Learning From Practitioners: Enabling Innovation to Improve Refugee Health Education in Kakuma, Kenya

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Enabling Innovation to Improve Refugee Health Education in Kakuma, Kenya

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Abstract

This thesis aims to inform the work of organizations doing refugee health promotion and education in the Kakuma camps in Turkana, Kenya. The United Nations High Commissioner for Refugees (UNHCR) reports there are 194,914 registered refugees hosted across four camps in Kakuma as of February 2020. UNHCR has estimated that the ratio of community health workers to refugees there is less than 1:1000, indicating the need for being efficient and effective in refugee health education activities.

A series of exploratory, qualitative interviews and field observations with sixteen health education practitioners from six organizations working across different health topics was conducted to address the main research questions of: 1) *What are the perspectives of community health practitioners on the opportunities and challenges for innovating to improve refugee health education in Kakuma?* 2) *What forms of support would community health practitioners like from their employing organizations and other stakeholders to continue innovating to improve refugee health education in Kakuma?*

These interviews and observations were coded and analyzed to generate themes, which were subsequently used to develop recommendations to share with the participating organizations that were interested in hearing the perspectives of their practitioners. Adapted versions of these recommendations were also developed to engage additional stakeholders working in refugee health education and promotion in Kakuma.

These recommendations are intended to serve as a resource for participating organizations and the wider community of stakeholders working on refugee health education, primarily in Kakuma but potentially also in the broader East African region and beyond. Furthermore, this work can provide insight from practitioners on the ground about how they would like to be better supported in innovating in their daily work to improve refugee health awareness and outcomes. The evidence base generated from these interviews and observations can potentially also be used to advocate for channeling more resources to refugee health education practitioners in Kakuma.

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List of Acronyms

ABCD	Asset-Based Community Development
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
APHA	American Public Health Association
ASRH	Adolescent Sexual and Reproductive Health
CBPR	Community-Based Participatory Research
CBO	Community-Based Organization
CCB	Creative Capacity Building
CDC	Centers for Disease Control and Prevention
CHW	Community Health Workers
CIDA	Canadian International Development Agency
CLTS	Community-Led Total Sanitation
COMESA	Common Market for Eastern and Southern Africa
DFID	Department for International Development in the United Kingdom
DRC	Danish Refugee Council
DRC	Democratic Republic of the Congo
DrPH	Doctor of Public Health
EAC	East African Community
FGC/FGM	Female Genital Cutting / Female Genital Mutilation
FXB	François-Xavier Bagnoud Center for Health and Human Rights
GBV	Gender-Based Violence
HCD	Human-Centered Design

HHI	Harvard Humanitarian Initiative
HIF	Humanitarian Innovation Fund
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
HuSEHR	Humanitarian Studies, Ethics, and Human Rights Concentration
IDIN	International Development Innovation Network
IDPs	Internally Displaced Persons
ICRC	International Committee of the Red Cross
IFRC	International Federation of Red Cross and Red Crescent Societies
IHRC	International Human Rights Clinic at the Harvard Law School
INEE	International Network for Education in Emergencies
IOM	International Organization for Migration
IRB	Institutional Review Board
IRC	International Rescue Committee
JICA	Japan International Cooperation Agency
KNBS	Kenya National Bureau of Statistics
MCH/CYF	Maternal and Child Health / Children, Youth and Families Concentration
MFI	Microfinance Institution
MOH	Ministry of Health in Kenya
MSF	Médecins Sans Frontières (Doctors without Borders)
NACOSTI	National Commission for Science, Technology and Innovation in Kenya
NCD	Non-Communicable Disease
NGO	Non-Governmental Organization
NIH	National Institute of Health in the United States

NRC	Norwegian Refugee Council
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
OECD	Organization for Economic Co-operation and Development
PIH	Partners in Health
RAN	ResilientAfrica Network
RAS / DRA	Refugee Affairs Secretariat / Department of Refugee Affairs in Kenya
SACCO	Savings and Credit Cooperative Organizations
SBS	Department of Social and Behavioral Sciences
SDGs	Sustainable Development Goals
SEL	Social and Emotional Learning
SOGI	Sexual Orientation and Gender Identity
SOPHE	Society for Public Health Education
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNHCR	The Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UoN	University of Nairobi
USAID	United States Agency for International Development
UUSC	Unitarian Universalist Service Committee
WaSH	Water, Sanitation and Hygiene
WFP	World Food Programme
WHO	World Health Organization

Acknowledgements

A saying hangs near the entrance of my former workplace: “Wisdom is like a baobab tree; no one individual can embrace it.” It goes without saying that none of this work could have come to pass without the many people who have supported me along the way.

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University Disability Resources provided access to a split keyboard for typing, when a 12-foot fall left me with limited mobility for seven months and counting.

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My collaborators in East Africa have been some of my most important teachers, showing me the ropes of how to work in the geographic region and in the field of refugee health education. Thanks to the ResilientAfrica Network (RAN) at Makerere University and the University of Nairobi (UoN), plus the many staff who supported my fieldwork at the Department of Refugee Affairs (RAS) and the UNHCR offices in Nairobi and Kakuma. Last, but not least, I would like to express my deepest gratitude to health practitioners and refugees – including the remarkable individuals who participated in this project as well as the people who informed its many stages with their advice, referrals, and feedback. To the residents of Kakuma, your openness and kindness played a more important role in making this project happen than you will ever know. You are a living example of how to promote a healthier and more equitable world. *Asante sana*, شكراً, *mahadsanid,* and I hope we can continue collaborating in the future to channel well-deserved support your way.

Section I: Introduction

Context and Motivation

The United Nations High Commissioner for Refugees (UNHCR) estimates that 70.8 million people living in the world are forcibly displaced, which is a record high in human history (UNHCR, 2019). Put into other terms, this is roughly equivalent to having 25 people flee every minute with almost 10% of the global population affected, although this is not evenly distributed and certain populations have been more heavily impacted than others (UNHCR, 2019). Among this number, over one-third have crossed an international border, with at least 20.5 million being refugees under the UNHCR mandate and another 3.5 million being asylum-seekers awaiting decisions on their applications.

A World Bank study published in 2017 showed that since 1991, most displaced people came from the same 10 "root" conflicts, with 15 countries "consistently" serving as the largest hosts. For example, the conflict in Syria is frequently featured in the media, with Turkey, Jordan and Lebanon serving as the largest hosts of people displaced from there. With few exceptions, these main conflicts and host countries are all in less-industrialized emerging economies, suggesting that the burden of displacement is not equitably shared (World Bank, 2017). According to the UNHCR 2019 report on global trends in forced displacement, more than two-thirds of refugees come from Syria, Afghanistan, South Sudan, Myanmar, or Somalia and four-fifths of refugees live in a neighboring country.

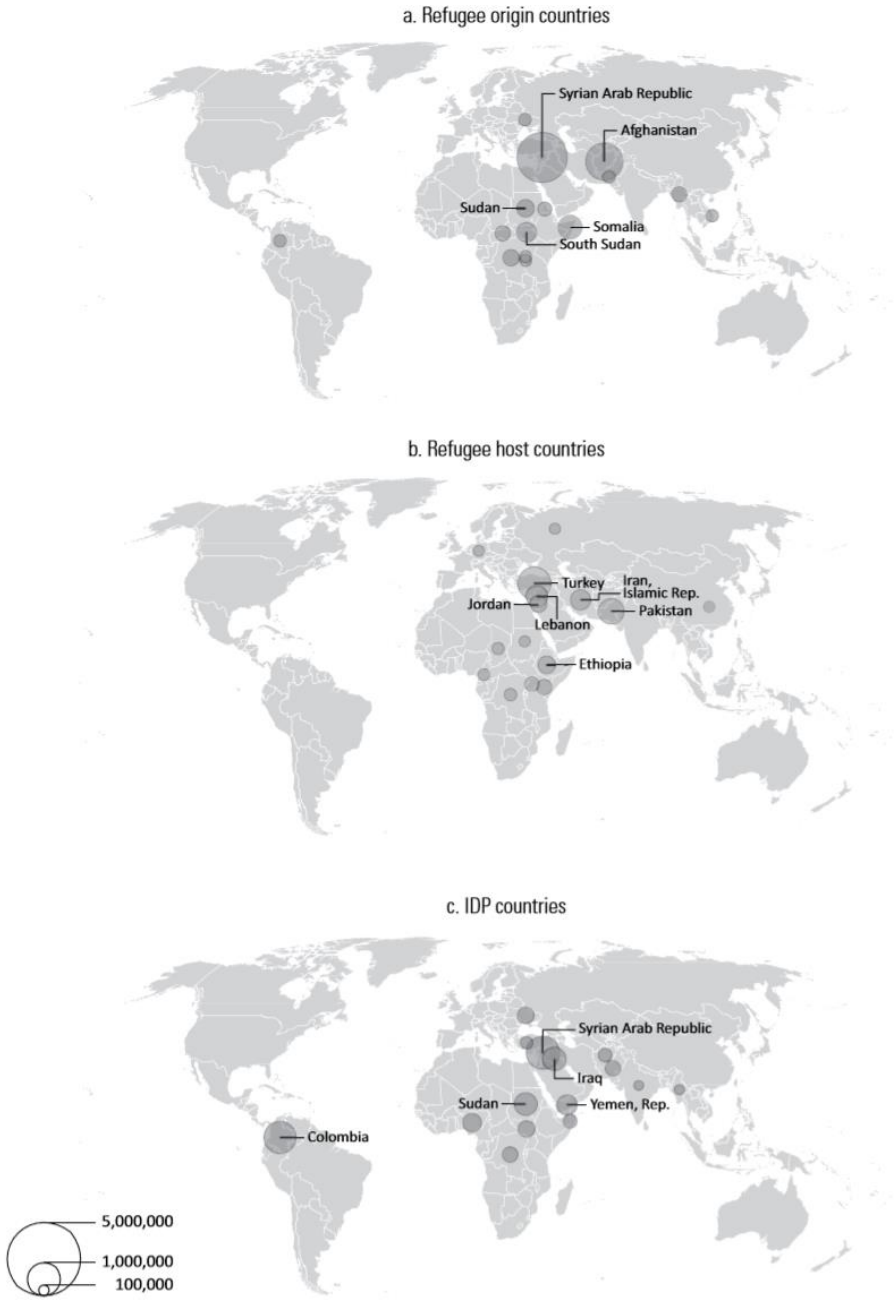


Figure 1.1.1. Displacement: An Uneven Impact Around the World

Source: UNHCR. (2017). Forcibly Displaced.

Note: For refugees, this figure includes refugee-like situations. For internally displaced people, this figure only includes those defined under the UNHCR mandate.

Hosting Situation

Across the East African region, over 2.2 million refugees are being hosted with at least another 1.8 million internally displaced persons (IDPs), forming a global hotspot of forced displacement (UNHCR, 2019). The long-standing conflict between what is now Sudan and South Sudan, and subsequent civil war in South Sudan, have led to the largest source of refugees and internally displaced in the East Africa region (UNHCR, 2019). Displacement from Somalia has been caused by a complex mix of conflict, state collapse, and drought (Hammond, 2013). Other countries producing high numbers of refugees include the Democratic Republic of Congo, Ethiopia, Burundi, and Rwanda, the last of which saw more displacement during the 1994 Rwandan genocide.

The largest host country in the region, Uganda, has accepted over 1.4 million refugees (UNHCR, 2020). Uganda is also known for policies that are relatively permissive, such as enabling refugees to hold land, work, vote and run for office in local elections, access education and healthcare services, and maintain freedom of movement with limited restrictions (Hovil, 2018).

Refugees in Kenya

The context of this project focuses on refugees and asylum-seekers in Kenya, primarily from its neighboring countries of South Sudan and Somalia, which are both among the top-five exporters of refugees in the world (UNHCR, 2019). Kenya is the second largest host of refugees and asylum-seekers in the East African region, with approximately half a million registered refugees reported by UNHCR in 2020. While more than 80% of refugees in East Africa are believed to be residing

in camps and settlements, even more displaced people may be unregistered by UNHCR, living in urban slums rather than accessing services in camps and settlements (UNHCR, 2020).

In Kenya, an estimated 53.9% of asylum-seekers are from Somalia, 24.7% are from South Sudan, and remaining persons of concern primarily come from Democratic Republic of the Congo (DRC), Ethiopia, Sudan, Rwanda, Eritrea, Burundi, and other countries (UNHCR, 2020). The displaced populations are primarily located in the Dadaab refugee complex near the Somalian border (44%), in the Kakuma settlements near the South Sudanese border (40%), and in urban areas (16%), with the largest urban area being Nairobi. Compared to UNHCR records for previous years, the proportion of refugees from South Sudan has been increasing compared to the proportion from Somalia, and correspondingly the proportion of refugees hosted in Kakuma has been increasing compared to the proportion of refugees hosted in Dadaab. Another trend is that the refugees hosted in urban areas has also been increasing (UNHCR, 2019; UNHCR, 2020).

Although the Kenyan government has previously announced plans to close Dadaab and Kakuma camps, both are still in operation today. Dadaab primarily houses Somalian refugees and is not accessible to non-essential personnel due to security and other concerns. The security situation and refugee policies are complex in Kenya, where there have been several terrorist attacks claimed by the Somalia-based al-Shabaab group (West, 2016). For example, during the fieldwork portion of this project, al-Shabaab claimed an attack in Nairobi that took place on January 15-16, 2019 with over 20 reported fatalities.

Refugee policies in Kenya can be more restrictive compared to its neighboring country of Uganda, where there are fewer Somalian refugees both proportionally and numerically. For example, it can be difficult for refugees to obtain approval in Kenya for employment permits, movement passes, and documents granting access to other services as applicants may be required to pay fees and can be left waiting for long periods of time for a response (NRC & IHRC, 2017). From the 2006 Refugees Act, moving outside a camp in Kenya without a movement pass can lead to a fine of $200 USD equivalent or six months in prison. Movement is even restricted within the camp at night through a curfew from evening until dawn.

This project focuses on Kakuma in Turkana County, Kenya. Near Kakuma Town, there are four camps housing refugees known as Kakuma 1, 2, 3 and 4 plus an integrated settlement called Kalobeyei. Kalobeyei uses a settlement approach, rather than a camp, housing refugees and Turkana host community members together with the goal of promoting socio-economic benefits for both marginalized populations (UNHCR, 2015). This is in recognition of how Turkana County is one of the poorest counties in Kenya, and how there was an unintended economic collapse after the repatriation of Sudanese refugees and reduction of humanitarian activities in 2005 (UNHCR, 2015). UNHCR reports there are 194,914 registered refugees hosted across four camps in Kakuma as of February 2020. As of February 29, Kakuma and Kalobeyei received 1,736 registered refugees and asylum-seekers thus far in the 2020 calendar year, with 1,069 coming from South Sudan (UNHCR, 2020).

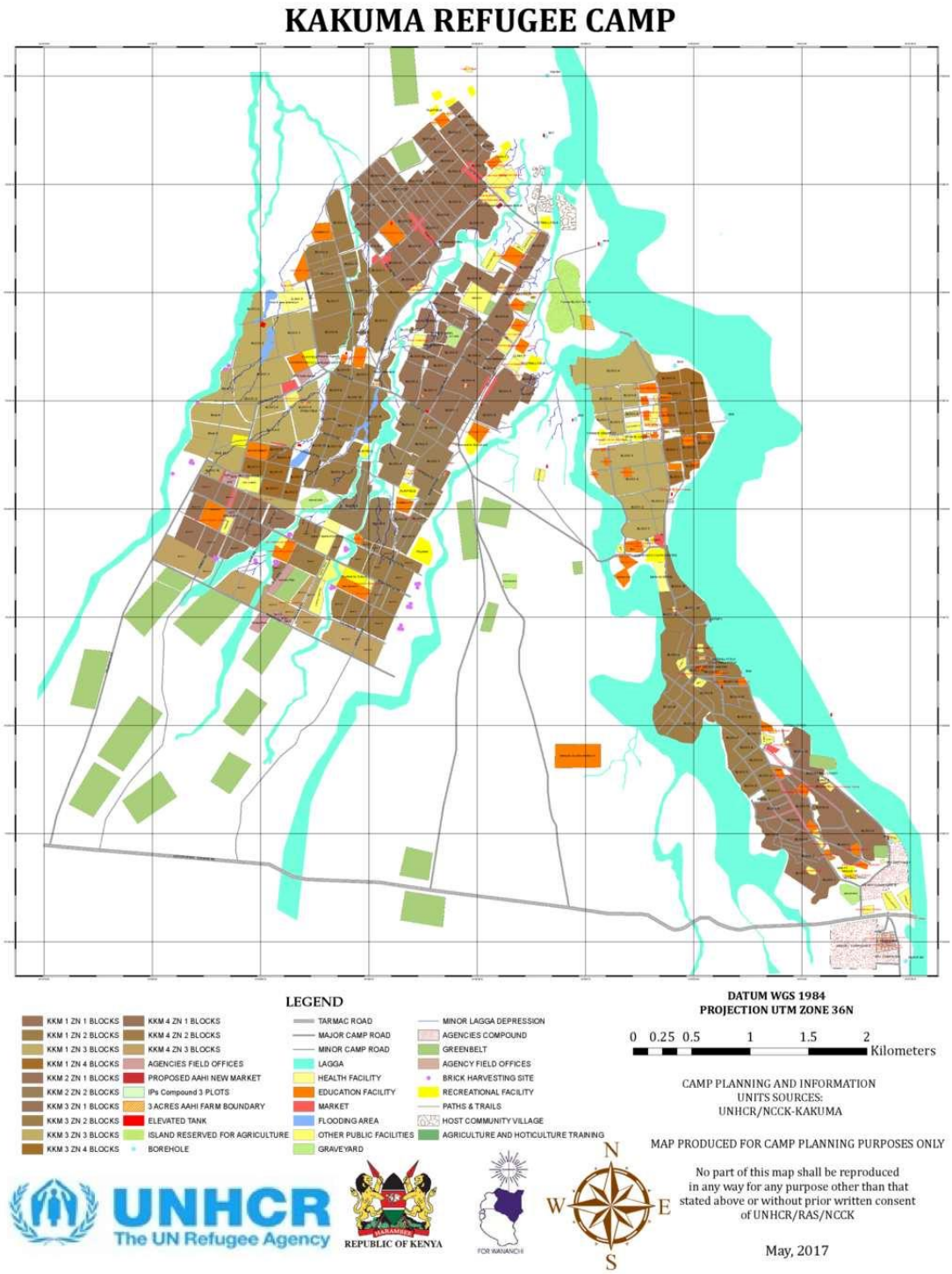


Figure 1.1.2. Kakuma Camps 1-4 Layout

Source: UNHCR. (2017). Operational Portal for Refugee Situations.

