation experience, that at least it was possible to evaluate some significant aspects of actual project impact. For clearly it was the only way in which the Agency could have been reasonably sure, that what it tried to do in the future, would prove to be successful, or not, in achieving outcome objectives."[80]

The politics of these changes, which Prince and Baumgartner herself saw as progress in a difficult climate, nevertheless undermined the full articulation of Baumgartner's vision of comprehensive health and development. Such failures amidst successes were personal for Baumgartner, who was making choices and accommodations that contributed to the process.

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[78] Ibid.

[79] Walter Williams, "The Politics of Evaluation: The Case of Head Start," *Evaluating the War on Poverty*, 1969, 118–132.

[80] Outline, Guidelines for Planning and Programming AID Assistance in Population. 1966. Box 50, Folder 10, LBP; See also: Governmental Policy in the US and Growth of World Population. The President's Committee on Population and Family Planning. Second Meeting. September 13, 1968. Box 52, Folder 1, LBP.

The claim in the 1966 report that "allocative decisions" between health and family planning were "not moral questions" and could be "solved as technical matters," was a denial of core beliefs Baumgartner held about values and the social realities of health. It was these moral compromises at the heart of her resignation, itself a moral choice. If grief, exhaustion, or offense had been Baumgartner's reason for quitting USAID, as she suggested publicly, these were partial and temporary. Her consistent words over time, and the work she would take up next -- supporting the medical students protesting the Vietnam War and attempting to build community health and health systems in New England, while designing comprehensive national policies for the United States -- suggest that the predominant reason for her quitting was a moral choice. Several years later, after she had moved to Boston to accept a visiting professorship in Social Medicine at Harvard Medical School, re-settling from 56 Washington Mews to 1010 Memorial Drive, re-marrying to renowned epidemiologist Alexander Langmuir, she gave a very different explanation for her departure to her dear friend Birendra Bir Bikram Shah Dev, in Nepal. She wrote that she didn't think that the AID approach would work. "One of the reasons I left," she recalled, "was that I was convinced under the scheme that they had then it would be very difficult to do too much with the organization as it was then developing."[81]

Away and Home

Baumgartner received clear messages that the new politics of development rang hollow to international collaborators by 1966. After quitting USAID and "tidying up" the life she had shared with Nat in New York City, Baumgartner moved to Boston, Massachusetts, accepting

[81] LB to Birendra Bir Bikram Shah Dev, letter, Aug 2, 1971. Box 15, Folder 20. LBP.

a visiting professorship in social medicine from Harvard Medical School. She continued to advise USAID and work on small projects. As she began her work in Boston, she wrote to Chinese-American writer and physician Han Suyin for contacts in China to build connections of friendship. She received an ethical reprimand in return, that called into question the morality of collaboration and the meaning of friendship: "I quite agree that contacts are essential," Han Suyin replied, but explained that making them as the Vietnam conflict escalated would be a false impression that all was well. "I am absolutely convinced that your country must first of all get out of Vietnam, before any sort of other gesture of "friendship" can be attempted. I am quite sure you will also see how monstrous it is to delude the american [sic] people into believing that the hand of friendship if being extended to China merely by 'allowing' visitors to China (and what a deal of contemptuous arrogance in the gesture) while on the other hand continuing the horrors of vietnam [sic]."[82] Han Suyin did not cooperate; she was collaborating on other terms. Her protest, not only refusing but also explaining clearly what she stood for, was material on which Baumgartner could self-reflect. Han Suyin ended her frank letter with a hopeful condition, giving the name of one Marvin Yang to whom Baumgartner could write in the future. "Though things are not possible now, they may be in the future…when your troops cease in Vietnam." Though local expressions of concern about the technical politics of development were specific, they were not limited to sites of military action overseas. Baumgartner would observe, with surprise, as similar concerns played out in her community work in Boston, where frantic focus on a rising epidemic of infant mortality in the back yards of the some of the most advanced biomedical institutions in the world.

[82] Han Suyin to LB, letter, June 9, 1966. Box 3 Folder 8, LBP.

Chapter 6: Systems

Distance, Rage, and the Bits and Pieces of Health in Boston

In the late summer of 1966, less than one year after quitting her position at USAID, Baumgartner moved to Cambridge, Massachusetts. She had accepted a visiting professorship in Social Medicine at the request of the new Dean of Harvard Medical School, Robert Ebert.[1] Medical reporter Carl Cobb wrote eagerly about Baumgartner's arrival for the city's leading newspaper, the *Boston Globe*. "One of the world's most distinguished experts in the organization and delivery of medical care will join the faculty of the Harvard Medical School this year," he wrote, "adding to the growing pool of talent in community health affairs that is being gathered at the school."[2]

A shock of the early 1960s, landing on the public at nearly the same time as the assassination of the President of the United States, was the widespread realization that the problem of infant mortality had not been solved. Not only was it "rediscovered" in excluded city neighborhoods and remote towns, national averages were reported to be rising. Though it was declining as a social measure of population vulnerability, the infant mortality rate increasingly figured as a performance metric in Cold War contests.[3] In Boston, where shockingly high rates of infant mortality were detected in the shadows of world-renowned academic medical centers, Baumgartner stepped back into familiar debates about the biomedical model, from the organization and costs of health systems, to the allocation of

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[1] Appointment letters through 1973, Box 6, Folder 37, LBP.

[2] Carl Cobb, Medical Care Expert: Dr Baumgartner Joins Harvard, *Boston Globe*, Sept 22, 1966: 12.

[3] Herbert Black, "US Lags in Race with Baby Deaths" Boston Globe, Sept 8, 1963: A7. "Why This U.S. Slip-back?" The Boston Globe, September 6, 1963: 30.Advisory Committee on HEW Relationships with State Health Agencies, Report to the Secretary, Dec 30, 1966: 9. Box 3 Folder 9, LBP.

medical and welfare resources, to the tension between production of clinical and population knowledge in the health sciences. Baumgartner found them all too reminiscent of her work in international development contexts. To a colleague at the Michigan School of Public Health she wrote in the summer of 1966 that she found herself needing to talk to the New England Hospital Assembly in "international terms, largely the LDC."[4] Though she would tell friends of the difficulty of "picking up pieces," "tying up loose ends," and moving cities after Elias's death, Baumgartner found herself expressing a tenuously rekindled spirit, believing that she had valuable insights from her international development work that would now allow her to contribute meaningfully to the solution of problems arising in the cities of the United States. The abundant resources she expected in Boston added to her confidence.

Her perspective was typical of international health workers returning to the United States. Bud Prince, the USAID field worker who had fought with Baumgartner to keep a public health program viable in Gondar, came home to health work in upstate New York and remarked that "parts of Chautauqua County were about as remote and difficult to reach as parts of Ethiopia."[5] The problems Baumgartner encountered as she began work in Boston, however, were not primarily about physical distance.

The New Old Problem

While New York City was framed by liberal planners as a crossroads of the international world in the immediate post-war years, Boston's public relations image at that time was one

[4] LB to Benedict Duffy, Jr, letter, Nov 18, 1966. Box 11 Folder 27, LBP. This acronym was the designation emerging in international organizations for the "least developed" among the world's countries. It would be formally adopted by the general assembly of the united nations in 1971. See: www.unitar.org/resource/sites/unitar.org.resource/files/document-pdf/GA-2767-XXVI.pdf

[5] An Interview with Julius S. Prince, MD DrPH. January 24, 1994. The Foreign Affairs Oral History Collection of the Association for Diplomatic Studies and Training (interview by W. Haven North). Library of Congress.

of serenity and civility. In 1949, a poem in the *New Yorker* magazine by popular writer E.B. White satirized this claim in a poem entitled, "Boston Is Like Nowhere in the World, Only More So." When he wearied of New York City, White's narrator traveled north, observing: *"The people's lives in Boston, Are flowers blown in glass; On Commonwealth, on Beacon, They bow and speak and pass. No man grows old in Boston, No lady ever dies; No youth is ever wicked, No infant ever cries."*[6] Such a trip to this apparent utopia ultimately made the narrator all the more glad to get back to the unavoidable cacophony of New York.

In reality, city life in Boston was geographically divided along long-maintained social divisions not evident to the casual elite tourist. Although history curricula in Boston's public schools presented the city as the capitol of revolutionary struggles for the rights of man and the abolition of slavery, people had resided on separate hills and neighborhoods according to the color of their skin since the founding of Boston.[7] While mid-19th century abolitionists had dedicated a memorial to Crispus Attucks, the Trustees for Donation to Education in Liberia raised funds to send African Americans away from Boston, where racist science suggested they could not naturally "fit" and thrive, to the U.S. colony established in the West African republic of Liberia.[8] In 1915, city leaders had allowed D.W. Griffith to screen his film, "Birth of Nation," which glorified the actions of the Ku Klux Klan, despite eighteen massive protests of between 500 and 2500 "Negro" residents of the city. While Jim Crow laws were implemented in the South, lynching in many northern cities had increased as well.

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[6] E.B. White, "Boston is Like No Other Place in the World Only More So." *The New Yorker*, October 1, 1949: 32.

[7] Constance K. Burns and Ronald P. Formisano, *Boston, 1700-1980: The Evolution of Urban Politics*, Contributions in American History ; No. 106 (Westport, Conn.: Greenwood Press, 1984).

[8] Trustees of Donations for Education in Liberia records, Ms. N-1777. Massachusetts Historical Society.

Boston had none reported, but the social violence in this city was executed through other forms of discrimination. Immigrants from Europe could 'assimilate' and rise to positions of political authority in the early twentieth century. The Roman Catholic "Irish-Americans," who had fled famine in the 19th century and met the resistance of Protestant society in Boston, had made a particularly dramatic political transition. "African-Americans," even those whose families had been Boston residents for centuries, remained segregated and isolated.[9]

Largely invisible to those residing in elite neighborhoods, social and political divisions grew harder to ignore in the demographic and economic changes to city life after World War II. As in New York and other northern U.S. cities, disenfranchised people from the South traveled northward, and those who continued on past Philadelphia, New York, and Hartford made their way into Boston's neighborhoods. At the same time, the city's white middle class flowed out to the small towns of the metrowest region, bringing small businesses with them but excluding "non-white" residents from the suburban exodus. Health services and knowledge in the city changed with the demographic shifts and new streams of federal research funding. Neighborhood medical practices closed and academic medical centers at Tufts, Harvard, and Boston University attracted the medical profession into the hospital.

As the city changed, the Boston city government's response in the mid-1950s to the new demographics and loss of business inspired rage and fear among non-white residents and legitimated race-based bias among the privileged. Urban planners set out to "re-

[9] Burns and Formisano, *Boston, 1700-1980*; Elizabeth Hafkin Pleck, *Black Migration and Poverty, Boston, 1865-1900*, Studies in Social Discontinuity (New York: Academic Press, 1979); Mark Schneider, *Boston Confronts Jim Crow, 1890-1920* (Boston: Northeastern University Press, 1997).

develop" the city through neighborhood "renewal." Drawing on legislation passed by the conservative 1954 Congress to expand the Housing Act of 1949, the city housing authority, later renamed the Boston Redevelopment Authority, planned massive investment in city infrastructure, including the expansion of the city's hospitals, with the expectation that early stage of investment and programming would prompt growth and success for all who were "fit" for city life. To promote commuting into the city, expressways were built in radiating beams that crossed ring roads encompassing the city. New onramps and growing hospitals crashed through neglected but socially close-knit neighborhoods like the West End, displacing residents to the South End and disrupting social lives.[10]

Statistics had become an increasingly popular way of thinking about the character of populations among U.S. citizens by the middle of the twentieth century, and with this sensibility the charts of falling incomes and high infant mortality rates in the city, increasingly published in the city newspapers, disturbed area residents. In 1960, tweaking the anxieties of Bostonians who felt threatened by city changes as well as those who feared the city government, Mayor John Collins waved a collection of statistics describing a city in economic decline to rally the "worthy" residents to "save the city."[11]

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[10] From the Loeb Design Library, Harvard University (Henceforth LDL): Boston Municipal Research Bureau – A Private Enterprise in the Public Service, "Bringing Urban Renewal to Life," November 10, 1956; Boston Housing Authority / Urban Redevelopment Division, "Expressways to Everywhere: New York Streets Redevelopment Project" Jan 1955; Professor Frederick J Adams, "Rehousing vs Rehabiliation Urban Reconstruction Presents a Post-War Challenge" *The Tech Engineering News*, Vol 24(6): 129-131; Boston City Planning Board, "Outline for a Study of Communty Rehabilitation" July 19, 1940. See also: Jane Jacobs, *The Death and Life of Great American Cities*, [50th anniversary ed.]; 2011 Modern Library ed. (New York: Modern Library, 2011).

[11] From LDL: "Fitting Cities to the Future: Boston's Government Center turns the tide of decay." Engineering News-Record. February 20, 1964; William Alonso, Vice Chairman of Panel, "Residential Neighborhoods and the Urban Core" at the Panel "The Role of Government in the Form and Animation of the Urban Core," Harvard Graduate School of

Boston's experience was specific, but reflected the structural development projects being implemented by U.S. planners in India's Community Development Projects and other such model sites around the world. In the United States, the New Frontier administration popularized the idea that this social, economic, and political strife constituted a rediscovery of "poverty." Through the end of the 1950s, as Baumgartner worried about the decline of public interest in international health development, economists had debated why New Deal programs and post-war affluence had failed to raise all citizens to the higher standard of living. The explanation popularized by the Kennedy administration was left-wing journalist Michael Harrington's argument in *The Other America* that poverty existed in "pockets" of people who failed to thrive amidst national prosperity. This explanation appealed to many New Frontier reformers hoping to reduce inequalities without reconfiguring social structures, disturbing the political status quo, or mentioning race, all of which threatened to trigger conservative opposition to the liberal project. On the tail of the State Department's roll out of the Decade of Development in international projects, the federal War on Poverty commenced in domestic policymaking with Harrington's hypothesis as a guide. Complex debates about the solutions remained unresolved.[12]

Design Eigth Urban Design Conference; "Introduction," Greater Boston Chamber of Commerce, Boston Renewal, January 1964.

[12] Alice O'Connor, *Poverty Knowledge: Social Science, Social Policy, and the Poor in Twentieth-Century U.S. History*, Politics and Society in Twentieth-Century America (Princeton, N.J.: Princeton University Press, 2001); Michael B. Katz, *In the Shadow of the Poorhouse: A Social History of Welfare in America*, 10th anniversary ed. (New York: BasicBooks, 1996); Michael B. Katz, *The Undeserving Poor: From the War on Poverty to the War on Welfare*, 1st ed. (New York: Pantheon Books, 1990); Daniel Immerwahr, *Thinking Small: The United States and the Lure of Community Development* (Cambridge, Massachusetts: Harvard University Press, 2015); Michael Harrington, *The Other America: Poverty in the United States* (New York : London: Macmillan ; Collier-Macmillan, 1969); Gunnar Myrdal, *An American Dilemma: The Negro Problem and Modern Democracy*, Black and African-American Studies (New Brunswick, NJ: Transaction Publishers, 1996); John Kenneth Galbraith, *The Affluent Society*., College ed. (Boston: Houghton Mifflin, 1960).

Poverty's iconic symbol was the infant mortality rate. It became clear that the country's infant mortality rate's decline had stagnated over the last decade while health experts had confidently attended to it abroad. "Inequalities" in the infant mortality rate existed not only across states but within states and even city neighborhoods. Public anxiety about this metric rose again in the early 1960s.

The quantitative metric retained currency in the new information economy. Liberal journalists like *Globe* staff writer Ian Menzies focused on quantitative "inequalities" across the statistical categories. In August 1962, as Baumgartner accepted her appointment at USAID, Menzies reported in the *Boston Globe* that the death rate for white male infants was 2800 for every 100,000 births but for non-white males it was 4700. Knowing there were many ready to ascribe these "inequalities" to race, Menzies found it important to note, "The reasons for the much higher death rate in non-whites under 1 year is not genetic but sociological."[13]

The Old New Debates

In the sociopolitics of the New Frontier, the early twentieth century notion that the IMR was causally linked with conditions of living retained cultural authority. A disinclination among elected officials to risk popularity on entanglement with political inequalities, however, deepened investments in technical, targeted responses. Baumgartner had feared the loss of government experimentation with new social policy in the early 1950s, but in the New Frontier administration, the federal government established an Office of Economic Opportunity to administer community development projects. These "Community Action Projects" (CAP) created a way to step around city governments and ineffective state

[13] "Children and Life Expectancy," *Boston Globe*, August 12, 1962.

authorities. The design was adapted from the Ford Foundation's "gray area projects," and promised "planning with the people."[14] Like the Peace Corps program, which itself was similar in concept to India's Community Development Worker program, a Domestic Corps was established to send volunteers into the inner cities to educate neighborhood residents. Concerned about invisible injuries sustained by infants who "failed to die" that would leave the future population of the United States "damaged" or "retarded," the Kennedy Administration formed the National Institute of Child Health and Development at the NIH in 1962 to study these problems. Kennedy's sister Rosemary was isolated from the public in an institution, which the family publicly stated was due to "mental retardation."[15] Leading theories of child growth and development paralleled the modernization theories of growth advocated by Rostow for developing nations. A "kiddie corps" program, to be named Head Start in 1965, was established to commit federal resources to infants and pre-school children from low-income families who would otherwise enter school at a disadvantage to other students. Some of those who participated in designing the CAPs remarked that, although the projects did not explicitly address race or social structure, they were implicit reparations intended as first steps in non-violent, "stable revolution."[16] Though inequalities in early death rates were evident across the lifespan when data was grouped according to categories

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[14] O'Connor, *Poverty Knowledge*. Immerwahr, *Thinking Small*.

