



A History of Federal Control of Communicable Diseases: Section 361 of the Public Health Service Act

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Abstract: The federal government possesses broad powers under Section 361 of the Public Health Service Act to regulate the entry and spread of communicable diseases into and among the United States. Though this power has played a central role in United States history since the time of the colonies and remains important today, no complete history of its development and use exists. In our era of almost unlimited communicable disease possibilities, to ignore past experience is folly—a waste of informational resources that could prove instructive today. This paper attempts to fill that gap, providing a policy history to explain the evolution of federal quarantine and inspection powers.

Through Section 361 of the Public Health Service Act, Congress has endowed the Surgeon General with the responsibility and power to:

[M]ake and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession.¹

The breadth of this power is matched only by the importance of its goal. The evolution of federal quarantine law into its present form has been driven primarily by an intermittent series of deadly epidemics. Since the colonial era until the passage of the Public Health Service Act of 1944, the power to protect against external threats of communicable diseases had gradually shifted from state and local authorities to federal authorities. This federal power expanded from protection against communicable diseases of foreign origin to include protection against the interstate transmission of communicable diseases as well. The statute's breadth is evidenced by its application, governing the inspection and quarantine of subjects as varied as humans, turtles, and used tire casings. As air travel revolutionized the speed and volume with which foreign travelers and immigrants reach the United States, the Public Health Service's legal power became a less salient issue than its ability to enforce that power. Because of the impossibility of fully screening the tidal wave of entering people and commerce, the late twentieth century brought a shift from the paradigm of borders as disease barriers to the paradigm of global disease prevention. In our world of global travel and potential

bioterrorism, current thinkers seem stymied by the task of creating an effective federal communicable disease control policy. If, as Senator Bill Frist argues, In the war against bioterrorism, information is power, then historical information about communicable disease control appears to be an untapped resource.² This paper attempts to chart the history of federal communicable disease control in a way that puts the evolution of this broad power in context and illuminates some lessons from our past that may help provide a safer future.

Origins of Federal Quarantine and Inspection Laws

The connection between seafaring and the spread of illness has been recognized at least since the Venetians imposed the first known quarantine in the early 14th century. The term itself comes from the Italian word for forty, denoting the number of days ships arriving from suspect ports were detained before being allowed to disembark in Venice.³ It is not surprising, then, that the towns of the original American colonies began to impose quarantines as early as 1647, when the Massachusetts Bay Colony enacted the first quarantine restriction in colonial America. This regulation required the quarantine of ships from Barbados due to the threat of plague.⁴ The belief evidenced in this 1647 law, that disease could be prevented by prohibitions against the entry of a foreign source, underlies the paradigm of communicable disease prevention that would dominate federal quarantine laws for the next three centuries.

²Frist, Sen. William H., M.D., When Every Moment Counts. Rowman & Littlefield Publishers, Lanham, Maryland, 2002, pp. 19.

³Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 63.

⁴Ibid., pp. 64-65.

In 1662, the first land-based quarantine in the future United States was instituted in the town of East Hampton, Long Island. The entry in the Town Records for March 2, 1662 orders:

... that no Indian shall come to towne into the street after sufficient notice upon penalty of 5s. or be whipped until they be free of the smallpoxe. . . and if any English or Indian servant shall go to their wigwams they shall suffer the same punishment.⁵

Though intended to prevent disease transmission from a domestic (rather than foreign) source, this regulation continues the pattern of concentrating on protecting a defined community from a disease that threatens from outside that community. Attempts to protect against smallpox recur throughout the history of American quarantine, leading to a victorious period of worldwide eradication as well as our current fears of the disease as a potential terrorist weapon.

Following these first quarantines, other colonial governments gradually instituted their own measures for preventing the introduction of disease from without. At the turn of the 18th century, the predominant concern was about diseases (primarily smallpox and yellow fever) coming in by sea from foreign ports, rather than domestic sources.⁶ A law enacted by Pennsylvania in 1700 is typical of the quarantine provisions of this time, prohibiting sickly vessels coming into the government.⁷ Though most colonies enacted quarantine laws, there was no clear consensus as to which level of government would have authority over this task; cities and other localities enacted quarantine statutes as well.⁸

The Colonial Government of New York began the most sophisticated formal quarantine system in the nation in 1754, funding quarantine hospitals through a tax imposed on all seamen and passengers entering at the port of New York.⁹ This move was largely motivated by recurring outbreaks of yellow fever which figured

⁶Ibid., pp. 65-66.

⁷Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 65.

⁸The City of Charleston in the Province of Carolina enacted a quarantine law on June 7, 1712. Ibid., pp. 65.

⁹Ibid., pp. 67-68.

significantly in New York and Philadelphia from 1723 to 1822.¹⁰ While these sorts of quarantine measures seem prudent and necessary, one cannot ignore a level of panic surrounding the spread of contagious diseases. At the time, the causes of yellow fever and smallpox were unknown, and public fear abounded.¹¹ The yellow fever epidemic in Philadelphia in the summer of 1793 exemplifies the fear prompted by that disease. A month after the disease first appeared that year, Secretary of the Treasury Oliver Wolcott visited the city, noting that the streets and roads leading from the city were crowded [sic] with families flying in every direction for safety to the country.¹² By a month later, Wolcott wrote the apprehensiveness of the citizens cannot be increased; business is in great measure abandoned; the true character of man is disclosed, and he shows himself a weak, timid, desponding and selfish being.¹³ The citizens of New York were in a similar state of panic that they might import the disease trampling Philadelphia: In New York bands of vigilantes were organized to patrol the streets lest fugitives from Philadelphia slip into the town by night,¹⁴. Less intimidating measures were taken as well; Boston held ships from Philadelphia for cleansing with vinegar and gunpowder. Among those remaining in Philadelphia, some chewed garlic all day, while even women and children smoked cigars in the hopes of warding off disease through rumored preventatives.¹⁵

The federal government first became involved in quarantine in the 1790's, beginning with some halting first steps at the periphery of a federal quarantine presence. In 1789, the First Congress appointed a committee to draft and introduce a bill to provide for the care of sick and disabled merchant seamen. Though the bill did

¹⁰Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 66. A particularly vicious epidemic of yellow fever in 1793 in then-capital of Philadelphia caused the federal government to cease operations. Spiegel, Jayson L., Reinforce Our First Line of Defense. *The Washington Post*, Sunday, January 20, 2002. B2.

¹¹Fear of smallpox was complicated by the fear of its new potential solution – inoculation. Angry crowds burned a hospital in Salem, Massachusetts in 1774 in order to prevent its use as an inoculation hospital. Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 67.

¹²Gibbs, George. *Memoirs of the administrations of Washington and John Adams*. New York: printed for the subscribers, 1846, vol. 1, pp. 110. Quoted in Smith, Geddes, *A Plague on Us*, The Commonwealth Fund, Oxford University Press, 1941, pp. 12.

¹³Smith, Geddes, *A Plague on Us*, The Commonwealth Fund, Oxford University Press, 1941, pp. 12.

¹⁴Ibid, pp. 13.

¹⁵Ibid, pp. 12.

not survive committee, this was the first sign of federal interest in regulating the health of the vessels coming to and from our shores.¹⁶ On June 9, 1794, Congress passed the first federal law relative to quarantine, granting federal consent to the state of Maryland's law imposing a duty on vessels coming into the district of Baltimore from foreign ports in order to pay for a health officer at the Port of Baltimore.¹⁷ Prior to this, states had not been permitted to charge duties on arriving ships for any reason. The Act of April 3, 1794 indirectly suggested a federal response to quarantine power, by authorizing Congress to meet at a place other than the seat of government when a prevalence of contagious sickness existed.¹⁸ It was not until 1796, however, that Congress addressed the larger question of federal involvement in quarantine directly. An Act Relative to Quarantine, passed on May 27, 1796, gave the President authority to direct the revenue officers and officers commanding forts and revenue cutters to aid in the execution of quarantine and in the execution of the health laws of the states.¹⁹ This first official move toward federal aid in the execution of state quarantine laws laid a template for future constructions of law that would cast the federal government in the role of providing requested assistance, but not directing action.

The 1798 Act for the Relief of Sick and Disabled Seamen created an agency that would eventually be responsible for providing this assistance – the Marine Hospital Service (predecessor to the present Public Health Service). The Act provided that the salaries of sailors be taxed to fund the construction of marine hospitals and to provide medical care to merchant seamen, creating what the National Institutes of Health now refers to as the first prepaid medical care plan in the United States.²⁰ Because the Marine Hospital Service was created to serve merchant seamen, a vital component of commerce, it was housed in the Treasury

¹⁶Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 163-164.

¹⁷Ibid., pp. 68.

¹⁸This action was taken in response to the yellow fever outbreak in Philadelphia that year. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 68.

¹⁹An Act relative to Quarantine, May 27, 1796. Fourth Congress, Session I, Ch. 31, 32.

²⁰An Act for the Relief of Sick and Disabled Seamen, July 16, 1798, 1 Stat. L. 605. www.nih.gov, NIH timeline, and Mullan, Fitzhugh, Plagues and Politics: The Story of the United States Public Health Service. Basic Books, Inc., New York, 1989, pp. 17.

Department.²¹ Though the law did not explicitly direct the agency to prevent the spread of contagious diseases, its goal of creating federal medical resources to aid the health of those most likely to carry diseases into the United States from overseas hints at its later use for this purpose.²²

Soon after creating the Marine Hospital Service, Congress tasked the Treasury with the duty to observe and assist in the quarantine laws of the states. On February 25, 1799, An Act Respecting Quarantine and Health Laws replaced the Act of May 1796, reflecting a more developed notion of what was involved in creating a federal quarantine institution.²³ The statute retained the model of federal agency as assistant to state authorities, directing United States officers to observe state quarantine and health laws, and authorizing the Secretary of the Treasury to assist states in their efforts to enforce those laws.²⁴ The language of the statute evinces that its primary concern was disease borne on seafaring vessels, rather than traveling over land; this reflects the emerging view of the time that while general health regulations lay beyond federal purview, federal involvement in health regulations relating to international travel might be appropriate.

Aside from authorizing the federal government to assist the states in enforcing their own quarantine laws, the 1799 Act contained a provision allowing the Secretary of the Treasury to vary the regulations relative to the entry and report of vessels and their cargoes. Specifically, the statute authorized the Secretary:

²¹www.nih.gov, NIH timeline.

²²The biography of the bill's major Congressional proponent gives some support to the notion that the bill's framers contemplated the Marine Hospital Service's involvement in preventing the spread of contagious diseases. Congressman Edward Livingston, of New York, from the Committee on Commerce and Manufacturing, reported a bill for the relief of sick and disabled seamen. . . .[Livingston] served as a member of Congress from New York from 1795 to 1801. He was selected by Thomas Jefferson as United States District Attorney for New York in 1801. He became Mayor of New York City in August of that year. During 1803 he rendered conspicuous service in the yellow fever epidemic that occurred in New York City and contracted the disease. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 164.

²³An Act respecting Quarantine and Health Laws, February 25, 1799. Fifth Congress, Session III, Ch. 12.