Refugee Health Education

The ratio of community health workers to refugees in Kakuma is estimated to be less than 1:1000, indicating the need for being efficient and effective in refugee health education activities (UNHCR, 2019). Furthermore, access to education, including health education, is often disrupted during humanitarian crises and then under-invested in during response processes, reportedly receiving only 1.4% of total humanitarian aid in 2016 (INEE & UN OCHA, 2016). It is estimated that approximately half of the population in Kakuma is comprised of school-age youth, and more than half of school-age youth in Kakuma do not attend school (Bellino, 2018). These resource constraints are compounded by the complexities of the structures coordinating humanitarian response efforts, such as the United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) cluster system that can result in the education sector and health sector working in silos.

There is an opportunity to explore the potential for innovation to improve refugee health education in Kakuma from the perspective of practitioners serving in the settlement. In addition to refugee health education practitioners working in Kakuma through UN agencies, Kenyan agencies, non-governmental organizations (NGOs), and community-based organizations (CBOs), there is an additional system to hire refugees as incentive workers who can serve as community health educators in Kakuma without having to go through the Kenyan employment permit system. Incentive workers are typically paid a cash stipend instead of a salary, with a compensation rate that unfortunately tends to be lower than that of employed staff. Insights on what diverse practitioners in Kakuma perceive to be gaps and opportunities could enable stakeholders to offer more support for improving refugee health education.

Project Description

The main research questions for this project are: 1) *What are the perspectives of community health practitioners on the opportunities and challenges for innovating to improve refugee health education in Kakuma?* 2) *What forms of support would community health practitioners like from their employing organizations and other stakeholders to continue innovating to improve refugee health education in Kakuma?*

Overview and Goals

The research questions focus on the topic of innovation in health education in a humanitarian context. The scope of innovations included is relatively broad, ranging from new products and processes to incremental improvements. When applied to health education, these innovations can improve the educational content or the delivery mechanisms. For some examples of innovations in this space, please see the profiles starting on page 65 and continued in the appendix. Instead of conducting a more general landscape review of refugee health education, during which it can be harder to generate specific recommendations, the topic of enabling innovation was chosen to complement the work of faculty members in public health at the ResilientAfrica Network who are already studying innovations to increase resilience in crisis and conflict. The geographic region of Kakuma was selected because of the possibility of gaining access through community partners, as opposed to Dadaab where non-essential personnel are not advised to visit or urban settings where refugees can be more difficult to find and may face higher risks of participation due to potential lack of registration and paperwork.

The project plan involves conducting a series of exploratory, qualitative interviews and field observations with health education practitioners from different organizations working across a wide variety of health topics. By engaging practitioners from a diverse set of employment situations, the intent is to find common themes that could potentially be applicable to several types of organizations working in refugee health education, as opposed to only smaller local CBOs or larger international NGOs. By looking across health topics, the intent is to recognize that various health topics have their own approaches and required sensitivities (e.g., addressing the stigma related to mental health, navigating different religious and cultural beliefs when discussing contraceptives), while generating recommendations that can potentially be used to inform several types of refugee health education projects.

This work is intended to serve as a resource for participating organizations as well as the wider community of stakeholders working on refugee health education, primarily in Kakuma but potentially also in the broader East African region, providing insight from practitioners on the ground about how they can be better supported to innovate in their daily work of improving refugee health awareness and outcomes. The evidence generated from these interviews and observations can potentially also be used to advocate for channeling more resources to refugee health education practitioners, working in Kakuma as well as other humanitarian contexts.

Preparation

To set up for this project, a literature review was conducted using academic resources as well as gray literature (i.e., publications outside of traditional and commercial academic channels) from practitioner organizations. This process helped provide context for and inform the design of the qualitative interviews and field observations. In the autumn of 2018, organizations working on

refugee health education in Kenya were contacted to gather more information about the situation in Kakuma as well as other refugee communities in Kenya and to get a sense of what type of health education work is happening in these locations. Organizations were asked about what they would like to know from health education practitioners on the ground to inform their programming and resource allocation, which contributed to the development of the semi-structured interview questions that were used in the study. Additionally, organizational contacts were asked about referrals to other organizations that might be open to sharing their thoughts.

Preparatory work in the winter of 2018-2019 involved outreach to organizations doing health education work in Kakuma that expressed a willingness to provide access to their practitioners for interviews and observations. This exploratory project received an Institutional Review Board (IRB) exemption from the Harvard T.H. Chan School of Public Health, while the joint IRB at the University of Nairobi (UoN) and Kenyatta National Hospital was consulted. Based on this, a research permit was not sought from the National Commission for Science, Technology, and Innovation (NACOSTI) for this exploratory project, but a permit and full IRB review for human subjects research may be needed for future work. The fieldwork visit to Kakuma in February 2019 was approved by the Kenyan Department of Refugee Affairs (RAS) and the Office of the Camp Manager, with permission to stay in accommodation there granted by UNHCR. The work throughout the summer and fall of 2018 established a foundation for exploratory qualitative fieldwork in Kakuma during the spring of 2019. This included data collection from semi-structured interviews and observations, as well as data processing and analysis to report de-identified general themes back to participants and stakeholders for feedback during the summer and fall of 2019.

Process for approval to do research in Kenya

Process for approval to do fieldwork in Kakuma

Steps to obtain approval

- Partnership confirmation with Kenyan institution(s)
- Partnership confirmation with organization(s) in Kakuma
- Letter(s) of support from Kenyan partner institution(s)
- Kenyan Institutional Review Board (IRB) review, which can take over 60 working days or over 3-4 calendar months
- Harvard T.H. Chan School of Public Health IRB review, which can be done simultaneously with other IRB reviews
- Kenyan National Commission for Science, Technology and Innovation (NACOSTI) Research Permit, which can take a minimum of 30 working days or 2 calendar months
- Letter(s) of sponsorship for a visit by partner organization(s) in Kakuma
- RAS Approval for a visit to Kakuma
- UNHCR approval for a flight through UN Humanitarian Air Service (UNHAS) or other travel arrangements (e.g., travel by road from Lodwar, etc.)
- UNHCR approval for accommodation within Kakuma or other accommodation approval (e.g., through World Food Programme, etc.)
- Approval from the Office of the Camp Manager in Kakuma
- Security briefing by UNHCR

Figure 1.2.1. Processes to Obtain Approval for Research in Kakuma, Kenya

Note: This is based on the project fieldwork experience from 2018-2019, and processes may vary for other projects.

Methods and Approach

Health education practitioners were identified and recruited from organizations in Kakuma, Kenya, that expressed interested in hearing the perspectives of their field staff and agreed to participate in this exploratory project. After providing consent, practitioners participated in a semi-structured interview planned to last an average of 40-60 minutes. When logistically possible, practitioners were also observed for a half-day to a full-day of work, while qualitative field notes were taken. Whenever practitioners engaged with refugee community members during the field observations, refugees were also informed about the exploratory project and asked for verbal consent, although no field notes were taken about refugee community members as observations were focused on the practitioners only. A translator was not used, as all participating practitioners spoke English.

The cleaned interview and fieldnotes were coded for themes and sub-themes, and de-identified general themes were reported back to participating practitioners and organizations for feedback to help check that the findings did not misrepresent what was shared. These themes were subsequently used to develop recommendations to share with participating organizations to help inform their work. Adapted versions of these recommendations were also developed to engage additional relevant stakeholders, to help advance the discussion on how to channel more support to refugee health education practitioners working in the communities of Kakuma.

Section II: Analytical Platform

Analytical Platform Overview

Since this project explores the potential for learning from practitioners to enable more innovation in refugee health education, the underlying analytical platform is informed by findings from relevant literature across two main topic areas: 1) health education, and 2) design and innovation processes. There are some areas of overlap among these topics, and the literature reviewed includes academic papers as well as gray literature produced by practitioner organizations. Participatory methods are a cross-cutting topic, which are discussed as applied to health education as well as to design and innovation processes. When possible, the discussion focuses on concepts and frameworks that have already been applied to humanitarian contexts. From a visual standpoint, the analytical platform aims to focus on the middle band of the figure below.

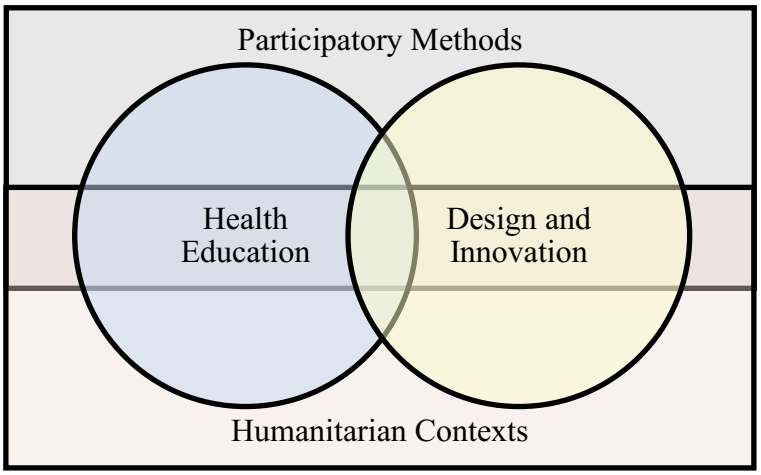


Figure 2.1.1. Analytical Framework Topics

Part 1: Participatory Health Education

Health education is thought to have become a distinct discipline in the 1940s, although the history goes back much earlier (Oxford, 2011). The terminology for health education has been developing for over 90 years, pioneered through organizations such as the Public Health Education Section of the American Public Health Association (APHA).

Common Terms and Definitions in Health Education

One popular definition of health education proposed by Green and Kreuter in 2005 is "any combination of learning experiences designed to facilitate voluntary actions conducive to health." Health education often includes activities ranging from community outreach to the training of healthcare workers. This project focuses on health education of community members, and not the training of professionals in the healthcare system.

These types of health education activities typically fall under health promotion and preventative public health interventions (WHO, 2019). Project stakeholders have shared that their investments in community health education are intended to equip community members with the ability to make informed health choices as well as to understand, navigate, and interact with the health care system. Community health education prepares people not only to address present health issues, but also to consider potential health challenges in the future (McKenzie & Pinger, 2013).

Community health education can be provided by practitioners in diverse roles including medical and public health professionals, teachers, community leaders and elected officials, all of whom can play a role in community health education. One of the most common providers of health

education of community members are community health workers (CHWs). CHWs are defined by the United States' National Institute of Health (NIH) as "lay members of the community who work either for pay or as volunteers in association with the local health care system in both urban and rural environments." In expanding this definition to the Kenyan context, CHWs may work with the humanitarian-organized health care response as well as the host country's health care system. CHWs can play an important role in helping to close gaps in health education and health care access (Last Mile Health, 2018). Last Mile Health has been working to support community health educators who are CHWs by professionalizing the field through high quality training, standardization of licensing, and forming communities of practice. Ideally, this can lead not only to higher quality work by CHWs, but also to higher pay and more sustainability for CHWs to work long-term.

A paraprofessional, sometimes shortened to para-pro, describes a type of health educator who may be trained to concentrate on certain delegated tasks without being licensed to practice as a fully qualified professional. For example, an assistant to a school nurse may be a paraprofessional who has been trained to help with some aspects of conducting health outreach among the student body. A systematic review across 25 countries revealed that CHWs are considered paraprofessionals in several contexts (Olaniran, 2017).

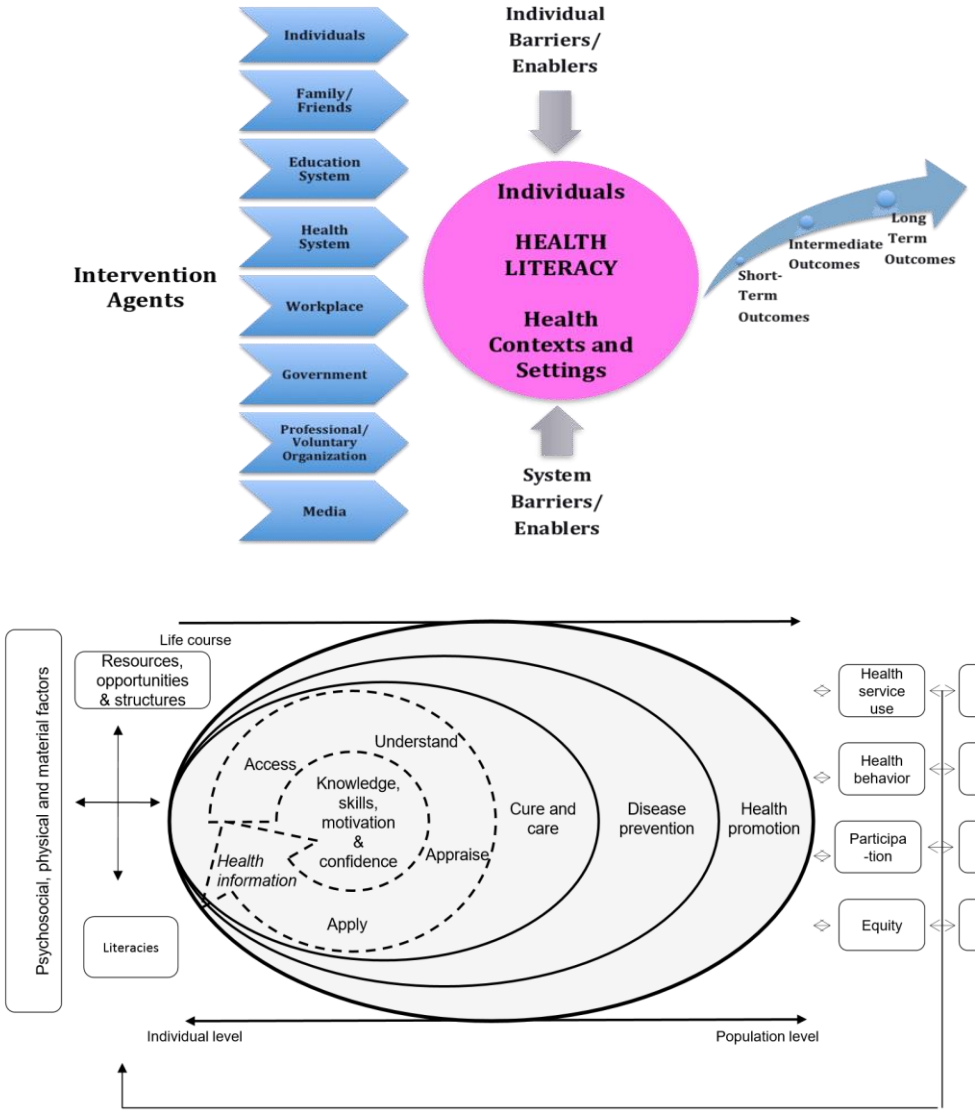


Figure 2.2.1. Models of Health Literacy

Source for Top: Rootman et al. (2010). Presentation at National Health Literacy Think Tank, Adapted from: Kwan et al. (2006). The Development and Validation of Measures of Health Literacy in Different Populations.

Source for Bottom: Sorenson et al. (2012). Health Literacy and Public Health: A Systematic Review and Integration of Definitions and Models.

One definition of health literacy shared by the Centers for Disease Control and Prevention (CDC) is the "degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions." The WHO, along with various government health ministries, also promotes building health literacy and defines it as the "cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health."

Foundational to health literacy are basic literacy and numeracy, which enable people to read and interpret information (Agency for Healthcare Research and Quality, 2011). For example, literacy levels have been found to be correlated with health knowledge, behavior, risk factors, morbidity and mortality (Rudd, 2014). Scientific and technological literacy are additional skills with bearing on health literacy. Scientific literacy includes the "scientific ways of knowing and the process of thinking critically and creatively about the natural world" (Maienschein, 1998). As technology is increasingly used to deliver health education and health services, digital health literacy is an emerging term for considering health literacy "in the context of technology" (Dunn et al., 2019).

Related to digital literacy, it is important to consider the digital divide because major inequalities exist when it comes to technology access and familiarity, which may be exacerbated during conflict and in crisis settings (Overseas Development Institute, 2019). Health educators in humanitarian contexts can face additional challenges in increasing the health literacy of community members because formal learning has often been interrupted for years and people may not have the opportunity to develop foundational literacy, numeracy, and scientific skills

(UNESCO, 2016). Additionally, refugee health educators may have to address more language differences and special needs compared to health educators working in non-emergency situations (Fennelly, 2006).

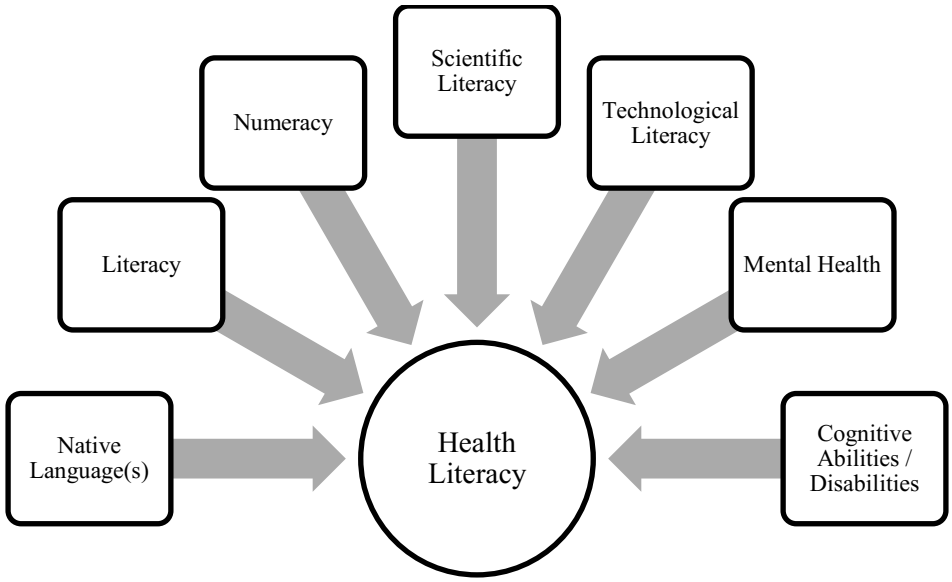


Figure 2.2.2. Some Factors Influencing Health Literacy

Beyond the actions of health educators, the health literacy environment matters. The Health Literacy Project at the Harvard T.H. Chan School of Public Health provides resources to organizations on how to cultivate accessible health literacy environments, including the use of understandable and inclusive terminology. In the Kenyan context, an example of understandable health language might be vocabulary that the average community member will be familiar with, as opposed to professional jargon. An example of inclusive health language in Kenya might be discussing happiness and stability, rather than using stigmatizing terms like "mental illness."