[15] Meryl Gordon, "'Rosemary: The Hidden Kennedy Daughter,' by Kate Clifford Larson," *The New York Times*, October 6, 2015, sec. Sunday Book Review. Rosemary had been subjected to a lobotomy at the decision of their father in 1941 at age twenty-three. A new surgical procedure that promised to calm erratic moods that had developed through a childhood marked by significant learning diability, the procedure left her incapacitated.

[16] Eric Foner, *Give Me Liberty!: An American History*, Fifth edition. (New York: WWNorton & Company, 2016); Edward Zigler, *Head Start: The inside Story of America's Most Successful Educational Experiment* (New York: BasicBooks, 1992); Economist Rashi Fein said the same for Medicaid – it is what was possible in a legislative context resistant to rapid revolutionary change. See: Rashi Fein, *Learning Lessons: Medicine, Economics, and Public Policy* (New Brunswick, N.J.: Transaction Publishers, 2010).

of race, infants and children were a politically feasible way of addressing systematic problems.

In keeping with the culture of development systems, all of these new social programs were to be rigorously monitored and evaluated using quantitative analytics. Despite strong arguments from the program practitioners that social effects were diffuse, frequently lagged for several years before effects were visible, and were therefore difficult to capture in quantitative measures, the Kennedy Administration remained keen on statistical proof. Clinical technologies to address premature death of infants gained wider awareness after the highly publicized death of the President's third child, born early and suffering from respiratory distress as he was rushed by helicopter to Boston Children's Hospital, encased in a mobile incubator. Medical scientists attracted to the problem of premature birth and death, conceptualized as a frontier of medical science, made progress on the problem not, as Baumgartner had described in 1951, through social inquiry, but with technologies that led to the reconfiguration of intervention on the infant mortality rate.[17]

The targeted attention was not for lack of agreement that the unequal infant mortality rates were social problems. Rather, medical authorities argued that biomedical science could obviate the social determinants of health. The American Medical Association, for example, had agreed that social causes underlay the slipping infant mortality rates reported in 1963. It had nothing to do with the quality of medical care, AMA spokesmen told *Globe* reporter Herbert Black. The Children's Bureau seconded this position. As Black

[17] Peter H. (Peter Henry) Rossi and Walter Williams, *Evaluating Social Programs; Theory, Practice, and Politics.*, Quantitative Studies in Social Relations (New York: Seminar Press, 1972); Mary Ellen Avery, *Born Early*, 1st ed. (Boston: Little, Brown, 1983).

noted, "More maternity clinics are urged by [Bureau director] Mrs. Katherine Oettinger, to reduce infant mortality."[18]

Residents protested the biases of experts against the impoverished neighborhoods. Muriel Snowden, a Roxbury resident and co-director with her husband of the Freedom House at 14 Crawford Street, insisted that the problem with the experts was their lack of local knowledge. Not a "blight," she said, Roxbury was a vibrant community even while it featured some of the worst slum property in the city, the lowest income families, and the most serious social problems and disorganization. It had beautiful homes too, high socioeconomic and educated families among its African-American population. Most importantly, according to Snowden, Roxbury had a level of social development utterly lacking in urban development projects. "Above all, it boasts among its citizens a vital community concern which cuts *across* racial, religious, and social lines." In a series organized at Freedom House in March of 1963, community members addressed a panel of news media representatives from WEEI, Channel 5, the *Boston Globe*, and the *Boston Sun*, about the need for greater responsibility among news media for counteracting the image that "crime plus violence equals Roxbury!"[19]

Media included statistics. Snowden scoffed at experts' over-reliance on "somebody else's statistical research," calling it "hearsay," contrasted to "firsthand fact." "Planning with the People," she said, had "a nice democratic sound to it" but took more than "the waving of a magic wand, the uttering of a catchy slogan, the scattering of a little stardust." It took

[18] Herbert Black, "US Lags in Race with Baby Deaths" *Boston Globe*, Sept 8, 1963: A7.

[19] From LDL: O. Phillip and Muriel Snowden, letter to friends of Freedom House, Annual Meeting June 28, 1963; William Alonso, Vice Chairman of Panel, "Residential Neighborhoods and the Urban Core" at the Panel "The Role of Government in the Form and Animation of the Urban Core," Harvard Graduate School of Design Eighth Urban Design Conference.

social work – hard social work and many, many meetings -- to know each other and to involve each other. What it had meant to Snowden in Washington Park, over the last two years, was more than 114 meetings of citizens, clergy, businessmen, residents; four public hearings, crowded to capacity; more than 16,000 first class letters inviting community participation at meetings; thousands of informational bulletins, newsletters, question and answer sheets distributed; countless professional conferences and individual sessions for those people with special problems to discuss. "I *know* because I was there," she said, "and my husband was there, at *every single one* of these meetings."[20]

Racial tensions eroded efforts like Snowden's. When members of the NAACP joined South Boston's St. Patrick's Day parade in 1964 they carried a poster of the recently assassinated President and Boston native John Kennedy. The poster read: "From the Fight for Irish Freedom to the Fight for U.S. Equality." Teens from the local working class community had jumped into the march throwing tomatoes, cherry bombs, bricks, and bottles. Among this community in Boston there was no particular fondness for liberal elites, Kennedy or otherwise, and the sign they carried read, "Go home, nigger. Long live the spirit of independence in segregated Boston."[21] Mrs. Jackson, a parent in the neighborhood of Roxbury who was upset about the neglect and deterioration of public schools in the "ghetto" neighborhoods had led a campaign to bus students to better-curated school districts in 1965. When this "Project Exodus" ran into resistance led by Boston School Committee and City Council member Louise Day Hicks, parents charged de facto segregation. In 1965, fed up with the bias of the city's larger newspapers, Harvard College

[20] Muriel Snowden, Boston College Seminar, Washington Park Story: Planning with People – Progress and Prospects. April 23, 1963. LDL

[21] J. Anthony Lukas, *Common Ground: A Turbulent Decade in the Lives of Three American Families*, 1st Vintage Books ed. (New York: Vintage Books, 1986), 384; Mel King, *Chain of Change: Struggles for Black Community Development* (Boston: South End Press, 1981).

and Columbia Law graduate Melvin B. Miller started the *Bay State Banner* to report on "the political, economic, social and cultural issues that are of interest to African American and English speaking Latinos in Boston and throughout New England."[22] In the *Banner*, distances between communities were more moral and social than they were physical. Similar tensions existed in New York City, where Baumgartner and Elias had continued to keep a home while she served her office at USAID. A 1964 issue of the magazine *Ebony*, noting the "terrifying facts" that the infant mortality in Harlem was 45.2 deaths for every 1000 live births when the city-wide was only 25.7, declared that Harlem was a "racial colony largely policed by alien forces and held in economic bondage by absolute owners who had plundered it shamelessly while watching it deteriorate." It disavowed social scientists for making laboratories of "racial ghettoization and economic impoverishment" in order to supply social science with "rich research material."[23]

Medicine was not free from these tensions. In Boston, as elsewhere, hospitals were not free from the tensions of their surrounding neighborhoods. The desegregation of medical facilities by the Civil Rights Act of 1964, in combination with the passage of Medicare and Medicaid in 1965, and the movement of the medical profession into increasingly specialized and hospital-based practice, had all contributed to new demands on hospitals and exposed differences in quality of care. At the same time, specialization and expensive, technologically intensive medicine increased costs. Teamsters Unions, no friend to the liberal administration and their civil legislation, pressed hospitals for proof of the quality of care for their union workers. Citizens with new expectations faced bills that they

[22] Baystatebanner.com/aboutus/. Accessed December 13, 2016; This was a more general perspective than just Boston. In 1964, the magazine Ebony asserted betrayal by the mainstream media, as the "July 15 shooting of 15 year old Negro youth by police lieutenant" was "misnamed riots by the press." "Hope for Harlem," *Ebony*, 1964:168-178.

[23] "Hope for Harlem," *Ebony*, 1964:168-178.

could not afford and harbored fears that they were "guinea pigs" being "used" to their detriment for the benefit of the medical scientists and students. Though powerful physicians like John Knowles, President of the Harvard-affiliated Massachusetts General Hospital, referred to such fears as "suspicions," there were substantiated grounds for mistrust. At the public Boston City Hospital, jointly-administered as a teaching facility for Tufts, Harvard, and Boston University, patients were regularly referred to as "research material" as they competed for government funding.[24]

Debates over how the medical community should respond fell along political lines. Physicians leading the neighborhood health movement had, like Baumgartner, been active in international health and remote health projects in the southern United States. The first neighborhood-based health services to get federal funding were developed by Tufts Medical School faculty Jack Geiger and Count Gibson. Geiger had spent time working at the Community-Oriented Primary Health Care model that Sidney and Emily Kark had developed in South Africa. When he and Gibson returned from activist medical work with the Student Nonviolent Coordinating Committee during the "Freedom Summer" in Mississippi, they were inspired to build health centers in neglected communities in the United States. Looking to the federal government's Office of Economic Opportunity, they that proposed a health center in Mississippi, adding another in Boston's Columbia Point neighborhood for political leverage. With the help of Massachusetts Senator Ted Kennedy,

[24] David Barton Smith, *The Power to Heal: Civil Rights, Medicare, and the Struggle to Transform America's Health Care System* (Nashville, Tennessee: Vanderbilt University Press, 2016; John H. Knowles, "The Balanced Biology of the Teaching Hospital," *Hospitals, Doctors and the Public Interest*, 1965, 22–46; Rosemary Stevens, *In Sickness and in Wealth: American Hospitals in the Twentieth Century* (New York: Basic Books, 1989); Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982; Alexandra Stern, *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America*, Second edition., American Crossroads ; 17 (Oakland, California: University of California Press, 2016); Henry K. Beecher, "Ethics and Clinical Research," *New England Journal of Medicine* 274, no. 24 (June 16, 1966): 1354–60.

revisions were made to the Economic Opportunity Act that enabled the funding of these neighborhood health centers, focused on preventive medicine, including oral health, behavior change, and environmental sanitation.[25]

The neighborhood-based approaches clashed with conservative interests and professional autonomy. In Boston, Ebert's plan to involve the medical school in neighborhood health centers had faced an ideological battle with Hooks Burr, Chairman of the Harvard Corporation and also Chairman of the Board at Massachusetts General Hospital, considered the last bastion of the solo practitioner in Boston.[26] Hospital champion and MGH director John Knowles said explicitly that the urban teaching hospital was an "organized, coordinated social instrument for the study and solution of the social and economic problems which [sic] beset medicine and the community." It was, he wrote in 1965, a way of maintaining scientific control that was not possible in the tumult of neighborhood life.[27]

With clinical research support from the NIH, a new perinatal care initiative devised by an obstetrician at the Boston Lying-In Hospital trained family nurse practitioners – a new specialization in American medicine – to counsel mothers from low-income areas of Boston. Prioritizing clinical data collection over population data collection, the directors of the initiative joined a multi-institution long-range Collaborative Perinatal Research Project,

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[25] Alice Sardell, *The U.S. Experiment in Social Medicine : The Community Health Center Program, 1965-1986*, Contemporary Community Health Series (Pittsburgh, Pa: University of Pittsburgh Press, 1988); Bonnie Lefkowitz, *Community Health Centers: A Movement and the People Who Made It Happen* (New Brunswick: Rutgers University Press, 2007); John Dittmer, *The Good Doctors: The Medical Committee for Human Rights and the Struggle for Social Justice in Health Care*, 1st U.S. ed. (New York: Bloomsbury Press, 2009).

[26] Robert Blacklow. Personal Interview with EAH, June 21, 2016, Boston, MA.

[27] John H. Knowles, *The Teaching Hospital; Evolution and Contemporary Issues,* (Cambridge: Harvard University Press, 1966).

which had enrolled 36,500 women, to study relationships between pregnancy and infant development. Taking advantage of new technologies, the project relied on "giant computers…to report back facts that fall into patterns as examination continues of every facet of the biological lives of these mothers and children."[28]

Residents argued, against neighborhood and clinics medical services, that their "controls" did not align with local realities and meanings. Columbia Point resident Erline Shearer and her neighbors distanced themselves from visiting experts. Shearer recalled a visit from a psychiatrist who had insisted to her that, based on a set of expert criteria, she must be depressed. She insisted to him that she was not. "They had a picture of what a 'project person' was – what this profile was supposed to be," she remembered. "If you didn't fit the profile, they really in a sense were almost angry."[29] Among the women in her building, it became a joke to ask each other if they were depressed. Residents of the Roxbury neighborhood rejected the notion of a "culture of poverty," reframing the problem as alienation, disempowerment, and neglect by the city government. Neighbors gathered at the St. Mark's Social Center in Roxbury in March 1966 to decry the racism of city leadership and the failings of federal anti-poverty programs. The city's Action for Boston Community Development office, ABCD, was "satisfying the federal government rather than satisfying the needs of the poor in Boston," said Reverend Gilbert Caldwell of Union Methodist Church. Some of the city leadership had been a "friend of the Negro" in the past, he said, but was now being used by "people out to do us in." The federal initiatives were piecemeal and destructive, argued Edna Pelozessi, the recently-fired local Counselor for the

[28] Jean Dietz, "A New Pattern of Care…The Right of Every Infant." *Boston Globe*, Jan 25, 1964: 5.

[29] Jane Roessner, *A Decent Place to Live: From Columbia Point to Harbor Point - a Community History* (Boston: Northeastern University Press, 2000), 75.

Neighborhood Youth Corps, a federal program based on the popular international Peace Corps program and another parallel between international development and urban development strategies. The NYC was diverting federal funds and local energy away from community action and local youth training, Pelozessi continued, into bureaucratic paper work and the training of "manpower" based outside the neighborhoods. Resident Roger Taylor was exasperated at the lack of connection between government and residents. "The ABCD officials downtown don't know what we in Roxbury need," he argued. Bryant Rollins, managing editor of the *Bay State Banner*, was not certain that the city or the country was ready to address the underlying determinants of the conflict. Taylor agreed that the War on Poverty would be a "true revolution," if successful. It would require, he said, a white citizenry that did not balk at the full social and political integration of not only the workforce but also the picket fenced neighborhoods outside of the city. Such conditions were hard to imagine in Boston, in his experience. Dr. Berg of the Beth Israel Medical Program for Indigent Persons, who served on the Roxbury North Dorchester Planning Council with Taylor, commented on the fact that Boston was the only major US city to not accept federal money for care of the indigent, and that its public medical facilities were decrepit and held back by competition between the academic medical centers. Boston was, he said, a "medical Appalachia" in the midst of the world's foremost medical hospitals and colleges.[30] For emphasis he added that the city had one of the highest infant mortality rates in the country.

For Baumgartner, the infant mortality rate was eroding as a marker and a tool. This universal metric of social inequity was being undermined by ability to target its rise and fall. In response to a shifting political culture, new science and technology, and new financing giving biomedical professionals ever more confidence that biotechnical interventions could

[30] ABCD Struggling to Survive, *Bay State Banner*, 26 March 1966: 1.

obviate the need to attend to social determinants of health, she realized that infant mortality reduction was not a viable magnet for the comprehensive, integrative reform she now sought. She reflected, for example, that she had put perhaps too much emphasis on prematurity in the early 1950s. The technological excitement saving premature infants had distracted attention from the other determinants of premature birth and death. She expressed frustration at the way that the public health approach in India had never unfolded, stalling at mobile "preventive" technologies and sporadic clinical facilities in lonely islands of charitable attention.

Changing moral discourses about infants and rights contributed to this erosion. At a time when a wave of new political actors were making new rights claims on the medical profession, physicians opposed to the "right" to healthcare reinterpreted the meaning of "birthright" to mean a right to healthcare only at birth. The Lying-In's perinatal initiative specified that birthrights were strictly biological, not social, and limited to the time around birth. The program was designed, according to its announcement in the *Globe*, to assure "the right of every infant to be biologically well-born."[31] Infants were increasingly discussed as individual people with rights. Where Progressive social initiatives had aimed to prevent "pregnancy wastage" and "damaged children," the new biotechnical initiatives aspired to prevent "untimely deaths" from premature birth and lasting central nervous system deficiencies in "infants who survived the ordeal" of being born too soon.

[31] Jean Dietz, "A New Pattern of Care…The Right of Every Infant." *Boston Globe*, Jan 25, 1964: 5. Knowles, too, stating that society was entering a new era when the benefits of medical science had to be available to all, limited this right to a "birthright."

Health Catalyst

As her new work got underway, Baumgartner came to view her job in Boston as that of a "catalyst," lowering the barriers for interactions across the rising social and political divisions in the city.[32] At Harvard Medical School, she was an early appointee of a broader team that Robert Ebert was hiring to build a community-oriented health program and a social medicine division. Ebert had been pushed out of a former position as Dean at Case Western University after attempting to institute managed health care programs for the local community in the face of rising medical costs and specialization -- an effort that triggered accusations of "socialism" and sent him East.[33] In Boston, the example of Geiger and Gibson's community oriented health project at Columbia Point created pressure on other academic medical centers in the city to follow suit, supporting neighborhood based clinic programs conducted by visiting health experts from the academy in participation with residents. Ebert saw the community health movement as a means of addressing rising costs and reducing distance to health services, directing attention to population rather than "narrow" clinical based sciences, and re-allocating medical resources to address the welfare in the socially isolated neighborhoods. Baumgartner wrote about progress confidence to Helen Gideon from the Community Development Projects in the Punjab, "What we need is some kind of program like in the villages."[34]

Baumgartner was an ad-hoc advisory committee member for new legislation that made federal funds available for demonstration projects in community health. The Demonstration Cities Act was a piece of Great Society legislation pushed through Congress

[32] LB to Mayhew Derryberry, letter, May 7, 1968. Box 11 Folder 37, LBP.

[33] Robert Blacklow. Personal Interview with EAH, June 21, 2016, Boston, MA.