²⁴Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the quarantines and other restraints, which shall be required and established by the health laws of any state, or pursuant thereto, respecting any vessels arriving in, or bound to, any port or district thereof, whether from a foreign port or place, or from another district of the United States, shall be duly observed by the collectors and all other officers of the revenue of the United States, . . .and all such officers of the United States shall be, and they hereby are, authorized and required, faithfully to aid in the execution of such quarantines and health laws, according to their respective powers and precincts, and as they shall be directed, from time to time, by the Secretary of the Treasury of the United States. From An Act respecting Quarantine and Health Laws, February 25, 1799. Fifth Congress, Session III, Ch. 12.

when a conformity to such quarantines and health laws shall require it, and in respect to vessels which shall be subject thereto, to prolong the terms limited for the entry of the same, and the report or entry of their cargoes, and to vary or dispense with any other regulations applicable to such reports or entries.²⁵

Though this appears to give the Secretary power to depart from state laws and institute his own regulations, this power extends only so far as the underlying state quarantine laws allow. The statute only authorizes variations from regulations of reports and entries if those regulations conflict with the requirements of the state quarantine and health laws. Thus, this statute does not actually authorize the federal government to make any law relating to quarantine that would supercede state quarantine laws.

The 1799 Act includes two other provisions that reflect the early state of development of federal quarantine powers. The first of these was a provision that reflected a significant concern about state quarantine laws at the time—that the protection of public health would become a pretext for graft and economic protectionism. For this reason, the statute orders that . . . nothing herein shall enable any state to collect a duty of tonnage or impost without the consent of the Congress of the United States thereto,²⁶. This expresses Congress' clear desire for a separation of powers that would require Congressional permission to tax any incoming vessel (as was allowed in the case of the Port of Baltimore in 1794). The other provision revealing the developing concern about communicable disease at the time might be seen as the first federal provision for public health emergencies. The Act provides that in the case of prevalence of any contagious or epidemic disease at a port, the Secretary of the Treasury could order the removal of revenue officers, the President could order the removal of public offices, the courts could decide to remove themselves, and a district judge could order the removal of all prisoners from that port to a safe location.²⁷ This provision also lays out the first clear division of responsibility between government actors in the event of a breakout of a dangerous disease.

²⁶An Act respecting Quarantine and Health Laws, February 25, 1799. Fifth Congress, Session III, Ch. 12.

²⁷Ibid.

The assignment of federal power to help enforce state quarantine laws created some confusion as to whether this in some way lent federal authority to state quarantine laws. The 1824 case of *Gibbons v. Ogden* illustrates some of the role confusion raised by this melding of functions. In *Gibbons*, the Supreme Court struck as unconstitutional a New York law that granted exclusive navigation rights to two individuals for the entire waters of New York. In doing so, the Court rejected the State's argument that the federal government's prior assistance in enforcing New York's quarantine regulations signified federal sanction of those laws as consistent with the Constitution: Congress only directs officers of government to obey state quarantine laws but does not pretend, or attempt, to legalize them.²⁸ This firmly established that, although federal powers would be used to help enforce state laws regarding maritime travel, it would neither negate the commerce power nor federalize state quarantine laws.

While the meaning of this federal aid was being defined, Congress appropriated to the Secretary of the Treasury greater power to implement it. Between 1832 and 1834, serious outbreaks of cholera traveled up the Mississippi River from the Gulf Coast, spreading that disease and the fear of it into areas which had previously seemed safe from the reach of coastal diseases.²⁹ In response to this epidemic, Congress passed An Act to Enforce Quarantine Regulations on July 13, 1832, empowering the Secretary of the Treasury to allocate ships and officers to aid in the enforcement of state quarantine and health laws.³⁰ This statute did not materially change the powers of the federal government to interfere with quarantine laws, maintaining the federal health role as assistant to state authority. It did, however, materially increase the usefulness of this power to the states and it increased the federal presence at state ports.

²⁸ *Gibbons v. Ogden* (1824) 22 US 1, 9.

²⁹ Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 70.

³⁰ *Be it enacted*... That if, in the opinion of the Secretary of the Treasury, the revenue cutters, revenue boats, or revenue officers, employed or authorized to be employed for the purposes of the revenue, should be insufficient to aid in the execution of the quarantine and health laws of any state, or the regulations made pursuant thereto, the said Secretary may cause to be employed such additional revenue boats and revenue officers as he may deem necessary for that purpose, the said revenue boats to be of such size and description as he may see proper. This act to continue in force until the fourth of March, one thousand eight hundred and thirty-three. – Approved, July 13, 1832. From An Act to enforce quarantine regulations, July 13, 1832. Twenty-Second Congress, Session I, Ch. 202, 203, 204.

Though the federal government and the states clearly understood that the epidemic diseases of the time were transported by boat, there was by no means a clear understanding of their modes of transmission. One Senate report on quarantine in 1854 stated that cholera appeared to have no cause, but emerged at random except for a possible correlation with poor sanitation. The understanding of typhus (or ship fever) was more colorful, if no more advanced. The Senate Report identified the cause of typhus as being a poisonous vapor particular to ships, which was made of a combination of the decomposition of bodily excretions and moisture from perspiration and breath.³¹ Though people of the time did not understand disease transmission, they were becoming all too familiar with the consequences of epidemics. One particularly disastrous yellow fever outbreak on Staten Island and Long Island, New York in 1856, underscored the level of public fear engendered by the prevailing contagious diseases of the time. Attributed to lax enforcement of quarantine laws, the 1856 New York outbreak caused over 500 cases of yellow fever, and led angry locals to barricade the quarantine station on Staten Island.³² Though New York health authorities responded by moving the quarantine station several miles away, the locals were not pacified. When new yellow fever patients arrived the following summer, an armed mob burned the quarantine hospital to the ground.³³

Post-Civil War Communicable Disease Control: The Fight Against Yellow Fever and the Acts of 1878-1879

The Civil War years did not weaken the nation's quarantine abilities, but strengthened them through increased appropriations and an influx of military medical officers who would become, in effect, government

³¹Bennett, Victoria L., Medical Examination of Aliens: A Policy with Ailments of its Own? University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 741.

³²The Yellow Fever Epidemic of 1888. JAMA 12:22. Jan. 5, 1889.

³³Ibid.

doctors.³⁴ These expanded resources came largely in response to cholera and yellow fever. Due to the prevalence of cholera, in 1866, Congress passed a joint resolution authorizing the Secretaries of War and Navy to place ships at the disposal of quarantine officers at United States ports.³⁵ Though this action remained in effect for only one year, it added to the gradual progress of increased federal ability to aid in disease control. Another law passed in 1866, however, contributed far more to federal quarantine power. The Act of May 26, 1866 granted to the Secretary of the Treasury, for the first time, the power to make its own regulations regarding quarantine against cholera.³⁶ Though this grant of power was also a response to a temporary epidemic expiring in one year, it broke trail into a new area in which the federal government would not just assist, but at times also direct, quarantine regulations.³⁷

The recurrences of deadly epidemics (particularly yellow fever) in the southern states in the mid-19th century led the post-war Congress to concentrate federal quarantine efforts in the South. On June 6, 1872, Congress passed a Joint Resolution Providing for a More Effective System of Quarantine on the Southern and Gulf Coasts, which authorized the Secretary of War to evaluate and rehaul southern states' quarantine policies in light of the yellow fever threat.³⁸ The choice to locate this power with the Secretary of War, rather than the usual seat of quarantine power – the Secretary of the Treasury, requires explanation. This provision does not

³⁴Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 165.

³⁵Joint Resolution authorizing the Secretaries of War and Navy to place Hulks and Vessels at the Disposal of the Commissioners of Quarantine, or other proper Authorities, at Ports of the United States, for one Year., March 24, 1866. Thirty-Ninth Congress, Session I, Res. 16.

³⁶Joint Resolution respecting Quarantine and Health Laws., May 26, 1866. Thirty-ninth Congress, Session I, Res. 42.

³⁷*Be it resolved...* That the Secretary of the Treasury be, ... authorized to make and carry into effect such orders and regulations of quarantine as, in his opinion, may be deemed necessary and proper, in aid of State or municipal authorities, to guard against the introduction of cholera into the ports of the United States; and the Secretary of the Treasury is further authorized to direct the revenue officers and the officers commanding revenue cutters to aid in the execution of such quarantine, and also in the execution of the health laws of the States respectively in such manner as may to him seem necessary. . . . provided the authority hereby granted shall expire on the first Monday in January, [1867]. – Approved May 26, 1866. Joint Resolution respecting Quarantine and Health Laws., May 26, 1866. Thirty-ninth Congress, Session I, Res. 42. During this time, federal health officers and Congress were considering the reorganization and expansion of the Marine Hospital Service. The Act of June 29, 1870 provided for reorganization of the Marine Hospital Service, and established a central office in Washington for the agency. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 165.

³⁸Joint Resolution providing for a more effective System of Quarantine on the Southern and Gulf Coasts., June 6, 1872. Forty-Second Congress, Session II, Res. 6.

represent a change in authority, but a supplemental power to capitalize on military medical officers' familiarity with Southern health conditions.³⁹ In addition, the assignment of this responsibility to the Secretary of War reflected that much of the Marine Hospital Service's own resources had been subsumed by the war effort.⁴⁰

The language of the statute itself shows an interesting variation on the usual formula of directing federal quarantine officers to aid in the enforcement of state laws. Because of a dearth of organized quarantine systems in the south (and a lack of state boards of health in southern states at this time⁴¹), the language directs army medical officers to:

... visit each town or port on the coast of the Gulf of Mexico and the Atlantic coast, which is subject or liable to invasions of yellow fever, and ... confer with the authorities of such port or town, with reference to the establishment of a more uniform and effective system of quarantine, and ... ascertain all facts having reference to the outbreaks of this disease in such ports or towns, and whether any system of quarantine is likely to be effective in preventing invasions of yellow fever, and, if so, what system will least interfere with the interests of commerce at said ports...⁴²

Though the statute directs the federal medical officer to advise, rather than direct, local authorities, it clearly authorizes federal medical officers to do more than simply help enforce local laws. This more intrusive role of the federal medical officer may have been justified by the time limits of the statute, which designed this action to end with a report on the topics to the Secretary six months later.⁴³

Despite sporadic attempts to use federal resources to improve state and local quarantine systems throughout the 19th century, by 1875, the effect was seen as relatively insignificant. One Public Health Service historian

³⁹Ibid.

⁴⁰Mullan, Fitzhugh, Plagues and Politics: The Story of the United States Public Health Service. Basic Books, Inc., New York, 1989., pp. 23-25.

⁴¹Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 113.

⁴³Ibid. A later statute authorized similar action in response to another outbreak in March of 1874. Act of March 25, 1874. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 115.

noted that The enforcement of quarantine regulations, inconsistent as they were from locality to locality, was variable and often nonexistent. In 1875 [Supervising Surgeon General John Maynard] Woodworth characterized the federal quarantine law as a 'dead letter'.⁴⁴ Part of this lack of success resulted from the requirement that federal medical officers wait for local authorities to request assistance before intervening in quarantine procedures. This impotence collided with the Surgeon General's ambitious goals for the Marine Hospital Service (MHS). From the beginning of his tenure, Woodworth aspired to use the MHS not only for the care of merchant seamen, but to provide health services to the entire nation. The predominance of epidemic outbreaks (primarily cholera, smallpox, and yellow fever) led him to see the quarantine power as central to achieving this goal of a more universal health service.⁴⁵ Woodworth attempted to increase the MHS's role in quarantine by issuing a memo to his medical officers that defined their quarantine duties and ordered them to familiarize themselves thoroughly with the local health laws at their ports, and to obey these laws and render prompt assistance in their enforcement when requested.⁴⁶

At the same time that Woodworth was trying to increase federal control over quarantine, an important and connected move toward federalization in the area of immigration was taking place. In 1875, the Supreme Court struck as unconstitutional all state laws regarding foreign immigration, giving the federal government sole authority to regulate immigration. This case, *Chy Lung v. Freeman et al.*, involved a California statute excluding certain aliens except upon payment of a bond. In his majority opinion, Justice Miller held the statute to be unconstitutional because it conflicted with the sole authority of Congress to regulate the admission of aliens.⁴⁷ This ruling left the states with a gaping need for federal assistance in dealing with the many services required by immigration, including the task of protecting against the contagious diseases

⁴⁴Mullan, Fitzhugh, *Plagues and Politics: The Story of the United States Public Health Service*. Basic Books, Inc., New York, 1989., pp. 23-25.