Various tools have been developed to help researchers and practitioners with health literacy measurements, such as the resources included in the Health Literacy Tool Shed database led by

the NIH, Boston University, and RTI International. A helpful overarching framing for health literacy measurement is included below:

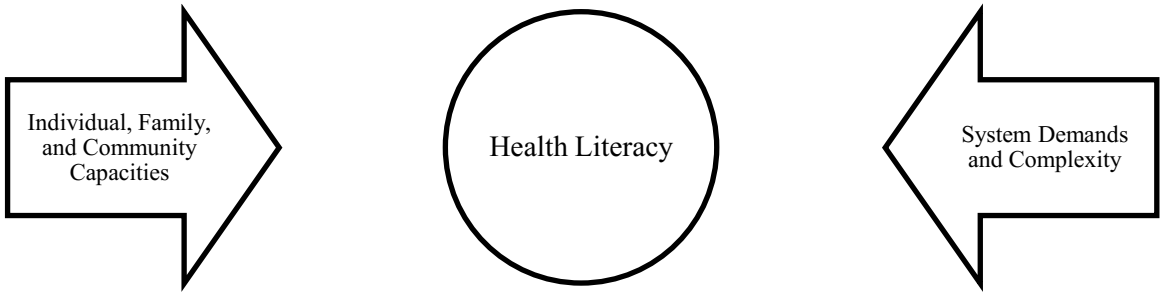


Figure 2.2.3. Considerations for Measuring Health Literacy

Adapted from: Parker, R. (2009). Measuring Health Literacy.

Common Terms and Definitions for Community Participation

In the field of sustainable development, participatory development approaches have been growing in popularity since the 1970s, influenced by thinkers like Paulo Freire and E.F. Schumacher (Keough, 1998). Through decades of academic theorizing, field research and practice, many ideas and techniques have emerged. The following table describes some common concepts in participatory development, in no special order, which was compiled for reference during the project.

Table 2.2.1. Some Common Phrases in Participatory Development

Public Participation / Citizen Participation	Methodology for inclusion of the public in activities (Bobbio, 2019)
Stakeholder Analysis and Engagement	Process of mapping and engagement of stakeholders who are impacted by the project (UN, 1998)
Capacity-Building	Process where individuals and institutions can learn to obtain, improve, and retain knowledge and skills (Smillie, 2011)
Capabilities Approach	Theoretical framework based on Amartya Sen's work advocating for freedom of choice as a human right (Sen, 1985)
Asset-Based Community Development (ABCD)	Methodology in sustainable development based on the "strengths and potentials" of participating communities (Blickem, 2018)
Community-Led Total Sanitation (CLTS)	Participatory methodology to mobilize communities in reducing open defecation, which has had some controversy over its use of public shaming, and raises questions about the balance of individual choice vs. community benefit (Kar & Chambers, 2008)
Training of Trainers (ToT)	Training participants who will go on to train other participants, initiating a "training cascade" (Mormina & Pinder, 2018)
Teach-Back / Show-Me Methods	Communication method for healthcare workers to confirm that patients understood what was explained (SOPHE, 2016; National Quality Forum, 2005)
Action Research / Participatory Action Research (PAR)	Process that links taking action and doing research through critical reflection, which can blend who is the practitioner and who is the researcher (Lewin, 1944)

Table 2.2.1. Some Common Phrases in Participatory Development (Continued)

Community-Based Participatory Research (CBPR)s	Partnership approach to research, ensuring community members and other participating stakeholders are equitably involved (Schulz et al., 1998)
Photovoice	Participatory qualitative research method where participants are provided with tools to document and reflect on their reality (Wang, 1992)

The formats and levels of participation may vary. The figure below shows an example spectrum with differing depths of participation. While there can be many benefits to increasing participation (e.g., increased buy-in and project sustainability, increased levels of satisfaction, increased confidence and feelings of empowerment, etc.), drawbacks include how more participatory approaches tend to be time- and resource-intensive, for the organizers as well as the participants. There is an increasing amount of effort being made to reduce the burden of participation, particularly among people living in poverty or in other vulnerable situations. In the realm of participatory research, one example of this is the Lean Research Initiative that aims to do no harm through ensuring that research is respectful, relevant, and right-sized in addition to being rigorous (DFID & Nike Girl Effect, 2016; Hoffecker et al., 2015).

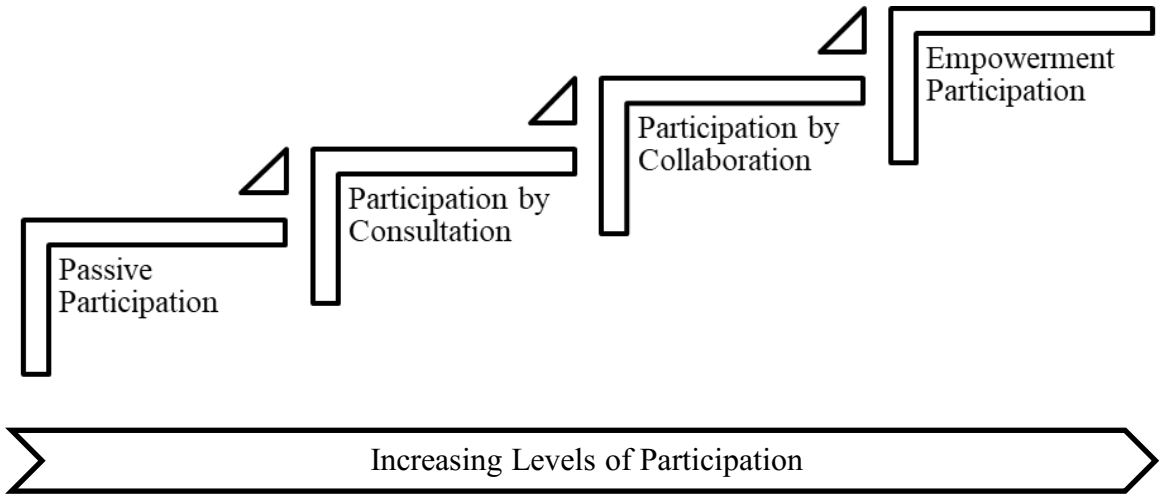


Figure 2.2.4. Example Spectrum of Participation

Adapted from: Tufte & Thomas. (2009). Participatory Communication: A Practical Guide.

Health education can fall across the spectrum of participation levels. For example, on one side of the spectrum are one-way information transfers, such as SMS alerts without the capability of processing responses, audio and video transmissions where audiences cannot make comments or ask questions, and static text and images in the form of health posters, signs, or murals. On the other end of the spectrum are initiatives that include two-way communication, such as door-to-door outreach campaigns where health workers engage community members in conversations, and even initiatives where participants help to co-create the health education content. Please see the appendix for two examples of highly participatory health education campaigns: Pre-Texts led by Professor Doris Sommer at Harvard University and Girl Effect led by the Nike Foundation (Sommer, 2019; Boyd, 2016).

Participatory Health Education in Humanitarian Contexts

Education is an important social determinant of health, particularly for health conditions affecting refugees, like malnutrition, mental health challenges, respiratory infections from cooking smoke, waterborne diseases, and other infectious diseases. For example, in refugee settlements, one major focus of health education and promotion has been adopting hygienic and preventative behaviors that help stem the spread of disease in close quarters (Hsan et al., 2019). In the time of COVID-19, there have been several communication campaigns about hand-washing and social distancing in refugee settlements, encompassing a mix of expert recommendations, visuals, and videos across channels such as physical art projects, radio and television programs, as well as SMS and social media platforms (PIH, 2020; Washington Post, 2020; UNHCR, 2020). One participatory project around this topic is a series of refugee-led videos on how to wash hands and greet others following health guidelines and cultural norms, filmed in languages common among unaccompanied refugee minors in Greece to share on WhatsApp and social platforms (MIT D-Lab & Faros, 2020).

Historically, many health education programs in humanitarian and development contexts have been more prescriptive, often resorting to telling as many people as quickly as possible to do or avoid an action. Participatory approaches can be time-consuming but have the potential to put more control over decision-making in the hands of refugees, with participants ultimately having the freedom to choose whether and how much to follow recommended health advice. This requires implementing organizations to accept that their investment in health education may not lead to any guaranteed outcomes, however, because health advice may not necessarily be followed or may only be selectively followed (Zolkefli, 2017). Urgent issues, like COVID-19, may also be

addressed along the chosen timelines of participants rather than the recommended timelines of health experts (Harvard Medical School, 2012). For example, non-pharmaceutical interventions like social distancing can be started long after experts recommend, as it can be difficult to believe such behavior change is necessary before the seriousness of the health issue becomes more apparent. Even if there is motivation for behavior change in this scenario, non-mandated measures may still not be followed because of barriers to taking action, like the competing priorities of leaving shelter to pursue economic activity to survive in conditions of poverty.

Figure 2.2.5. Spiral Model Showing Stages of a Behavior Change Process, Where Duration of Stages is an Individual Matter

Source: Harvard Medical School. (2012). Harvard Health Publishing.

Adapted from: Prochaska, J. O. (1992). In Search of How People Change, American Psychologist, Vol. 27, No. 9, pp. 1102–14.

In participatory processes, the nature of creating a platform to hear more voices is that disagreements can arise between diverse stakeholders, requiring conflict resolution and consensus-

building processes (International Association for Public Participation, 2016). In humanitarian contexts, where there can be tensions between different groups of refugees or between refugees and host community members from severely limited resources and historical trauma, navigating disagreements is a critical part of peacebuilding (Mwaruvie & Kirui, 2012).

While there is potential for accessible health information and skill development to support refugees in feeling empowered, making informed health choices, and being better able to navigate the health services available to them, health education interventions must be paired with access to a functional health ecosystem, and are not a substitute for other health care interventions. Regarding the earlier example of health education related to SARS-CoV-2, such measures will not work if the refugee settlements remain too densely populated, and have insufficient resources for community members to effectively shelter-in-place with proper hygiene practices (PIH, 2020; UNICEF, 2020; UNHCR, 2020).

Challenges for health educators in humanitarian contexts are wide-ranging, as partially illustrated in Figure 2.2.2., showing the myriad of factors that can influence health literacy. Displaced populations often speak different languages, come with diverse religious and cultural requirements for health services, may have had less access to formal education and health education, are adjusting to new environments with unfamiliar healthcare systems to navigate, face unique health challenges that may differ from the rest of the population (e.g., post-traumatic stress), and may be affected by historically paternalistic systems limiting participation and autonomy (Fennelly, 2006). All of these can contribute to displaced people not feeling like they have the ability or resources to care for their health in the way they may prefer.

Despite multiple challenges associated with participatory health education in humanitarian contexts, it can be worthwhile to attempt participatory processes due to potential benefits such as increased inclusion, feelings of ownership and buy-in, more feedback from participants, and higher levels of beneficiary satisfaction (OECD, 2004). With the growing availability of evidence on how to increase the positive impact of participatory health education and mitigate risks, these challenges can be approached with patience, thoughtfulness, strategy, and creativity.

Relevance to Project

In summary, health literacy affects refugees' health decisions and behaviors, their access to health facilities and services, and ultimately their health outcomes. Researchers and practitioners alike are exploring how to effectively promote health and well-being while increasing community agency. Opportunities abound for improving refugee health education, as displaced populations often face insufficient access to information and skill-building. Health education practitioners, including CHWs, are an important stakeholder group to listen to when learning how to address community challenges and utilize community assets to build health literacy. Increasing design literacy among practitioners, discussed below, may have the potential to lead to innovations that can eventually help increase refugee health literacy.

Part II: Participatory Design and Innovation

Design is an iterative process that has been applied to create and refine products as well as services, programs, and policies in humanitarian contexts (Nielsen, 2013; Schwittay, 2014; Redfield, 2015; Crea, 2015). Design has also been applied to develop processes and systems, such as supply chain networks in humanitarian logistics, as well as to plan environments of various scales, such as the layout of a refugee settlement or a library inside a classroom within a school serving refugees (Ichoua, 2010; Melnyk et al., 2013; Jahre et al., 2018; Sinclair, 2006). In health education, design has been used for programs, curricula, educational tools, visuals and other communication materials, testing them to get feedback and redesigning for improvement (Bill et al., 2009; Hoffmann & Worrall, 2004).

Common Terms and Definitions

Design thinking is a term for the creative thought process that is used iteratively to develop solutions to challenges, which can be taught and practiced (Brown and Katz, 2011, Dym et al., 2005). The terminology used to describe a design process, the number and names of design phases or steps, and the visualizations may differ from place to place, or organization to organization. Below is an example of one design cycle, used by the International Development Innovation Network (IDIN) funded through the United States Agency for International Development (USAID) and by D-Lab at the Massachusetts Institute of Technology (MIT) in the Rhino Camp refugee settlement at Arua District, Uganda (Smith & Okurot, 2019).

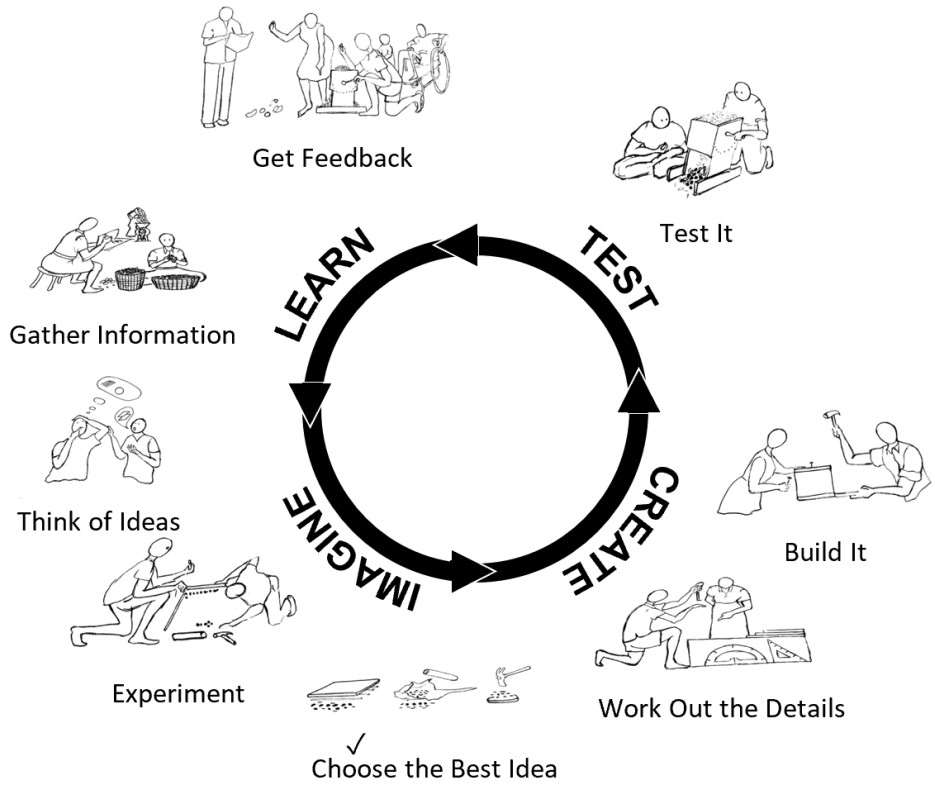


Figure 2.3.1. Example of a Design Cycle Applied to a Humanitarian Context

Source: Smith et al. (2019). Design Cycle from the International Development Design Summit in Uganda on Refugee Livelihoods.

Design processes are a way to develop new ideas that can address a need, creating inventions and innovations. The focus for this project is on innovations (i.e., any significant contribution or improvement upon existing tools and methods that adds value) in refugee health education, rather than the invention of novel products and services. The novelty level of innovations and their impact vary widely, from radical revolutions to incremental evolutions (Dewar & Dutton, 1986). Design can also be used to adapt innovations from one context to be more appropriate for implementation in another context (Castro et al., 2010).

Participatory Design Processes

User-centered design (UCD), user-driven development (UDD), and human-centered design (HCD) are creative design approaches that focus on building empathy with the target users, or the people intended to use the designs, and aim to develop solutions that are suited to their needs (IDEO, 2009). ISO 9231-210:2010 defines HCD as "an approach to interactive systems development that aims to make systems usable and useful by focusing on the users, their needs and requirements by applying human factors…usability knowledge, and techniques. This approach enhances effectiveness and efficiency, improves human well-being, user satisfaction, accessibility and sustainability; and counteracts possible adverse effects of use on human health, safety and performance." In guiding materials, such as those from the UNICEF Office of Innovation HCD Dossier, designers are often challenged to involve the user in as many steps of the design process as possible.

Reported benefits of using human-centered processes typically include increased usability and user satisfaction, as these processes aim to create solutions that match the users' needs and workflows, rather than asking people to change their behaviors to match the product or service being designed (Karel et al., 2002).

Forms of user- and human-centered design methods have been used with refugees to create social innovations that serve refugees as well as to support refugees in designing their own innovations (Moser-Mercer et al., 2016). In crisis-driven innovation, constraints can even lead to more creative solutions, although the risks of trying something new with unknown impact need to be managed carefully (Bessant et al., 2015).