[34] LB to Helen Gideon, Letter, March 1, 1967. India Files, LBP See: Helen Gideon, "A Baby is Born in the Punjab,"*American Anthropologist*, Vol 64(6): 1220-1234.

in the unprecedented political consensus after the Kennedy assassination. The legislation sought to build an administrative system that connected the federal government to local communities through information and money. Based on community-prepared grant applications, particular urban neighborhoods were selected as "Model Cities" that would receive block funding for comprehensive community development initiatives. Monitoring and evaluation of the projects would be carried out by Health Services Research Centers, which would collect information in the local sites and relay it to the federal government for evaluation of progress. The Office of Economic Opportunity was tasked with administering these "experiments" that acted, as Baumgartner approvingly noted, as "gadflies" that could raise attention to innovative policy and influence long-term change utilizing the stabilizing resources of the federal government.[35]

The legislation was a political step towards rationalizing health services across the country – an effort that Baumgartner and her contemporaries in both domestic and international health recognized by the term "regionalization." The ad-hoc committee on which Baumgartner served advised the development of regionalization networks that would re-organize and coordinate large and small hospitals and local community health services to improve efficiencies and match the scope of health problems that, in the eyes of the legislation's advocates, could not be neatly contained within archaic political boundaries. These boundaries were historically maintained by State and local Boards of Health, the American Medical Association, and other special interest groups vigilant to protect their particular fiefdoms. Baumgartner saw the legislation as a step towards broadening

[35] Advisory Committee on HEW Relationships with State Health Agencies, Report to the Secretary, Dec 30, 1966. Box 3, Folder 9, LBP; Health Services Research Centers: Description of Purposes and Organization and Announcement of Public Health Service Support, Nov 29, 1966. Box 5 Folder 39, LBP.

responsibility for health from the individual to scales that seemed more rationally aligned with the nature of different health problems. Toxic rivers and polluted air crossed political boundaries, she said, and so should responsibility for their management.

For some in the federal government, the information-based systems management and operational research approached a utopic vision, in which problems could be predicted and controlled through targeting received information. Baumgartner cited Joseph English as a leader in operations research, and Warren Weaver as a leader in information systems. The language about "New Patterns of Care" that were making it into the popular media were drawn from military strategies, as Baumgartner would tell people frankly, of "pattern bombing."[36] The Neighborhood Service Centers she worked on through the Model Cities Program were referred to as "Mobile Satellite Clinics."[37]

For Baumgartner, this highly articulated system was better understood not as a utopic dream than a pragmatic compromise that she believed had potential to solve some intractable problems in public health administration and the provision of clinical services. She had grappled, in sites around the world, with the "manpower problem" of maintaining modern medical staff in remote settings. Where there was no doctor, she hoped information would be a driver, for all its imperfections. With the growing emphasis on economic training in government offices, her faith in the possibility of populating government with people committed and experienced in health care had dimmed. The regionalization scheme promised that, failing all else, information could serve as a diplomat. The purpose of regionalization was broad, aiming to make efficient use of medical resources and reduce

[36] Jean Dietz, "A New Pattern of Care…The Right of Every Infant." *Boston Globe*, Jan 25, 1964: 5; LB, Talk 1 "Current and Future Systems of Medical Care," Massachusetts Society of Internal Medicine, Jan 10, 1968. Box 52, Folder 10, LBP.

[37] "Neighborhood Service Centers" Spring 1968, Box 5, Folder 37, LBP.

duplication of services. The legislation itself acknowledged that it was, at its foundations, a compromise with the powerful medical associations that wanted to maintain their interests and autonomy. "Federal financial assistance must be directed to support the marshaling of all health resources – national, State, and local – to assure comprehensive health services of high quality for every person, but without interference with existing patterns of private professional practice of medicine, dentistry, and related healing arts."[38]

In addition to translating the federal legislation for local communities and academic medical center staff at Harvard, Tufts, and Boston University, Baumgartner brought her experience with the emerging "internationally-minded" approach to the work she did for health development in the cities of Boston and Cambridge. From her earliest days in her new city, she urged health professionals and educators to learn the languages of the new economics. In part, Baumgartner was responding to the rising demands from the public, in a mistrustful climate, to prove the value of medical care. "Health personnel can no longer isolate themselves from the public, from the ever greater scrutiny of their activities which is inevitable," she told an audience of health professionals at Yale University in October 1966, in a talk that she entitled "What About the People," referencing the Carl Sandberg poem entitled "The People Speak." Baumgartner was also responding to a need to make community health efforts persuasive to a federal government increasingly insistent on assessments of its social programs. "The cost-effectiveness approach of the economist is already here," she told the same audience at Yale. "As doctors and teachers, we are shocked to be asked to think about anything but the best for individual patients or students. To think about health as an investment in which cost-benefit analyses are essential and helpful has not

[38] From Sec 2(a), PL 89-749, Comprehensive Health Planning and Public Health Services Amendment of 1966. In Advisory Committee on HEW Relationships with State Health Agencies Report to the Secretary December 30,1966. Box 3 Folder 9, LBP.

been considered 'proper' or even moral." Still, she said, it was imperative to think in this way. "Congressmen, taxpayers, patients, yes, even curious and inventive scientists are going to ask us for answers. Let us as health professionals work with these new techniques, framing the questions to be asked, emphasizing the human values that are important to us and to those we serve, giving up traditional roles, when indicated, to others who can carry on as well as we."[39]

Baumgartner began this work by reaching out to colleague Myron Wegman – whom she had commended to the doctors in Quito in 1951 – who was now at the University of Michigan working with economist Nate Sinai to develop the field of health economics. With Sinai, she discussed the benefits of developing such programs within their medical school, independent of the departments of social sciences elsewhere in the university, to maintain control over the values underlying the studies producing new knowledge and models of health care financing.[40] At Harvard Medical School, Ebert hired economist Rashi Fein, who had participated in the drafting of Medicare while a senior staff member on Kennedy's Council of Economic Advisers and advised on health governance since the Truman administration, to work with the accumulating community health group.[41]

She also built connections between Harvard Medical School and the faculty at MIT, at the center of cybernetic science. She believed that the "health systems" or "health business" approach was a way to "make the social aspects of health visible," she told a colleague. Faculty in departments of preventive medicine were concerned about what would

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[39] The title of the speech is based on a line from the poem "The People Speak," by American poet Carl Sandberg. October 12, 1966. Box 50, Folder 1, LBP.

[40] LB to Nate Sinai, letter, Jan 20 1967, Box 11 Folder 23, LBP; Nate Sinai to LB, letter, March 25, 30, 1967. Box 11, Folder 23, LBP; LB to NS, letter, March 21, 1967 Box 11, Folder 28, LBP.

[41] Fein, *Learning Lessons*.

happen to the special needs of preventive services as hospitals were overwhelmed with new demands in the wake of the Medicare and Medicaid legislation of 1965. Alonzo Yerby, Commissioner of Hospitals in New York City and a participant in the drafting of Medicaid, had reached out to Baumgartner for advice on this particular concern while she was still at USAID.[42] In Boston, Preventive Medicine Chair, David Rutstein, worked closely with Baumgartner and Ebert on the community health initiatives. The collaboration with MIT was built on a hope that a new "Health Sciences and Technology" program bridging the two schools would generate tools for making health services delivery a science on par with biomedical science in the clinic and at the bench. Ebert hired Yerby away from New York, and brought in Jerome Pollack, who had worked on health care for the American railroad system.[43]

For Baumgartner, these collaborations were not purely the product of strategy, but also personally attractive. Her son, Peter Elias, was working on cybernetics and information theory with Claude Shannon at MIT. To John Grant's widow, Denise, Baumgartner wrote in February of 1968, "I am trying to carry out many of the principles that John established so long ago in regionalization of medical care. I may well take on the large job of attempting to organize New England, though I think probably I shouldn't, for I have a very distinct memory of Alan Gregg saying that when one reaches…" She carried on in a wave of nostalgia.[44]

Though she regretted the failures of her own generation to accomplish the social vision of health, she was hopeful that the medical students she met in 1966 would be

[42] James Keith Colgrove, "Reform and Its Discontents: Public Health in New York City During the Great Society," *Journal of Policy History* 19, no. 1 (March 19, 2007): 3–28.

[43] Robert Blacklow. Personal Interview with EAH, June 21, 2016, Boston, MA.

[44] LB to DG, letter, Feb 26, 1968. Box 11, Folder 34, LBP.

potential agents of change in the future. Medical schools across the country were launching local chapters of a national Student Health Organization affiliated with the radical activist groups of the New Left.[45] In Boston, an attempt was made to organize across Harvard, Tufts, and Boston University's medical schools, and the medical students at Harvard had approached Baumgartner in the winter of 1966 to be their faculty contact. She eagerly took up the position. As the joint-organization in Boston unraveled over the year, she continued to advocate for the students with a small group of faculty most devoted to expanding the field of social medicine at Harvard. As the Harvard chapter of the SHO came together in February of 1967, she collected pamphlets published by other chapters around the country, and while some of these gave strong critique of quantitative methods, Baumgartner encouraged her students to combine quantitative with qualitative survey methods.[46] In spring 1967, the Harvard students formed their own publication, *Catalyst*, choosing the title Baumgartner had used for the last decade to describe her own work. Upon reading, in the *New York Times*, that Roxbury had been awarded Model Cities funding in the spring of 1967, Baumgartner wrote to a colleague to learn who was in charge behind the scenes, subsequently connecting students with opportunities to participate in neighborhood survey research here. Her priority, she repeatedly told colleagues, was to "give them some kind of

[45] Naomi Rogers, "'Caution: The AMA May Be Dangerous to Your Health': The Student Health Organizations (SHO) and American Medicine, 1965–1970," *Radical History Review* 2001, no. 80 (March 20, 2001): 5–34; Merlin Chowkwanyun, "The New Left and Public Health The Health Policy Advisory Center, Community Organizing, and the Big Business of Health, 1967–1975," *American Journal of Public Health* 101, no. 2 (February 2011): 238.

[46] Fitzhugh Mullen University of Chicago Med III, *Encounter*, USC SHO 1967, Box 34, Folder 20, LBP. In the University of Southern California's "Encounter," she noted a student poem critiquing the accounting method being used to monitor and evaluate war and health systems alike "Numbers//Good, clean, //Modern, Midcentury // Numbers. // Scientific, dutiful // Prudent, // Handy, Neutral // And near-in to the center of our way of life. // We have succeeded in numbering it. // But we have forgotten, // or maybe we never knew, //that every war is a World War // If it's your world."

experience in social medicine."[47] She felt she had learned so much herself from her work in the tenements of the Lower East Side and abroad.

Baumgartner said that she had a better sense of politics and interest here than she had ever had in New York City. The way she described "development" still suggested she meant integration across political divisions, and not just "poverty reduction." But she was limited in her ability to perceive political meanings that others were vocal about. While Muriel Snowden made clear how expert's derision of her neighborhood rankled, Baumgartner titled a sign-up sheet for student interest in summer health projects "slumming."[48] She did not hear Muriel Snowden, and she read *New York Times* articles like one that referred to the Roxbury neighborhood as a "festering ghetto" and explained that the hole in the "donut shaped" project area represented a neighborhood that had already been restored, as though "renewal" were an unquestionable success. Neighborhood residents disagreed.[49]

At the same time, Baumgartner discussed and advocated for maintaining the humanities in medicine.[50] The nature of moral dilemmas of care had changed, she said, with new funding streams from Medicare and Medicaid, new values among the public demanding medical care as a right amidst increasing suspicion that the medical care system was not working, and new knowledge and technology driving specialization and new forms of communication. She argued that the new scientific knowledge and tools – "gadgets, computers, electronic devices" – were sources of stress, disrupting traditional medical

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[47] Robert Buxbaum to LB, letter, May 3, 1967. Box 5, Folder 39, LBP.

[48] LB to Salber, Berg, Alpert, List, memo, Jan 18, 1968. Box 34, Folder 21, LBP.

[49] "Negroes and Whites in Boston Seek US Funds to Turn a Festering Ghetto Into a 'Model City'" *New York Times*, April 23, 1967. Box 5, Folder 39, LBP.

[50] Peter Meek, Memo, August 1966. Box 3, Folder 11, LBP.

assumptions. Some worried they would replace clinical knowledge and communication in healthcare. She told the Massachusetts Society of Internal Medicine in January 1968 that the concepts of operational research, data information, and systems analysis approached the problem of effectiveness with efficiency values. "This is what the goals are 123," she wrote in her notes. "These are ways we can achieve them 123." She cited the "cost-effectiveness" approaches she had advocated among these methods.[51]

As she observed the emergence of new tools and methods, Baumgartner also began to use them herself to conceptualize new problems. Shortly after arriving in Boston, Baumgartner's notes begin to refer to the phrase "statistical morality." Her colleague Rene Dubos at the Rockefeller Institute was one of the first to bring the phrase to her attention in 1967, though it had been used since at least 1960.[52] A direct concern for one's own neighbor or one's own patient no longer sufficed in a mass society where actions had serious ramifications at great distances. Dubos was influenced by Conrad Waddington at Oxford University, a politically-leftwing biologist anxious about the future of humankind amidst the possibility of nuclear and environmental catastrophe.[53] Baumgartner had made a note about Waddington's 1960 monograph, *The Ethical Animal*, in which he laid out an argument that social choices determined biological futures. Waddington took care to distinguish his argument from the sociobiological arguments of Julian Huxley, who had argued that society was biologically determined and thrived with a competitive ethic. Waddington sought not a single ethic to optimize the future of the human race, but a super-ethic that would help

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[51] LB, Talk 1 "Current and Future Systems of Medical Care," Massachusetts Society of Internal Medicine, Jan 10, 1968. Box 52, Folder 10, LBP.

[52] C. H. (Conrad Hal) Waddington, *The Ethical Animal,* [1st American ed.] (New York: Atheneum, 1961); ReNe SC D. (HON) Dubos, "Individual Morality and Statistical Morality," *Annals of Internal Medicine*, September 1967, 57–60.

[53] LB notes, April 28, 1967, Box 11, Folder 28, LBP.

people decide among different ethics. This was what he meant by statistical morality. Dubos was particularly interested in ecology and environment, and he understood statistical morality to be a widespread diffuse responsibility across the population to make choices in the interests of humanity, not just their immediate selves or neighbors. It was not only for doctors or scientists, but it was also for doctors and scientists as they decided what kind of research projects and health problems to invest with their skills, time, and energy. Baumgartner repeated the phrase statistical morality, even as she realized that her statistic of infant mortality was being undermined by the multiple meanings that a statistic could hold.

Baumgartner cited mathematician Warren Weaver, who worked with her son at MIT, when she wrote about the stress that systems analysis generated. Weaver had grappled in his work on machine translation of data with the challenge that multiple meanings posed for data analytics. He proposed that one way to solve this problem was to find linguistic universals underlying all language systems that could make the work of translation easier:

> "Think, by analogy, of individuals living in a series of tall closed towers, all erected over a common foundation. When they try to communicate with one another, they shout back and forth, each from his own closed tower. It is difficult to make the sound penetrate even the nearest towers, and communication proceeds very poorly indeed. But, when an individual goes down his tower, he finds himself in a great open basement, common to all the towers. Here he establishes easy and useful communication with the persons who have also descended from their towers."[54]

In Boston and across the post-colonial, socially fractured contexts where Baumgartner had worked, the ease of going to a "great open basement" at that moment was challenged by the undermining, souring political and social atmosphere, and instability of society.

The solutions Baumgartner and others were devising relied on analogies to market

[54] William N. Locke, *Machine Translation of Languages; Fourteen Essays,* ([Cambridge]: Published jointly by Technology Press of the Massachusetts Institute of Technology and Wiley, New York, 1955): 15-23.

research. Mayhew Derryberry, renowned health educator and friend of Baumgartner who had worked with the U.S. Public Health Service in Ecuador and in India as a USAID health educator, wrote to her in 1968 with both praise for her new work in Boston and a critique. What was missing, he said, was any incorporation of the people into the systems modeling that was being done:

> "My bias is to look at proposals from the point of view of the recipients of service rather than the "delivery system." In your description of the health system you mention the patients as analogous to the customers in the free enterprise system. But in your description of what HMS plans to do, there is no explicit statement of the role of the patient or potential customer in developing the design of the system. In developing new, effective, efficient and less costly methods of delivering health care doesn't the customer who will receive the care have much to say about the non-technical phases of the system?"[55]

Baumgartner forwarded the note on to Paul Densen, a statistician at the Medical School, commenting, "he's right on this point!" To Derry himself, Baumgartner wrote, "You were quite right in the material that I sent you previously that I neglected to include the people themselves." She felt she spent a great deal of time with local action groups in developing plans. "I find the Model Cities program particularly helpful."[56] She did not realize, still, how much she was not hearing or seeing in the formal meetings in which she participated, and how much it mattered.

Boston Burning

By the fall of 1968, resistance to the liberal health initiatives had deepened to repudiation, from both the left and the right. In April, Civil Rights leader Martin Luther King Jr. was assassinated in Memphis while supporting striking sanitation workers. He had been in the

[55] MD to LB, letter, Jan 2, 1968. Box 14, Folder 11, LBP.

[56] LB to MD, letter, May 7, 1967 Box 14 Folder 11, LBP

midst of a campaign to shift Civil Rights discourses from an exclusive focus on race to include class discrimination. His death devastated the movements for Civil Rights and social justice, while magnifying the country's racial divisions. Shocking violence blasted the news. Johnson, plagued by anti-war resistance, ceded the Democratic nomination to Robert F. Kennedy, who was shot and killed in June. In the vacuum of leadership, the already chaotic social context eddied with new eruptions of rage and physical violence in U.S. cities.