⁴⁵Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 72.

⁴⁶Duties of the United States Officers with Reference to Quarantine and the Public Health, Department No. 90, September 8, 1874. See also, Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 75.

⁴⁷*Chy Lung v. Freeman et al.*, 92 U.S. 275 (Sup. Ct., 1875 Term)

some immigrants carried to their shores.⁴⁸

Woodworth continued his campaign to empower the MHS's quarantine efforts at the International Medical Congress in 1876. At the conference, he argued for the need for a national quarantine system, with a concentration on working toward uniformity in the system. Woodworth's arguments were not aimed at making it more difficult for vessels to dock at U.S. ports. On the contrary, he believed that quarantine could become more predictable and effective through a uniform system of: inspections of arriving vessels, medical examinations of those on board, and shorter required periods spent in quarantine detention. This last reform was an attempt to end some ports' practice of detaining vessels from infected ports for longer than the period of incubation of the disease which was being contained. Woodward argued that once the disease had run its course and was no longer contagious, there was no reason for ships to remain in quarantine at tremendous cost to their owners and crew.⁴⁹

Though Woodworth's efforts did not meet with immediate success, the next year brought events that helped advance his cause. In the summer of 1877, a ruinous epidemic of yellow fever spread up the Mississippi from New Orleans.⁵⁰ This pattern of yellow fever outbreaks, spreading up through the southern states from New Orleans, continued over the next year with disastrous consequences. The epidemic of the following summer led to roughly 27,000 cases of yellow fever and over 4,000 deaths in New Orleans, and killed almost ten percent of the populations of Memphis and Vicksburg.⁵¹ Overall, the yellow fever epidemic that traveled the Mississippi in 1878 took more than 100,000 victims.⁵² The level of fear and devastation inherent in this

⁴⁸Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 102.

⁴⁹Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 73.

⁵⁰Mullan, Fitzhugh, Plagues and Politics: The Story of the United States Public Health Service. Basic Books, Inc., New York, 1989, pp. 25.

⁵¹The Yellow Fever Epidemic of 1888. JAMA 12:22. Jan 5, 1889.

⁵²*One of the only first-hand accounts of this epidemic came from a telegraph operator in Grenada, Mississippi. His story is told here by Geddes Smith, in his book Plague on Us: The first cases of sickness appearing in the little town were dismissed as 'bilious fever.'* The local board of health on August 11 reluctantly admitted the presence of an epidemic. Three days later all

experience is hard for us to imagine today; entire towns along the Mississippi were deserted as rumors of yellow fever surfaced in the days prior to its actual arrival, and local citizens enforced quarantines at the point of shotguns.⁵³ This panic, which made dealing with the epidemic even more difficult than it would have otherwise been, is understandable in light of the lack of available information about what caused the disease. As a result, a commission appointed by Congress after the 1878 outbreaks investigated the cause and transmission of both yellow fever and cholera.⁵⁴ Even the best medical minds of the time were unable to identify the true mode of transmission of yellow fever, concluding only that further efforts should be directed toward chemical disinfectants and that quarantine and sanitation played an important role in disease control. As Geddes Smith wrote, yellow fever presented a particularly difficult epidemiological conundrum: [A] disease which clearly was not transmitted *directly* from person to person and which nevertheless spread from one place to another with human travel was too puzzling to handle in any logical way until, years later, the mosquito was identified as middleman.⁵⁵

The story of one yellow fever infected towboat, the John D. Porter, reveals the inability of health officers to control the spread of this epidemic. Originating in New Orleans, the Porter set out for Pittsburgh with a string of barges, but had stopped as early as Vicksburg to bury two crew members who had succumbed to the disease. By the time the boat reached Memphis, soon after losing another crew member to yellow

but 700 of the 2,200 white inhabitants had fled. Only the undertakers' shops and drugstores were open. With windows closed, trains went through the village without slackening speed. Except for physicians and nurses from Memphis and New Orleans, the town was cut off from the world. On August 15 there were 300 white people left, half of whom were sick. Two days later there were 200 and only 30 or 40 of these persons were well. The telegrapher in writing his story said, 'Surely the end cannot be far and the chapter must be soon closed.' A few days later he recorded that 'No one had dared to enter the town for several days. When we are gone, God only knows what will become of the stricken.'

On the 22nd of August, word reached the village that the War Department was sending tents for refugees but the question was who would put them up. 'There are not 20 active men in town.' The telegrapher indicated that there was one corpse and four sick persons in the house where he lived. The dispatches from the telegrapher grew more brief. On August 29, there was little more than a list of the recent dead, 22 in 24 hours, and the telegrapher signed off with the despairing statement, 'In spite of all the doctors can do, death seems to reign supreme.' Two days later, he too was dead. The story is still told in Grenada that he died at his telegraph key. Smith, Geddes, A Plague on Us, The Commonwealth Fund, Oxford University Press, 1941, pp. 21.

⁵³Smith, Geddes, A Plague on Us, The Commonwealth Fund, Oxford University Press, 1941, pp. 21-22.

⁵⁴Ibid., pp. 23.

⁵⁵Ibid., pp. 24.

fever, its reputation had spread and the town prevented it from docking. When the boat reached Cincinnati, after four more deaths, two MHS physicians boarded the ship to care for the sick and attempt to control the disease, to little avail. As the boat reached Gallopolis, Ohio, those in the crew who were still physically able pushed past the town's guards to flee the ship, and subsequently infected thirty-one Gallopolis residents. When the boat finally reached her destination, it is recorded that 23 men had died on board and she had distributed poison through a journey of more than 1,000 miles.⁵⁶ The inability of the two MHS physicians to keep the Porter's crew from spreading disease to port town residents only underscored the need for a more effective quarantine power.

The yellow fever epidemic's effects on larger cities like Memphis and New Orleans were no less catastrophic than its effects on small towns like Gallopolis. In ten days, twenty-five thousand people fled Memphis, and one third of the remaining twenty thousand citizens succumbed to the disease. The effects on commerce and trade were almost as devastating. Communications and trade were stopped almost entirely throughout the lower Mississippi Valley, and trains headed north were packed full with fearful refugees. Meanwhile, travel between towns was hampered by the many local quarantines which turned away newcomers at the point of shotguns. The city of New Orleans estimated that it lost \$5,000,000 in commerce due to the 1878 epidemic.⁵⁷ With the yellow fever tragedies came public and political support for quarantine reform, culminating in the April 29, 1878 Act to Prevent the Introduction of Contagious or Infectious Diseases into the United States.⁵⁸ The bill was introduced by Congressman Julian Hartridge of Georgia, reported out by the Committee on Interstate and Foreign Commerce, and was sponsored in the Senate by Senator Roscoe Conkling of New York.⁵⁹ There is little dispute that the bill was able to pass due to a combination of public concern about

⁵⁶Geddes, *A Plague on Us*, The Commonwealth Fund, Oxford University Press, 1941, pp. 22.

⁵⁷Ibid, pp. 22-23.

⁵⁸www.nih.gov, NIH timeline and An Act to Prevent the introduction of contagious or infectious diseases into the United States., April 29, 1878. Forty-Fifth Congress, Session II. Ch. 66.

⁵⁹Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 165.

the ongoing yellow fever epidemic and the extensive efforts of Surgeon-General Woodworth against opposition by merchants.⁶⁰ This Act created the Division of Quarantine within the MHS, officially assigning federal quarantine responsibility to that agency.⁶¹ The Act decisively follows Dr. Woodworth's pleas that the federal government be empowered to create regulations of its own to counteract the problems caused by the inconsistency of state regulations.⁶² The new law also strengthened federal quarantine authority by making the MHS the central agency with which incoming vessels would have to deal. Section Two of the statute directs:

[W]henever any infectious or contagious disease shall appear in any foreign port, or having on board goods or passengers coming from any place or district infected with cholera or yellow fever, . . . bound for any port in the United States, the consular officer, or other representative of the United States at or nearest such foreign port shall immediately give information thereof to the Supervising Surgeon-General of the Marine Hospital Service. . .⁶³

This centralization of reporting to the MHS strengthened its ability to monitor ships coming from infected ports or bearing infected passengers. In doing so, Congress placed the coordination of quarantine in federal hands, with the hopes of solving interstate communication and enforcement problems. Instead of serving merely as an invited helper to the states, the MHS was now the central recipient of information from federal officers abroad, possessing the power to inform and advise states regarding potentially affected ports.⁶⁴

In addition to shifting the structure of quarantine coordination toward federalization, the 1878 Act also began to shift regulatory control of the actual quarantine regulations to the federal government. The Act authorizes the Surgeon-General to create rules and regulations for the purpose of aiding in quarantine enforcement, as

⁶⁰Ibid., pp. 74, and Jacobson, Sherry, On guard in case of epidemic: States asked to beef up quarantine powers. The Dallas Morning News, November 19, 2001, Page 1C, pp. 2, and Ackerknecht, Erwin H., Anticontagionism Between 1821 and 1867, 22 Bull. His. Med. 562, 567 (1948), pp. 567.

⁶¹Satcher, David, M.D., Ph.D. The History of the Public Health Service and the Surgeon General's Priorities. 54 Food Drug L.J. 13, 1999, pp. 14.

⁶²Ibid., pp. 13.

⁶⁴Ibid., Section 4.

long as those rules did not conflict with or impair any sanitary or quarantine laws or regulations of any State or municipal authorities. . . .⁶⁵ The caveat that federal regulations must not contradict state laws reflects the fundamental view that quarantine and health regulation ought to remain a key state police power. In some ways, the statute went even further than simply allowing the Surgeon General to create regulations for MHS officers to follow; it also authorized state and municipal health officers to act as officers or agents of the national quarantine system,⁶⁶. Putting the federal regulation provision together with this provisions seems to result in the appropriation of state officials for the enforcement of federal quarantine regulations. The statute did provide, however, that there shall be no interference in any manner with any quarantine laws or regulations as they now exist or may hereafter be adopted under State laws.⁶⁷ Despite this limitation on the Surgeon General's quarantine power, however, the new ability to create regulations departed substantially from mere authorization to aid in the enforcement of state laws.

The 1878 Act also enabled Surgeon-General Woodworth to organize a yellow fever commission which studied the problem in southern states, and changed the MHS from a collection of locally controlled hospitals to a nationally coordinated and controlled system: The loosely connected aggregation of local appointee physicians . . . was . . . converted into a homogeneous mobile medical corps whose members were available for service in any part of the country whenever directed.⁶⁸ Despite this bold improvement in federal capability, the 1878 Act did not give the federal government sufficient authority to create regulations for inspection and

⁶⁵Ibid., Section 2.

⁶⁶An Act to Prevent the introduction of contagious or infectious diseases into the United States., April 29, 1878. Forty-Fifth Congress, Session II. Ch. 66, Section 5.

⁶⁷Ibid., Section 5.