Design and Innovation in Health and Humanitarian Settings

There are many forms of innovations, and many ways of innovating. For example, in addition to "innovation pushed by technology" and "innovation pulled by the market," there is also design-driven innovation and design-inspired innovation, which refer to innovations generated through a design process (Sten & Walsh, 2006; Vergani, 2009). As illustrated in the figure below, innovations in health education have been driven by different factors throughout history.

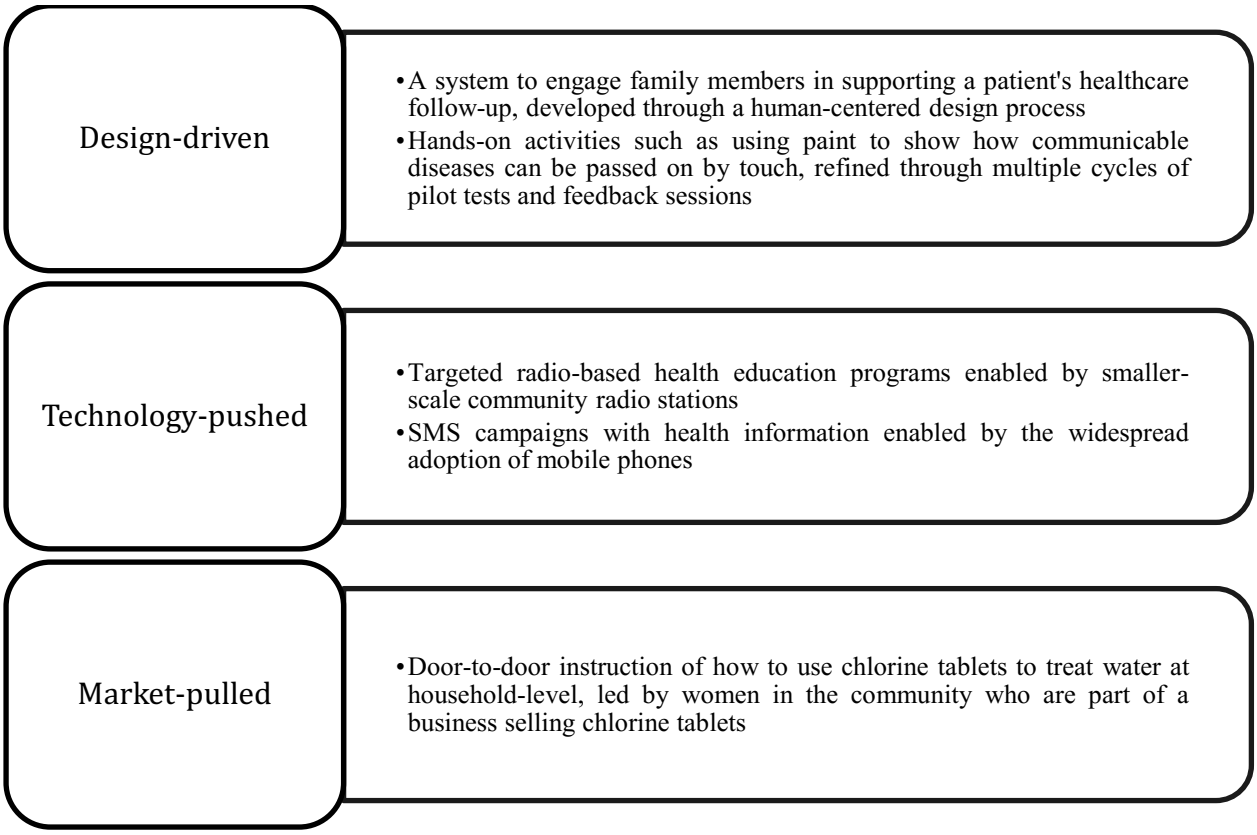


Figure 2.3.2. Examples of Different Types of Innovations in Health Education

There can also be overlaps between the categories above. For example, TeachAids may be considered both a technology-pushed and design-driven innovation, as it leverages recently available technology and uses a documented design process (Sorcar, 2009). TeachAIDS was

originally designed to convey critical information about Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome (HIV/AIDS) in regions where the topic remains stigmatized and challenging to discuss. The program used technology and a design process to create animated videos, featuring accessible analogies paired with celebrity voice actors. After learning from implementation in multiple countries, TeachAIDS became TeachAids, which now produces a variety of health education aids.

As a field, humanitarian innovation has been gaining attention, with a wide spectrum ranging from organization-led innovation, such as a mapping application developed by UNHCR Innovation, to more grassroots refugee-led innovation, such as community members making their own tools from local materials for use at an innovation center in the refugee camp (Betts et al., 2015). The humanitarian innovation ecosystem has an increasing number of actors working both collaboratively and independently on a multitude of diverse innovations (Ramalingam et al., 2015).

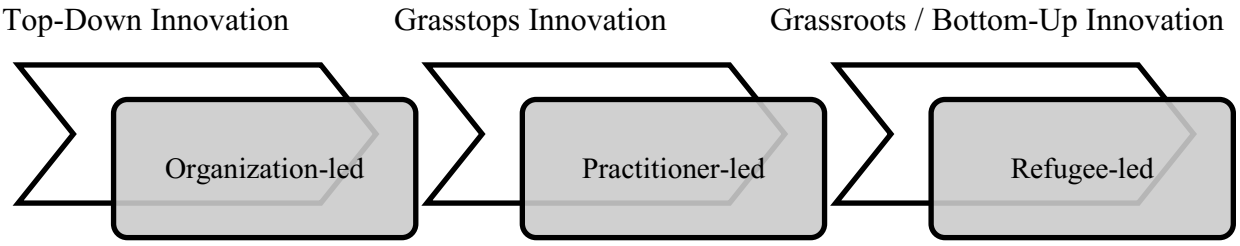


Figure 2.3.3. Practitioner-Led Innovation in a Spectrum of Humanitarian Innovation

Innovations led by individual (or groups of) refugee health educator(s) may lie somewhere between innovations led by organizations and innovations led by community members who are intended to be the audience of the health education innovations they are creating. Even if refugee

health education practitioners may also be community members themselves, they have a unique role in the community and their use of the innovations may be different (i.e., using the innovations for community outreach vs. personal use).

Supportive Processes and Structures for Humanitarian Innovation

In recognition of how design and innovation does not occur in a vacuum, the following concepts and resources from both academic and practitioner literature provide guidance on how to implement design and innovation processes within a particular context.

Resources for Inclusion

Innovations can be designed with involvement from different groups of stakeholders and co-created, where one group is not leading another group and all are participating in equitable ways. This process of having diverse groups work on innovations collaboratively is sometimes referred to as co-design or co-creation (Sanders & Stappers, 2008). The shift towards more collaborative innovation processes is an example of transitioning from closed innovation to more open innovation (Lee et al., 2012). Creating such channels for input and even leadership from the people who will be most affected is a way to design innovations that are better adapted to suit the contexts intended for implementation.

In inclusive innovation processes, it is important to consider how established innovation institutions and development agencies with certain goals may be engaging with grassroots innovators (Fressoli et al., 2014). There are often biases and power dynamics at play, and these processes can be a tool for promoting equity or for perpetuating injustice, depending on how they

are used. While many innovation efforts attempt to include a stakeholder group by gathering information at the beginning and feedback at the end, there are opportunities to engage the stakeholders throughout each step of the design, innovation, or planning process (OCHA, 2019). The level of inclusion and participation can vary, from one-way informing of stakeholders and two-way consultation to more equitable contributions through co-design and even leadership by stakeholders (Smith & Thompson, 2019).

Figure 2.3.4. Opportunity for Inclusion Throughout the Humanitarian Program Cycle

Source: OCHA. Humanitarian Programme Cycle. Accessed at https://www.humanitarianresponse.info/en/programme-cycle/space

One approach that combines innovation and participatory development is the MIT D-Lab's creative capacity building (CCB) methodology, which enables people to become active creators of their own solutions rather than just passive recipients. CCB has been tried in a range of humanitarian contexts, including with internally displaced people in Uganda through the Unitarian Universalist Service Committee (UUSC) and with unaccompanied refugee minors in Greece as

part of D-Lab's Humanitarian Innovation Practice. The CCB philosophy suggests that the process of innovation, beyond the products of innovation, can also lead to impact; engaging people in the process of innovation and empowering people to create their own solutions can help with satisfying needs in the upper levels of Maslow's hierarchy of needs. For example, feelings of belonging can be increased by working with teammates on a design, and feelings of self-esteem and self-actualization can be increased through creative and problem-solving pursuits (Maslow, 1970).

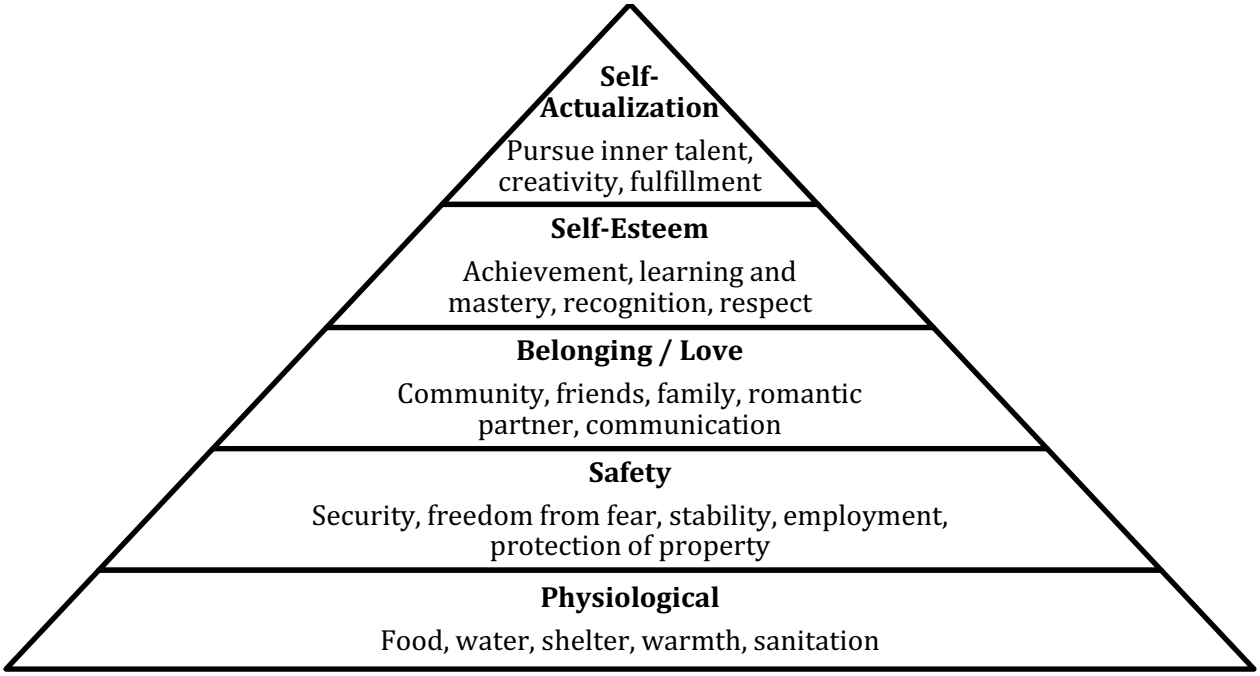


Figure 2.3.5. Hierarchy of Needs

Adapted from: Maslow, A. (1970). Motivation and Personality (2nd Edition). Harper & Row.

Most humanitarian activities understandably focus on satisfying the more basic needs for survival such as physiological needs (food, water, shelter, sanitation, etc.) and safety needs (physical security, property, etc.), despite how many refugee situations are now protracted; there is an opportunity to explore how to satisfy higher order needs as well (Drennan & Joseph, 2005; Crisp,

2013). For example, participation in a design or innovation process can lead to increased creative confidence, which builds people's capacities to continue to engage in creative problem-solving, as well as feelings of agency and resilience (Kelley & Kelley, 2012; Royalty, 2014; Paton & Johnston, 2011). Design literacy (i.e., familiarity with design processes and terminology) also better equips people to discuss their ideas and methods with others, which can help lead to more improvements in the proposed solutions. D-Lab has found that while participatory methods may require a larger time investment, using an approach that enables design *by* people in the community can provide different benefits compared to having experts designing *for* or *with* community members.

Regarding resilience, the ResilientAfrica Network has developed a framework to consider how innovations can build resilience, improve capacities, and address vulnerability in communities (RAN, 2013). This cycle, illustrated in the figure below, includes steps which are common to many innovation processes, such as: 1) becoming familiar with the contexts; 2) framing the challenges and opportunities; 3) identifying, building and testing potential interventions; and 4) evaluating feedback received to inform future iterations. This framework also encourages stakeholder engagement and participation throughout the process of innovation, reinforcing the importance of the processes as well as the products of innovation. There are many resources that could be used to help measure resilience in community members and staff members, such as existing resilience scales (Connor & Davidson, 2003; Paton & Johnston, 2001; Wagnild & Young, 1993). A systematic review found that while refugees and migrants are at higher risk for mental health disorders, resilience is a "key protective factor" (Siriwardhana, 2014). Other studies have found that refugees and migrants tend to score higher on resilience scales than resident citizens,

potentially due to necessity of "positive adaptation to significant adversity" and influenced by levels of trauma experienced (Gatt et al., 2020. Lusk et al., 2019).

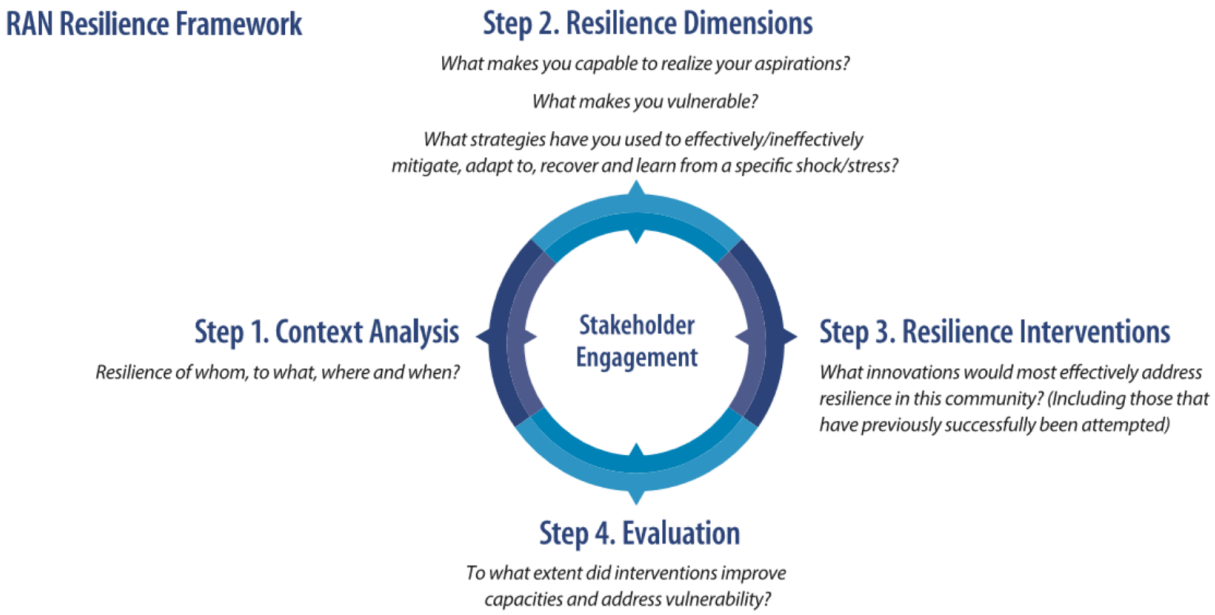


Figure 2.3.6. Innovating for Resilience Framework

Source: ResilientAfrica Network. (2013). A Systematic Approach to Resilience Assessment, Measurement and Analysis.

While refugee-led and practitioner-led innovation processes entail many benefits, there are barriers to overcome as well as enabling factors that could be strengthened. As with the introduction of any new idea that potentially leads to changes, whether positive or negative, there can be hesitancy and even resistance. The International Federation of Red Cross and Red Crescent Societies (IFRC) provides a way of categorizing barriers to inclusive innovation, by considering whether the barriers are related to information, attitudes, or institutions. The following table from the Refugee Studies Centre at Oxford University shows more enablers and constraints for refugee innovation at different levels.

2.3.1 Table of Enablers and Constraints for Refugee Innovation

	Enablers	Constraints
Individual	• Personal drive and motivation • Existing skills or motivation to seek new skills • Willingness to take risks • Access to financial capital • Local language skills • Social networks	• Loss of assets • Psycho-social trauma • Precarious and temporary legal status
Community	• Local market access • Communal support from others • Community-led initiatives • Encouragement and guidance	• Local or national insecurity • Xenophobia and discrimination
Institutional	• Aid from international and local agencies • Physical security provided by the state • Right to work • Right to register community based organisations • Access to public and private services	• Lack of access to finance and banking • Lack of full documentation • Discrimination from authorities • Lack of right to work • Deportation

Source: Betts et al. (2015). Refugee Innovation: Humanitarian Innovation that Starts with Communities. Oxford: Refugee Studies Centre.

Resources for Ensuring Innovations are Used

In the case of practitioner-led innovations, practitioners may need to find ways to manage and lead change within the organizations where they work as a result of the innovations they create. Change management is a learning process to adopt innovations internally and navigate the changes that will arise from that, and change leadership is a conscious way of doing change management proactively (Anderson & Anderson, 2010).

Figure 2.3.7. Innovation Management as a Learning Process

Source: Tidd & Bessant. (2013).

Innovation management arose in the literature in the early 1900s, becoming influenced by the ideas of Joseph Schumpeter on innovation being a major factor of economic growth (Rush et al., 2014). It is defined as a learning process of consciously organizing and managing how individuals and organizations can develop a dynamic capability for innovating (Rush et al., 2014). For example, one way to help structure and support innovation is to use an ecosystem approach by considering the actors working in the innovation space and their interactions with each other. The literature for humanitarian innovation starts around 2009, nearly a century later than the literature for innovation management, with more publications on innovation management in humanitarian contexts emerging in the past decade (Rush et al., 2014).