Old organizations failed as new ones formed. The Student Health Organization disassembled as members of the Black and Brown Caucus rejected the summer health projects as "band-aid experiments in social service" and a "summer in the sun to see how the niggers live." The projects alleviated "liberal guilt" for the medical students, they charged, but left community members with no lasting benefits once the students returned to school in the fall.[57] Some Boston residents, disenchanted with the Student Nonviolent Coordinating Committee's position on non-violent resistance, left the organization and with the support of the Boston Black United Front formed a local chapter of the Black Panther Party. The Boston Black Panthers, led from the headquarters at 375 Blue Hill Avenue in Roxbury by Delano Farrar, Chico Neblett, and Frank Hughes, took up duties where they saw the city government failing them, providing not only local surveillance of police but local provision of food to children in a Free Breakfast Program in Tremont Street Church and a Free Clothing Center in the Mission Hill Project. They too formed their own media.[58]

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[57] Rogers, ""Caution."

[58] "When Panthers Roamed Boston: The Boston Chapter of the Black Panther Party." What's Up Magazine (Brighton, MA); Boston native Cappy Pinderhughes launched the *People's News Service* in 1968. Billy X Jennings, Phone interview by EAH. August 16, 2016. For Black Panthers and Health Clinics in California see: Alondra Nelson, *Body and Soul: The Black Panther Party and the Fight against Medical Discrimination* (Minneapolis ; London: University of Minnesota Press, 2011). For Panther history generally see: Stephen Shames, *The Black Panthers*, 1st ed. (New York: Aperture Foundation, Inc, 2006). For Panthers and public

Racial divisions grew more charged not only between but within neighborhoods. While Black Power movements rose on the radical left, working class white Americans threatened by Civil Rights action and broader demographic changes who felt "left out" of the liberal program also rejected liberal authority.[59] In Boston, an armed confrontation arose between the local founders of the Black Panther Party, who wanted to serve the city's black residents exclusively, and others who wanted a class-based mission in line with the preferences of Panther headquarters in Oakland. Panther Don Cox flew from Oakland to resolve the dispute. The original Boston Panthers eventually conceded. Doug Miranda and Audrea Jones took over leadership and brought the Boston Panther curriculum in line with other Panther chapters around the country, teaching *The Autobiography of Malcolm X*, Fanon's *Wretched of the Earth*, and Nkumrah's *I Speak Freedom*, but also Mao Tse Tung's *Little Red Book*.[60]

In the winter of 1968, in Boston, eviction notices were sent to 182 families in the Mission Hill neighborhood of Roxbury to make room for the expansion of three Harvard teaching hospitals. The university planned to develop an affiliated hospitals center that would drive forward pioneering, technologically intensive and expensive specialty services like open-heart surgery and, eventually, neonatal intensive care. Into the winter months,

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health see the special issue of AJPH: Alfredo Morabia, "Unveiling the Black Panther Party Legacy to Public Health," *American Journal of Public Health* 106, no. 10 (2016): 1732–33.

[59] Hunter S. Thompson, *Hell's Angels: A Strange and Terrible Saga*, 1st Ballantine Books trade ed. (New York: Ballantine Books, 1996); Dean E. Robinson, *Black Nationalism in American Politics and Thought* (Cambridge, UK ; New York: Cambridge University Press, 2001); Stokely Carmichael, *Black Power; the Politics of Liberation in America* (New York: Random House, 1967); Christopher Lasch, "A Special Supplement: The Trouble With Black Power," *New York Review of Books* 10(1968): 4-14.

[60] Charles Earl Jones, The Black Panther Party (Reconsidered). 1998; "When Panthers Roamed Boston."

students and neighborhood residents prepared to protest the expansion, which they deemed yet another abuse of power by "the authorities."[61]

Signs of desperation crept in to Baumgartner's calls for a social program in medicine as the government retracted OEO support for student programs. "I want students to have a meaningful experience in social medicine, call it what you will," she wrote to Peter Birk, the Regional Program Director in the Boston office of the USPHS Division of Medical Care Administration. "This generation has a concern that my generation failed to manifest," she continued. "In my experience, I have noted that such concern can easily disappear if not nurtured. By the third or fourth year, many formerly socially oriented students have become 'disease oriented' students. Is there anything you can do to help?"[62]

In diverse forums Baumgartner dropped public relations tropes and articulated more frankly than she had in the past that national development referred to the degree of political and social integration, not just average wealth. "For we, too, are a developing nation!" she wrote to a colleague at the Agricultural Development Council in March. "It seems as hard to get rid of vested interests and ideas here as it is elsewhere."[63] She put the blame on economic sciences. In 1968, she copied a page out of a book by the economist Alice Rivlin, a young

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[61] The three Boston hospitals were the Peter Bent Brigham, the Robert Beck Brigham, and the Boston Hospital for Women. For primary materials, see: Natalie Wexler, "Roxbury: A Neighborhood Fights Harvard," *The Harvard Crimson*, April 24, 1974; Thomas Southwick, "Radicals Face Liberals as the Med School Expands and the People Get Caught in the Middle," *The Harvard Crimson*, April 19, 1969; N/A, "Med School," *The Harvard Crimson*, April 16, 1969. For background on Academic Medical Centers and Hospitals see: Stevens, *In Sickness and in Wealth;* For historical literature on student health activism, see: Rogers, ""Caution;" Dittmer, *The Good Doctors;* Elizabeth Fee, Theodore Brown, and Theodore M. Brown, *Making Medical History: The Life and Times of Henry E. Sigerist* (Baltimore: Johns Hopkins University Press, 1997); Lily M. Hoffman, *The Politics of Knowledge: Activist Movements in Medicine and Planning*, SUNY Series in the Sociology of Work (Albany: State University of New York Press, 1989).

[62] LB to Peter Birk, Oct 24, 1967. Box 34, Folder 21, LBP.

[63] March 18 1968 To Richard Barnett Ag Dev Council Box 11 Folder 34, LBP.

economist at the Department of Health, Education and Welfare, on population growth and the American economy. On the page she copied, Baumgartner check marked a passage in which Rivlin critiqued the failure of her fellow economists to account for social context: "Economists are not taking into account quality of life and contextual issues...Now here, it seems to me, is a serious problem and one with which economists ought to be able to help us. Unfortunately, however, economists until now have done very little thinking along these lines. In fact, this particular problem is seldom raised in the population literature -- by economists or anyone else."[64]

In 1968, after much deliberation, Baumgartner agreed to take on the Executive Directorship of the Medical Care and Education Foundation administering the New England Tri-State Regional Medical Program, for which she had helped draft the grant proposal the year before. The regionalization scheme relied on highly structured information networks that would collect and transfer health information from clinics and hospitals, revealing "new patterns of health."[65] Local conditions and the contextual meanings of the information were left behind by the abstracted data.

The structures Baumgartner hoped would direct attention to social aspects of health were quickly taken up by powerful conservative entities in the health industry. She observed that large hospitals considered the information systems Regional Medical Programs to be a means to maximize profits rather than a way of making health care delivery more locally sensitive and cost-efficient. In the conflict of meanings, relations grew viciously contentious. In 1968 the *Journal of the American Hospital Association*'s July issue celebrated the digital

[64] Alice M. Rivlin. "Population Growth and the American Economy," F.X. Quinn (ed.) Population Ethics, Corpus Books, 1968. Box 52. Folder 1, LBP.

[65] The language of patterns is pervasive. See also: "The Northern New England Student Health Project: A Constructive Student Effort for Change in Current Patterns of Health Care Delivery" April 1, 1969. Box 34, Folder 18, LBP.

surveillance capabilities of the Regional Medical Program. Editor James Hogue devoted the entire column alongside the table of contents to marginalizing Baumgartner. "We met Dr. Leona Baumgartner, the distinguished public health worker, for the first time at a meeting at headquarters the other day," he began, diminishing her accomplishments and experience. He quickly moved to ridiculing her past effort, as New York's Health Commissioner, to make labeling on hazardous materials unambiguous. "We have always associated her with the campaign to substitute the unambiguous "flammable" for "inflammable" on gasoline trucks and the like," he wrote, continuing that Merriam-Webster was apparently "sticking with 'inflammatory' despite the 'not' meaning of the prefix 'in.' That led us to look for some other opposites, such as 'ept' for 'inept.'" He went on for four paragraphs. Baumgartner took the issue with her to a lecture on the Politics of Health Planning at the Harvard School of Public Health. [66]

Watching her authority and her plans undermined as the liberal structures and services she had participated in creating were demoralized and taken over by the political right, Baumgartner began to acknowledge historic losses in the field of healthcare. Earlier in her life she had confidently spoken about the future. When she spoke to the New England Hospital Assembly in early 1969 she looked to the past and what had been lost in concepts of health and healthcare. Her once-glowing idealism was absent as she asked her audience to share a dispirited reflection:

> "How, in a world such as we live today, can we predict anything except what we can tell from past experience? For example we can predict that mankind will have a wondrous capacity for renewing hope, for trying again, for breathing new life into old expectations -- and meanwhile we will make mistakes, fall short, behave badly and display a tragic lack of capacity for planning its own destiny...It is only our bright optimism, which I personally

[66] "Memo from the Editor," *Journal of the American Hospital Association* 42(13) 1 July 1968. Box 53, Folder 11, LBP.

> prefer, that keeps us from fully recognizing what has been happening to health care, its professions, its institutions over the last 25 years."[67]

As urban uprisings continued to dominate the national news media, Republican candidate Richard Nixon walked into office in January 1969 on promises to "restore law and order" to the nation. The new administration delivered a crushing blow to Baumgartner's vision of a society in which surveillance meant not policing but identification of areas of vulnerability in need of attention. She delivered a paper that winter on "Bits and Pieces of Medicine," for which she acquired a reputation as a friend of social welfare. In spring, Chairman of the New Hampshire Social Welfare Council wrote to her with a request to speak on that topic at their annual conference. "This is exactly the philosophy and approach the New Hampshire Social Welfare Council would like to have for a discussion of health care systems planning."[68]

Medicine in the "Ghetto"

It was a critical moment for the community health movement. The new federal administration had no obligation to continue experimental community programs, and the Model Cities program was due for a vote the next year.[69] Liberal academics in Boston decided to call a conference on a process that was falling apart. In early March 1969, a cardiovascular surgeon at Boston City Hospital and assistant professor at Harvard Medical School named John Norman sent invitations across the country to a conference on "Medicine in the Ghetto."

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[67] Leona Baumgartner. Presentation at the New England Hospital Assembly, Boston MA. March 25, 1969, Box 2, Folder 20, LBP.

[68] Elizabeth Lincoln to LB, letter, June 4, 1969. Box 53 Folder 36, LBP.

[69] O'Connor, *Poverty Knowledge*.

The intention of the "Medicine in the Ghetto" conference, according to the invitations, was to lay the stage for a national discussion about "the development and implementation of effective responses to health needs in the urban ghetto."[70] In the introduction to a collection of conference essays published later that year, Norman asserted that the conference was about failures of communication, between medical schools and communities, government and local partner programs, and a socially-divided public. Medical schools were only tentatively acknowledging greater responsibility for the health of their surrounding communities, often without positive impact. Government was increasingly seeking quantitative proof of the effectiveness of programs and policies before allocating public monies for health. The public, increasingly divided, was not well informed about the nature and scope of the issues. It was not merely that urban planners, activists, and medical faculties were talking past one another; as civil dialogue broke down, Norman wrote in reflection, each group was growing more "blindered" by their limited points of view.[71]

It was Norman who organized the conference. Before coming to Boston and joining the medical school faculty, Norman had grown up in West Virginia, attended Meharry Medical College, and in 1966 received a five-year fellowship from the Markle Scholars in Academic Medicine – a Carnegie Foundation initiative intended to keep physicians in academic medicine who might otherwise turn to private practice. The program was in the midst of a transition to a focus on mass communications, a non-traditional area of interest for philanthropy.[72] Inspired by conversations at the Markle Scholars meeting in October

[70] John Norman to LB, letter, March 1969. Box 5 Folder 43, LBP.

[71] Beverly Bennett et al., *Medicine in the Ghetto.* (New York: Appleton-Century-Crofts, 1969).

[72] On Norman: Norman Family Collection Ms2014-073 and Dr. John C. Norman Collection Ms2014-074. West Virginia State Archives. Selected documents online: www.wvculture.org/history/collections/normanfamily/normanfamilydocuments.html. Accessed July 31, 2016. On the Markle Foundation: "Organizational History," Markle

1968, Norman had sought support for a "Medicine in the Ghettos" conference in June 1969, and a publisher, Appleton-Century-Crofts, who would produce a book of conference proceedings.

The organization of the "Medicine in the Ghetto" conference reflected Norman's understanding of the problem. The sponsors were Dean Robert Ebert of Harvard Medical School, W. Davis Taylor of the *Boston Globe*, and Paul Sanazaro of the National Center for Health Services Research and Development.[73] Appleton-Century-Crofts promised the book would be published by September 1969. *Globe* reporters Herbert Black and Carl Cobb joined Norman on the planning committee. So did General Director of Boston Children's Hospital Dr. Leonard Cronkhite, Assistant Dean of Resources at Harvard Medical Bayley F. Mason, and Harvard Medical School News Officer Herbert Shaw. Aspiring to what the organizers believed would elicit "the broadest possible spectrum of opinion and experience" on matters of urban health, they extended invitations to "about 150 leaders in business, the community, government, labor, medicine, philanthropy, and publishing," which materialized into representatives of major American Foundations, urban development organizations and community health initiatives, African Studies programs and magazine editors, federal and university administration, medical school students and faculty, teamsters unions and pharmaceutical companies.[74] Ted Kennedy, the Democratic Senator of Massachusetts,

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Foundation Records, 1884-(1960-1994), RAC. "In 1969 John Russell retired, and Lloyd Morrisett, also formerly with the Carnegie Corporation of New York, became president of the Foundation. He led the foundation in another new direction: the field of mass communications, which had not been a traditional focus of philanthropy. Beginning in 1969, the Markle Foundation's program aimed to strengthen the performance of the media and to understand the potential of communications technology. Disbursements in this field averaged $2 million annually."

[73] The NCHSRD was in the Health Services and Mental Health Administration in the Department of Health, Education, and Welfare in the U.S. federal government.

[74] Robert Ebert to LB, letter, March 21, 1969. Box 5 Folder 43, LBP.

confirmed his attendance as keynote speaker. John Knowles, then President of Massachusetts General Hospital, accepted the invitation to give the lunchtime lecture on the third day. On her glossy program of the three-day event, Baumgartner noted beside each speaker in blue and black pen the letters "W" and "B," indicating her sensitivity to racial diversity as a framing issue of the program.[75] Although it was a conference about "Medicine in the Ghetto," inspired by the idea that failures of communication were essential aspects of the problem, there were no local neighborhood residents invited or present.

The conference agenda was carefully structured. Thirty-six selected speakers filled seven panels over two and a half days, covering the topics "Community Expectations and Separatism," The Nation's Experience to Date," "The Evolution of the Problem," "The Role of the Ghetto Physician," "The Economic Issues of Medical Care in the Ghetto," "Organization for Health Care," and "Community Control, Voice, and Participation." The initial plan allocated ten minutes per speaker for formal presentation, ten minutes for Q&A, and time for general discussion. Time for informal discussion was left each evening. Securing the tony Wentworth-by-the-Sea conference center in Portsmouth, New Hampshire as their venue, the organizers noted its "seclusion" was an advantage for informal exchanges.

The plans needed revision before the event had even begun. Although organizers later stated that they "desir[ed] a meeting in which all participants could express their views" as the reason for limiting the list of participants to 200, Baumgartner received a note the week before the conference stating that it had been oversubscribed. Norman asked if she would share a hotel room. ("Yes," she replied, no questions asked.)[76] The official register that Baumgartner received when she arrived listed 190 participants, not counting speakers,

[75] "Medicine in the Ghettos June 20-22, 1969," conference program, Box 5 Folder 43. LBP.

[76] JN to LB, letter, April 29, 1969. Box 5 Folder 43. LBP.

sixteen of whom were Harvard Medical students.[77] So it was that, against a strange backdrop of sea breezes and lobster lunches, she found herself at a busy coastal resort conference on inner-city neglect.

The organizers launched the meeting by calling for more investment in the federal government's current organizational vision. Stepping to the podium, Paul Sanazaro, who directed the two-year-old National Center for Health Services Research and Development, announced that the needs were technical. His comment responded to the wide disparity in service quality that had been discovered over the last decade between public hospitals and private medical centers, and between different kinds of patients. According to notes Baumgartner wrote from the floor on the conference notepaper, he stated that "how [to] solve [the] problem [of the] ghetto [was] not known." What was needed was "one stable self-sustaining system" conveying "one kind of care for all."[78] By self-sustaining, the conference publication later made clear, he meant a tax-based single payer national health system, not reliant on the vicissitudes of charity. The major limitation impeding health delivery in the "ghetto," according to Sanazaro, was a "knowledge gap." By this he meant a need for more computerized information to fuel analytics at the Health Services Research Centers set up in the last two years. Though these comments were posited, by Sanazaro, as politically neutral affirmations of the need for equal heath, they triggered three days of searing debate over the failings of the government's plan.

The first panel, designed to address the theme of "Community Expectations and Separatism," focused on the political and moral failures of the liberal program. Separatism was a vision for the future of African-Americans in the United States with a long history,

[77] "Medicine in the Ghettos: Participants," typed sheet, Box 5 Folder 43, LBP.