⁶⁸Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 74-75. The federal government's aid in sending medical officers to help respond to yellow fever epidemics would not open them to liability for the seizure of property in the course of responding to emergencies, according to Judge Atkinson in C.B. McClenny v. United States. McClenny involved a yellow fever epidemic in Maccleddy, Florida, in response to which the mayor invited a federal health officer to help stop the outbreak. The city health officers, on the advice of the federal officer, seized the plaintiff's hotel for use as a quarantine hospital, which seriously decreased the subsequent value of the property. Despite this, Judge Atkinson held: If the Government can not lend a kindly, helping hand to its people in the time of distress by sending expert physicians to diagnose malignant diseases, when called upon so to do, without being held financially responsible for a part or all of the expenses which must necessarily follow epidemic maladies, it would be either financially crippled or must refuse to answer such calls from its citizens. C.B. McClenny v. The United States, 45 Ct. Cl. 305; March 28, 1910. Congressional, No. 13156, pp. 314

disinfection of vessels. The inability to interfere or conflict with state and municipal quarantine regulations tied the hands of federal health officers too much to create a uniform system of quarantine.⁶⁹ This limitation, combined with continuing yellow fever epidemics, led Congress to take even further action, creating the National Board of Health through the Act of March 3, 1879.⁷⁰ The National Board of Health would take the place of the Marine Hospital Service with respect to quarantine and inspection, relegating the MHS to the narrow mission of caring for merchant seamen.⁷¹ It seems more than coincidental that this removal of power from the MHS came soon after the death of its most powerful and successful proponent, Surgeon General John Maynard Woodworth.⁷² Though Woodworth's successor, Dr. John B. Hamilton, was similarly committed to working toward an effective, uniform quarantine system, the loss of a leader with experience navigating the Service through such tumultuous times may have left the MHS more politically vulnerable than in preceding years.⁷³

Other than changing the seat of federal quarantine power, the Act of March 3, 1879 actually made little substantive progress toward federalization of quarantine. However, the statute did substantially alter the mechanics of this process, requiring ships to present certificates of health from consular or medical officers at the point of departure and from the health officer at their point of entry. In order to implement this requirement, the statute provided for medical officers to be assigned to foreign ports at the consular offices

⁶⁹Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 83. The supremacy of state health laws was confirmed by the Supreme Court in Morgan's S.S. Co. v. Louisiana Board of Health. In this case, the Court determined that Unless and until Congress enacts a law confining health laws to a national board, or to local boards, thereby abrogating state laws on the subject, the state laws relating thereto are valid. The language did, however leave room for Congress to take such action in the future, thereby implying that federalizing health laws might be found Constitutional by the Court. Morgan's S.S. Co. v. Louisiana Board of Health (1886), 118 U.S. 455.

⁷⁰Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 165.

⁷¹Ibid., pp. 76-77.

⁷²A powerful testament to Woodworth's ability to build coalitions across traditional divides was his success in creating good relations with State and local health officers in the South during the yellow fever epidemics. In addition to overcoming the southern states' usual aversion to any federal involvement with traditional state powers, Woodworth also overcame the more virulent hatred associated with his having been Sherman's Chief Medical Officer during the march to the sea. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 82.

⁷³Ibid., pp. 75-76.

in order to perform health inspections.⁷⁴ This organization of information reporting marked a significant improvement in the ability of health officers to anticipate which foreign ports and ships might carry infection and to prepare domestic ports for those threats. Toward this goal, the statute directed the National Board of Health to submit weekly reports on the sanitary condition of foreign and U.S. ports.⁷⁵ Perhaps because it was created to solve the seemingly finite problem of yellow fever, the National Board of Health was authorized for only four years, expiring in March 2, 1883.⁷⁶ After this time, the MHS once again assumed responsibility for national quarantine and public health, and began to more fully implement the quarantine law of 1878.⁷⁷ Quarantine procedure around this time was, not surprisingly, directed at the control and prevention of yellow fever, smallpox, and cholera. In general, when vessels arrived at United States ports, they were required to anchor at a designated location and were then boarded by the Medical Officer in Charge of the quarantine station (or an assistant). Quarantine stations were usually located at a distance from their ports, in response to local opposition to having potentially infected ships near their shores. The medical officer reviewed the ships documents to determine where it had come from and at which ports it had stopped along the way, and then examined the passengers and crew for signs of the quarantinable diseases.⁷⁸ Ships that came from ports which were known to be infected with yellow fever received more exacting treatment, held for the complete period of incubation of the disease. Similarly, if passengers or crew showed symptoms of either yellow fever or smallpox, the ship and its passengers were detained in quarantine facilities until the end of the disease's incubation period. After this time, if the quarantine officer found the ship to be free of disease, he would issue a pratique, (i.e. permission to enter the port) or a provisional pratique, which conditioned entry upon some restriction (i.e. fumigation or discharge of the cargo).⁷⁹ The job of the quarantine officer during this

⁷⁴20 Stat. L. 484, March 3, 1879.

⁷⁵20 Stat. L. 484, March 3, 1879, and Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 76-77.

⁷⁶*Ibid.*, pp. 78-79.

⁷⁷Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 78-79.

⁷⁸*Ibid.*, pp. 80-81.

⁷⁹Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association

time was a treacherous one, with a number of medical officers contracting yellow fever each year.⁸⁰

Interstate Control and Immigrant Inspection

As the 1880's came to a close, the issue of strengthening federal control over interstate quarantine kept recurring with the emergence of unmanageable epidemics. In September, 1888, Congress took a tentative step toward funding such an expanse of federal power, appropriating by joint resolution \$200,000 for the purpose of suppressing infection in interstate commerce.⁸¹ Though political support for making the actual move toward authorizing federal control over interstate quarantine was significant, Congress failed to pass An Act to prevent the introduction of contagious diseases from one State to another, and for the punishment of certain offenses, which would have authorized federal control over interstate quarantine.⁸² Since the time was not yet ripe for federalization, Congress instead took gradual steps to strengthen federal control of quarantine. In 1888, Congress enacted An Act to Perfect the Quarantine Service of the United States, which provided for penalties for violations of quarantine laws and established new quarantine stations.⁸³ In addition, and in reaction to reports of smallpox epidemics in Hong Kong, Congress authorized the construction of a major quarantine station on California's Angel Island.⁸⁴

1890 finally brought the political impetus to pass an interstate quarantine act, after years of flirting with this

of the United States Public Health Service, Washington, D.C., 1951, pp. 80.

⁸⁰Ibid., pp. 82.

⁸¹Ibid., pp. 165.

⁸²Adverse Report: Prevention of the Introduction of Contagious Diseases. December 13, 1888. 50th Congress, Second Session, Report No. 3587.

⁸³The penalties provided for in the Act included a fine of not more than three hundred dollars and/or imprisonment for a period of not more than thirty days. The quarantine stations authorized by the Act included those at the Delaware Bay, at Cape Charles on the Chesapeake Bay, on the Georgia coast, at Key West, at San Diego Harbor, at San Francisco Harbor, at Port Townsend, and at the entrance to Puget Sound. An Act to perfect the quarantine service of the United States., August 1, 1888. Fiftieth Congress, Session I, Ch. 727.

⁸⁴Lucaccini, Luigi F. PhD. PHS Chronicles: The Public Health Service on Angel Island, January/February 1996, Volume 111, pp. 92.

power. With the scourge of yellow fever continuing through the summer of 1889, it is not difficult to see why Congress determined that this action was necessary.⁸⁵ The bill specifically authorized the Marine Hospital Service to prevent the interstate transmission of cholera, yellow fever, smallpox, and bubonic plague.⁸⁶ It further authorized the Surgeon General to enact rules and regulations to this effect.⁸⁷ In addition to permitting previously unknown federal power over interstate quarantine, Congress also soon gave the federal government power over medical inspection of immigrants. Though Congress had passed an act regarding immigration in 1882 providing for the exclusion of convicts, lunatics, idiots, and others unable to care for themselves, it was not until 1891 that Congress provided for the exclusion of those with loathsome or dangerous contagious disease[s].⁸⁸ The Act of March 3, 1891 mandated medical inspection of immigrants at their ports of entry, and assigned that task to the Marine Hospital Service.⁸⁹ In point of fact, the first medical inspection immigrants of this era encountered was performed by ship-owning companies, at which point some were excluded from boarding. The final word, however was left to MHS officers at the ship's point of entry to the United States.⁹⁰ The prudence of the Act, clearly aimed at preventing the ingress of immigrants carrying yellow fever, cholera, and plague, was deemed proved after a cholera epidemic ravaged

⁸⁵Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 166.

⁸⁶February 28, 1890, Contagious Diseases Report to accompany bill S. 140. 51st Congress, 1st Session, Report No. 539, and 26 Stat. L. 31, March 27, 1890. 51st Congress, Session I, Chapter 51, March 27, 1890: An Act to prevent the introduction of contagious diseases from one State to another and for the punishment of certain offenses.

⁸⁷Be it enacted . . . That whenever it shall be made to appear to the satisfaction of the President that cholera, yellow-fever, small-pox, or plague exists in any State or Territory, or in the District of Columbia, and that there is danger of the spread of such disease into other States, Territories, or the District of Columbia, he is hereby authorized to cause the Secretary of the Treasury to promulgate such rules and regulations as in his judgment may be necessary to prevent the spread of such disease from one State or Territory into another, or from any State or Territory into the District of Columbia, or from the District of Columbia into any State or Territory, and to employ such inspectors and other persons as may be necessary to execute such regulations to prevent the spread of such disease. The said rules and regulations shall be prepared by the Supervising Surgeon General of the Marine Hospital Service under the direction of the Secretary of the Treasury. 51st Congress, Session I, Chapter 51, March 27, 1890: An Act to prevent the introduction of contagious diseases from one State to another and for the punishment of certain offenses.

⁸⁸26 Stat. 1084. Bennett, Victoria L., Medical Examination of Aliens: A Policy with Ailments of its Own? University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 741. Though the Court had ruled that states could not enact their own immigration restrictions, a decade later, it confirmed that federal immigration laws did not abrogate state quarantine laws. *Compagnie Francaise De Navigation A Vapeur v. Louisiana State Bd. Of Health* (1902) 186 US 380, 46 L Ed 1209, 22 S Ct 811.

⁸⁹Parascandola, John, Doctors at the Gate: PHS at Ellis Island. Public Health Reports, January/February 1998. Volume 113, pp. 83, pp. 84

⁹⁰Kraut, Alan M. Silent Travelers: Germs, Genes, and the Immigrant Menace. Basic Books: 1994, pp. 51.

Europe and Asia the following year.⁹¹

The cholera epidemic of 1892 prompted Surgeon General Walter Wyman to press his new powers into almost immediate use. In July of 1892, Wyman prohibited vessels from certain specified cholera-infected districts from entering without a certificate of disinfection.⁹² After learning that immigrants with cholera had begun arriving in August of 1892, Wyman took further action by prohibiting the importation of a widely-known carrier object of the disease – rags.⁹³ The ban on rags coming from cholera infected ports was absolute, and even those coming from ports not known to be infected were required to carry a certificate by the consular officer at the port of shipment stating that they had been disinfected.⁹⁴

These measures, however, were too timid to prevent the immigration of cholera, and the public began to cry for a halt to all immigration.⁹⁵ Though the Executive was not empowered to stop immigration at the time, President Harrison and Surgeon General Wyman sought a way to use quarantine laws to accomplish this goal.⁹⁶ In Wyman's own words:

In reading over the quarantine laws of the States, . . . I found that every seaboard State had the right, under its laws, to enforce a quarantine detention of at least twenty days. . . [and] [u]nder the national quarantine act of April 19, 1878, the General Government is authorized to aid State and local boards, and the principle has been announced by the highest legal authority that while, under existing laws, the National Government might not break down the quarantine barriers of a State, its power is unquestionable to add to these barriers when it becomes necessary.⁹⁷

⁹¹Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 739, 741.