The diffusion of innovations often depends on factors like the characteristics of the innovation, characteristics of the innovator, characteristics of the environment, and characteristics of the adopter (Rogers, 2003). These considerations can be helpful for supporting practitioners in

spreading and scaling up the impact of their innovations, as well as exploring why some innovations may not get adopted and utilized.

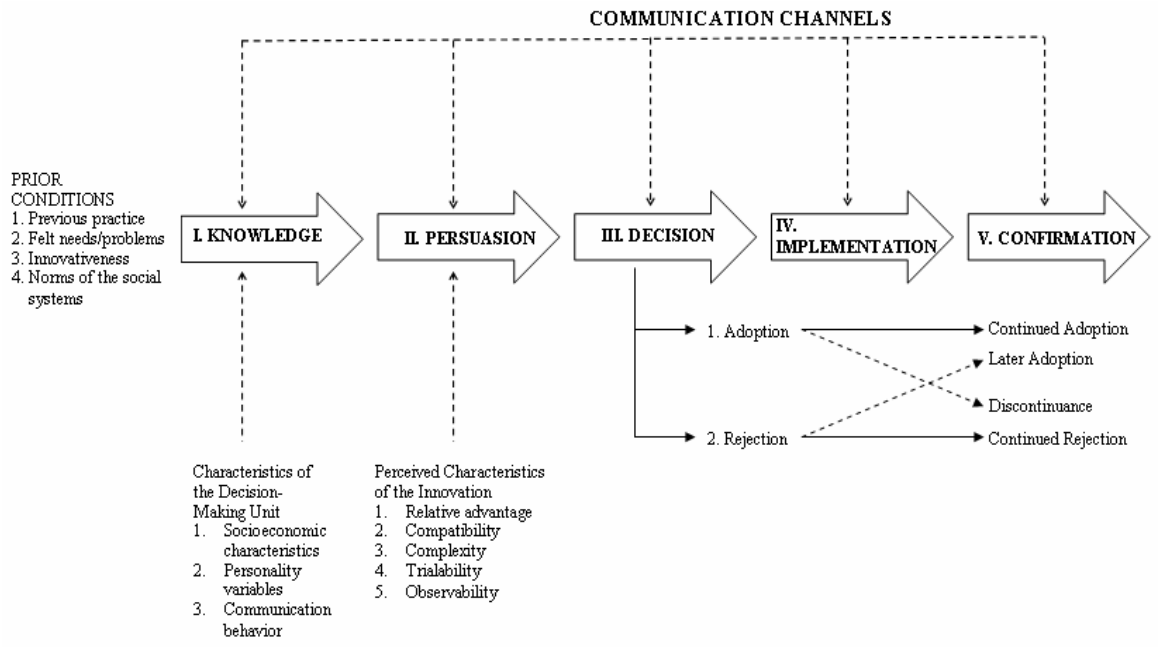


Figure 2.3.8. A Model of Five Stages in the Innovation-Decision Process

Source: Rogers, M. (2003). Diffusion of Innovations, Fifth Edition. The Free Press.

The Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP) provides an emerging model that summarizes several points to consider for humanitarian organizations "planning to promote, disseminate, and evaluate innovations" (ALNAP, 2009). Compared to a more general model of the diffusion of innovations above, the humanitarian-focused model below has many similarities as well as a few differences. For example, regarding communication and relationships, the ALNAP model shows more diversity and complexity of interactions that are typical of a humanitarian stakeholder ecosystem.

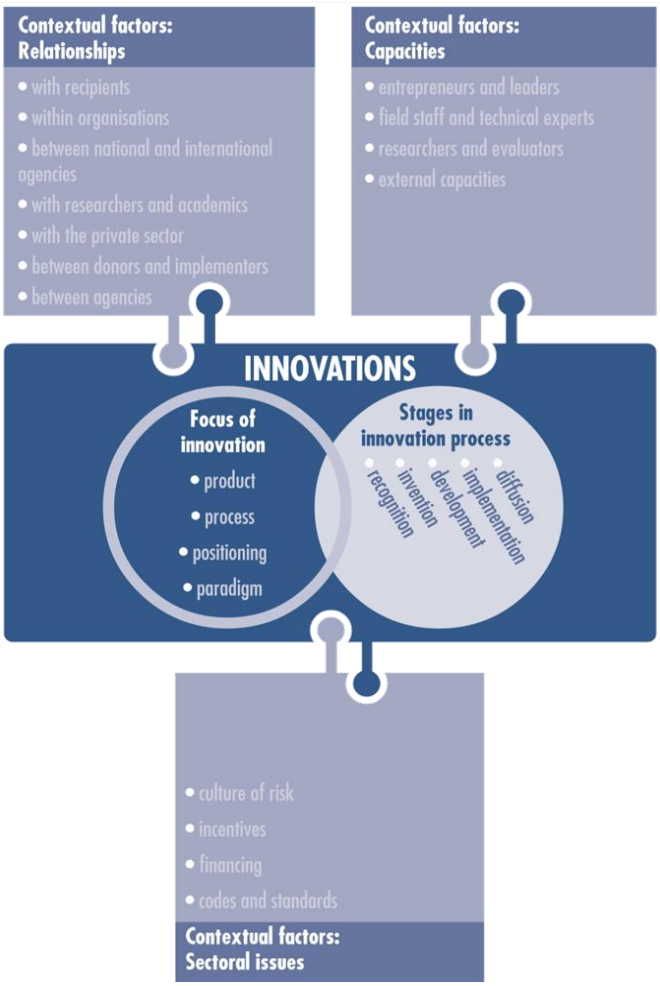


Figure 2.3.9. An Emerging Framework for Humanitarian Innovation

Source: ALNAP. (2013). A Review of Humanitarian Action.

Relevance to Project

While the academic discussion of humanitarian innovation is a more recent trend, there are many models that have been tried in a variety of contexts upon which this project can build. The literature review reveals that there is an opportunity to focus on practitioner-led innovation, recognizing that grassroots and grasstops innovations have historically received less support (Betts et al., 2015). The various concepts and frameworks mentioned above can be compared with themes from the initial project findings. For example, many of these frameworks discuss enablers of innovation and

barriers to innovation, as well as models for supporting the implementation of innovations. Practitioners participating in this project shared their perspectives on these same topics in Kakuma for the qualitative interviews.

Section III: Results Analysis

Participant Overview

During the spring of 2019, a total of sixteen practitioners in Kakuma, Kenya, participated in interviews and field observations for this exploratory project. These practitioners came from six organizations working on health education, and the health topics covered by these six organizations spanned across: 1) mental health, 2) vaccinations, 3) nutrition and physical therapy for children with special needs, 4) adolescent health, 5) reproductive and women's health, and 6) water, sanitation, and hygiene (WaSH).

Table 3.1.1. Demographic Characteristics of Interviewees
(N = 16)

Characteristic		N	%*
Gender			
	Male	9	56
	Female	7	44
Citizenship status			
	Refugee / asylum-seeker	12	75
	Kenyan	4	25
Total		16	100

*Rounded to nearest whole percent

Among the participating practitioners, twelve were refugees (75%) and four were Kenyan nationals (25%). Seven of the participating practitioners were female (rounded to 44%) and nine of the participating practitioners were male (rounded to 56%).

Among the participating organizations, two were international humanitarian organizations, one was an international religious charitable organization, one was an university-affiliated non-profit organization registered in a foreign country, one was a social enterprise registered in Kenya, and one was a refugee-founded community-based organization (CBO) registered in Kenya. Half of the participating organizations were considered large, as defined by the Organization for Economic Co-operation and Development (OECD) threshold of having more than 250 employees.

Themes from Interviews and Observations

The following section is organized into four broad categories, based on how the qualitative work was structured to answer the research questions. These categories, addressed from the perspective of refugee health education practitioners, are:

- Barriers to innovation in refugee health education
- Opportunities for innovation in refugee health education
- Requests and ideas to support innovation in refugee health education
- Examples of practitioner-driven innovations in refugee health education illustrating barriers, opportunities, and requests for further support

For each category, the main themes and sub-themes on that topic generated from the interviews and field observations notes are outlined and then discussed.

Barriers to Innovation

Participating health education practitioners identified several types of barriers to innovation in their work. The key themes and sub-themes that arose from interviews and field observations are summarized below:

- Environmental / Situational Challenges:
    - Limited human resources
        - Lack of funds to increase the team size
        - Lack of opportunities for training
        - Practitioner burnout
    - Limited infrastructure and supplies
        - Limited access to reliable transport
        - Limited access to materials
        - Limited access to technologies
            - Limited access to electricity
            - Limited network connectivity
    - Challenging conditions for work
        - Challenging climate in Turkana
        - Diverse language, educational, cultural, and religious needs
        - Tensions and frustrations in a humanitarian setting
- Organizational Challenges:
    - Limited access to information
        - Limited information about the situation in the camps
        - Limited information about best practices
    - Limited opportunities for exchange
        - Limited time and resources to interact with other organizations
        - Hesitancy to share outside the organization
    - Limited opportunities for collaboration

        - Lack of incentives to collaborate
        - Lack of time and resources to collaborate:
    - Lack of inclusion in cluster coordination meetings
    - Lack of integration across services
- Mindset Challenges:
    - Not identifying as innovators
    - Not being viewed as innovators
    - Viewing creativity as a fixed trait / innovation as a fixed process
    - Concern about potential consequences
    - Pressures of prioritization
    - Feeling a lack of control / self-determination

Environmental / Situational Challenges

This category of challenges has been divided into three main topics: 1) limited human resources; 2) limited infrastructure and supplies; and 3) challenging conditions for work. Each topic is further divided into sub-topics.

1) Limited human resources:

Human resources are a critical part of the assets available for refugee health education in Kakuma. The following summary describes a few key points about human resources that are challenging, according to the interview participants.

- *Lack of funds to increase the team size:* The health education practitioners who participated were mostly hired under the UN incentive program, and a recurring comment was the desire to bring on board more refugees to serve as paid health educators in their community. The limited human resources at the participating organizations, which a few practitioners mentioned could be related to limited funding, means that many of the practitioners are overworked. Several of the interviewed practitioners were expected to cover large areas of the Kakuma camps and reach a large number of refugees. For example, one practitioner was expected to cover Kakuma 1 and Kakuma 2 out of the four Kakuma camps, which contain several tens of thousands of residents each. This practitioner would rotate through different areas of the two camps, in an attempt to reach each block of homes at least once a year. They commented, "It is far." With such demands on practitioners' time, it can be challenging to find the time to try new activities and models in health education programming.

- *Lack of opportunities for training:* Another area of challenges was the lack of opportunities for training and capacity-building to support innovation. Two of the training areas that were specifically mentioned included: 1) design thinking and processes of innovation, although referred to with varying terminology during the interviews; and 2) best practices in refugee health education from other practitioners and other settings. When probed about how the lack of training opportunities affects the practitioners' work, some practitioners mentioned the desire to build more skills to have the ability as well as the "confidence to try new things" at work, while others

described how training and certification increases credibility among colleagues and community members to get support for implementing innovations.

- *Practitioner burnout:* The majority of practitioners mentioned how difficult their work is and how it is easy to get burned out. Trying to innovate can take time and energy, which many practitioners do not have to spare. One practitioner discussed how they were called "crazy" by their family and neighbors for trying to do new things that have not been tried before to make change in their community. Another practitioner shared how they faced pressures from unrealistic expectations in the community about what they can provide, and how they would need to remind themselves and others of how "[they are] a refugee too." Three-fourths of participants in this study were refugees, which was likely related to how participating organizations were able to hire people and may not be representative of the overall population of practitioners in Kakuma.

2) *Limited infrastructure and supplies:*

The lack of access to infrastructure, such as reliable transport, electricity, and communication networks (e.g., mobile reception, internet connectivity), made the practitioners' work more time-consuming and difficult. These are barriers that practitioners are working to overcome in order to innovate, such as by walking to a computer center to find information online to inform their practices or to communicate with a potential collaborator. Additionally, access to materials such as technological devices and consumable project supplies can be limited. This is a challenge that requires practitioners

to be resourceful when trying something new in their health education activities. One practitioner said, “We find what we can.”

3) *Challenging conditions for work:*

Kakuma and the broader Turkana region present many challenges for work with refugees as well as Turkana host community members. The difficult conditions suggest that health educators can have unsustainable work arrangements, which are often compounded by the lack of access to mental health and well-being services for practitioners. One interviewee expressed concern about potential “spillover effects,” where the frustrations of a practitioner may affect the way they work with community members and can be passed on to others since negative feelings can be surprisingly contagious.

- *Challenging climate in Turkana:* In the Kakuma camps, the living and working conditions can be challenging in general. The Turkana region has a climate that involves flooding in the rainy season, as well as extreme heat and drought-like conditions during the dry season. The interviews and observations were conducted during the dry season, when the residents and visitors had their water supply rationed. One practitioner emphasized, “You are seeing our dry season.” These conditions can make it challenging to go about daily activities and routine work, not just challenging to try new innovations.

- *Diverse language, educational, cultural, and religious needs:* The residents of Kakuma have diverse language, educational, cultural and religious backgrounds. All of these

characteristics contribute to making it more difficult for practitioners to scale an innovation from one area to another. For example, different languages mean that practitioners may need additional translation support.

There are varied formal education and literacy levels in the community, including reading ability as well as health literacy and technological literacy levels. This can affect what type of terminology is used in health education materials and programs, how a practitioner can cover certain health concepts when people have different levels of familiarity and understanding, and what technologies can be leveraged along with how much support in the community may be needed to implement a technological intervention. For example, one practitioner had developed online maternal and child health courses to be accessible to refugees, featuring frequent use of images and videos. This practitioner mentioned how it is not only the lack of access to computers that was preventing people from using their course materials, but also how much user guidance some people required in order to access and navigate the online courses, which the practitioner did not have time to provide.

Practitioners discussed at length the challenges of working through cultural and religious differences. For example, one practitioner working in sanitation discussed how they were using laminated posters inside latrines to show people how to use a new container-based sanitation system, and learned that many Muslim residents from Ethiopia and Somalia have a washing culture that can make it challenging to accept waste separation designs, where tissue should be used instead of water in order to keep

solid wastes dry for processing. This practitioner emphasized that "what is normal is different to everyone" and that there is a need to "rethink what is 'normal' to whom."

- *Tensions and frustrations in a humanitarian setting:* Tensions have arisen, in part from the challenging living conditions and the diverse populations living in close proximity to each other, compounded by how there are often insufficient resources for everyone's needs and desires. This can be a difficult environment for practitioners to build up trust and navigate community structures when doing any health education outreach, as well as when attempting to obtain buy-in and feedback while trying to implement new program designs. One practitioner said, "Working in Kakuma is not easy."

Organizational Challenges

This category of challenges has been divided into five main topics: 1) limited access to information; 2) limited opportunities for exchange; 3) limited opportunities for collaboration; 4) lack of inclusion in cluster coordination meetings; and 5) lack of integration across services. Each topic is further divided into sub-topics.

1) *Limited access to information:*

   Limited access to information can make it difficult to make decisions about what type of health education work to prioritize and what types of innovations to try. For example, one practitioner said there is "minimal awareness of what is happening in Kakuma." Another practitioner talked about how it would be helpful to have access to health data from clinics to understand what the gaps are for health education and prevention efforts, as well as when

progress is being made. Examples provided include the lack of information on where people are not utilizing health facilities and which areas of the community are where people have lower vaccination rates. Central health information periodically collected by UNHCR and other agencies are not always shared with field staff. By comparison, such data is often shared with researchers, donors and regulatory authorities, and posted online where it may not be as easy for community-based practitioners without regular internet access to see.

Two practitioners talked about how it was a shame that they could not easily access information from other field staff working on the ground on various health topics. This includes information on what challenges are being encountered, how practitioners are overcoming them, and what best practices are working well and should be tried by other practitioners. One practitioner further clarified that people can be cautious to share in a humanitarian setting, even among agencies that are doing complementary work. There can be concerns about privacy, particularly around sensitive information such as ethnic background of individuals that should not be publicly shared in case refugees could be at risk for harassment, abuse, or other harms. There can also be concerns about scrutiny, particularly when doing work that needs to happen quickly in conditions that are not ideal, so agencies sometimes control what information is communicated about their work to prevent aspects that could be perceived as negative from reaching the media or funders.

2) *Limited opportunities for exchange:*

On a similar theme, there are limited opportunities for exchange between practitioners, beyond the sharing of information. One practitioner said, “We do not have time to talk to

each other." With the intense work demands on many health education practitioners, there can be limited time and resources to interact with practitioners from other organizations. As mentioned above, some organizations are hesitant to share externally, which not only applies to information, but also to resources. For example, some practitioners wanted their organization to create and utilize joint materials with other organizations.

3) *Limited opportunities for collaboration:*

This is related to the limited opportunities for collaboration, which is differentiated from the previous section by focusing on the potential to not only interact but also work together towards shared goals. Multiple practitioners mentioned that there was a lack of incentives for collaborating and innovating. A few practitioners felt that these efforts were seldom recognized or rewarded by their organizations, even if the health outcomes might be better. The lack of resources to collect evidence on how things have improved also made it challenging for practitioners to make a case for these innovations back to their organizations.

Another barrier to incentivizing collaboration and innovation could be how none of the participating practitioners reported having these activities built into their job descriptions. Some practitioners still found ways to engage in these activities informally, but for others, this meant that it could be difficult to set time or resources aside to work on ways to improve their work through collaboration and innovation without being questioned by their supervisor. One practitioner said, "People will ask what I am doing."

4) *Lack of inclusion in cluster coordination meetings:*

In terms of organizational challenges in the broader ecosystem of stakeholders, outside of the bounds of the organizations where practitioners are employed, two practitioners mentioned the lack of inclusion in cluster coordination meetings. Cluster meetings are a main mechanism for humanitarian organizations working in refugee settlements to communicate on a particular theme (e.g., health, education, WaSH), in order to ensure full coverage of community needs and avoid duplication. One practitioner expressed a belief that UNHCR prioritizes only the largest CBOs out of "hundreds to thousands" of refugee-led efforts, particularly when it comes to inclusion in meetings, programs and partnerships, as well as when considering where to award financial and in-kind support. This practitioner did not feel they could innovate or make changes easily when they were not included in resource-sharing and coordination efforts within the health and education clusters.