[78] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

arguing existing systems in the United States were inherently oppressive for African-Americans.[79] The organizers could not have expected simple agreement with the prior speakers. Mayor Richard Hatcher of Gary Indiana, the first black mayor of a large city in the United States, quickly raised the problem of infant mortality. The Hill Burton legislation of 1946 had created 100 black hospitals, but the differences in infant mortality due to premature rates was only the "top of the iceberg" when it came to premature death and debility among blacks. He cited pediatrician Henry Cowles, whose studies not only in Boston but in the southern states had revealed malnutrition, now being related to brain damage. 250 southern hospitals had refused the desegregation required by Medicare legislation in 1965. What was needed was a change in attitude of the medical profession, Baumgartner wrote into her notes. Hatcher was followed by Lloyd Elam, President of Meharry Medical College. All of Medicare and Medicaid worked against the poor, Baumgartner's notes recorded. There would be "no real improvement until new MDs from [the] ghetto [were] trained." As others speaking after him would echo, he stated, according to Baumgartner's transcription, "Some things [were] more important to the people than health. So if no dignity etc will not take health."[80]

Nathan Hare, chairman and founder of the Black Studies Institute in San Francisco, the first African American Studies program in the United States, stepped up to the podium. He had been fired recently from Howard University, an African-American university, for his intellectual campaign against the "black bourgeoisie." Within the next year he would be ejected from his Institute at San Francisco on similar grounds. He explained what he meant

[79] Separatism, sometimes "nationalism," was associated with Booker T. Washington, later Marcus Garvey, then Malcolm X. It is historically contrasted to "integrationism" of those like WEB Dubois in his early adulthood.

[80] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

by separatism. It was about "mental attitude," not a "territory." The "country [was] est[ablished] on sep[aratism]," she wrote down as she listened, from the Boston Tea Party to lunch counter segregation. Baumgartner noted a comment he made on paranoia, a "tendency of oppressed to reject." She transcribed as he stated that physicians were representatives of the oppressed and had to choose in what he predicted would be a "civil war" between liberal and conservatives. His conference publication essay spelled out his position in different words. If what he wanted as an organizational solution to inequalities in the United States was "separatism," the essay explained, it was because the social system in place was biased to serve people whose lives were most like white doctors. Not only did it allocate medical resources without attending to basic welfare needs undermining the majority of black lives in the United States, and privilege white doctors' knowledge about black patients, it also produced bias in black doctors who acculturated to white ways of knowing and grew distant from not only the material realities of black life – "the artifacts," he called them -- but also their emotions. Black doctors, he said, lost what it felt like to be a black resident of the inner city.[81]

Charles Sanders, editor of the magazine *Ebony,* chided the fact that the audience at the "beautiful Wentworth-by-the-Sea" which lacked anyone who was both black and poor. He assumed responsibility for speaking on their behalf, he said, about the dying black babies and the causes of ghetto deaths that would not be detected by the kind of information that Sanazaro's institute was collecting. The "knowledge gap" only existed in the mind of those who didn't want to look out of the clinic and into the streets. "America is a racist society – medicine is an institution of it" Baumgartner wrote, "So racism will continue in medicine." He cited a belief he attributed to Nathan Hare: "Integration used to hold blacks down."

[81] Bennett et al., *Medicine in the Ghetto.*

Baumgartner transcribed onto her pad, "whites need new values." Mel King, a leading community organizer in Boston, began by labeling the Tufts and Harvard approaches to community health programming a "new brand of 'carpet bagger' – come in after war to pick up spoils." Baumgartner kept writing as he spoke, "Use facts to get grants etc." Baumgartner's last entry of the session read, "can't talk about ghetto health problems without look at total development."[82] Baumgartner drew a line on the page and left the rest blank.

Though these speakers had repeatedly indicated the moral aspects of health problems, and the desire for dignity, governance authority, and more comprehensive development of social, economic, and political life for those people trapped in "ghettos," the conference as it proceeded through the next sessions shifted tone back towards a narrower perspective on medical services. Medical student Dan Doyle stood up to decry the political failures of the system constructed with the help of many of their faculty mentors. He criticized the structure of the conference itself for channeling time into the recitation of what was already known instead of " doing something" about it. His generation wanted truth, not facts, he said, drawing a line from the then-popular Broadway musical "Man of La Mancha." Doyle used faculty member Leon Eisenberg as an example of what he understood to be the failure of his mentors to work hard enough. He quoted Eisenberg saying that, "when morals and interests are aligned one might hope for change." The medical students, Doyle said, were prepared to not just hope but to "work for change." He called for social sciences, major field experiences, and integration of theory and practice in the medical curriculum. Medical students should not just "play doctor," he said, according to Baumgartner's notes. He claimed for medical professionals the phrase that his mentors had used to describe the

[82] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

responsibility of all in society: ""[We] must be concerned with more than our own patients," he said. "i.e. civic responsibility," Baumgartner copied down. "statistical morality – in addition to Hippocratic oath."[83] The idea made it into the conference book as well.[84]

Others representing various interests in the medical profession split on the question of essential medical values. What was missing across the many failures, suggested Dr. Alfred Haynes, Project Director of the National Medical Association Foundation, was care. Caring MDs, he said, would offer services, caring government would offer access; caring universities would not condemn the ignorance of local medical doctors who did not hail from the worlds of academic medicine. But Haynes was met with sharp dissent from Lee Sidel of Massachusetts General Hospital, who argued that the values of medicine ought to be based on rigorous science. To Sidel, the liberal health vision failed because modern medicine was fundamentally misaligned with practice in the city neighborhoods. That moral conflict, he said, explained the lack of personnel for the community projects.

From other academic medical faculty invested in neighborhood health programs, many of whom had worked closely with or relied on government funding while trying to bridge to the residents of urban neighborhoods, the radical critique from Hare, Hatcher, Sanders, Elam, and King who unleashed a flood of frustration about technical and political limitations to what medical interventions could achieve. Economist Rashi Fein, in Baumgartner's group at Harvard Medical School, took the podium on the matter of cost. "Total health" was not cheap, he said, and would not be solved by delivery systems. There was currently no good way to finance it, in part because government universal health

[83] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

[84] Bennett et al., *Medicine in the Ghetto.*

coverage was still limited to the charitable idea that "welfare" could be achieved by "throwing money to the poor." Moreover, defense spending as the Cold War generally and Vietnam in particular escalated was sucking away the monies of the federal government. He wondered, in the essay he contributed to the conference book, if the most important health bill on the docket might not be the vote on the Anti-Ballistic Missile system. From Tufts Medical School and the neighborhood health center in Columbia Point, Count Gibson spoke up for the power and value of quantitative monitoring systems, but lamented the inadequacy of existing metrics to capture and convey knowledge about ghetto life in the form of digital reports. There was more going on than "an average need for healthcare." Baumgartner took this carefully down in her notes, along with the phrase "disability units," a new kind of measurement that Gibson suggested for the future. She provided emphasis, writing it in all caps, underlining it twice. [85]

John Knowles of Massachusetts General Hospital cited even sharper moral contrasts. On the last day of the conference in a lunchtime presentation, Knowles stood up to present on the theme of "Rugged Individualism." In the conference volume, where nearly every other essay advocated for more thoughtful government regulation of the health system, Knowles' speech was a polemic against government "interference" in medicine, the shiftlessness of those who did not take personal responsibility for their own health and well-being, and the need for "pioneers" in medicine who would take back authority from the federal government and reignite the spirit of "rugged individualism" that had dissipated since the New Deal. Knowles threatened his audience that "the fires of revolution had not yet been raked" in the United States – a violent image of just the kind of sweeping suppression that the disenfranchised resisted in development projects around the world. The one

[85] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

segment in society to whom medical care was obligated, he said, was infants. As he had done for years, he defined the American obligation to others as a "birthright," by which he meant a right claimable only by lives still near birth. Infants were those who could not act on their own behalf.[86]

Baumgartner, not invited to speak on any panel, outlined and delivered her thoughts from the floor. She focused her comments not on the technical, political, or ethical, but on the social failures inhibiting the work needed to integrate across scientific, political, and ethical differences, which were inevitable in society. Her first point responded to Sidel's argument that the manpower problem was about the values of medicine. The priority to hospital care may have reflected values, but the preference for it, and the lack of interest in the basic preventive work of neighborhood health, was not merely about ethical orientations but about the emotional "drama" and excitement in hospital care. She knew that the "traditional values" of medicine had changed over the course of her career. She had experienced the shift from social inquiry and broad responses to infant mortality to a technological "adventure" in medicine, both in the U.S. and her international work. Her efforts to roll out comprehensive reform had stalled as the innovative, biomedical, technologically sophisticated interventions provided quick "proof" of efficacy. She had seen the biomedical model actively marginalize the social forces producing disease and disability.[87]

Baumgartner's second, and related, intervention was to repeat the advice she had given at the World Population Conference in 1963, while deeply invested in health and population work with USAID. Patience was necessary for the community health efforts to

[86] Bennett et al., *Medicine in the Ghetto.*

[87] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

succeed, with allowance for experimentation and mistakes and revisions on the trails of experience, instead of quitting and moving on to the next best thing. [88]

Her third point, however, spoke to her own eroding idealism and resignation to a more tempered pragmatism. To solve the manpower problem, she advocated the use of new technologies, like computers and 2-way televisions. She insisted that technical assistance of this kind could work if "given in the spirit of humility" with "willingness to learn and respect for the differences and dignity among all people."[89] But in all of her experience, Baumgartner had not yet seen these ideal conditions met. To the contrary, she had seen how crucial aspects of context were lost or obscured in mediated attempts to know about health at a distance. The problem with 2-way TV as a solution to the "manpower problem" was related to the problem with statistical morality as a philosophy for social justice. It had been the problem with the infant mortality rate as a way of diagnosing social problems and modeling health systems, and it was the problem with the planned health systems that she hoped would succeed where reducing infant mortality had failed. Any media, though it might coordinate different contexts, was bound to encounter different meanings, determinants, and responses to health on different points of contact. Without social engagement, these mediations were prone to miscommunication and manipulation to suit the interests of particular segments of society.

In the emotionally and politically charged post-colonial contexts where Baumgartner had worked, such socially-grounded approaches had been hard, and contradicted by the essentially conservative ideology of international development. Prioritizing expertise over local knowledge, conceptualizing "aid" as a service to be delivered to an "other" instead of a

[88] Ibid.

[89] Ibid.

partnered enterprise, and a tendency to treat health and its tools as value neutral utilities, had not provided an adequate cognitive map for engaging and reducing the charged emotions between different political groups. In the late 1960s, Baumgartner spoke of the need for "warmth" and "tender loving care" from health providers, she no longer spoke of the need to be open to the dissent and differences that had characterized her speeches in the early 1950s.[90]

Political scientist Paul Ylvisaker did speak about the need for direct and uncomfortable engagement at the conference. His history with urban development was longer, he said, than nearly everyone at the conference except the well-known urban organizer Saul Alinsky.[91] With Alinsky, he believed in the need to both know one's ideals and be willing to negotiate as soon as there was an opening to do so. While implementing the Ford Foundation's "gray area" projects, before they were picked up by the federal government, Ylivsaker had gone on record as willing to accommodate to the Foundation Trustees' preferences that these economic and demographic transition programs be carried out without reference to the politically charged matters of race. For this and other accommodations, he drew flack from the left. In response he had stated that everyone -- not only business executives but also the left-wing liberal health experts who claimed to be advocating for the "people's health" -- everyone was operating according to their own interests. He described the fragile process of democratic development that he was at that time trying to lead in Newark, New Jersey. To make real progress, he told the Wentworth audience, required "honest negotiation:" getting into every group and every subgroup of the

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[90] LB to Saul Linowitz, letter, Oct 20, 1966. Box 11 Folder 27, LBP; LB Procedings American Phillosophical Society, Nov 12, 1970. Box 3, Folder 26, LBP.

[91] Saul David Alinsky, *Rules for Radicals: A Practical Primer for Realistic Radicals*, Vintage Books ed. (New York: Vintage Books, 1989).

population to negotiate, hearing not only what one wanted to hear, and saying not only what one thought would manipulate an advantage.

Baumgartner's notes indicate that she found Ylvisaker's talk compelling. On her notepad she transcribed in all capital letters and underlined three times: "Honest Negotiation – not just what we want." Earlier in her career, as she worked as Health Commissioner in New York, and as she began work at USAID, she had referred to this ideal as "honest science."[92]

The challenge to local and global collaborations, working across massive publics and large distances of all kinds, was to know what one's own biases were without open interaction among people who knew the world differently. The problem of infant mortality, as Baumgartner had observed it over her career, illustrated these limitations. All at the Wentworth could agree that infant mortality was important; many cited it as proof of their claims. And yet the responses proposed to the problem of infant mortality had reflected highly local variations. And yet there were characteristic differences among those opinions represented at the conference and those Baumgartner had encountered elsewhere in her travels. The conference participants, as a group, were more likely to conceptualize an infant loss as an unfortunate biological event than the people the Maternidad Isidro Ayora intended to serve in Ecuador, where the status of an infant loss could be defined as a transformation to an *auca* or *angelito*. It followed that the conference participants, as a group, were more likely to believe that biomedical resources were the correct response to infant mortality than physicians in Ecuador, who called on the Catholic Hermanas de Caritas to care for the infants in the new high-tech maternity hospital. In Baumgartner's early work in India with Amrit Kaur, it was made explicit that family planning services must enable women to have

[92] LB notes, "medicine in the ghettos June 20-22, 1969" notepad, Box 5 Folder 43, LBP.

children and keep them alive, not just prevent deaths among those who the state valued most. At the "Medicine in the Ghetto" conference, Mayor Hatcher promoted birth control as a solution suited to infant mortality in the poor neighborhoods and Dr. Alfred Haynes, who argued for "more care" as the answer to the problems of health faced by black communities, was himself an advocate of sterilization as a form of population control. He had advised the Indian government on sterilization policy that same year.

At the same time, the conference did make crucial progress towards better communication. It achieved, within its limitations, the kind of dialogue that was so hard to accomplish outside the performance space of a conference. Though sharp dispute characterized every presentation, many felt this contentiousness was productive and recognized the value of open exchange. Mechanisms were instituted for slowing down the heated conversations and unpacking their meanings. A "Board of Inquiry" and a "Board of Respondents" were set up to "bring out the truth" from speakers' various claims.

Baumgartner would write to organizer John Norman the day after returning home. "I seldom have seen anything quite as difficult, and I have been to a good many conferences," she wrote. "I admired, to no end, the way you handled the situation, with each crisis. Someday, it would be interesting to talk to you about it." Norman sent a general letter to participants a few days after that, acknowledging the conflicts that had occurred. "As you know," he wrote, "the meeting was marked by sharply different points of view from participants of widely different backgrounds." According to Norman, this had been intentional. The conference had produced "a reflection in some measure of the turbulence which is a hallmark of our contemporary society." He hoped that each participant "took

away a broadened point of view regarding some of the sensitive and critical issues that confront us all today."[93]

The conclusions produced by the conference did reflect a broader perspective than any individual had articulated in his talk. Some participants thought that the conference could not leave any doubt that the nature of the problem was systemic discrimination and exclusion based on racial constructions. In the conference book, a chapter by *Globe* reporter Loretta McLaughlin highlighted the conclusions of Dr. Rodney Powell, who ran a neighborhood health clinic in Los Angeles:[94]

> "I thought back to the opening session of this conference and remembered how so many of our colleagues bristled at the suggestions that patterns of racism influenced the health care services for the ghetto. Now if you can tell me that the lack of concern for, the insensitivity to, and the lack of allocation of resources to health care services to the ghetto, both on the official and private agency level, that you have heard here, do not support patterns of racism…then we haven't communicated at all."[95]

In the same edited volume Norman made more targeted comments about race than he had drawn in his summary of the conference sent out to participants immediately after it ended. "One of the most striking recurrent themes of the conference was the extent to which racism, more virulent than any disease" – the "grim, indeed lethal" product of generations – emerged as "the cause and the continuation of the plight of the ghetto residents."[96] In an

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[93] LB to John Norman, Box 5, Folder 43, LBP.

[94] A sketch of Powell is given in David Halberstam, *The Best and the Brightest* (Greenwich, Conn.: Fawcett Publications ;, 1972).

[95] Loretta McLaughlin, "Confrontation" in Bennet et al, *Medicine in the Ghetto*: xxii.

[96] Email from Nathan Hare to Marvin X Jackmon, Subject: "Endless Archives and Bottomless Pockets," sent June 11, 2013. Published online by Marvin X in blogpost "Crisis of Black Intellectuals and the Drs. Julia and Nathan Hare Archives," on the blog Counter Racism Now! July 7, 2013. Accessed 11/7/16 at 3:29pm. Nathan Hare approved of the conclusions of the conference that resided, residually, in his memory. He made a point forty-four years later of telling the man who was archiving his papers to not take this conference or the book produced from it "too lightly." John Norman was the editor and the director of

article he published at the end of the year in the *New England Journal of Medicine*, his argument was just as strongly worded:

> "These medical problems are inextricably intertwined with sociologic, economical, environmental and political factors that continue to dehumanize and demoralize…[They] will continue to exist and increase until they receive the appropriate priorities and commitments based on the sincere and enlightened desires of all segments of society to make life livable for all its members."[97]

It was not clear, as the conference dispersed, that participants' original points of views had been changed in significant enough ways by the past three days to withstand re-entry into society. In print media, the conference was reduced to characteristic narrative structures about individual agency. In the conference book, McLaughlin combined the numerous confrontations that occurred throughout the conference into a single "representative" confrontation led by heroic medical students. Other reporters crafted narratives that used language associated with heroes and villains. *Globe* reporters Herbert Black and Carl M. Cobb jointly authored a piece that noted that a predominantly white liberal audience, "accustomed to such scolding from black militants…held their peace" as well-respected community centers like the Columbia Point clinic and the Mississippi health program were referred to as "carpetbagging."[98] The public had no context for the complex discussions that had surrounded this anger and the progress that had been made past them.

"the conference put on by the Harvard Medical School at Wentworth-by-the-Sea in New Hampshire in the late spring of 1969, but he was black, as were most of the participants," Hare remembered. "On my panel was the now late Charles Sanders, then the managing editor of *Ebony* magazine, when magazines were magazines and print media was print, *[sic]* The chairman of the panel, I believe, was the president of Meharry Medical College (I know he was the one who invited me). I forget the other person or two."