⁹²Letter from the Secretary of the Treasury, In response to Senate resolution of January 28, 1893, relative to regulations to prevent the introduction of contagious or infectious diseases at the port of New York. February 8, 1893. 52d Congress, Second Session, Ex. Doc. No. 52, pp. 2. *Circular. 1892. Department No. 112: Vessels from cholera-infected districts to be forbidden entry unless provided with certificates of disinfection. The regions covered by this regulation included: Caucasus, eastern Russia, Persia, Calcutta, and the western littoral of the Red Sea. A later order, Circular 1892. Department No. 141, added Russia to this list.*

⁹³Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 742.

⁹⁴Letter from the Secretary of the Treasury, In response to Senate resolution of January 28, 1893, relative to regulations to prevent the introduction of contagious or infectious diseases at the port of New York. February 8, 1893. 52d Congress, Second Session, Ex. Doc. No. 52, pp. 4. *Circular. 1892. Department No. 143. Marine Hospital Service: Consular certificates of disinfection required with all importation of rags from foreign ports.*

⁹⁵Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 742.

⁹⁶*Ibid.*, pp. 742.

Using this power to enforce state quarantine laws, the Surgeon General declared a twenty day quarantine of all ships, with the full knowledge that the cost of the quarantine to steamship companies would cause a twenty day halt to all immigration.⁹⁸ Though the 1892 cholera epidemic caused the deaths of roughly 80,000 in Persia and 300,000 in Russia, these measures limited the scale of disaster in the United States to a much more minor event.⁹⁹ Though it referred to a state law regarding exclusion of certain immigrants, the case of *Minneapolis, Saint Paul v. Milner* lent some support to the federal government's laws restricting immigration and subjecting immigrants to inspection and detention. The *Milner* court upheld a state's power to detain even those passengers from uninfected countries, concluding that inconvenience resulting to emigrants and travelers from being halted and subjected to examination and detention at state lines is of trifling importance at a time when every effort is required and is being put forth to prevent the introduction and spread of pestilential and communicable diseases.¹⁰⁰

For those who were not prohibited from entry, medical inspection began at Ellis Island on January 1, 1892. The first immigrant to arrive at Ellis Island was fifteen-year-old Annie Moore, whom the New York Times touted as a rosy-cheeked Irish girl. Pre-selected by immigration officers to be the preeminent model of immigration inspection, Moore passed swiftly through the inspection of MHS physicians.¹⁰¹ The method of inspection at Ellis Island was sometimes referred to as The Line, as each intended immigrant climbed a set of stairs, to be scrutinized by MHS physicians for signs of excessive exhaustion, deformities, defective posture, or other apparent irregularities. The most intimidating part of the exam was usually the eye exam, which involved flipping the immigrant's eyelids inside out in order to screen for trachoma, a contagious disease

⁹⁸Letter from the Secretary of the Treasury, In response to Senate resolution of January 28, 1893, relative to regulations to prevent the introduction of contagious or infectious diseases at the port of New York. February 8, 1893. 52d Congress, Second Session, Ex. Doc. No. 52, pp. 5-6. Circular. 1892. Department No. 150: Quarantine restrictions upon immigration to aid in the prevention of the introduction of cholera into the United States.

⁹⁹Bennett, Victoria L., Medical Examination of Aliens: A Policy with Ailments of its Own? University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 741.

¹⁰⁰42 USCS Sec. 97, (1893, CC Mich) 57 F 276.

¹⁰¹Kraut, Alan M. *Silent Travelers: Germs, Genes, and the Immigrant Menace*. Basic Books: 1994, pp. 52.

which led to blindness.¹⁰² The process of delousing also caused some trauma to bewildered incomers, as they were asked to remove their clothes. Even more disconcerting to some, if disease was detected, the immigrant was marked with a letter symbolizing his disease and placed in a wire mesh compartment which bore too great a resemblance to an animal pen or a jail cell.¹⁰³

Though Miss Moore's passage through Ellis Island was unchallenging, the medical exams tended to be more elaborate for those passengers who traveled in the third class or steerage class of their vessels.¹⁰⁴ A directive from the Secretary of the Treasury to United States Customs officers actually formalized this class discrepancy, and explained the reasons for it. The Secretary argued that past experience had shown that passengers from steerage class presented the greatest danger of infectious diseases, due to:

The crowding of immigrants to the extreme limits of the steerage accommodations of many of the ships, the considerable quantity and the character of their baggage and personal effects, and the consequent difficulty of maintaining those conditions of cleanliness and ventilation which are demanded by sanitary laws.¹⁰⁵

Since these conditions were not present among the cabin passengers, the Treasury Secretary saw no need to perform inspections of cabin passengers beyond those already being done by the various local health authorities until 1893.¹⁰⁶

Though the cabin versus steerage distinction is not relevant to quarantine and inspection policy today, another distinction among incoming passengers created in 1892 continues to the present day. Under pressure from the Commissioner of Immigration, the United States began to differentiate between incoming passengers who intended to immigrate permanently and those who merely intended to visit.¹⁰⁷ Though the language of

¹⁰²Ibid., pp. 54.

¹⁰³Ibid., pp. 56 and 55.

¹⁰⁴Ibid., pp. 53.

¹⁰⁶Ibid., pp. 7.

¹⁰⁷Letter from the Secretary of the Treasury, In response to Senate resolution of January 28, 1893, relative to regulations to prevent the introduction of contagious or infectious diseases at the port of New York. February 8, 1893. 52d Congress, Second Session, Ex. Doc. No. 52, pp. 8.

the previous regulation (prior to the differentiation between cabin and steerage passengers) was quite clear in its direction to examine all passengers, the Commissioner of Immigration wrote to the Secretary of the Treasury:

It is represented that you have informed steamship companies that you will require personal examination of all cabin passengers by a surgeon, boarding officer, and registry clerks. This is not deemed necessary, and it is probable that you were misunderstood. . . . You will only detain for examination such foreigners as you have reason to believe, from such examination or from the passenger list, are removing to this country for permanent residence.¹⁰⁸

The Secretary of the Treasury implemented this policy by presenting this letter itself as a circular to the department, with no accompanying policy justification. Though it follows logically that the longer an infected visitor remains in the country, the more opportunities he or she will have to infect others, infected temporary visitors certainly also present danger to the public. It is interesting from a policy perspective that this distinction was created by the immigration authority, rather than a public health authority. This may lend credence to the theory that the distinction is aimed at preventing the entrance of people who were likely to become public charges, rather than those who might spread disease.

Increased immigration and further spread of disease from state to state led Congress to take further steps toward quarantine federalization in 1893, with An Act Granting Additional Quarantine Powers and Imposing Additional Duties upon the Marine-Hospital Service.¹⁰⁹ The bill included a requirement that all vessels must obtain a bill of health from a consular or medical officer of the United States at the port of departure, detailing the sanitary history of the vessel and stating that it complies with United States sanitation rules.¹¹⁰ In addition, it required weekly reporting on the sanitary conditions of U.S. and foreign ports.¹¹¹ Clearly building on Surgeon General Wyman's immigration suspension in 1892, the statute authorized the President

¹⁰⁹An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service. February 15, 1893. Fifty-Second Congress, Session II, Chap. 114.

¹¹⁰Ibid., Section 2.

¹¹¹Ibid., Section 4.

to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate for such period of time as he may deem necessary if he perceived a serious danger of introduction of an infectious disease from a foreign country.¹¹² The Act gave the federal government the predominant right of quarantine, imbuing the MHS with the responsibility of approving state and local quarantine facilities and revamping those that failed to meet federal standards. The language of the statute also specified that the Secretary of the Treasury was empowered to make regulations to improve quarantine systems which he deemed to be insufficient.¹¹³ This led the several states to phase out their own quarantine activities over the following years and cede yet more responsibility to the federal government.¹¹⁴

The plentiful legislative history related to this statute provides insight into the debate surrounding federal quarantine powers in the epidemic years of the late-19th century. A Report of the Senate Committee on Epidemic Diseases emphasized Congress intended to create an effective and uniform system of quarantine regulations vigorously enforced at all ports, and to prevent the importation of . . . diseases into one State from another.¹¹⁵ The committee concluded that some states had insufficient quarantine procedures at their ports, and that this presented a serious danger to the health of the nation: [I]f a single gate is left open to the introduction of such diseases the whole country may suffer the disastrous consequences of fatal epidemics.¹¹⁶ The truth of this statement was clear from previous experiences in which ships from infected ports had entered the United States at smaller ports with less stringent quarantine restrictions.¹¹⁷ The only way to

¹¹²Ibid., Section 7.

¹¹³Ibid., Section 3 and Kraut, Alan M. Silent Travelers: Germs, Genes, and the Immigrant Menace. Basic Books: 1994, pp. 59.

¹¹⁴Division of Quarantine publication. www.cdc.gov/dq, pp. 1.

¹¹⁵Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144, pp. 1.

¹¹⁶Ibid., pp. 1.

¹¹⁷Letter from the Secretary of the Treasury, In response to Senate resolution of January 28, 1893, relative to regulations to prevent the introduction of contagious or infectious diseases at the port of New York. February 8, 1893. 52d Congress, Second Session, Ex. Doc. No. 52, pp. 7.

prevent this, according to the report, was to create a thorough system of national quarantine.¹¹⁸

Naturally, some states resisted this encroachment on their power. The opposition was by no means widespread, however; epidemics in previous years had convinced many states that they would rather have federal officers deal with this intractable problem than have to handle it on their own. However, the committee report noted that some state and local authorities strenuously objected to interference in their quarantine systems by federal authorities. Those who objected most strenuously tended to be those states with the most effective and sophisticated systems of quarantine – New York and New Orleans.¹¹⁹ Believing that they could implement superior quarantine systems to that of the federal government, these ports conducted quarantine inspections of their own in addition to federal inspections for decades to come.¹²⁰ This activity was consistent with the language of the bill, that it should be enforced in accordance with such rules and regulations of State and municipal health authorities as may be made in pursuance of or consistent with this act.¹²¹

Congress used the Commerce Clause as the authority for federal quarantine intervention, arguing that the powers in this bill are clearly justified as regulations of foreign and interstate commerce.¹²² As precedent for this use of the Commerce Clause, the committee report cited appropriations made for the removal of snags, bars, and other obstructions from the navigable waters of the country, and for a federal system of lighthouses and lifesaving services.¹²³ Since these powers also aimed to improve the safety of trade between the United

¹¹⁸Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144, pp. 1. This legislation was shepherded through Congress by Congressman Isidor Rayner of Maryland, from the House Interstate and Foreign Commerce Committee and by Senator Wilkinson Call of Florida and Senator Jacob H. Gallinger (a physician) of New Hampshire from the Senate Committee on Epidemic Diseases. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 166.

¹¹⁹Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144, pp. 1.

¹²⁰Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 83.

¹²¹Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144.

¹²²Ibid.

¹²³Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144.