5) *Lack of integration across services:*

Another ecosystem organization challenge is the lack of integration, where health education activities are sometimes considered separately from other health services. For example, more participating practitioners reported collaborating with their local schools than collaborating with their local clinics in health education programs, although this could be related to differences in demands on time. There is often a higher ratio of teachers to students, compared to the ratio of trained healthcare professional (i.e., trained doctor or nurse) to patients. Beyond this, there are also disconnects between the health sector and other sectors that make it challenging for health education practitioners to work holistically to promote the well-being of the community members they serve.

Disconnects between health education and other services reveal themselves in how the participating practitioners are not always able to collaborate with protection and security services, food distribution and water distribution efforts, and latrine and shelter construction initiatives, despite how these areas are closely connected to their work. For example, one disconnect that was touched upon earlier in the discussion of religious diversity is around the Muslim washing culture and the construction of latrines that operate based on dry separation of solid wastes, which required additional education to address. Another practitioner lamented how protection and security professionals were not working with them to raise awareness about mental health and helping to refer people to services when responding to suicide attempts and gender-based domestic violence. This practitioner said, "I would be willing to train them."

Another practitioner is trying to support parents of children with special needs by providing information on what type of nutrition is recommended and a letter requesting permission for the parents to advance to the front of food distribution lines to reduce time away from their children. The lack of awareness on the part of other staff and community members in the camp, however, meant that the letters were not always recognized. This practitioner also talked about how many parents did not know their legal rights, how their child's vulnerable status can be included in their story for their asylum application, and other information that should have been provided by other humanitarian professionals.

A different practitioner who teaches children with special needs basic skills such as hygiene management expressed admiration for how the policies in the camp encourage students with special needs to be eventually transitioned from special centers into schools, but also

concern for how many schoolteachers in the public schools have not been sufficiently trained on how to handle special needs, develop individualized learning plans when needed, and promote inclusion in the classroom. This practitioner had offered to help follow a student as they were being transitioned to provide support while educating other students, teachers, and administrators in the school community about special needs, but was denied by the school.

These disconnects not only manifest as inefficiencies and gaps in how community members are being reached. They can also lead to reduced credibility and trust between community members and practitioners, in general, which impact future work. For example, a few participating practitioners talked about their frustrations when they raise awareness about health topics and what community members should do to protect their health, but then there is limited access to the necessary supplies and services in the camp or what is supposed to be provided does not even arrive.

One mental health practitioner talked about how they would persuade many community members to seek help, only to find that the wait time for an appointment with a trained counselor could be too long. When it came to medicines that might be required, the interviewee shared that there was only one professional across the four camps who could prescribe psychiatric medications, and then there may not be access to particular medications in the pharmacies around the camps and Kakuma town.

> In the case of another practitioner working with families of children with special needs, the inconsistent delivery of supplementary milk meant that caretakers could not act on the information they received about what nutrition to provide to their children, leading to frustration and feelings of helplessness. Even worse, when something is supposed to happen does not and parents are constantly disappointed, it can reduce people's willingness to trust what trained practitioners are saying to them and to try new things that could help improve their health outcomes. Some families have even been hesitant to allow this and other practitioners access to their child for physical therapy work, despite learning about its importance, in part due to general frustrations around the failure of the system to function as planned for even basic milk provision to some of the most vulnerable people in the camps.

Mindset-Related Challenges

Multiple participating practitioners shared mindset-related themes, such as how they perceive themselves and feel they are perceived by others. For example, a few practitioners talked about how they do not necessarily identify as innovators nor feel confident in trying to innovate, since the education and career opportunities they have had access to before did not expose them to this as much. More practitioners described how they did not feel others perceived them as innovative or believed they could come up with new health education ideas that work, which applied to how other people at their own organizations perceived them as well as how community stakeholders perceived them. This includes the need to build more trust from the people they serve as well as the people they work with to try new things. Some of these challenges stem from how innovativeness can be viewed as a fixed trait, rather than something than can be trained and

developed. Two practitioners also mentioned how there can be perceptions that innovation should be approached in a certain way.

Many participating practitioners reiterated how humanitarian settings can be challenging contexts to innovate in because there is a lot of pressure to focus on the essentials for survival, and there is a lot of concern about potential consequences. Practitioners take seriously the idea of doing no harm. One practitioner discussed how understandable it is that many people working in a crisis will want to "focus on the basics" to get those right first, prioritizing what has already been proven to work.

Over half of the practitioners interviewed also expressed that they felt their area of work was not prioritized by funders, and a couple of practitioners even expressed that they felt their health education work was not even prioritized by their employing organizations. A few practitioners discussed how their work can be in such a high-stress and dynamically changing environment, with numerous competing priorities and insufficient resources to address all the challenges, that they can feel like they do not have enough control to innovate and determine which directions their work should go in.

Opportunities for Innovation

Complementary to the challenges discussed above, participating health education practitioners also identified several assets and opportunities for innovating in their work. There was a focus on opportunities that do not rely on many additional resources, as increasing funding is not necessarily

an option for the participating organizations. The key themes and sub-themes that arose from interviews and field observations are summarized below:

- Incentivization Opportunities:
    - Strengthening systems for information sharing
    - Increasing pools of resources for exchange and collaboration
    - Building exchange and collaboration into health education jobs
    - Increasing access to training and capacity building
- Integration Opportunities:
    - Strengthening connections between health education activities and the broader sectors of health and education
    - Strengthening connections between health services and complementary services
- Inclusion Opportunities:
    - Engaging the community
        - Engaging family members
        - Engaging neighbors
        - Engaging schools
        - Engaging religious institutions
        - Engaging community institutions
    - Engaging local authorities

Incentivization Opportunities

Almost all of the practitioners mentioned that they would be open to sharing more information, with a few already trying to do so informally, but better systems of information sharing could exist

between organizations. Another practitioner suggested that they would be open to sharing access to some resources if this did not detract from their work, particularly if this meant that they could also access resources from others. For example, one organization may have computers while a different organization has video recording equipment. Being able to schedule the use of these resources on occasion would not necessarily prevent others from using the same resources.

Interviewees shared that a disconnect exists in some organizations between the field staff implementing health education programs and technical staff designing the plans. One practitioner suggested that building exchange, collaboration, and innovation into the jobs of health educators could signal to practitioners that they are encouraged to work with others, while also signaling that they are capable of innovating and coming up with solutions to challenges encountered in the community.

Another participating practitioner suggested that increasing access to training can be its own form of incentive, because many practitioners want to learn, access tools to help make their work easier, and open doors for advancement and promotions. Practitioners can be intrinsically motivated by their work, and extrinsic motivations can also be helpful. A couple of practitioners mentioned that several organizations are incentivizing innovation in ways that require few additional resources, such as by recognizing "employees of the month."

Integration Opportunities

Most practitioners mentioned their desire to work more closely with healthcare providers, schoolteachers and adult educators, and humanitarian practitioners in other complementary

sectors. For example, one practitioner wanted to provide trainings about mental health to practitioners who are doing outreach in the community on various health education topics, as well as other humanitarian professionals who interact with refugees directly in their work. This practitioner talked about the importance of ensuring that everyone who interacts with a mental health patient understands their condition and how to help manage it. They gave the example of how in a water distribution line, the staff can be trained to be patient and treat everyone with respect, helping to provide guidance when needed rather than yelling at people with mental health conditions for wandering off or having difficulty following instructions. This practitioner also advocated for policymakers to allow students with epilepsy to be integrated into regular schools, whereas many were being barred due to having what was classified as a "neurological condition," illustrating the opportunity for policymakers to listen to practitioners about the situation on the ground.

Many practitioners talked about how helpful it would be to simply have more refugee-facing staff in the camp helping to let people know about various health conditions as well as the services and resources that exist, helping to screen and refer people who may need additional support, and helping to identify what health challenges people are struggling to understand and brainstorm ways to address this.

Inclusion Opportunities

Multiple participating practitioners are finding success in their efforts to engage the community, and among them, some different approaches were being used. Some practitioners were working on building the capacity of family members to support their relative's health challenges, while

others were focused on working within a neighborhood to get households to look out for each other and tackle a health issue as a collective community. For example, one practitioner talked about how they are training parents and siblings of children with special needs to help provide physical therapy and nutritional support, and to help look out for other families in their community block who may be in a similar situation to share information on what are the supportive resources in the community and to inform the practitioner to reach out as well. Another practitioner estimated that community members now make up nearly two-thirds of their organizational workforce. Engaging community members in health education activities can also be a tool for recruitment and training of potential future practitioners.

Many health education practitioners are already working together with schoolteachers to reach youth who can share information back to their parents as well as with respected religious leaders who can help pave the way for acceptance of new health practices. Several practitioners are partnering with community centers to reach people who go there, as well as to access the resources available at the centers. For example, one practitioner has been able to use the digital devices, electricity, and internet connection available at a community computer lab. They said, “you can always find me here [at the computer lab].”

The participating practitioners who have been able to successfully engage local authorities described this as a lengthy process but reported that having this support was often helpful in smoothing the pathway for trying something new. These authorities often have influence over services like food distribution or security and protection, and may be able to promote integration efforts.

Requests for Support

The majority of requests for support from participating practitioners fell into the following thematic areas:

- Building capacity
- Increasing access to resources
- Validating attempts to innovate
- Strengthening connections

Some remaining requests for support that did not fall into these categories were more specific to particular organizations. When possible, such recommendations were shared directly with the relevant organizations without being associated with any individual practitioners. If a participating organization had no more than one practitioner join the interviews and observations, attention was paid to how the specific recommendations were framed and generalized in order to appear to come from the entire group of practitioners rather than a single individual.

Building Capacity

Many participating practitioners requested that more time be built into their jobs for training. Among the practitioners who mentioned increasing capacity-building opportunities, several suggested a focus on trainings that can result in certification and credentials, enabling them to advance to positions where they could do more in the community and also preparing them to help train others. One practitioner said they had interest in a "training of trainers" model, where they could continue to train others afterwards.

A suggested way to increase access involves opening the trainings that one organization is offering to practitioners from other organizations. Among participating practitioners from organizations that are already doing this, there are opportunities to improve communication and outreach to ensure that more organizations are aware of the opportunity to join. In some cases, practitioners from other organizations may need help to attend the trainings, which could be in the form of transportation stipends or a letter to present to supervisors to request permission to attend.

Increasing Access to Resources

Several practitioners asked for access to a pool of resources that they could use when their organization did not have resources to implement new ideas. Suggestions for this pool of resources include: 1) funding with a more flexible mechanism to apply for support; 2) materials from in-kind donations and surplus supplies from various organizations, with the incentive to participate being that contributing organizations can access a larger library of resources; and 3) digital devices that can be borrowed and returned, in cases where usage can be shared, to address the issue of organizations having to each purchase their own. A couple of practitioners also expressed interest in having a database of innovations and best practices that practitioners can contribute to and use for their own work.

Regarding technology, most practitioners interviewed expressed a desire for access to more digital devices. One practitioner said, “Of course technology helps.” With only one exception, every practitioner with technology access was able to use it in their work. In the case of the exception, where donated devices remained in storage, the devices were not functioning and the pathway for funding repair services was not clear to that practitioner.

Validating Attempts to Innovate

Many participating practitioners expressed a desire that their efforts to keep learning and implementing improved health education programs should be recognized and rewarded in their organizations. Several practitioners discussed building this into the job description to enable people to allocate more time towards this. One practitioner said, "I do not know if it is okay for me to spend so much time."

A couple of practitioners also discussed the idea of having organizations offer more incentives to encourage all of their program design and field staff to innovate. While there was interest in incentives such as an increased program budget or increased access to resources, there were also no-cost incentives mentioned, such as highlighting a practitioner's work in the organization newsletter, on the wall of the office of the organization, or during a staff meeting.

Strengthening Connections

Most participating practitioners expressed interest in finding ways to work with each other, to provide mutual support and find a community of like-minded people where they would not have to continuously defend their efforts to try something new. One practitioner suggested leveraging interest that they saw from other colleagues into forming a collaboration group, enabling practitioners facing similar challenges to find each other and work on innovations together as part of a team.

Some practitioners requested more support from their organizations to do this, such as by having more time on their jobs to reach out to and meet with practitioners from other organizations, as

well as by having access to more support for increasing collaborations (e.g., use of the company vehicle, permission to reimburse communication expenses such as mobile airtime for calling collaborators). One of these practitioner shared, "I was invited but did not have money to go [to a training with another organization]."

Examples of Practitioner-Driven Innovations

This exploratory qualitative project aimed to understand the processes behind practitioner-driven innovations and how to support them, so the focus was not on documenting all practitioner-driven innovations. Several innovations were mentioned in the interviews and observed during the field visit, however, that more concretely illustrate some of the themes discussed above. For this reason, a couple of selected innovations are highlighted in the following pages:

- Community engagement to raise awareness about children with special needs
- Technology labs for youth to explore sexual and reproductive health topics

The selected innovations illustrate a spectrum of technology use, ranging from the use of computers to the use of fabric. All programs discussed below are focused on increasing the participation and self-determination of the refugees living in Kakuma, as well as of the field practitioners who serve them. The innovations in this section were selected because they can be implemented with relatively little infrastructure or funding and have the potential to save practitioners time by leveraging community support.

Community engagement to raise awareness about children with special needs

Some practitioners are improving upon their existing community outreach practices by gathering people into groups for "mass awareness" campaigns rather than simply going door to door. This has not only turned out to be more time-efficient, but also has been more effective in raising awareness. Families are less likely to decline to listen when other invited families are staying for the education program. These group outreach activities also help reach a "tipping point" more quickly in the community, where a significant threshold of people become aware about the health topic and can help monitor who may need help as well as refer neighbors to support services.

These practitioners are also doing a trial of providing colored uniforms to children with special needs to help community members keep track of their location and safety when walking around, which: 1) raises awareness about the existence of children with special needs; 2) educates the community about the need for community support of families with special needs (i.e., "it takes a village to raise a child" approach); and 3) shows families who have children with special needs but have not sought out help yet that support exists.

It should be noted that concerns also exist around the innovation featured above (i.e., colored uniforms for children with special needs), as the practitioners would not want the children with special needs to become a target for bullying, harassment, or abuse. Trying innovations may come with risk, which is a recognized challenge for practitioners to innovate when working with a population that is considered vulnerable, as referenced in the analytical platform on humanitarian innovation. As discussed in the recommendations to organizations and stakeholders in the sections below, there is an opportunity to support practitioners in managing the risks.

Technology labs for youth to explore sexual and reproductive health topics

One of the interviewed practitioners has been leveraging a community computer lab for after-school use to encourage adolescent students to explore sexual and reproductive health topics. This program not only provides engaging media in an individualized way, where students can follow their own interests, but also allows for privacy around a taboo topic when compared to group education programs.

Youth are now being engaged in creating new content for each other around adolescent sexual and reproductive health (ASRH) as well as other topics such as waste management and environmental health, justice and advocacy for health equity, and mental health. Some students are even using Google translation to make their materials available to other youth who speak different languages. This project time is an opportunity for the students to be creative, be active members of their community, select topics of interest to research on their own, and inform their educators and families about where student interests lie. These youth-developed resources can be shared online and with other community computer centers at a low cost, incorporated into their programming to reach more youth audiences.

To increase access, there is interest in exploring the potential to move this programming to a mobile platform, for more portable access at different hours as well as for wider access among youth who may not be able to come to the community computer lab. By engaging youth on their own devices, this would also help to address the bottleneck of the number of computers and spaces in the lab limiting the number of students who can be reached. Other challenges include protecting the technological equipment from damage or theft, and ensuring the youth stay on task in the

computer lab. The practitioner leading this initiative talked about how "the askari (security guard) has to be there" and how "the students like browsing."

Additional Innovations

More practitioner-driven innovations were observed while conducting fieldwork in Kakuma, which are not covered in the brief overviews of the two projects above. Two additional projects are described in the appendix, in an attempt to illustrate the diversity of practitioner-driven innovations that are happening in refugee camps, including one example that serves both integrated refugees and host community members from Turkana County. An area of future work could involve documenting and characterizing more of these innovations to share among practitioners and stakeholders. Some of the interviewed practitioners have expressed interest in such a resource.

For learning purposes, innovations that were particularly successful in achieving their intended outcomes or that traversed an interesting path in overcoming challenges and failures could potentially be turned into case studies. Such case studies could be used by practitioners and supporting stakeholders who are seeking lessons learned to inform their innovation processes. If some of the innovations are later scaled up in implementation, it could be possible to do an implementation science project evaluating the impact of these evaluations. Ideally, such assessments would involve mixed methods research with both qualitative and quantitative data to analyze. This idea is discussed below, in the future work section.

Recommendations

In recognition of how most humanitarian organizations do not have time to read through all of the themes and sub-themes generated from this fieldwork, a selection of top recommendations was created for participating organizations and other relevant stakeholders. The purpose of these recommendations is two-fold:

1) To elevate the perspectives of health education practitioners working on the ground to help inform the plans of the organizations moving forward; and
2) To seek feedback from participating organizations and practitioners in response to these recommendations, and check that the views of the practitioners were not misrepresented by this analysis.

Recommendations for Participating Organizations

Participating organizations received mostly the same set of recommendations, except in special cases where a recommendation specific to a certain organization arose from the interviews and observations. All recommendations were anonymized. In cases where a participating organization had only one practitioner join the interviews and observations, care was taken to ensure that the recommendations were made general enough to prevent association with any participating practitioner.

Starting on the following pages are a figure showing how the recommendations were developed, and a version of the recommendations that was shared with participating organizations for feedback. Guiding principles for creating this set of recommendations included keeping the overall

resource to within a couple pages in length, using accessible language and terminology, and incorporating visuals whenever possible.