[97] John C. Norman, "Medicine in the Ghetto," *New England Journal of Medicine* 281, no. 23 (December 4, 1969): 1271–75.

[98] Herbert Black and Carl M. Cobb, "Doctors Rap Failre of White Medical System," *Boston Globe*, June 24, 1969 Box 5 Folder 43, LBP.

In another report, "a group of young Negroes" from the Watts section of Los Angeles, nationally notorious at that time for its "riots" over the last decade, "backed two high federal officials into a corner. They wanted to know whether HEW's health efforts for the inner city were as far as the department was prepared to go."[99] This reporter did not mention that middle-aged white Harvard Medical School faculty from Boston had confronted high federal officials with the same questions. The newspaper reports reiterated the fear and biases about violence that continued to roil American social life. A third newspaper account concluded with a line abstracted from John Knowles' presentation: "Speaking of the inequality in health care the poor now face," he warned that 'the fires of revolution have not been raked in this country and the smoke is still rising.'"[100] The fear expressed by people leaving the conference was that the progress made there would "fade into obscurity" and be forgotten. Some remembered it, even decades later, as a landmark moment in their careers when they believed that work on health inequalities would proceed in new ways going forward.[101]

But the problem ran deeper than the news media. Doyle himself had interpreted "statistical mortality" to be the physician's responsibility for all of humanity -- a significant deviation from the statistical morality described by Dubos and Baumgartner as a broadly governing ethic shaping the collective responsibilities of all members of society.

More Virulent Than Any Disease

Baumgartner remarried in 1970, five years after the death of Nat Elias. Alexander Langmuir was an epidemiologist who had directed the Centers for Disease Control and initiated the

[99] Judith Randal, "Interpretive Report: Unrest on the U.S. Medical Care Front" clipping, Box 5 Folder 43, LBP.

[100] *The Evening Star* (Washington D.C.) June 27, 1969, clipping, Box 5, Folder 43, LBP.

[101] Robert Blacklow. Personal Interview with EAH, June 21, 2016, Boston, MA.

Epidemiological Intelligence Service program, which sent early career public health scientists to work in government service around the country and the world. He was involved in developing the World health Organization's new surveillance systems.

Sixty-nine years old and hospitalized four times that year with increasingly severe symptoms of polycythemia, Baumgartner had not given up, but her idealism was greatly tempered. To her colleagues she continued to reoutline points she had been making for two decades. In a talk she gave to the American Philosophical Society in 1970, she spoke of a "growing understanding" on several points around new issues in medicine and society.[102] There needed to be greater use of allied health professionals. Regionalization of services was necessary to control costs. Economic barriers to quality health care needed to lowered so that good care was really available to all. Finding better ways to deliver health care needed to be made as prestigious and well-supported a pursuit as research in molecular biology. And there was a need to collaborate with technical sciences without losing the immaterial aspects of medical care that could not be captured by automation. "The increasing collaboration of economist, engineer, behavioral scientist, and health worker will bring more automation, but, hopefully, without loss of the tender loving care side of medical practice that means so much to patients," she said, concluding:

> "We know, in sum, what must be done. And, difficult as the problems seem, they are not insoluble. If we invested no more energy, money, and intellect in finding new ways and means than we now do in perpetuating the old ones, we might all surprise ourselves by achieving, to a very great extent, what must be achieved in the field of health care."

To her students, Baumgartner indicated that she felt she had not argued enough or been forceful enough with her views in the past. In the fall of 1970, as she finished a lecture at the Harvard Medical School's orientation on the topic of community health, she left the students

[102] LB, Medicine and Society – New Issues, Nov 12, 1970. Box 3 Folder 25, LBP.

with a list of unsolved problems. She appeared to lack some of the spirit and motivation she had put into past addresses. "How does one knock heads?" she posed in her notes. "Never fast enough to avoid mistakes past." [103]

Though Knowles was in the minority at the "Medicine in the Ghetto" conference, he articulated an ideology that had historically been powerful in U.S. society. Among the New Left, Knowles's conservatism, the medical industry, and the community health programs all came under fire. Radical health activists disparaged the academic medical approach to community health work as accomplice to the neo-colonial work of an "American Health Empire."[104] In New York City, the New Left activist group Health PAC wrote that students were turning from the "aloof ivory towers of academia to the streets of real political experience."[105] Radicals intending to advocate for new responses to narcotics addiction did too. "'We have no intention of putting people into an ivory tower,'" the Health PAC Bulletin quoted a member of the United Harlem Drug Fighters, who argued that addiction rehabilitation needed to be a program of social action and that rather than "coddling" people recovering from addiction, they should be prepared to face the realities of everyday life on their own.[106]

The belief in self-sufficiency and indifference to context, whether the context of statistical information or the context in which a person like Baumgartner had attempted to actualize a worldview, was more virulent than any disease. Funding for the Model Cities was

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[103] Talk 19 HMS Orientation, Community Health. Sept 18, 1970. Box 53, Folder 70, LBP.

[104] Barbara Ehrenreich, *The American Health Empire: Power, Profits, and Politics.* (New York: Vintage Books, 1971).

[105] "Back to School: Keep on Trackin'," *Health PAC Bulletin*, Sept 1970: 1. Henry James, *The Ivory Tower.* (London: W. Collins Sons & Co., Ltd, 1917). Steven Shapin, "The Ivory Tower: The History of a Figure of Speech and Its Cultural Uses," 2012.

[106] Rhonda Kotelchuck, "Lincoln O.D.'s on T.P.F." *Health PAC Bulletin* 26, Dec 1970: 10.

slashed as the war in Vietnam sapped resources. With the connection between community health and development and the federal government severed, the aspiration of social development reduced to "brick and mortar" projects, leaving community social needs to charity and community responsibility, traditionally called "self-help."[107] The *Bay State Banner* reported on increasing violence including that between police and African-Americans, attributing it to the "southern strategy" that the Republican Party had adopted in the lead-up to the 1969 Presidential election, appealing to deep-seeded racism in order to win the votes of citizens in the southern states and northern working class who would typically vote for Democratic candidates.[108] The rising violence spilled into hospitals and continued to undermine confidence that medical institutions could be spaces of asylum for all citizens. In 1970, Boston resident Franklin Lynch was killed by a police officer in Boston City Hospital, and in response the Boston Black Panthers opened the Franklin Lynch People's Free Clinic in Roxbury, at a site where the city intended to build another expressway onramp.[109] From the Massachusetts Department of Welfare, Assistant Commissioner for Medical Assistance James Callahan wrote to the *New England Journal of Medicine* in an appeal for policy makers to remember "the people at the other end of the decision-making process," noting the "erosion of trust in both the motivation and the competence of the health professional" as a toxic product of the present unreliable health system. But where Baumgartner had envisioned a system based on rights to access health care, Callahan described health in the language of

[107] Lizabeth Cohen, *A Consumer's Republic : The Politics of Mass Consumption in Postwar America*, 1st Vintage Books edition (New York: Vintage Books, 2004).

[108] News Digest, *Bay State Banner*, 29 January 1970: 5.

[109] Billy X Jennings, phone interview with EAH, 2017. There is a photograph of the Franklin Lynch Clinic in: Nelson, *Body and Soul*.

charity, referring to them as "benefits."[110] When Harvard medical students joined neighborhood activists to protest the planned expansion of the Brigham into the neighborhood of Roxbury, the annual report of the Peter Bent Brigham the next year dismissed the action as casting the students in a "poor light."[111]

Infant mortality continued to circulate as a diplomatic notion, used to make appeals across increasingly closed communities. The *Bay State Banner*, in early 1971, reported that Nixon's State of the Union address called for "new and innovative approaches to health, attacking causes of disease and injury," but that the United States was the only "so-called developed country" that did not have a National Health Service. The paper commented on the fact that the United States ranked 14th of all nations in infant mortality, and even lower if considering only the black and poor in the country. A few months later, in May, the paper pointed out the relative decline in life expectancy and increase in infant mortality, while health expenditures rose and the President recommended a health plan entirely reliant on private health insurance companies, promising "'more business, more money,'" according to the magazine *Business Week*. "Blacks suffer most of all under these circumstances," the paper reported, "but whites are also being hurt."[112] Federal funding for biomedical research poured into development of the clinical sciences of neonatology.

The successes of clinical medicine omitted the contributions of systems work built on a notion of social welfare, to which Baumgartner reacted with increasing clarity. When the *New England Journal* focused on the hospital advances in kidney dialysis in 1972,

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[110] James Callahan, "Poor People and the Medical Care Crisis," NEJM 286(23). Box 3, Folder 26, LBP.

[111] Francis Moore, Peter Bent Brigham Hospital, Fifity-Seventh Annual Report, 1969-1970: 269.

[112] Health Care System Analyzed, *Bay State Banner*, 06 May 1971: 3.

Baumgartner nudged a colleague. "Hadn't you better drop the NEJM a note and tell them to give the TRMP [Tri-State Regional Medical Program] some credit?"[113] She grew more explicit about her support of rights across society and an ever less conciliatory stance on the nation's political divides. She was more vocal about her support for women in medicine, for black women's organizations, and for American Indian rights.[114] She protested the Vietnam War in personal correspondence and public dialogue, and reached out to colleagues at USAID about medical care in Vietnam. She was told that the organization was not focusing on clinical medicine, but focusing its resources into food and vaccine campaigns. By 1972 she was publicly troubled by the particular systems analysis approach that she had been so hopeful about five years earlier. At a talk on the management of health systems delivered to the MIT Faculty Club in 1972, she focused on the problems with "human systems." Systems analysis, she said, reflected a bias for objective feedback and input-output understandings of human systems. She was "bothered," she said, noting the people doing information systems work at MIT, by the "lack of understanding of the real world and people."[115]

She had begun, by 1972, to make sense for herself of what had happened to her best ideas. The climate of the time had changed from the 1940s and 50s, she said, when her focus was on prematurity as a guide for health systems management. Now with healthcare becoming the second largest industry, the vested interests were exhausting ("people tired," she noted, "want change but how to get it"), the personnel like pediatric nurse practitioners were more technical, and the "value systems" of MDs were "different." Consumer power was "different," too, she said. In the past it had involving listening and advising in person.

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[113] Newsletters on Regional Medicine 1972. Box 54, Folder 35, LBP.

[114] LB to Polly Cowan, letter, March 9, 1967. Box 11 Folder 28, LBP.

[115] Talk 12, Management of Health Systems, MIT Faculty Club 1972 Box 54, Folder 24, LBP.

But now it was based in quantitative analytics, which did not resolve the need for trust, and left so much meaning up to the interpretation of abstracted numbers instead of presence. The free-market analogy could not be applied in healthcare as she had thought in the past. People who saw potential for different kinds of healthcare on television wanted medicine to solve every problem.[116]

As Baumgartner retired from her position as executive director of the TRMP in 1972, effectively ending her public service career, she sent a note to colleagues expressing a hope that some time away would help "bring me back to my former state of vim, vigor, and vitality."[117] On the same day, she wrote of her retirement to Sushila Nayar in India. "We have all been frightfully upset about Bangladesh and horrified at what our government had done in Vietnam. I don't know what has happened in the country, in fact, what has happened to the world in general."[118] In one of her last reports on the TRMP, she emphasized her perspective on collaboration and responsibility. "It has been the policy of the organization to be quiet," she wrote, "maintaining a so-called 'low-profile' in keeping with its fundamental catalytic and facilitative mission." She refused to take the credit for either the ambiguous successes or the failures of the organization in its first four bumpy years. "It is," she explained, "after all, self-defeating to claim credit for what are essentially cooperative ventures."[119]

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[116] Talk 12, Management of Health Systems, MIT Faculty Club 1972 Box 54, Folder 24, LBP. Talk 19, HMS I Orientation "Community Health and Health Problems in U.S. Sept 18, 1970. Box 53, Folder 70, LBP.

[117] LB to "Co-worker", letter, April 20, 1972. Box 3, Folder 26, LBP.

[118] LB to SN – A2 Soami Nagar, Delhi, letter, April 20, 1972. Box 3, Folder 27, LBP.

[119] Notes on TRMP Draft Introduction, 1972. Box 54, Folder 2, LBP.

Reign of the Third World

With the erosion of the liberal consensus and the intensification of social violence across the United States at the close of the "Development Decade," a window closed on Baumgartner's vision of a technologically advanced, social scientific process of fundamental change. Francis Moore, Surgeon-in-Chief at the Peter Bent Brigham Hospital -- on track to expand into the affiliated hospitals center in Roxbury -- proclaimed the death of the "quest" for higher values than the "traditional" focus on individuals in biology in medicine, which had been "somehow wound up on a spindle labeled: 'community.'" All efforts to articulate a social and moral philosophy were cast away. "The search for a new medical mission out there beyond science and art has been in vain," he concluded. "We have visited that area with our curriculum, and our medical institutions have suffered only violence. We have been out there and have looked around. In medicine and surgery, when you venture far beyond science and art, there just is nothing there." He noted a "downward trend" in medicine since Baumgartner and the students' work to build community electives into the curriculum had come into effect. He described the "proclaimed concern for the community" to be "an excuse to abrogate the traditional values of medicine, change the curriculum, set up a reign of the 'third world,' and redirect the objectives of medical schools and their hospitals." Valuing control and a clinically-oriented, "rigorous" science of medicine, he denied any responsibility of the profession to the community:

> "In speaking with individuals who are at the forefront of this movement, whether they be from community political groups or deans' offices, it is clear that they want an institution that is not so much devoted to the treatment of the sick as it is to a concern about ignorance, poverty, industrial exploitation of the poor, drug addiction, and alcoholism, and an end to the two commonest byproducts of sexual intercourse, namely, pregnancy and venereal disease. The desire is not so much for a physician or a hospital as it is for an emotional consultant, a sort of security blanket for the

> underendowed, undermotivated and underdisciplined, most of whom are modestly affluent, and only a few underprivileged."[120]

In international health, the "Reign of the Third World" was passing into the hands of people with new enthusiasms and without the experience of Baumgartner's career. A young physician named Jim Grant, the son of John Grant, was thrilled by a study published by Carl Taylor, working now between Ludhiana and Johns Hopkins University. Taylor's studies showed significant infant mortality reductions had been achieved when village health workers at a demonstration site in Narangwal, India, delivered integrated health, nutrition, and family-planning services. It was a victory of Baumgartner's ideas. "Carl, we can start to talk about a child survival revolution!" Grant had exclaimed.[121] But Grant would become a champion for targeted child survival therapies when he became the director of Unicef, and these would never develop into integrated health services.[122] The targeted responses had not unfolded into more complex programs in Baumgartner's career, either.

By 1974, the national infant mortality rate had stabilized again in the United States. Baumgartner saw a new character of debates about infant mortality emerging. It seemed possible, now, to manipulate the infant mortality rate without changing the social conditions that produced the problem. In the Cold War systems of science, the infant mortality rate had become a moving target. Social violence and rupture, unaddressed by technical, targeting

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[120] Francis D. Moore, Sixtieth Annual Report of the Peter Bent Brigham Hospital, 1972-1973: 97-99.

[121] Carl E. Taylor and Robert L. Parker, "Integrating PHC Services: Evidence from Narangwal, India," *Health Policy and Planning* 2, no. 2 (June 1, 1987): 150–61; Daniel Taylor-Ide and Carl E. Taylor, *Just and Lasting Change: When Communities Own Their Futures* (Baltimore: Johns Hopkins University Press, in association with Future Generations, 2002): 130.

[122] Carl E Taylor, "What Would Jim Grant Say Now?," *The Lancet* 375, no. 9722 (April 10, 2010): 1236–37.

strategies, had collapsed access to the metaphorical basement that Warren Weaver had envisioned as space where differences in meaning could be engaged.

It was with this new targeting of infant mortality in mind that Baumgartner spoke on the subject of "Mortality and Human Rights" at an international conference in Amsterdam in 1974 under the title of Professor of Social Medicine at Harvard Medical and Assistant to the Dean at Harvard School of Public Health. She highlighted the fact that "mortality rates, particularly infant death rates, from different countries are not strictly comparable." They were only "general guidelines." The "ability to measure the quality of medical care, morbidity, and associated disabilities as well as the economic costs thereof" were "priority areas for research" – that could not be strictly measured by the infant mortality rate. Moreover, the relationship of mortality to human rights was dynamic. The way to keep current on human rights was to access the potential "at the grass roots." Hundreds of new community-organized groups offered a way forward. In the cities, where an apathetic "You Can't Beat City Hall" was the "answer to every inquiry" in the past, now people were successful through local organizations in improving neighborhoods and securing health services.[123] Though Model Cities funding was slashed, local organizations persisted as vestiges of the old programs, imbued with the spirit of personal responsibility that would power the rise of non-governmental organizations as vehicles of social action around the world. The bits and pieces approach to health care was a global phenomenon, she knew, and these "not for profit organizations" were proliferating in the international development work as well, as a means of health inclusion.[124] Baumgartner believed these organizations, though a compromise, were good in that they expanded the sense of participation that she had

[123] LB," Human Rights and Mortality, 1974." Box 54, Folder 55, LBP.

[124] Ronald O'Connor (Management Services for Health) to LB and Alexander Langmuir, July 29, 1971. Box 54, Folder 16, LBP.

concluded was missing in past attempts at comprehensive health, not just comprehensive medical care. The specific word she used for participation, however, was "ownership." "How long this newly developed sense of power will last or what direction it will take is not clear," she said, "but the indications of involving all concerned for reducing mortality and strengthening our many goals of human rights are clear."

Conclusion and Epilogue

With the title *Indicating Health* I have intended multiple meanings. The metric of infant mortality was, of course, a significant indicator of population health for the actors in this story. But it is also an indicator of changing historical contexts. In the discourses of international development, the meaning of the infant mortality rate changed between 1945 and 1975. The metric's rise and fall in international health, which paralleled the trajectory of Baumgartner's own career, indicates broader losses in the meanings and programs of development.