States and foreign nations, the committee concluded that the federal quarantine regulations fell under the same authorization.¹²⁴ The committee also emphasized that the statute did not require any action from state authorities; state officers could choose whether or not to enforce the federal quarantine regulations. Of course, in the event that they failed to enforce the federal regulations, the federal government would send its own officers to do so. Nonetheless, the controversial element of compulsion of state officials was absent.¹²⁵ The Supreme Court passed upon the validity of federal quarantine powers under the Commerce Clause and the simultaneous power held by states to implement their own quarantines in *Bartlett v. Lockwood* in 1896. The Court held as unquestionable the authority of Congress to establish quarantine regulations and to protect the country as respects its commerce from contagious and infectious diseases,¹²⁶. It also, however, recognized that this federal power did not invalidate state laws relating to the same policy domain, citing Congress's decision in view of the different requirements of different climates and localities and of the difficulty of framing general law upon the subject, . . . to permit the several States to regulate the matter of protecting the public health as to themselves seemed best.¹²⁷ The Court thus seemed to view the federal appropriation of a power which had traditionally belonged to the states as justified under the Commerce Clause. Another case before the court in 1896 presented the more pointed question of whether state or federal laws would prevail in the case of conflict, when the federal law was enacted under the authority of the Commerce Clause and the state law enacted for the purpose of regulating health. In *Hennington v. Georgia*, Justice Harlan delivered the opinion of the court:

If the inspection, quarantine, or health laws of a State, passed under its reserved power to provide for the health, comfort, safety of its people, come into conflict with an act of Congress, passed under its power to regulate interstate and foreign commerce, such local regulations, to the extent of the conflict, must give way in order that the supreme law of the land—an act of Congress passed in pursuance of the Constitution—may have unobstructed operation.¹²⁸

¹²⁴Ibid., pp. 2.

¹²⁵Ibid., pp. 3.

¹²⁶*Bartlett v. Lockwood*, 160 U.S. 357; 16 S. Ct. 334. January 6, 1896, pp. 361-362.

¹²⁷Ibid.

This ruling left little question that Congress could enact quarantine laws and the Surgeon General could enforce them even if those laws conflicted with state quarantine laws.

The 1893 Act had to avoid not only Constitutional and political pitfalls from the states' rights side of the issue, but also opposition from those who wanted a more comprehensive federal public health organization. Many medical associations and health officials at the time supported the resurrection of the National Board of Health, in a more potent form.¹²⁹ The committee itself expressed sympathy with this goal, stating that a national board of health (in the Treasury Department), composed of sanitary scientists, should be established and maintained.¹³⁰ The Senate Committee on Epidemic Diseases, however, presented the housing of this power with the Marine Hospital Service as a necessary compromise since most in Congress would not support the recreation of the National Board of Health. The importance of having some federal authority with the power to implement a national uniform system of quarantine was too important to risk being tied to such a controversial measure: These powers are . . . not only important, but absolutely necessary to the security of this country from the importation of contagious and infectious disease.¹³¹

The 1893 Act's passage allowed the Surgeon General to establish a system of quarantine regulations and to assemble and train a group of medical officers as experts in the control of epidemics. One of the first successes to result from this power came in response to a smallpox outbreak in Eagle Pass, Texas, in July of 1895. The victims of the epidemic were a group of 300 African-American agricultural workers from Alabama and Georgia who had contracted smallpox in Mexico, where they had been lured by the false promise of owning land. The people of Eagle Pass responded to this group with hostility and avoidance, due to past experiences

¹²⁹This support was widespread, including a national conference of State boards of health, [and] an organization of the sanitarians of the United States, Mexico, and Canada. Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144, pp. 2.

¹³⁰Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144, pp. 3.

¹³¹Committee on Epidemic Diseases Report to accompany S. 2707, granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service. January 4, 1893. 52d Congress, Second Session, Report No. 1144, pp. 3.

with epidemics introduced by migrating agricultural workers. State efforts to deal with the outbreak were inadequate; no one created a registry of the infected and there was no organized effort to separate the sick from the well. As some of the victims began to die, the lack of state control allowed the infected men to leave the area out of fear that they would meet the same fate.¹³² Once the situation became known to federal officials, Surgeon General Wyman assumed control of the situation by appointing Dr. Rosenau, a MHS officer, and employing twenty guards to organize separate camps for the sick men and the apparently well men. After this action was taken, no additional cases of smallpox occurred, and two-thirds of the 178 men who had already been infected survived the epidemic.¹³³

The new provisions for overseas medical inspections at foreign ports of departure appeared to confer benefits not only to the Americans they were designed to protect, but also for the foreigners traveling on those ships. One anecdote about a cholera incident in 1893 illustrates this point. In the late summer of 1893, eight ships departed from Naples, Italy; four were headed to New York and four to South American ports. At the time of the ships' departure, Naples had not been identified as a cholera-infected port, but the disease was confirmed at the port three days after they had set sail. Because of the new pre-departure inspection requirement, the four ships destined for New York were inspected prior to departure, thoroughly cleaned, and their passengers were vaccinated. Aboard the ships sailing to New York, three cases of cholera occurred, causing the ship to be quarantined for five days (the incubation period of cholera) prior to docking. By contrast, the four ships headed to South America had undergone no such inspection and subsequent cleaning, and four hundred and fifty-four of their passengers died en route.¹³⁴

¹³²Michael, Jerrold M. Ph.D., Thomas R. Bender, MD, MPH. *Fighting Smallpox on the Texas Border: and Episode from PHS's Proud Past*. 1984 U.S. Department of Health and Human Services; Public Health Reports. Public Health Rep 1984; 99: 579-582. November, 1984 / December, 1984, pp. 2-3.

¹³³Michael, Jerrold M. Ph.D., Thomas R. Bender, MD, MPH. *Fighting Smallpox on the Texas Border: and Episode from PHS's Proud Past*. 1984 U.S. Department of Health and Human Services; Public Health Reports. Public Health Rep 1984; 99: 579-582. November, 1984 / December, 1984, pp. 3-4.

¹³⁴Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 85.

As had occurred in the past, as soon as the Marine Hospital Service gained increased quarantine powers, it also found itself engaged in a turf war. In March of 1894, Surgeon General Wyman defended against an attempt to shift federal quarantine power to a new bureau of public health and advisory council (comprised of one representative from each state) to be housed in the Department of the Interior.¹³⁵ The proposed change would not remove the MHS's responsibility for enforcing quarantine laws, but would take away the agency's rulemaking power. Though Wyman's motivation to resist this move likely stemmed from his intense loyalty to the MHS and a belief that it was the most able agency in dealing with national quarantine, the arguments he (along with others) used to defeat this attempted change provide insight into the legal and policy questions surrounding national quarantine at the time. Wyman's most obvious argument was that the MHS had the most experience in dealing with quarantine and inspection, and was therefore the best-suited agency to wield this power.¹³⁶

Wyman also argued that the MHS should retain national quarantine rulemaking power because there were practical advantages to having both rulemaking and enforcement powers housed in the same agency:

In the proposed scheme of having one Department make the rules and another execute them. I can readily see the possibilities of clash, the shifting of responsibility from one to the other, and crimination and recrimination after the resultant disaster. . . . The proposed law would make the Marine-Hospital Corps simply a hewer of wood and a drawer of water,¹³⁷.

Separating the rulemaking power from the enforcement power would also undermine the effectiveness of a national quarantine body in the case of emergency. With the MHS holding both powers, argued Wyman, the

¹³⁵May 18, 1894, Address of Dr. Walter Wyman, Supervising Surgeon General, U.S. Marine Hospital Service, In re a proposed bill to establish a Bureau of Public Health in the Department of the Interior, etc. House Committee on Interest and Foreign Commerce, 53d Congress, 2d Session, pp. 4-5.

¹³⁶Ibid., pp. 5.

Surgeon General could implement new quarantine regulations as soon as the insufficiency of a local system was identified. Wyman noted that the usual characteristics of epidemics required immediate implementation of new regulations and that every epidemic is apt to produce new conditions and to demand some variation in suppressive measures.¹³⁸ Wyman argued that in a time of cholera threats from Europe, thwarting the federal government's ability to react quickly to changing circumstances would be obviously bad public health policy.¹³⁹

Wyman's argument for maintaining the quarantine power in the Secretary of the Treasury rather than in the Department of the Interior melded institutional competence with the constitutional basis for the quarantine power. He argued that maritime quarantine related to commerce and was thus tied closely to shipping laws, the customs service, and immigrant inspection, the regulations for which were all administered by the Treasury Department. In this way, housing the quarantine power in the Department of the Interior would lead to two heads of large departments of the Government attempting to manage subtle affairs upon a big ocean vessel arriving at an American seaport.¹⁴⁰ Further, removing the quarantine power from the Department of the Treasury would take it further away from its Constitutional roots in the power to regulate commerce, generally the purview of the Treasury.¹⁴¹

Though Surgeon General Wyman succeeded in his struggle to retain control of federal quarantine powers in 1894, that struggle resurfaced repeatedly in the years that followed. One attempt in 1898 to increase the quarantine power of the Marine Hospital Service was defeated by these efforts. The proposed bill attempted to remove the complementary relationship between federal and state and local quarantine laws in favor of a supreme federal quarantine law that would make quarantine policies truly uniform across the states. Some

¹³⁸May 18, 1894, Address of Dr. Walter Wyman, Supervising Surgeon General, U.S. Marine Hospital Service, In re a proposed bill to establish a Bureau of Public Health in the Department of the Interior, etc. House Committee on Interest and Foreign Commerce, 53d Congress, 2d Session, pp. 5-6.

¹³⁹Ibid., pp. 6.

¹⁴⁰Ibid., pp. 6.

¹⁴¹May 18, 1894, Address of Dr. Walter Wyman, Supervising Surgeon General, U.S. Marine Hospital Service, In re a proposed bill to establish a Bureau of Public Health in the Department of the Interior, etc. House Committee on Interest and Foreign Commerce, 53d Congress, 2d Session, pp. 8.

of the most virulent opponents to this measure were the health officers of the state of New York. New York medical officer Dr. A.H. Doty particularly objected to the autocratic power the bill would give the Surgeon General, and argued that the power to make quarantine regulations should be held by a panel of health officers representing each state rather than by this one man.¹⁴² Doty's institutional competence argument had two prongs to it. First, he argued that the MHS was not well-suited to the task of acting as a health department for the nation, stressing that it was created for the care of disabled seamen, and since that time nothing has been changed of the management.¹⁴³ Second, he argued that state health officers were better able to make quarantine regulations because of their better understanding of the local variations in climatic conditions and shipping.¹⁴⁴

Doty did not argue for local control of quarantine, however, but only for state control, blaming the shotgun quarantine fiascoes of the recent yellow fever epidemics on differences in local health officers rather than the inadequate efforts of state health officers.¹⁴⁵ He later stated that the refusals by state and municipal health officers to follow prudent federal quarantine regulations that had happened in the past would not occur in the future: I do not think the present day, with the light we have in the science of disinfection and bacteriology, that there will be ever a State or municipal authority which will openly defy or decline to do work properly.¹⁴⁶ Doty dismissed the past refusals to take proper quarantine measures as the result of ultra-rapid technological progress which outpaced the knowledge and beliefs of local medical officers, and predicted that such a rapid advance would not take place again.¹⁴⁷ This notion that the scientific knowledge of one's own

¹⁴²Hearing of the U.S. Congressional House Committee on Interstate and Foreign Commerce, on Bills (H.R. 4363 and S. 2689) to Amend an Act Entitled An Act Granting Additional Quarantine Powers and Imposing Additional Duties upon the Marine Hospital Service. February 18, 1898, pp. 4.

¹⁴³Ibid., pp. 7.

¹⁴⁴Ibid., pp. 3-4.

¹⁴⁵Ibid., pp. 5-6.

¹⁴⁶Hearing of the U.S. Congressional House Committee on Interstate and Foreign Commerce, on Bills (H.R. 4363 and S. 2689) to Amend an Act Entitled An Act Granting Additional Quarantine Powers and Imposing Additional Duties upon the Marine Hospital Service. February 18, 1898, pp. 18.