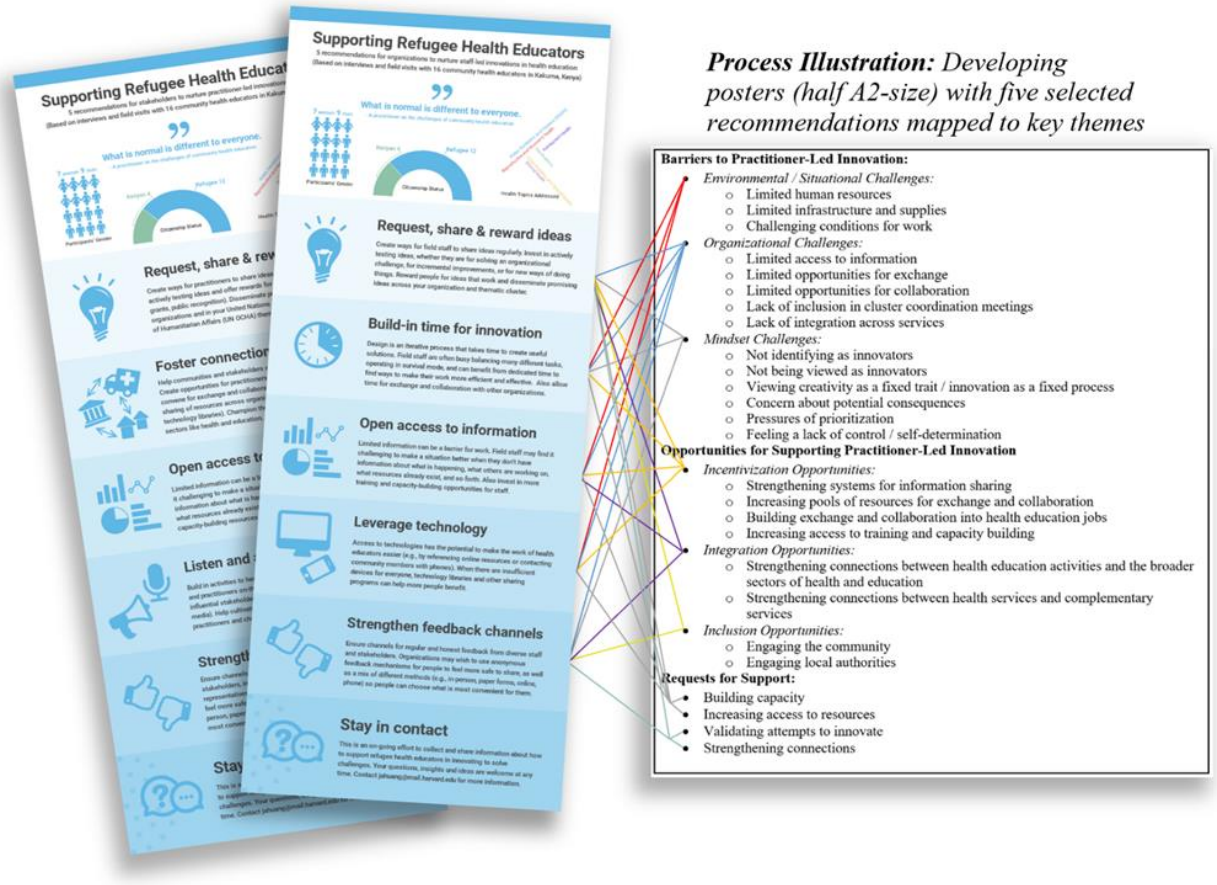


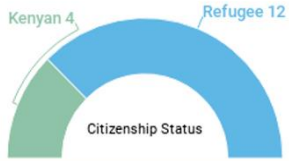
Figure 3.1.1. Process Illustration of Recommendations Mapped to Key Themes

Supporting Refugee Health Educators

5 recommendations for organizations to nurture staff-led innovations in health education
(Based on interviews and field visits with 16 community health educators in Kakuma, Kenya)

> What is normal is different to everyone.
>
> - A practitioner on the challenges of community health education

Participants' Gender



Citizenship Status

Health Topics Addressed

Request, share & reward ideas

Create ways for field staff to share ideas regularly. Invest in actively testing ideas, whether they are for solving an organizational challenge, for incremental improvements, or for new ways of doing things. Reward people for ideas that work and disseminate promising ideas across your organization and thematic cluster.

Build-in time for innovation

Design is an iterative process that takes time to create useful solutions. Field staff are often busy balancing many different tasks, operating in survival mode, and can benefit from dedicated time to find ways to make their work more efficient and effective. Also allow time for exchange and collaboration with other organizations.

Open access to information

Limited information can be a barrier for work. Field staff may find it challenging to make a situation better when they don't have information about what is happening, what others are working on, what resources already exist, and so forth. Offer/invest in more training and capacity-building opportunities for staff.

Leverage technology

Access to technologies has the potential to make the work of health educators easier (e.g., by referencing online resources or contacting community members with phones). When there are insufficient devices for everyone, technology libraries and other sharing programs can help more people benefit.

Strengthen feedback channels

Ensure channels for regular and honest feedback from diverse staff and stakeholders. Organizations may wish to use anonymous feedback mechanisms for people to feel more safe to share, as well as a mix of different methods (e.g., in-person, paper forms, online, phone) so people can choose what is most convenient for them.

Stay in contact

This is an on-going effort to collect and share information about how to support refugee health educators in innovating to solve challenges. Your questions, insights and ideas are welcome at any time. Contact jahuang@mail.harvard.edu for more information.

Recommendations for Additional Stakeholders

In addition to summarizing recommendations for participating organizations, adapted versions of the recommendations were also created to engage other stakeholders working in refugee health education at Kakuma, Kenya. This stakeholder ecosystem includes other organizations working on refugee health education that did not participate in the qualitative project, funders of refugee health education work, policymakers working on refugee issues in the Kenyan government, and the UN OCHA cluster coordination leads for the health and education sectors in Kakuma.

Starting on the following page is a version of the recommendations that was shared with some stakeholders for feedback. The key differences for this version are that there is more of a focus on forming connections between organizations doing refugee health education and doing advocacy work within the broader ecosystem of stakeholders, particularly because stakeholders interfacing with multiple types of organizations may hear diverse perspectives. In the organizational version, there was more emphasis on supporting employees to innovate and finding ways to resourcefully increase access to support streams if the organization's own resources are limited.

As with the previous set of recommendations, this set of recommendations used the same guiding principles mentioned above, with the addition of focusing on recommendations general enough to be of interest to diverse stakeholders. More specific versions could eventually be created for different stakeholder groups, such as funders and policymakers.

Supporting Refugee Health Educators

5 recommendations for stakeholders to nurture practitioner-led innovations
(Based on interviews and field visits with 16 community health educators in Kakuma, Kenya)

"What is normal is different to everyone."
- A practitioner on the challenges of community health education

Participants' Gender

Citizenship Status

Health Topics Addressed

Request, share & reward ideas

Create ways for practitioners to share ideas regularly. Invest in actively testing ideas and offer rewards for ideas that work (e.g., grants, public recognition). Disseminate promising ideas across organizations and in your United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA) thematic cluster(s).

Foster connections

Help communities and stakeholders connect with each other. Create opportunities for practitioners from different organizations to convene for exchange and collaboration. Facilitate the pooling and sharing of resources across organizations (e.g., funding pools, technology libraries). Champion the integration of services across sectors like health and education.

Open access to information

Limited information can be a barrier for work. Practitioners may find it challenging to make a situation better when they don't have information about what is happening, what others are working on, what resources already exist, and so forth. Offer more training and capacity-building resources for practitioners.

Listen and advocate

Build in activities to hear the perspectives of community members and practitioners on-the-ground, and elevate these voices to influential stakeholders (e.g., funders, policy decision-makers, media). Help cultivate an ecosystem that values health education practitioners and channels support to them.

Strengthen feedback channels

Ensure channels for regular and honest feedback from diverse stakeholders, including individual practitioners and community representatives. Anonymous feedback mechanisms can help people feel more safe to share, and a mix of different methods (e.g., in-person, paper forms, online, phone) can help people choose what is most convenient for them.

Stay in contact

This is an on-going effort to collect and share information about how to support refugee health educators in innovating to solve challenges. Your questions, insights and ideas are welcome at any time. Contact jahuang@mail.harvard.edu for more information.

Limitations

There are several limitations to this exploratory qualitative project that limit its applicability for other uses and generalizability to other contexts. First, the sample size for this project was relatively small, at 16 participants. This is largely due to the fact that it took almost half a year for the project to receive regulatory approval, condensing the project timeline and leaving less time to recruit, interview and observe participants. While efforts were made to include a diverse group, with only 16 participants there is limited representation across the many health education practitioners who are working in Kakuma, Kenya. For example, only three participating practitioners were also working in the Kalobeyei integrated settlement with refugees as well as Turkana host communities in Kenya, which is a context that is substantially different from the Kakuma refugee camps and has its own unique challenges as well as opportunities.

Another limitation is that only practitioners who spoke English as one of their languages were included in this exploratory work, due to logistical and budgetary constraints around translation into multiple languages. While many of the health education practitioners who are paid to work in Kakuma do speak English, since it is an official language of Kenya and a major international language for communication across humanitarian organizations from several countries, not translating to other languages leaves out community health workers and volunteers with different backgrounds, working conditions, and perspectives to share (Kasteng, 2015; Tomlinson, 2017).

The perspectives of paid health education practitioners may also be different from the perspectives of volunteer practitioners in Kakuma. Since all of the participating practitioners in this exploratory project are employed by the participating organizations, the perspectives of community volunteers

are not captured here. As this project focused on health educators who are working in the field, the perspectives of their colleagues at the participating organizations, policymakers, funders, and the community members being served are also not included in the scope of this project.

Based on these limitations, the findings generated from this project are mostly applicable to the participating organizations that are interested in listening to the perspectives of their participating practitioners to inform how they channel support to refugee health education programs in the four Kakuma camps of Kenya. The qualitative themes and recommendations may be of interest to other stakeholders working on refugee health education in Kakuma as well, which is why a version of recommendations were developed for this audience. Beyond these initial applications, it not yet known whether the themes and recommendations generated from this exploratory project would be useful in other situations and contexts.

Future Work

From the recommendations that were shared with participating organizations and the ecosystem of stakeholders, the feedback shared is still being analyzed and incorporated into the next iteration of recommendations. In the future, participants and other relevant stakeholders could be invited to a multi-stakeholder consultation for additional input. If appropriate, the final recommendations can then be shared more widely, with contact information included for readers to share feedback. This project was an exploratory qualitative project, with a relatively small sample size and scope. In the future, a more in-depth qualitative study could be conducted to expand the range of practitioner perspectives captured. This work could also be expanded to include other practitioners

working on other health topics as well as other perspectives, such as those of refugee community members, local authorities, and funders of refugee health education programs.

As mentioned earlier in the section on examples of practitioner-driven innovations, another area of future study could be the documentation of more innovations, facilitating the exchange of best practices between practitioners, and scaling the implementation of selected innovations while evaluating their community impact. This type of implementation science could involve both qualitative and quantitative methods, to better understand how practitioner-driven innovations are being received by community members, and how the innovations are impacting awareness levels, perceptions of agency, and health outcomes and other measures of well-being.

Regarding the limitations discussed above, more efforts should be made in the future to include practitioners from all parts of the four Kakuma refugee camps and the Kalobeyei integrated settlement. Future work could also be expanded to include practitioners working on other health topics, beyond the six health topics that participating practitioners were working on in this exploratory project: 1) mental health, 2) vaccinations, 3) nutrition and physical therapy for children with special needs, 4) adolescent health, 5) reproductive and women's health, and 6) water, sanitation, and hygiene (WaSH).

Refugee health education can be a challenge not only in the Kakuma camps of Kenya, but also other humanitarian contexts. Hearing the perspectives of health education practitioners, identifying ways to increase practitioner support, and figuring out how to spur innovations for more positive impact can be done not only in other refugee settings in Kenya, but also in the broader East Africa

region and in other parts of the world where people have been displaced. Some future work could focus on urban areas where refugees have settled, as this is a substantially different context with its own challenges, assets and opportunities.

Future work could also learn from communities where the majority of people have not been able to register as refugees or asylum-seekers, which puts additional constraints on the types of health education and other services that practitioners can provide. The world is evolving, with new challenges arising as more people are being displaced from their homes than ever before in human history, whether through violence arising from political and economic instability, or through natural disasters and climate change. Many health education practitioners working in challenging conditions around the world could use additional support to deliver better services to the communities they serve.

Although there has not been much investment in the past, another area of future work that should not be overlooked is building capacity to enable more refugee health education practitioners to set the research agenda and do their own action research, prioritizing the research questions that matter most to them to generate evidence that can inform the decisions of their organizations and other stakeholders. There is an opportunity here to take inspiration from the efforts of many global health researchers working to decolonize the field, changing the dynamics around who has historically been under-supported in doing research and using it.

Section IV: Concluding Statements

Summary of Initial Findings and Feedback

For ease of reference, the full outline of initial themes and sub-themes from the interviews and field observations is summarized below.

Barriers to Practitioner-Led Innovation:

- *Environmental / Situational Challenges:*
  - Limited human resources
    - Lack of funds to increase the team size
    - Lack of opportunities for training
    - Practitioner burnout
  - Limited infrastructure and supplies
    - Limited access to reliable transport
    - Limited access to materials
    - Limited access to technologies
      - Limited access to electricity
      - Limited network connectivity
  - Challenging conditions for work
    - Challenging climate in Turkana
    - Diverse language, educational, cultural, and religious needs
    - Tensions and frustrations in a humanitarian setting
- *Organizational Challenges:*
  - Limited access to information
    - Limited information about the situation in the camps
    - Limited information about best practices
  - Limited opportunities for exchange
    - Limited time and resources to interact with other organizations
    - Hesitancy to share outside the organization
  - Limited opportunities for collaboration
    - Lack of incentives to collaborate
    - Lack of time and resources to collaborate
  - Lack of inclusion in cluster coordination meetings
  - Lack of integration across services
- *Mindset Challenges:*
  - Not identifying as innovators
  - Not being viewed as innovators
  - Viewing creativity as a fixed trait / innovation as a fixed process
  - Concern about potential consequences
  - Pressures of prioritization
  - Feeling a lack of control / self-determination

Figure 4.1.1. Summary of Themes from Qualitative Fieldwork

Opportunities for Supporting Practitioner-Led Innovation

- *Incentivization Opportunities:*
  - Strengthening systems for information sharing
  - Increasing pools of resources for exchange and collaboration
  - Building exchange and collaboration into health education jobs
  - Increasing access to training and capacity building
- *Integration Opportunities:*
  - Strengthening connections between health education activities and the broader sectors of health and education
  - Strengthening connections between health services and complementary services
- *Inclusion Opportunities:*
  - Engaging the community
    - Engaging family members
    - Engaging neighbors
    - Engaging schools
    - Engaging religious institutions
    - Engaging community institutions
  - Engaging local authorities

Requests for Support:

- Building capacity
- Increasing access to resources
- Validating attempts to innovate
- Strengthening connections

Figure 4.1.1. Summary of Themes from Qualitative Fieldwork (Continued)

A process of consulting stakeholders for feedback was initiated through two streams of activities:

- Internal sharing and discussing a summary of findings and recommendations with participating practitioners and organizations, and
- Informal consultation with regional stakeholders.

This preliminary feedback process has faced limitations from challenges in talking to some participants and organizational contacts remotely. For example, several health educators did not have their own devices, and there was sometimes limited internet connectivity, cellular reception, or electricity for charging in Kakuma.

In August 2019, a return to East Africa enabled in-person meetings with a few relevant stakeholders and other forms of feedback were gathered virtually in the fall of 2019 and spring of 2020. From the initial feedback, one person said too much of the poster text is spent describing the situation and more could be spent on concrete recommendations. Another point that emerged is how specific feedback could be more helpful than general themes. Unfortunately, this project is not as well-suited to provide more than generalized themes, due to the diversity of participants, the small number of participants, and the need to de-identify responses. Future projects could be more targeted around particular health topics, community populations, and other needs (e.g., preventing COVID-19 transmission among older adults in a densely populated camp).

Another point of feedback is that more advocacy could be done to advance health educators as a professional field. The main strands of professionalization are: 1) improvement of the capacity of the workforce to provide higher quality service; and 2) improvement of status, including societal respect and financial rewards (Hoyle, 2001). For example, Last Mile Health is working to professionalize the community health workforce in Liberia by working with the government and partner organizations to recruit, train, equip, manage, and pay CHWs (Last Mile Health, 2019). Some professions have associations to provide a community of practice and clout for negotiations, often with standardized trainings, assessments, and refresher courses.

The framing of what a profession can do also changes perceptions and the ability for professionals to access support. For example, the Teachers Guild platform aims to promote design among K-12 educators around the world by framing educators as innovators and providing design-thinking resources (Teachers Guild, 2016). A member of this professional network might be viewed

differently by a school than an individual educator attempting to innovate on their own. It can be helpful to use a professionalization framework in organizing recommendations for how stakeholders can think about elevating refugee health educators.

For as long as it makes sense, efforts can continue to enable the remaining participants and stakeholder contacts to comment on the initial findings if they are interested in doing so. The primary avenues for communication are currently email and WhatsApp.

Some new stakeholder groups have also been identified for future outreach around this topic:

- Organizations providing training to humanitarian practitioners (e.g., Harvard Humanitarian Initiative, FXB Center for Health and Human Rights, Partners in Health, Last Mile Health),
- Coordinating representatives with access to the broader East African region (e.g., East Africa Community, Common Market for Eastern and Southern Africa), and
- Researchers exploring grassroots and grasstops driven innovations in refugee settlements (e.g., Oxford Refugee Studies Centre).

These types of stakeholders may be interested in what some practitioners are saying about the challenges and opportunities for increasing practitioner-led innovation in Kakuma, even if they work across larger regions.

Potential Implications

The following reflections on the results and initial feedback may have some implications for further work on this topic.

Divergences from the Analytical Framework

During this project, several points turned out to be aligned with the analytical framework and results analysis, while other elements unexpectedly diverged. While this preliminary project had only 16 participants, some of the themes that came up frequently but that are not extensively covered in the literature can point to future areas of research.

For example, the literature review on innovation discusses the importance of managing risks, as failure could have a negative impact on intended beneficiaries as well as a negative impact on the innovators (financial loss, changed perceptions of capability, etc.). In the practitioner interviews and field observations, however, risk was entirely framed as mitigating harm to community members.