Baumgartner had grown up in a world in which a public ethic of care seemed immanent. As she had set out on her international career in 1951, she believed that population vulnerability could be managed through caring attention to individuals. She called this ethical vision human development. Infant mortality was the symbol of vulnerability and a means of counting the weight of the world.

Nearly three decades later, as Baumgartner retired from public service, the world in which she had grown up and risen to a position of international authority was gone forever. Elements of her vital vision of human development had eroded to isolated artifacts, reanimated in a new and yet inchoate development approach in which innovation took precedence over long-term planning, efficiency values trumped humanitarian values, and trials replaced processes of inquiry. For example, Baumgartner had envisioned contract-based public service programs as extensions of government that could maintain sensitivity and responsiveness to local needs. By the early 1970s this nascent government structure gave way to untethered non-governmental organizations. The character of demonstration projects had shifted from training sites, in which learning occurred through trial and error. Amidst increased emphasis on quantitative evaluation and proof of effectiveness for social programs, demonstrations were now constituted as trials. Infant mortality, which

Baumgartner understood to be an expression of social vulnerability that could attract a necessarily collective response, had become a target for individual intervention more akin to the bacteriological approach to disease. The grassroots engagement and cooperative principles essential to Baumgartner's view of how policy knowledge ought to be produced were overwhelmed at the end of her career by mounting emphasis on data.

Baumgartner, a participant in these processes who had never fully given up on her increasingly deferred vision, had herself been eroded in the process of demoralization that occurred within and across each of the sites she worked. From triumphant moments of arrival at each site, she had experienced the iterative souring of relationships as proudly-offered expertise was misrepresented and misconstrued. From marginalized positions she had attempted to resuscitate and salvage the comprehensive vision of public care on the terms of the emerging discourses of not human development but market-oriented economic development. In the year she retired, she sat appalled at the State Department's actions in Vietnam and received word of the compulsory sterilizations underway in India to her chagrin. She knew how limited her agency had been, and yet she was surrounded by accumulated failures in which her actions had been complicit.

The erosion of Baumgartner's comprehensive vision of health had been globally produced in the particular tensions of post-colonial contexts and rising Cold War priorities. The moral tensions of post-colonial contexts, the urgencies and public exhaustion amidst incessant mobilization Cold War politics, the powerful interests of industry, and the dominant ideology of rugged individualism among people shaping development institutions like USAID not only disabled Baumgartner's slow, quiet, personal, and processual approach to social knowledge production. These conditions also enabled the alternative visions of development that promised ways of avoiding moral conflict and social entanglement through

increasingly structured responses. Where Baumgartner had understood development systems to be stabilized through open and mutual exchange, constituted by ongoing sensitivity, adjustment, and response, she was swept up in the new information-based forms of global governance, in which controls were unidirectionally exercised.

As she attempted to keep her concerns for social health current on the new terms of development, Baumgartner was one of many health professionals complicit in changes to the ways of counting considered legitimate in the sciences of public health. This brought programmatic losses, as social presence and local experience fell away from the priorities of public health departments and development institutions. It also brought moral losses. Quantitative objects like the infant mortality rate, with great capacity to coordinate across different contexts, grew opaque without means of pursuing their local meanings. Rather than representing community, as Baumgartner hoped it would, the opaque and abstract object attracted a single-disease oriented response.

It was not only quantitative objects that grew opaque without context or opportunities for direct exchange. With ninety-nine boxes full of Baumgartner's collected papers, connections to tens of people who knew her in life including her grandchildren, photographs, and sound recordings, much about Baumgartner's meanings, life conditions, hopes, and ideas retains a nagging opacity. The "keywords" of development systems, from "cooperation" to "manipulation," "adjustment," and "development" itself had many meanings and Baumgartner's own understandings of them at times seem contradictory. The word "population" poses interpretive problems, as at times Baumgartner makes clear that she understands "population work" to be necessarily embedded within "human development," while at other times she seems to support population control. These may have been personal inconsistencies that Baumgartner herself did not understand or have self-

awareness about. It is clear that Baumgartner never stopped believing in, speaking about, and teaching students to imagine humanistic alternatives to the increasingly rigid management approach to health systems. But she also believed in taking advantage of new technologies for intractable social problems. She embraced "two-way televisions" as a potential solution to the elusive human resource problem. But she was disoriented by accommodations she was making by the end of her career, and the strangeness of suggesting such technical solutions not only for geographically remote medical connection but also for services in urban "ghettos" or other neighborhoods that were just outside the doors of major medical centers.

After 1975, Baumgartner faded quickly from the social worlds of her profession. She kept an office at the Countway Library of Medicine but spent longer amounts of time at the new house she and Alexander Langmuir built on Martha's Vineyard. Advocating for better sanitation on the island, she became known as the Garbage Queen of Menemsha – a title of which one grandson believed she had been humorously proud.[1] Her grandchildren visited and traveled with her, and students came to her with questions about the past. On a turbulent flight home from Manila in 1975, she drafted a letter to a friend across a sheet of Holiday Inn stationery. She and Langmuir had been teaching in Manila, she wrote, bringing international health examples into a public health course taught by a former student of the Harvard School of Public Health. He was still using examples, Baumgartner exclaimed, from 1950s demonstration projects in Oswego County, New York.[2]

In this letter Baumgartner reflected on her dissatisfaction with the absence of social contexts in the training of health professionals. "I run 1 seminar on Medicine and Society –

[1] Dan Elias to EAH, personal email, June 13, 2016.

[2] LB to Mrs Robert (Anabelle) Cook, letter, Dec 23 1975. Elias Family Personal Papers.

all the tough social problems that effect [sic] medical care and health and don't fit into regular courses – drugs, rape, human experimentation, health fads, etc." She had grown more vocal about her disappointment with the sibling of women in institutions of health and development. "Trying to do an oral history – goes badly! – I don't like the interviewer and since I want it to help gals today wonder if it shouldn't be a woman. Or I can I write well enuf myself to try it." But she also made clear that, as she aged, her vitality had been suffering. "I've gained a lot of strength through swimming lessons so I can walk 3 or 4 blocks once more and be out of bed a lot more. It's sure been a hell of a session – 5 years of it.[3] Poor Alex – but he has survived wonderfully. I also can swim, first time in my life – maybe I'll take up horseback riding next or ice skating!! Life in Cambridge is ok."[4]

She watched the papers that crossed her desk about the Nixon and Ford administration's interest in an international development institute, but her archival record grew thin in the last two decades of her life. Others carried forward her ideas the collective responsibility for social and individual health. It is clear that some of her ideas, discounted during her own career, became deeply embedded in the global health that emerged by the end of the century. And yet, infant mortality was replaced by new metrics in the "new" global health. While the infant mortality rate persisted as a metric with cultural authority, but its meaning as a measure of collective vulnerability was lost and not recovered in the reanimation of the new global health.

[3] Frequent phlebotomy sessions drained her energy along with the products of her polycythemia

[4] LB to Mrs Robert (Anabelle) Cook, letter, Dec 23 1975. Elias Family Personal Papers.

New Life into Old Expectations

The U.S. infant mortality rate had begun to fall again by 1974, but the politics of infant mortality had shifted in the violent upheavals at the end of the development decade. Moderate liberals like John Knowles saw reason for optimism in the falling infant mortality rate and attributed it to new individual reproductive rights, including not only contraception but also the legalization of abortion with the *Roe v. Wade* supreme court decision in 1973.[5] "There is reason for optimism," Knowles wrote after organizing another conference in Boston, on the topic of health in the United States. "We know that the infant-mortality rate is once again declining after a period of stability."[6] The conference, entitled "Doing Better, Feeling Worse," was attended by many of Baumgartner's colleagues, though she was absent.

Other people continued to call for political engagement and social responsibility for the aspects of health that were not, they argued, within the reach of medicine alone. Sociologist Rene Fox, who also spoke at Knowles' 1977 conference, addressed this position. "Increasingly," she wrote, "health has become a coded way of referring to an individually, socially, or cosmically ideal state of affairs. Conversely, the concept of illness has increasingly been applied to modes of thinking, feeling, and behaving that are considered undesirably variant or deviant, as well as to more forms of suffering and disability." At the same time that she observed these medicalizing trends, Fox also noted movements of "de-medicalization," which focused on iatrogenesis and the potential for medical abuse brought to light not only in Beecher's paper on human experimentation but also the verdicts of the

[5] Nicholas H. Wright, "Family Planning and Infant Mortality Rate Decline in the United States," *Obstetrical & Gynecological Survey* 30, no. 11 (November 1975): 747–49.

[6] John H. Knowles, "Introduction," *Daedalus* 106, no. 1 (1977): 1–7.

investigations into the Tuskegee Syphilis study.[7] Fox saw a need for multiple ways of knowing in the community and a shared responsibility for health. Matters of health, illness, and medicine, she wrote, were "collective conscience" issues. How the public, its professions, its politicians, and its scientists would resolve the debates could not be known, Fox said, but their collective responsibility to make those decisions was "a distinctive characteristic of an advanced modern society."[8]

Fox was echoing Baumgartner's own longstanding commitment to public engagement. Unlike Baumgartner, however, who had been trying over the last decade to motivate physicians to participate in international and community development work, Fox was attempting to get physicians to recognize the necessary role of the public in debates about the social meanings, determinants, and responses to health. When Baumgartner had addressed the APHA to persuade health professionals to take up international development work becoming increasingly dominated by new economists, she had told them, like Fox, that the answers to emergent medical dilemmas were unknown. In an attempt to inspire, she had related heroic narratives to the medical students of the New Left and told them, "The answers are up to you." The students, as Dan Doyle had made clear when he painted an image of the doctor as social hero at the "Medicine in the Ghetto" conference, had taken Baumgartner's lectures to mean the answers to social problems were the responsibility of physicians, rather than that health problems were a collective social responsibility that required the input of patients and populations.

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[7] See, for de-medicalization cited by Fox: Ivan Illich, *Medical Nemesis: The Expropriation of Health*, 1st American ed. (New York: Pantheon Books, 1976).

[8] Renée C. Fox, "The Medicalization and Demedicalization of American Society," *Daedalus* 106, no. 1 (Winter 1977): 9–22.

The neighborhoods of the city of Boston that surrounded Baumgartner's small office in the Countway Library were awake to the need for social action on infant mortality. The Boston-based Combahee River Collective was one of the leading groups of radical voices in the rising "reproductive justice" movement.[9] Protesting moderates who used the falling infant mortality rate to advocate for birth control and abortion, this group rejected the individualization of responsibility for "family planning" and demanded the social and political support that would enable women to have children, not merely prevent births. It was an argument Baumgartner knew well. She had made it in the report she wrote with Amrit Kaur in 1955. In 1977, as the Combahee River Collective grew increasingly active, the *Bay State Banner* announced a new book on the Children's Rights Movement filled with essays arguing that the way U.S. society aimed to "help infants" was doing more harm than good. One commented that infants had been made a means to the ends of the adult world, useful as income-generating patients and not encouraged to get truly well. Others pointed to institutions that benefitted from children staying in daycare and remaining intellectually unchallenged. The Youth Liberation in Ann Arbor said the problem was the segmentation of infants from the rest of society. "If our program strays from the specific needs of youth," they wrote, "it is because we know that we are not free until all people are free and the earth is a healthy place to live."[10]

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[9] Combahee River Collective, *The Combahee River Collective Statement: Black Feminist Organizing in the Seventies and Eighties*, 1st ed., Freedom Organizing Series ; #1 (Albany, NY: Kitchen Table: Women of Color Press, 1986); Bettye Collier-Thomas and V. P. Franklin, *Sisters in the Struggle: African American Women in the Civil Rights-Black Power Movement* (New York: New York University Press, 2001). The Combahee River was a site where Harriet Tubman planned an action in 1863 that freed 750 slaves.

[10] Candelaria Silva, "An Eye-Opening Account of Children Oppressed," *Bay State Banner* June 16, 1977:1.

A powerful conservative ideology of personal responsibility and a concern about limited funding due to Cold War military spending, however, limited social action. At the conference hosted by Knowles in 1977, ethicist Daniel Callahan ridiculed the 1948 WHO mission statement for its over-reach and the all-encompassing role it gave to the primary health movement which had become central to international health institutions.[11] Indeed, in 1979, the Rockefeller Foundation under the direction of Knowles would hold a conference in response to Alma Ata's declaration. This conference issued a critique echoing Callahan's own, about the impracticality of primary health care for all as described in the Alma Ata document. In its place, attendees proposed a "selective" primary health care that would deliver targeted interventions, directed principally at infants and children, in place of a comprehensive health system. This modified approach would be measurable, efficient, and take advantage of innovative technical solutions.[12] As the WHO became mired in pharmaceutical industry politics and lost support from the US government, the targeted approach was championed by the Unicef organization in the 1980s. Its director, Jim Grant, was the son of Baumgartner's colleague John Grant, who had been thrilled when Carl Taylor's findings at Narangwal promised the advent of a "child health revolution." Taylor was upset with the approach Grant chased over the next decade, targeting the infant and child segment of the population, but forgave it as a first step in an eventually broader vision of healthcare.[13]

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[11] Daniel Callahan, "Health and Society: Some Ethical Imperatives," *Daedalus* 106, no. 1 (1977): 23–33.

[12] Julia A. Walsh and Kenneth S. Warren, "Selective Primary Health Care," *New England Journal of Medicine* 301, no. 18 (November 1, 1979): 967–74.

[13] Carl E Taylor, "What Would Jim Grant Say Now?," *The Lancet* 375, no. 9722 (April 10, 2010): 1236–37.

The trajectory of international health reflected the rising prevention movement within the United States. In 1979, Surgeon General and pediatrician Julius B. Richmond, a colleague of Baumgartner's in the federal government and at Harvard Medical School, released the first national prevention agenda in a report entitled "Healthy People," redefining Baumgartner's 1951 description of health promotion. Baumgartner's vision had been consistent with the older field of medical ecology, seeking the provision of conditions of health: non-toxic environments, access to medical care, and education with grassroots engagement. Richmond's 1979 report – following Knowles -- described health promotion as measures designed to help people develop "lifestyles" that could maintain and enhance well-being, targeting behavior to the detriment of context.

There were also new values shaping the politics of infant mortality after the end of the development decade. Infants' "right to life" became the cry of conservative anti-abortion politics, even as the Nixon and Ford administrations slashed social and economic support for the communities into which they were born.[14] With increased attention and funding, major advances had been made in neonatal medicine, leading to the formalization of neonatology as a new medical subspecialty in pediatrics. In conjunction with the development of CPAP ventilation, blood gas diagnostics, micro-instrumentation sized for exceptionally small and fragile bodies, and emerging surfactant therapies, premature survival rates were improving in Boston. Technical prevention and NICU care seemed to obviate the

[14] Mary Ellen Avery, *Born Early*, 1st ed. (Boston: Little, Brown, 1983); Jeffrey P. Baker, *The Machine in the Nursery : Incubator Technology and the Origins of Newborn Intensive Care* (Baltimore, MD: Johns Hopkins University Press, 1996); R. Stinson and P. Stinson, "On the Death of a Baby.," *Journal of Medical Ethics* 7, no. 1 (March 1, 1981): 5–18.Peter Singer and Helga Kuhse, "The Future of Baby Doe," *The New York Review of Books*, March 1, 1984; David J. Rothman, *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making* (New York: Basic Books, 1991); Sadath Sayeed, "Baby Doe Redux? The Department of Health and Human Services and the Born-Alive Infants Protection Act of 2002: A Cautionary Note on Normative Neonatal Practice," *Pediatrics* 116, no. 4 (October 2005).

social determinants of health, giving grounds to the hospitals to compete with the residential communities for "certificates of need" to access resources from the federal government. Where community residents sought resources to improve their everyday lives, hospitals wanted resources for building NICUs. In 1982, legislation in response to right to life advocates was passed mandating that infants with debilitating birth defects be treated unless the attending physician deemed efforts to prolong life "futile." Hospitals were required to post notices stating, "Discriminatory failure to feed and care for handicapped infants in this facility is prohibited by Federal Law."