¹⁴⁷Ibid., pp. 18.

day represents the ultimate state of enlightenment repeats itself throughout the history of American public health.

Dr. H.B. Horlbeck, health officer at Charleston, South Carolina, argued against increased national government power on the that such a power would interfere with fundamental states' rights. To Horlbeck, state control of health matters was the very foundation stone of our civilization, embodying the duty of a community to care for the health of its own people. It is not difficult to see that any meddling with this most classic of state police powers would prompt such a visceral reaction; the power to control quarantine is, in essence, the ability to control the threats visited upon one's own body. The proposed bill, according to Dr. Joseph Y. Porter, State Health Officer of Florida, would remove from cities and states the ability to protect themselves against disease as they saw fit, and give the Marine-Hospital Service undue power: [I]s the General Government preparing for the mustering and maintenance of an expensive local health police—an army of sanitarians that, like the locusts in the field, eat up our substance and usurp our liberties?¹⁴⁸

Though arguments about federal overreaching sounded loudly, the need for a uniform quarantine system had yet more support. The proposed compromise between the goals of respecting states' rights and implementing an effective quarantine system, the national board of health consisting of representatives from each state, was thought to be Constitutionally untenable. Because federal quarantine power found its source in the Commerce Clause, it must be administered by a federal agency tasked with the regulation of commerce.¹⁴⁹ It is difficult to overestimate the federal government's fear of stepping into a health regulatory role outside that of that related to commerce. The Chairman of the House Committee on Interstate and Foreign Commerce reminded a witness: You must remember this very difficulty: There are many gentlemen who insist that the Government has no business at all in these matters outside of its control over interstate and foreign

¹⁴⁸Ibid., pp. 50.

¹⁴⁹Hearing of the U.S. Congressional House Committee on Interstate and Foreign Commerce, on Bills (H.R. 4363 and S. 2689) to Amend an Act Entitled An Act Granting Additional Quarantine Powers and Imposing Additional Duties upon the Marine Hospital Service. February 18, 1898, pp. 13.

commerce.¹⁵⁰

If this possible constitutional problem did not eliminate the chances of the advisory board option, Surgeon General Wyman argued convincingly against the appropriateness of a democratic body making quarantine regulations, noting that political self-interest would lead to decisions contrary to the interests of both public health and commerce: Would not some of the Northern States be benefited commercially by an unnecessary long detention of vessels arriving at these Southern ports?¹⁵¹ Further, Wyman argued that the desire of states to operate their own quarantine systems was motivated more by profit than by public health concerns. State-imposed quarantine fees had resulted in millions of dollars in unnecessary losses to the trade in commerce.¹⁵² Somewhat surprisingly, the Surgeon General enjoyed significant support from many southern health officers for greater federal control of the system. Representatives of the Southern Medical Association and the State Boards of Health of Georgia and Mississippi testified solidly in support of strengthening the Marine Hospital Service's quarantine power.¹⁵³ Despite this support, however, and a positive report out of committee, the bill to increase quarantine powers within the MHS was defeated. The buffeting dissents from the states' rights defenders and from those who wished to reestablish a national board of health left the bill just shy of its required votes.

States Rights at the Turn of the Century and the Bubonic Plague

¹⁵⁰Ibid., pp. 30.

¹⁵¹Hearing of the U.S. Congressional House Committee on Interstate and Foreign Commerce, on Bills (H.R. 4363 and S. 2689) to Amend an Act Entitled An Act Granting Additional Quarantine Powers and Imposing Additional Duties upon the Marine Hospital Service. February 18, 1898, pp. 55.

¹⁵²Hearing of the U.S. Congressional House Committee on Interstate and Foreign Commerce, on Bills (H.R. 4363 and S. 2689) to Amend an Act Entitled An Act Granting Additional Quarantine Powers and Imposing Additional Duties upon the Marine Hospital Service. February 18, 1898, pp. 59.

¹⁵³Ibid., pp. 66.

The major legal issue involved in federal quarantine at the end of the nineteenth century was the increase in federal power at the expense of state quarantine autonomy, prompted by a backdrop of yellow fever epidemics. By the early twentieth century, concerns shifted toward allegations of discrimination against certain groups of immigrants, with the backdrop of the threat of plague.¹⁵⁴ An incident in January of 1900 foreshadowed the predominance of plague imported from the Far East as a quarantine problem in the early 1900's. The *Nanyo Maru*, a Japanese steamship, sailed into Port Townsend, Washington on January 31, 1900, carrying with it a rumor of illness. The one death which occurred during the standard time of detention at the quarantine station was attributed to beriberi, but the federal quarantine officer who inspected the ship rejected this diagnosis and forced a longer quarantine until a bacteriological examination of the deceased's tissues could confirm or disprove the presence of another disease. The test results confirmed the officer's suspicion of plague, and time revealed that seventeen of the ship's passengers carried the disease. The quarantine officer recalled his fear as he performed the autopsies of the three men on board who perished from the plague, noting that rubber gloves were not among the resources allotted him.¹⁵⁵

The incident on the *Nanyo Maru* must have seemed a warning to quarantine officers, and its portent was borne out less than two months later when bubonic plague first took hold on the North American continent. On March 6, 1900, the body of a Chinese immigrant was found dead in San Francisco's Chinatown. The San Francisco Board of Health determined that the unfortunate man had died of plague and instituted a quarantine of an area the size of twelve city blocks.¹⁵⁶ The diagnosis of plague was rejected, however, by

¹⁵⁴The beginning of the century also saw stepwise expansion of the purview of federal quarantine, annexing authority over the Philippines, Puerto Rico, and the Hawaiian Islands in 1900. In 1917, the Virgin Islands were also included by executive order. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 87.

¹⁵⁵Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 97.

¹⁵⁶*Ibid.*, pp. 122.

city officials, and the Board of Health sought support in its diagnosis from the Marine Hospital Service. Dr. Joseph Kinyoun came to San Francisco to examine the body, and determined that the disease proved bacteriologically to be bubonic plague.¹⁵⁷ Following this confirmation, the MHS carried out quarantine measures in San Francisco from March until June of 1900, including disinfection and fumigation of ships at the city's harbor and inspection of trains at its borders.¹⁵⁸ Despite the confirmed diagnosis, however, the people of San Francisco strenuously protested the quarantine. Even the Governor of California denied the presence of plague, and by June of 1900 state opposition led to an end of federal involvement for over six months.¹⁵⁹ Indeed, almost every newspaper in the city vilified the City Board of Health, Dr. Kinyoun, and San Francisco's mayor for implementing the quarantine, one terming them the perpetrators of the greatest crime that has ever been committed against the city.¹⁶⁰

Though it is easy to understand why one might resist believing that one's city was infested with plague, it is more difficult to understand why the protestors might have thought the Board of Health and MHS would fabricate the disease. The roughly 20,000 Chinese-American residents of San Francisco clearly thought the quarantine was motivated by the anti-Chinese sentiment present in the city at the time.¹⁶¹ In addition to this group, however, the business community in and near Chinatown also objected to the quarantine and diagnosis of plague on the grounds that it was bad for business. This mistrust of health officers seriously hampered their efforts to prevent the spread of plague for the rest of the year, resulting in 122 deaths.

Attempting to prove to San Franciscans that the presence of plague was real, the Surgeon General assembled

¹⁵⁷Ibid., pp. 121.

¹⁵⁸Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 124-125.

¹⁵⁹Mullan, Fitzhugh, *Plagues and Politics: The Story of the United States Public Health Service*. Basic Books, Inc., New York, 1989, pp. 39-40 and 124-125.

¹⁶⁰Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 122.

¹⁶¹www.pbs.org/wgbh/aso/databank/entries/dm00bu.html Indeed, even some present-day commentators attribute the quarantine as a mere attempt to harass the Chinese living in San Francisco Chinatown. <http://www.itp.berkeley.edu/~asam121/sf.html>

a special commission of prestigious university medical professors to investigate. Their findings, combined with the increasingly undeniable reports of deaths from the disease, finally convinced all local physicians and enabled city and federal health officers to take more effective action. A year after plague was first discovered in San Francisco, the Governor of California, under pressure from state health officers and neighboring states, finally requested that the federal government re-initiate comprehensive fumigation and sterilization programs.¹⁶²

The lesson of the plague of 1900 had been well-learned by the time of the next outbreak in San Francisco. After the great earthquake of 1906, the upheaval of buildings led rats to scatter out into the city, carrying plague with them. In the years since the last epidemic, the scientific community had concluded that rats themselves were the source of the problem, and that human-to-human transfer of the disease was unlikely.¹⁶³ Because of this discovery, public health officials' first response to the disease was to quarantine rats, rather than people, and to conduct extensive sanitation and disinfection programs throughout the city.¹⁶⁴ This time, the people of San Francisco welcomed federal health officers into the city, and admitted the presence of the disease when it was diagnosed. The federal health officer assigned to direct the disease-control efforts, Dr. Rupert Blue, became an icon rather than a villain: The name of Dr. Rupert Blue came to be a household word that was regarded almost with reverence.¹⁶⁵ Six months after the start of the 1907 outbreak, it ended in a celebration among San Franciscans, their city health officers, and the federal health officers involved, including a banquet held in the main streets of the city to emphasize that San Francisco was now so clean that one could eat a meal in the street.¹⁶⁶

Congress took action in response to the San Francisco plague fiasco of 1900, passing legislation which enabled

¹⁶²Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 124.

¹⁶³www.pbs.org/wgbh/aso/databank/entries/dm00bu.html

¹⁶⁴In fact, the MHS offered a monetary reward for rats. Ibid.

¹⁶⁵Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 125-126.

¹⁶⁶Mullan, Fitzhugh, Plagues and Politics: The Story of the United States Public Health Service. Basic Books, Inc., New York, 1989, pp. 44-45.

federal officers to enforce quarantines without deference to state health laws. The Act of March 3, 1901 amended the Act of February 15, 1893 by authorizing the Surgeon General to mark quarantine boundaries and providing penalties for vessels that disregarded those boundaries.¹⁶⁷ Further, after the outbreak of yellow fever in New Orleans in 1905, Congress strengthened federal quarantine power in the Act of 1906. The Act authorized the Secretary of the Treasury to manage all quarantine stations created by the federal government (nearly all quarantine stations at the time) and to choose and acquire new quarantine sites as he deemed necessary.¹⁶⁸ This law also enabled the federal government to assume control over those quarantine stations which were voluntarily handed over by local authorities. Each state gradually found the local operation of quarantine stations to be more trouble than it was worth, and by 1921 the federal government controlled every quarantine station in the United States.¹⁶⁹

Health Officer as Immigration Gatekeeper

The gradual increases during the late 19th and early 20th century in federal quarantine power as applied to immigrants sometimes presented health officers with the power to implement political interests other than

¹⁶⁷March 3, 1901, Chapter 836 – An Act to amend An Act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service, approved February 15, 1893, pp. 1086-1087.

¹⁶⁸June 19, 1906, Chapter 3433 – An Act to further protect the public health and make more effective the national quarantine. S. 4250, pp. 299.