The participating practitioners did not discuss concerns about potential repercussions to their careers from taking on an innovation that could fail, although there were discussions about the stress of job instability in general. While there was mention of how the employing organizations and community members could be more supportive of practitioners who try different things, rather than perceiving them as "crazy," there was no mention of concerns that this could be exacerbated by the failure of an innovation.

It could be interesting to explore why the concerns around risk expressed by the participating practitioners were focused on the community, and less on the risk to themselves as individuals. Some ideas for potential explanations from stakeholders include how refugee health educators are relatively selfless, how they may have reduced expectations for their own careers due to the

challenging situation in Kakuma, and how there may simply have been less experience with the consequences of failure on innovators in this participant group. Additionally, many participants are refugees themselves, so their situations may differ substantially from the typical innovator described in the academic literature about risks of failure.

Elements of this may be related to the findings from a review by the Abdul Latif Jameel Poverty Action Lab (J-PAL) on loans from microfinance institutions (MFI), which suggests that many microfinance enterprises do not choose to try more innovative business ideas (J-PAL, 2018). This is potentially due to not only the personal consequences of failure to the entrepreneurs, including social and economic repercussions, but also pressures from lenders and peers in repayment accountability groups to avoid risky endeavors.

Divergent findings such as this one around perceptions of risks could be explored in more depth. In this case, the process could begin by following up with participants to first confirm whether they are less concerned about the potential consequences of innovation to them as individuals, and then to hear their reasons for why.

Learning from the Experiences of Refugee Practitioners

Researching the context and conducting the literature review led to an awareness of refugee health education practitioners before starting the study, but not an expectation that three-fourths of the participants would be refugees. This was a special opportunity to hear from the experiences of refugee health educators who are refugees themselves, and it could be worth further study to identify more differences between the experiences of refugees and non-refugees who are tasked to

work on community health outreach. Practitioners who are refugees may be more likely to face additional challenges and to benefit from additional support. For example, the discussion of interview themes and sub-themes touched upon the challenges of surviving as a refugee and not having the same rights to work as citizens.

Refugee practitioners may also be in a unique position to shed insight on the differences, similarities, and even overlaps between practitioner-led innovations and refugee-led innovations. The literature review showed that top-down innovations led by large organizations tend to have more access to funding and resources, whereas grassroots and grasstops innovations led by refugee community members and practitioners have historically received less investment. In contrast, the potential of grassroots and grasstops innovation has not been fully realized yet and could be nurtured with more support.

This is not to say that all top-down innovations should stop, because there may be certain types of innovations that are better suited to this form, such as innovations requiring sustained efforts with international coordination using high levels of resources. On the other hand, there may be innovations that are better suited to be driven at a grassroots or grasstops level, with community buy-in and leadership in decision-making to increase empowerment and sustainability.

Practitioners who are refugees may have experience with leading both grassroots innovations as a member of their communities and grasstops innovations as a representative of their organizations. These refugee practitioners may be able to answer questions about where stakeholders should channel more support across the spectrum of humanitarian innovation:

- Is it the case that refugee-led innovations are currently better supported than practitioner-led innovations, because there are many funders who prioritize grassroots work?
- Or is it the case that practitioner-led innovations are currently better supported than refugee-led innovations, because they have access to organizational resources that go beyond what an individual community member may be able to access?
- Where are the largest gaps in support, and where can more impact be made?

While this preliminary project may have raised more questions than it answered, the identification of new questions and how they can be answered is a different form of contribution.

Remaining Questions and Next Steps

In addition to the questions described above, other questions remain after this project:

- Beyond the participants, what are other organizations doing to support their practitioners?
- Beyond the participants, what are other practitioners doing to innovate in educating their communities about health?
- How could the questions above be answered?

If these questions are answered in the future, the information could be useful to share back with the participants of this project to continue informing their work.

A critical next step, to honor the time that participants contributed to this project, is to continue exploring additional avenues for advocacy. To work towards this, it could be helpful to map out more of the broader stakeholder ecosystem to understand where there are opportunities for

increased outreach and engagement. These brave practitioners took the time to share their insights, and they deserve to be heard beyond the scope of a doctoral thesis project.

Section V: Bibliography

Anderson, D., & Anderson, L. A. (2010). *Beyond Change Management: How to Achieve Breakthrough Results through Conscious Change Leadership* (Vol. 36). John Wiley & Sons.

Betts, A. et al. (2015). *Refugee Innovation: Humanitarian Innovation that Starts with Communities*. Oxford: Refugee Studies Centre.

Bradley, M. (2014). Rethinking Refugeehood: Statelessness, Repatriation, and Refugee Agency. *Review of International Studies*, 40(1), 101-123.

Brown, T., & Wyatt, J. (2010). Design Thinking for Social Innovation. *Development Outreach*, 12(1), 29-43.

Campbell, E. H. (2006). Urban Refugees in Nairobi: Problems of Protection, Mechanisms of Survival, and Possibilities for Integration. *Journal of Refugee Studies*, 19(3), 396-413.

Carpinello, S. E., Knight, E. L., Markowitz, F. E., & Pease, E. A. (2000). The Development of the Mental Health Confidence Scale: A Measure of Self-Efficacy in Individuals Diagnosed with Mental Disorders. *Psychiatric Rehabilitation Journal*, 23(3), 236.

Castro, F. G., Barrera Jr, M., & Holleran Steiker, L. K. (2010). Issues and Challenges in the Design of Culturally Adapted Evidence-Based Interventions. *Annual Review of Clinical Psychology*, *6*, 213-239.

Christensen, C. M., Raynor, M. E., & McDonald, R. (2015). What is Disruptive Innovation. *Harvard Business Review*, *93*(12), 44-53.

Connor, K. M., & Davidson, J. R. (2003). Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76-82.

Crisp, J. (2003). *No Solution in Sight: The Problem of Protracted Refugee Situations in Africa*. Center for Comparative Immigration Studies.

Dewar, R. D., & Dutton, J. E. (1986). The Adoption of Radical and Incremental Innovations: An Empirical Analysis. *Management Science*, *32*(11), 1422-1433.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New Well-Being Measures: Short Scales to Assess Flourishing and Positive and Negative Feelings. *Social Indicators Research*, 97(2), 143-156.

Drennan, V. M., & Joseph, J. (2005). Health Visiting and Refugee Families: Issues in Professional Practice. *Journal of Advanced Nursing*, *49*(2), 155-163.

Duckworth, A., & Duckworth, A. (2016). *Grit: The Power of Passion and Perseverance*. Findaway World LLC.

Fennelly, K. (2006). Listening to the Experts: Provider Recommendations on the Health Needs of Immigrants and Refugees. *Journal of Cultural Diversity*, *13*(4), 190.

Fressoli, M., Arond, E., Abrol, D., Smith, A., Ely, A., & Dias, R. (2014). When Grassroots Innovation Movements Encounter Mainstream Institutions: Implications for Models of Inclusive Innovation. *Innovation and Development*, *4*(2), 277-292.

Gatt, J., Alexander, R., Emond, A., Foster, K., Hadfield, K., Mason-Jones, A., Reid, S., Theron, L., Ungar, M., Wouldes, T. A., and Wu, Q. (2020). Trauma, Resilience, and Mental Health in Migrant and Non-Migrant Youth: An International Cross-Sectional Study Across Six Countries. *Frontiers Psychiatry*.

Hammond, L. (2013). History, Overview, Trends and Issues in Major Somali Refugee Displacements in the Near Region (Djibouti, Ethiopia, Kenya, Uganda and Yemen). *Bildhaan: An International Journal of Somali Studies,* Volume 13.

Harvard Medical School. (2012). *Why Behavior Change is Hard – And Why You Should Keep Trying*. Harvard Health Publishing.

Hoffecker, M., Leith, K., & Wilson, K. (2015). *The Lean Research Framework: Principles for Human-Centered Field Research.* Available at https://d-lab.mit.edu/lean-research, http://fic.tufts.edu/assets/LeanResearchGuideRev8.15.pdf

Horn, R. (2010). Responses to Intimate Partner Violence in Kakuma Refugee Camp: Refugee Interactions with Agency Systems. *Social Science & Medicine*, 70(1), 160-168.

Hovil, L. (2018). *Uganda's Refugee Policies: The History, The Politics, The Way Forward*. Rights in Exile Series, International Refugee Rights Initiative.

International Network for Education in Emergencies (INEE) and United Nations Office for the Coordination of Humanitarian Affairs (UN OCHA). (2016). *Education in Emergencies*. Accessed at http://www.ineesite.org/en/education-in-emergencies

Jayawickreme, E., & Blackie, L. E. (2016). Employing the Tools of Growth: The Example of Displaced Populations. *Exploring the Psychological Benefits of Hardship*, 53-66. Springer, Cham.

Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). Mental Health Literacy. A Survey of the Public's Ability to Recognise Mental Disorders and Their Beliefs About the Effectiveness of Treatment. *Med J Aust*, 166(4), 182-186.

Kelley, T., & Kelley, D. (2012). Reclaim Your Creative Confidence. *Harvard Business Review*, *90*(12), 115-8.

Lusk, M., Terrazas, S., Caro, J., Chaparro, P., & Antúnez, D. P. (2019). Resilience, Faith and Social Supports Among Migrants and Refugees from Central America and Mexico. *Journal of Spirituality in Mental Health*.

Section IV: Appendices

Appendix A: Additional Examples of Participatory Health Education Initiatives

Pre-Texts

Developed by Professor Doris Sommer's team, Pre-Texts is an approach where participants develop health literacy by engaging with complex topics and creating their own interpretations, as well as resources ranging from cardboard libraries on various health topics to art illustrating health concepts to theatrical plays with health messages for their audiences.

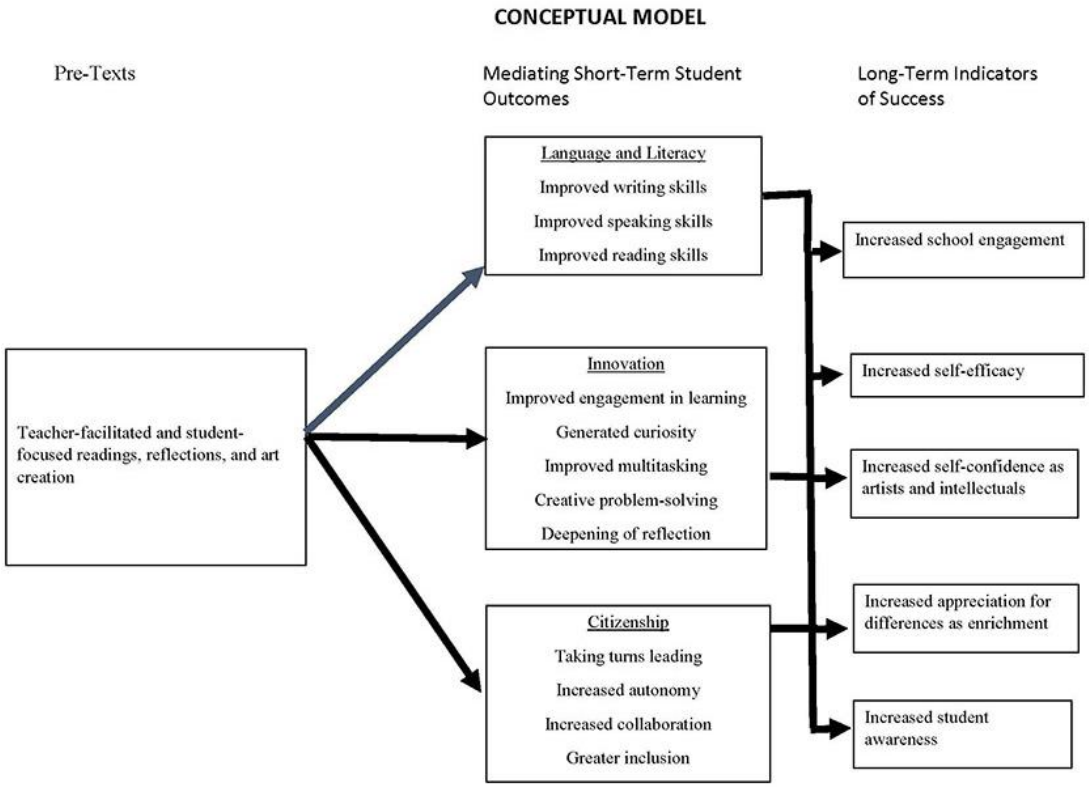


Figure 6.1.1. Theory of Change for Pre-Texts

Source: Sommer, D. (2019). A Case for Culture.

Girl Effect

Nike Foundation's Girl Effect is an innovative program that empowers adolescent girls to become peer health educators while earning an income. Participating youth are provided with training and equipped with toolkits and videos on their phones, reaching out to other youth in their communities as trusted and culturally relevant sources of information. Topics that the peer health educators are able to address have often been stigmatized in their communities, such as discussion of HIV/AIDS and mental health. Health issues are also linked to issues across other sectors, such as child marriage's impact on abilities to pursue and education and work towards economic stability for their families. In this way, youth members of the community are tapped to help with community health outreach, contributing their energy, ideas and social networks to increase the effectiveness of health education and promotion efforts.

Appendix B: Additional Examples of Health Education Innovations in Kakuma

Safe space for women integrated with vocational training community center

In Kalobeyei, activities to promote women's health and counseling for survivors of sexual assault and gender-based violence (GBV) are offered to refugees and Turkana host community members alike at a community center that provides economic empowerment programs such as marketable job skills training. The center provides some childcare services to enable more mothers to participate, and health programming is also available to adolescent females and girls. The integration of health and livelihood promotion recognizes how poverty is tied to health and well-being outcomes, and aims to promote women's self-reliance.

The center is part of the Women's Leadership, Empowerment, Access and Protection (LEAP) project, run in collaboration between Kenyan government agencies, UN Women, foreign institutions such as the Danish Refugee Council (DRC), and international non-governmental organizations (NGOs) like Peace Winds Japan, the last of which is a collaborator with the Japan International Cooperation Agency (JICA). The idea for the center was developed through community input via surveys and opened with community buy-in thanks to participation from community groups (e.g., traditional dancers).

Sports for Change

In Kakuma, UNHCR staff and incentive workers are engaging community members in needs "assessment, prioritization, design, implementation, and monitoring and evaluation" for health outreach programs. A few ideas that are being explored include art therapy and sports for change.

Sports are an important part of community life in Kakuma, with football games hosted regularly to build unity and raise awareness around various issues. Only 73 out of Kakuma's 592 registered sports teams are for women, however (Lutheran World Federation, 2018). Providing sports activities for women while running a campaign against female genital cutting (FGM) is an innovation with several potential benefits. For example, sports for change teams can engage young women by providing an avenue for social connection and physical exercise, while creating a forum for the discussion of topics that can be difficult to bring up in traditional society.

Appendix C: Interview Question Guide

Thank you for agreeing to participate in this interview, which is anticipated to take 40-60 minutes. As a reminder, you can feel free to skip any questions or end the interview at any time. Furthermore, your personal information (i.e., your name or role) will not be associated with any responses when summarized findings are potentially shared with your organization, other participating organizations, and additional stakeholders.

My name is Jessica Huang and I am a graduate student at the Harvard T.H. Chan School of Public Health who is working with the ResilientAfrica Network to learn more about: 1) how practitioners working on refugee health education in Kakuma are currently innovating to improve their work; 2) what are some of the challenges and opportunities for innovation in refugee health education in Kakuma; and 3) how stakeholders can support more health education practitioners in Kakuma to innovate in the future.

What does your organization do for health education and promotion in Kakuma?

What is your role at your organization, and what are your main responsibilities?

How long have you been working with your organization, and has your role changed over time?

Have you done health education work in other regions outside of Kakuma? If so, where?

What do you think is the potential for innovation to improve health education in Kakuma?

Please share any examples of innovations you have created and/or used for your health education work in Kakuma. How did you go about designing/implementing these innovations?

Have you experienced or have you observed any challenges to innovating in health education in Kakuma? If so, please describe.

Are there any other challenges? If so, please describe. (Repeat as time permits.)

Have you experienced or have you observed any opportunities for innovating in health education in Kakuma? If so, please describe.

Are there any other opportunities? If so, please describe. (Repeat as time permits.)

Would you like more support for innovation in your health education work? If so, what kinds of support would you like increased…

…from your employing organization?

…from additional stakeholders in Kakuma?

…from any others, inside or outside of Kakuma?

Is there anything else you would like to share that we have not yet discussed?

Is there anyone else I should talk to about the topics we discussed today? If so, could you please share their name(s) and how I can get in touch with them to see if they would like to participate in an interview?

Would you like a summary of the results from these interviews? Is there anyone else you think should receive a summary of these results? Do you have any concerns about sharing these results, not including any names or specifics, with your organization and additional stakeholders?

Do you have any other questions for me?

You can reach me at +254 755694420 (Kenyan number), +1 9096323058 (U.S. / WhatsApp number), jahuang@mail.harvard.edu, or Skype I.D. jess.a.huang. Thank you again for taking the time to share your experiences and perspectives!

Appendix D: Relevant Topics for the Maternal and Child Health / Children, Youth and Families (MCH / CYF) Concentration in the Department of Social and Behavioral Sciences

As part of the MCH / CYF Concentration, with a dual concentration in Humanitarian Studies, Ethics, and Human Rights (HuSEHR) through the Harvard Humanitarian Initiative (HHI), this project addresses several topics in this field:

- Working with a refugee population that has a large proportion of women and children, including unaccompanied minors
- Working with community health educators who do outreach on the following:
    - Reproductive health and family planning
    - Maternal health, including pre- and peri-natal care as well as mental health care for post-partum depression
    - Child vaccinations and nutrition
    - Reducing air and water pollution, which contribute to under-5 mortality due to respiratory infections and diarrheal diseases
    - Early childhood development and safe play zones, including social and emotional learning (SEL)
    - Serving children with disabilities as well as sexual orientation and gender identity (SOGI) minorities
    - Child abuse and child marriage prevention
    - Adolescent health, including the prevention of female genital cutting (FGC)
    - Sexual and gender-based violence (SGBV / GBV) prevention
    - Prevention of human-trafficking and exploitation (e.g., survival sex)
    - Engaging male family members on health issues