Many pediatricians argued against claims that medical technology could obscure the social determinants of health. At the Children's Hospital of Philadelphia, fifty members of the House Staff wrote to Surgeon General C. Everett Koop on what came to be known as the "Baby Doe" ruling. "We find it ironic that this ruling should be implemented at the precise time of flagrant federal budget cutbacks affecting the poor and handicapped, paralleled by rising infant mortality," their open letter read. "We can only conclude from these actions that the government has taken only a superficial look at these complex issues and does not have at heart the total care of these children, i.e., their emotional, medical, nutritional and socioeconomic needs."[15] From within Boston's academic medical community, a group of physicians began publishing papers speaking back against the misleading messages of the city's improving infant mortality rate. In 1985, the *New England Journal of Medicine* ran a "special article" by a group from Boston who "examined racial and income-related patterns of mortality from birth through adolescence in Boston, where residents have high access to tertiary medical care." Across the city, the authors wrote,

[15] Children's Hospital of Philadelphia to C. Everett Koop, Letter, April 21, 1983. Box 71, Folder 8. C. Everett Koop Papers, National Library of Medicine. https://profiles.nlm.nih.gov/ps/retrieve/ResourceMetadata/QQBBLP

"black neonatal mortality was elevated at all income levels." Racial identity was not the only determinant. Across all categories of race, low income residents experienced significantly higher mortality among children. "Differential mortality may reveal much about the way children die, but it also provides important insight into the way children live," the Boston collaborators wrote. "Differential rates of childhood mortality may thereby represent a revealing, if not tragic, expression of social inequity in a city or in a society." Their conclusions seemed simple. This study," they wrote, "serves as a reminder that as new therapies are developed to improve the outcome of illness, concurrent preventive efforts addressing the underlying determinants of differential mortality must also be undertaken." To know what these underlying determinants were, the researchers called for "small area analyses" to inform health policy, much as Baumgartner had done in 1950.[16]

Infant mortality, as a marker of social inequity, had been undermined by the ability to "manipulate" its reduction. As all but the most radical on the political spectrum interpreted the problem of infant mortality narrowly, as the right to not die. Some pediatricians with a great deal at stake in the interpretation summarily rejected the infant mortality rate as a robust indicator. In Chile, where a military dictatorship had decimated nearly all social programs and disabled much of the national health service as it implemented neoliberal economic reforms, the government maintained the Instituto Nacional Tecnologica Alimentacion, or INTA, which ran a program to counteract widespread malnourishment. At INTA, starving infants and children were collected, fed, studied, and saved before being sent back outside the scaffolds of government assistance. The government used the country's falling infant mortality rate to "prove" the effectiveness of its social policies. By the middle

[16] Paul H. Wise et al., "Racial and Socioeconomic Disparities in Childhood Mortality in Boston," *New England Journal of Medicine* 313, no. 6 (August 8, 1985): 360–66.

of the 1980s, a definitive statement on the failure of the infant mortality rate was issued by the Chilean Academy of Medicine, led by physician Patricio Hevia. The article argued that the infant mortality rate did not capture the adult health issues that were not visible in the statistics and the general poverty of much of the population. "This corporation considers that the infant mortality rate, in reality, does not constitute a trustworthy indicator of global health."[17]

The concern was echoed in an international forum one year later. "The infant mortality rate is not a good indicator of overall mortality or health status," wrote first year Harvard Medical student and Oxford-trained health economist Christopher Murray in the March 1988 issue of the *International Journal of Epidemiology*. "A measure of potential years of life lost is preferable because it is ethically more consistent."[18]

The indicator that had risen to such international prominence over the first half of the twentieth century, held up as a measure of society's social triumph over vulnerability in 1951, had fallen by the time the Berlin Wall came down. In the early 1990s, new hopes and anxieties populated the foundations of a new global health. Many expected that more funding would be available for public health once military spending on the arms race declined. The World Bank invested in Health, Population, and Nutrition programs. International health agendas shifted away from child health, which had been an efficient "interim strategy," to adult health and chronic disease.[19]

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[17] Academia Chilena de Medicina, "Sobre decenso de la mortalidad infantile," *La Epoca*, July 21, 1987. Courtesy of Patricio Hevia.

[18] Christopher J. L. Murray, "The Infant Mortality Rate, Life Expectancy at Birth, and a Linear Index of Mortality as Measures of General Health Status," *International Journal of Epidemiology* 17, no. 1 (March 1988): 122–28.

[19] Michael R. Reich, "The Politics of Agenda Setting in International Health: Child Health Versus Adult Health in Developing Countries," *Journal of International Development* 7, no. 3 (June 5, 1995): 489–502.

In an effort to improve upon past health metrics, carried out on the basis of mortality data or disease prevalence and incidence, a new approach to quantifying the burden of disease was produced on the merits of the fact that it "simultaneously considers both premature death as well as the non-fatal health consequences of disease and injury." This metric, which its authors called the "burden of disease approach," was designed as the sum of two estimates: The first was the number of years of life lost due to premature death, which was the difference between the age at death and the highest average life expectancy. The second was the number of years a person who sustained a new disability in the year of study was expected to live with it. This measure of disability-adjusted life years, the DALY, was first used in the World Development Report of the UN in 1993. While commended for capturing previously unmeasured debility due to matters such as mental illness – it had been two decades since Count Gibson had called for "disability units" that could convey "more than an average need for services" at the *Medicine in the Ghetto* conference -- the new metric – though widely adopted -- was also critiqued for its conceptual and technical basis, for its questionable assumptions and value judgments, and for conflating information needed for measuring disease burden with information needed for allocating resources equitably. [20] Though debates over the need for social inquiry to accompany "objective" measures continued in the academic literature, the infant mortality rate was declared to be a

[20] C. J. Murray, "Quantifying the Burden of Disease: The Technical Basis for Disability-Adjusted Life Years," *Bulletin of the World Health Organization* 72, no. 3 (1994): 429; Christopher Murray and Arnab Acharya, "Understanding DALYs," *Journal of Health Economics* 16 (1997): 703–30.Sudhir Anand and Kara Hanson, "Disability-Adjusted Life Years: A Critical Review," *Journal of Health Economics* 16, no. 6 (1997): 685–702; Sudhir Anand and Kara Hanson, "DALYs: Efficiency versus Equity A Technical and More Complete Investigation of Some of the Issues Contained in This Paper Appears in Anand and Hanson (1995).," *World Development* 26, no. 2 (1998): 307–310.

problematic indicator, given the marginal segment of the population it sampled, and declined. Impressively, the World Health Report 2000 made no mention of the measure.[21]

As time passed and it became evident that the survey metrics of the new global health required intensive investment and had their own limitations, a few raised the question in the academic literature over whether the new metrics were better than the infant mortality rate as global indicators of population health. The infant mortality rate had a meaning that made more intuitive sense to people, these researchers argued, and in poor settings the additional costs and complexity of a Ministry choosing to pursue measures of population health such as the DALY might be exacting a double burden on the countries with the most extensive health problems. Their analysis suggested a strong linear association between the DALY and the IMR, meaning that the measures' reports on population health were similar.[22]

The DALY designers had read the critique, citing it in a paper the same year. They responded only indirectly, however, by commenting generally on the limitations of "proxy measures:"

> "What is available – prevalence data among a sentinel population that are relatively easier to collect – can become a proxy for what is of real interest – prevalence overall in the general population…Too often the fact that an indicator was justified as a proxy for another measure is forgotten and the proxy indicator assumes center stage. To remind users of the original purpose for measurements of an indicator and the evidence of the strength of the relationship between the proxy and the real quantity of interest, proxy

[21] Christopher J. L. Murray et al., *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020*, Global Burden of Disease and Injury Series ; v. 1 (Cambridge, MA: Published by the Harvard School of Public Health on behalf of the World Health Organization and the World Bank ; Distributed by Harvard University Press, 1996); Arthur Kleinman, "A Critique of Objectivity in International Health" (University of California Press, 1997); World Health Organization, *The World Health Report 2000: Health Systems : Improving Performance.*, World Health Report ; 2000 (Geneva: World Health Organization, 2000).

[22] D. D. Reidpath and P. Allotey, "Infant Mortality Rate as an Indicator of Population Health," *Journal of Epidemiology & Community Health* 57, no. 5 (May 1, 2003): 344–46.

> measurements should be mapped back into estimates of the real quantity of interest. This mapping to the true quantity of interest should of course take into account known biases and uncertainty."[23]

The comment is revealing of the cultural shift underlying the rise and fall of the infant mortality rate in Baumgartner's time. On the one hand, Murray et al. described the tendency to focus on the indicator rather than what it indicated. This was the shifting of means into ends that Baumgartner's contemporaries, like political scientist Ted Wiedner, had observed in the context of international development. But Murray et al. wrote that prevalence of morbidity and mortality were "what is of real interest" and urged mapping the quantity of any global health indicator back onto the "true quantity of interest." For Baumgartner and many of her closest of colleagues, what was of "real interest" in measures of population health was not a "quantity," but the social conditions associated with epidemic suffering. The replacement of the local qualities of problems with their quantity was one of her major concerns about the indicator logics she watched emerge in the health practices of the late 1960s and early 1970s. Baumgartner got a reputation for criticizing these as the "bits and pieces approach" to health.

Baumgartner appreciated the power of survey data to detect areas of potential intensity for an identified problem. She believed that having a sense of disease and mortality patterns was good and helpful. Baumgartner, indeed, had very proudly set up a population statistics database for New York City and was trying to establish such a monitoring system with the regionalization scheme in New England in the late 1960s. But neither clinical data nor population data were sufficient, in her experience, for wise policy or intervention.

[23] Christopher J. L. Murray, David B. Evans, and World Health Organization Global Programme on Evidence for Health Policy, "Health Systems Performance Assessment : Debates, Methods and Empiricism," 2003: 718.

Discrete measures did not necessarily capture the conditions of social health better than a broad indicator of social vulnerability. They dispersed uncertainty about local meanings, determinants, and responses across a more burdensome but still limited set of data to be collected and processed. And they did not solve the social conflicts that had led to the calls for "internationally-minded" abstract forms of measurement and assessment instead of the processes of social inquiry and connection that Baumgartner had advocated. She did not believe the value of human connection that good data collection required and signaled could be adequately replaced by mathematical manipulations and econometric algorithms.

Researchers have continued to note the relationship between social inequity and the IMR, and recent studies have developed new techniques to observe processes by which social conditions materialize in molecular expression. But there has never been a lack of social evidence that this relationship exists. The failures of the IMR were not lack of evidence that social determinants mattered for health.

In part, the failures were technical. Social knowledge did not travel as readily as counts, and was not as readily compared across contexts. In part, the failures were political. People acting on their interests in globalized projects failed to communicate; work was done to undermine arguments about social meanings, determinants, and responses to infant mortality. But a crucial part of the failure of the IMR was a willingness to look away from evidence that social inequity was diffuse and extended beyond what a targeted approach to individuals or isolated communities could accomplish.

This willingness to look away from social conditions was bred in the broader culture shifting over the twentieth century. Newly empowered attempts of people to exert their selves in post-colonial encounters increasing after World War II challenged the political

status quo. The shift to "internationally-minded" discrete metrics avoided the social complexity of these realities.

As the DALY metric became a dominant measure, epidemiologists and economists proposed revisions and adjustments to calculating the overall index of the global burden of disease. Metrics designers were concerned that neonates would be favored in the DALY calculation because saving the life of an infant would save more life-years overall. In 2006, economist Dean Jamison, who worked with the World Bank on health and nutrition from 1976, proposed an "acquisition of life potential" device for the DALY model, which discounted the contribution of neonatal deaths to the global burden of disease. The philosophical justification gestured at was that infants have not yet formed extensive social bonds.[24] This observation was not a judgment about whether or not a preponderance of resources should be allocated to neonatal intensive care. Rather, it was a historical observation about changes in what counts in global health. It is meaningful that rather than counting the most socially vulnerable human beings, global health metrics now discount social conditions producing vulnerability. If the philosophical justification used to discount infants is applied more broadly, there are many people without extensive social networks who would also require discounting.

A particular cognitive map supports the tendency to look away from evidence of social suffering and to individualize experience. The frontier myth in global health and development, an adventure narrative constructed into a nation-building story for the United States on particular ideals of risk-taking, individual control, and moral exceptionalism, scripted the program reinforcing the typical failures of development work: a dichotomization

[24] Dean T. Jamison et al., "Incorporating Deaths Near the Time of Birth into Estimates of the Global Burden of Disease," in *Global Burden of Disease and Risk Factors*, ed. Alan D. Lopez et al. (Washington (DC): World Bank, 2006).

of expert over local knowledge, an "othering" notion of "aid" over interdependence, and a belief that health was a neutral utility rather than a highly political phenomenon.

This powerful narrative still undergirds past and current health and development work. In 2015, for example, sitting at a study table in the Harvard Kennedy School, I picked up a flier announcing a student trip to Quito, Ecuador. "Interested in poverty alleviation, international education, or child labor?" the flier read. "Trekuador is waiting!" At the top of the flier eleven young adults crouched gleefully over the yellow brick line that has been created as a tourist attraction at the Equator, with a sign reading "you are here." The camera was directed at the level of their faces, and gave the visual impression of looking up at them. At the bottom right hand corner a small photo of eleven children in an Ecuadorian school looked up at a camera held high over their heads, waving. The trip cost $1300, ran for seven days, and promised to "explore innovative methods of poverty alleviation, family-centered education, and the complexities of child labor." The hype of "adventure" remains a powerful public relations strategy for attracting interest in global health and tragic social problems. At the same time, it is less likely that such a poster would be circulated for community work in Boston's own poorest neighborhoods just across the river.

Amidst liberal attention to the loss of social cohesion in contemporary societies and discussions about fragmentation across the globe, major philanthropic foundations are making commitments to interdisciplinary, "boundary-crossing" and "silo-breaking" work. In November 2015, Ford Foundation President Darren Walker published an open letter announcing changes in the culture, programs, and the assets of the organization. He talked about "breaking down silos," the "intersection of disciplines," and "directing resources to

where they can make positive inroads."[25] In November 2016, *Health Affairs* published an interview with the President and Vice President of the Robert Wood Johnson Foundation, one of the principal philanthropies devoted to health and health care in the United States that has recently shifted its orientation. The RWJF executives spoke of a new initiative to address the "culture of health." After completing the interview, Editor-in-Chief Alan Weil was left with a "nagging question: 'How will we know when we have created a culture of health, if and when we do?'" he wrote in an introduction to the issue. "If there is one notion that captures what is needed to create a Culture of Health," he concluded, "it is that existing boundary lines must be crossed. Whether it is the public and private sector, the health and social sectors, or the silos that exist within the health care system, a new culture requires combined efforts that remove the barriers that each has placed around its work."[26]

The infant mortality rate was a metric that Baumgartner and others believed would attract the kind of boundary work these Foundations now aspire to facilitate. Considering the rise and fall of the infant mortality metric and those who saw its potential suggests a few simple insights. First, it is possible to find common ground in complexity, constitutive notions across local differences. Second, it matters which boundaries are crossed and how they are crossed. Any organization hoping to address social inequity will need to grapple with the powerful ideology that John Knowles called "rugged individualism," expressed through cultural idioms of manliness, new frontierism, and other pioneering discourses of the twentieth century. Compromise is necessary, but accommodating those ideals, Baumgartner learned, soured her own moral vision. Third, it is hard to know what is

[25] "Moving the Ford Foundation Forward," *Ford Foundation*, accessed October 15, 2015, https://www.fordfoundation.org/ideas/equals-change-blog/posts/moving-the-ford-foundation-forward/.

[26] Alan R. Weil, "Defining And Measuring A Culture Of Health," *Health Affairs* 35, no. 11 (November 1, 2016): 1947–1947.

important across boundaries without established trust and security not dependent on performance. One of the major failures of collaboration on matters of infant mortality was in compromising authenticity in order to smooth over differences. Relatedly, such "boundary-crossing" processes of engagement around matters of health in contexts of social inequity are destabilizing in the short term, and they need to take place in the presence of continuous and mutually-engaged partnerships. Measures of progress in these partnerships – as Baumgartner and others argued -- must value not agreement but candor. As the history of infant mortality indicates, confidence is built or lost in these processes, and the processes might best be tied to government that can maintain broad-reaching progress over time while being responsive to changing conditions raised by the people.

Finally, investors in new technologies and new metrics will continue to make incremental progress in reducing infant mortality averages and other objectives. As Baumgartner found, innovative new devices funded by philanthropic organizations and industry, particularly when devised in partnership with local residents and users, have great potential to serve as demonstration sites for attractive local solutions to identified problems. The MacArthur Foundation recently committed to assisting in the development of a "comprehensive set of Newborn Essential Solutions and Technologies" that are as effective but "cost 10-100 times less" than technologies in the United States NICUs.[27] The Embrace infant "sleeping bag" warmer is marketed as a "simple, effective way[s] to reduce infant mortality" with "measurable impact."[28] Nor are all innovations technological. In the late 1970s, amidst a shortage of incubators and severe hospital infections at a former IIAA

[27] "Rice 360° Institute for Global Health (Rice University) — MacArthur Foundation," accessed August 10, 2017, https://www.macfound.org/press/semifinalist-profile/rice-360-institute-global-health-rice-university/.

[28] Karen Weise, "A Simple, Effective Way to Reduce Infant Mortality," *Bloomberg.Com*, April 11, 2016, http://www.bloomberg.com/features/2016-design/a/jane-chen/.

hospital in Bogota Columbia that Baumgartner had visited on her 1951 trip, Dr. Edgar Rey y Martinez started a "Kangaroo care" program – a method of holding premature babies that involved skin-to-skin contact between a baby and a parent's bare chest that dramatically improved outcomes. Picked up by UNICEF in 1983, the practice was published in the *Lancet* in 1985. By the 1990s it was an evidence-based practice in the NICU at Brigham and Women's Hospital in Boston, and in hospitals around the world.[29]

But the problems embodied in infant lives are not contained within the clinic or the home or the segment of life bounded by the first year after birth. This is true not only from a social perspective, but also the perspective of individual lives. An infant that lives outgrows its category. Problems that are not observed or easily measured will not simply disappear. People investing money and human resources in global health must attend to not only internationally "valid" concepts, results and methods, but also to the aspects of life outside of the boundaries of measurement and expectation. This attention relies on understanding the values and cultural narratives shaping what and how we count in our interactions with an uncertain world. Debates over what counts in global health persist, as concerns about the health of communities remain suspended precariously.

[29] Andrew Whitelaw and Katharine Sleath, "Myth of the Marsupial Mother: Home Care of Very Low Birth Weight Babies in Bogota, Colombia," *The Lancet*, Originally published as Volume 1, Issue 8439, 325, no. 8439 (May 25, 1985): 1206–8; K. Ramanathan et al., "Kangaroo Mother Care in Very Low Birth Weight Infants," *The Indian Journal of Pediatrics* 68, no. 11 (November 1, 2001): 1019–23; Rao P. N. Suman, Rekha Udani, and Ruchi Nanavati, "Kangaroo Mother Care for Low Birth Weight Infants: A Randomized Controlled Trial," *Indian Pediatrics* 45, no. 1 (2008): 17–23; At the Materinidad Isidro Ayora: N. L Sloan et al., "Kangaroo Mother Method: Randomised Controlled Trial of an Alternative Method of Care for Stabilised Low-Birthweight Infants," *The Lancet*, Originally published as Volume 2, Issue 8925, 344, no. 8925 (September 17, 1994): 782–85.

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