¹⁶⁹History of Quarantine, from CDC web site: <http://www.cdc.gov/ncidod/dq/history.htm>. The gradual trend away from city and state control of quarantine stations toward federal control may have, in part, been encouraged by a ruling making cities financially liable for the costs of wrongful detention of ships. In *Sumner v. Philadelphia*, Judge McKennan ruled that the city of Philadelphia must compensate a shipowner whose vessel had been detained upon wrongful suspicion of yellow fever. *Sumner v. Philadelphia* (1873) 23 F. Cas. 392. The last port to turn over quarantine control to the Public Health Service was New York, though even this port had been under federal control for limited periods and for limited purposes. In 1911, in response to cholera-infected passengers arriving at the Port of New York from Italy, the Public Health and Marine Hospital Service sent officers to that station. The officers put into place a system of bacteriological examination of the passengers from Italy. Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 88.

those of public health. One cannot deny some aspect of heroism embodied by the medical officers who put themselves on the front lines of contagious diseases in the hopes of protecting their fellow citizens. The self-image of Public Health Service¹⁷⁰ and state health officers was that of the public health officer [who] tries to block the roads by which disease reaches his people. He is a 'detective,' a 'federal agent,' employed in the interest of national health.¹⁷¹ However, the goal of communicable disease prevention often seemed to coincide with the goal of preventing immigration, forcing Public Health Service (PHS) physicians to try to unravel these two aims, at to refuse to implement those regulations and rules that seemed more hostile to the immigrants themselves than to their possible illnesses. One such law, passed by Congress in 1907, empowered health officers to state on an immigrant's medical certificate whether the immigrant had an illness (non-communicable) or deformity which might render him or her likely to become a public charge.¹⁷² Not willing to become mere tools of immigration policy, the health officers simply refused to make such entries, reporting only on the significant communicable diseases they detected.¹⁷³

Neither were health officers particularly concerned with easing immigration, often oblivious to the feelings of those they inspected. Alan Kraut, in his book Silent Menace, articulates this complex role:

These proud, uniformed agents of the United States government saw Ellis Island's ornate turrets as towers of vigilance from which they dutifully guarded their country against disease and debility. Those were the enemies, not the immigrants themselves... Largely unaware that immigrants found the Ellis Island inspection daunting, officials saw their task not as one of making the process more humane but more effective and evenhanded... They were acutely aware of refusing to permit an ever-louder chorus of restrictionists from influencing their medical diagnoses, even if those diagnoses were from time to time unconsciously shaped by their own ethnic biases.¹⁷⁴

¹⁷⁰The Marine Hospital Service changed its name to the Public Health Service in 1912. Satcher, David, M.D., Ph.D. *The History of the Public Health Service and the Surgeon General's Priorities*, 54 *Food Drug L.J.* 13, 1999, pp. 13.

¹⁷¹Mullan, Fitzhugh, Plagues and Politics: The Story of the United States Public Health Service. Basic Books, Inc., New York, 1989, pp. 40.

¹⁷²Kraut, Alan M. Silent Travelers: Germs, Genes, and the Immigrant Menace. Basic Books: 1994, pp. 68 and 34 Stat. 898.

¹⁷³Kraut, Alan M. Silent Travelers: Germs, Genes, and the Immigrant Menace. Basic Books: 1994, pp. 68.

Even removing the pressures to use their medical inspection powers as a tool to prevent immigration, these federal medical officers faced a more basic internal conflict between their roles as inspectors and their training and professional duty as physicians. Necessarily, they could not treat every illness presented to them by the many immigrants moving past them each day, and were forced to make complicated judgment calls each day, navigating between their medical oath to minister unto the individual and their statutory responsibility to guard the health of the public at large.¹⁷⁵

The fact that immigrants who came through the Canadian border faced fewer obstacles than those from other countries implied to some that the federal medical authorities' ethnic biases influenced their medical scrutiny.¹⁷⁶ At the time, those most suspected of carrying contagious diseases were southern Europeans, Russians, Asians, and Mexicans, while the immigrants who came through the Michigan border from Canada were generally the less-suspect northern Europeans.¹⁷⁷ Though this ethnic preference probably played some role in the lenience of Canadian border inspections, legitimate policy reasons could explain the difference as well. For instance, most immigrants coming in through Michigan had already been inspected when they came by boat initially to American ports; as a result, the Michigan point of entry tended to be free of the diseases that racked other American ports. The cooperation of Canadian health officers and similarities between the Canadian and U.S. quarantine systems also helped create a perception that immigrants crossing the Michigan border presented less of a threat.¹⁷⁸

The more typical medical inspection experience was that of the immigrants who entered through Ellis Island.

In 1911, a year of high immigration, Ellis Island physicians examined 749,642 immigrants. Of this total,

¹⁷⁵Ibid., pp. 77.

¹⁷⁶Reports of anti-Semitic comments and medical diagnosis made at the Port of Galveston, Texas further undermine the image of medical inspector as purely impartial. Kraut, Alan M. Silent Travelers: Germs, Genes, and the Immigrant Menace. Basic Books: 1994, pp. 65.

¹⁷⁷Stern, Alexandra Minna and Howard Markel, All Quiet on the Third Coast: Medical Inspections of Immigrants in Michigan. Public Health Reports, March/April 1999. Volume 114, pp. 178.

¹⁷⁸Ibid., pp. 178.

16,910 were certified as having physical or mental defects; among these, 1,363 were rejected for having loathsome or dangerous contagious diseases. The proportion of immigrants rejected for reasons of disease at Ellis Island was representative of the rest of the country. During the peak immigration era from 1890 to 1924, the proportion of immigrants rejected for health reasons never exceeded three percent, with an average of less than one percent over the entire period.¹⁷⁹ Because of the high numbers of immigrants passing through inspection points during this period, the physicians had to perform their duties extremely quickly. The skills developed in spotting disease during a person's brief walk through the line, could be impressive. One PHS physician who served as an inspector at Ellis Island recalled the diagnostic feats of his chief medical officer, Dr. John Billings: A German lady was in the line and he took one look at her and said, *Nehmen Sie die Parucke Ab*, meaning take off the wig, which we had not noticed, and were astounded to see a totally bald lady who had had favus.¹⁸⁰ Despite such examples of professional expertise, some medical officers conducted themselves in less than respectable ways, taking money from immigrants in exchange for false naturalization papers. When Theodore Roosevelt took office in 1901, he set about curbing corruption on Ellis Island by appointing William Williams as Chief Medical Officer. Williams instituted an anti-corruption program of sending in agents posing as immigrants to root out dishonest officers.¹⁸¹

Some of the diseases for which immigrants were excluded during that time, like favus, were far less menacing than those which had figured prominently in American quarantine history.¹⁸² The most common disease diagnosed at Ellis Island, by far, was trachoma, which accounted for 85.6 percent of the total diagnoses of contagious diseases.¹⁸³ Trachoma is a contagious disease of the eyelid which causes inflammation of the

¹⁷⁹Kraut, Alan M. *Silent Travelers: Germs, Genes, and the Immigrant Menace*. Basic Books: 1994, pp. 66.

¹⁸⁰Parascandola, John, *Doctors at the Gate: PHS at Ellis Island*. Public Health Reports, January/February 1998. Volume 113, pp. 83, pp. 84. Favus is a chronic inflammatory dermatophytic infection, which is contagious and causes the loss of hair and disfigurement of the scalp. eMedicine Journal, January 24 2002, Volume 3, Number 1.

¹⁸¹Kraut, Alan M. *Silent Travelers: Germs, Genes, and the Immigrant Menace*. Basic Books: 1994, pp. 57.

¹⁸²These included hookworm, liver flukes, and filariasis. Lucaccini, Luigi F. PhD. PHS Chronicles – The Public Health Service on Angel Island, January/February 1996, Volume 111, pp. 94.

¹⁸³Kraut, Alan M. *Silent Travelers: Germs, Genes, and the Immigrant Menace*. Basic Books: 1994, pp. 66.

conjunctiva and painful granulation of the eyelids. At the time, the disease could lead to scarring of the cornea and subsequent blindness.¹⁸⁴ Because physicians encountered the disease almost exclusively at Ellis Island, they assumed that it was not indigenous, until it appeared in Minnesota among the Native American population. Despite the knowledge that it was not imported, trachoma remained on the list of excludable diseases for many years.¹⁸⁵

The quarantine and immigration station at Angel Island, California caused considerable controversy over the diseases for which it excluded immigrants. Angel Island, the West Coast Ellis Island, began to be used as an immigration station in 1910.¹⁸⁶ In its first year of operation, the station saw the medical inspection of over 11,000 immigrants, and by 1920 reached a high of 25,000. The percentage of excluded immigrants at Angel Island was far higher than at Ellis Island – between ten to fifteen percent.¹⁸⁷ The Chinese government and the Chinese-American community believed that this high statistic was due largely to the unjust exclusion of Asian immigrants with treatable diseases which were more prevalent among Asian immigrants.¹⁸⁸

Based on the belief that the exclusion of immigrants with liver served as a mere pretext for the exclusion of Asians, one Chinese immigrant appealed the decision to exclude him based on this diagnosis. Liang Buck Chew was a Chinese citizen who had resided in the United States for several years before making a visit to his family back home. Upon his return, medical inspectors excluded him based on a diagnosis of clonorchiasis (also called fluke worm of the liver), then considered a dangerous contagious disease.¹⁸⁹ Chew brought suit while being held for deportation. Chew argued that clonorchiasis is not a contagious disease within the meaning of the statute, because it cannot be transmitted from person to person, but must pass through two

¹⁸⁴Because of the ease of effective treatment, and the relative difficulty of disease transmission, trachoma is no longer grounds for immigrant exclusion. Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 745.

¹⁸⁵Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 745.

¹⁸⁶Kraut, Alan M. *Silent Travelers: Germs, Genes, and the Immigrant Menace*. Basic Books: 1994, pp. 56 and Lucaccini, Luigi F. PhD. *PHS Chronicles: The Public Health Service on Angel Island, January/February 1996*, Volume 111, pp. 92.

¹⁸⁷Kraut, Alan M. *Silent Travelers: Germs, Genes, and the Immigrant Menace*. Basic Books: 1994, pp. 65.

¹⁸⁸*Ibid.*, pp. 64-65.

¹⁸⁹*Ex Parte Liang Buck Chew* (1923) 296 F. 182, pp. 182.

animal hosts before becoming a threat to man and is only acquired by eating undercooked fish. Because the disease was unlikely to be transmitted from the infected person to others, argued Chew, it was not a rational basis for exclusion.¹⁹⁰

Though the Massachusetts district court agreed with Chew that there remains a good deal of doubt whether clonorchiasis can reasonably be found to be a dangerous contagious disease in this country, it ruled in favor of the federal government.¹⁹¹ Though the court declined to accept the government's argument that medical officer's decisions were per se unreviewable, it gave broad deference to the reasonableness of those determinations.¹⁹² Noting that the Surgeon General believed the necessary hosts for clonorchiasis to be present in United States waters, he accepted the contention that the disease was transmissible as reasonable.¹⁹³ Because of the several host steps that must be encountered in order to transmit the disease, however, the question still remained as to whether the disease was contagious. In answering this question, the opinion set a standard for great deference to the judgment of PHS officers:

The statute in question, having been passed for the protection of the public health, should receive a liberal interpretation in aid of its obvious purpose. The underlying intention of it is to establish safeguards against the introduction into this country by alien immigrants of dangerous diseases, which might spread and do harm here. Certain diseases of which this would be true – e.g. yellow fever – are not contagious in the strict sense of the word. But they must be within the intended scope of the act.¹⁹⁴

The court's concern that a narrow definition of contagious would disable the Surgeon General's authority over the control of yellow fever is clear, and that disease was still fresh in the American memory at the time of the case. After this ruling, clonorchiasis remained an excludable disease until 1927, when a Chinese-American physician, Dr. Fred Lam, persuaded the Surgeon General that the disease did not threaten the

¹⁹⁰Ibid., pp. 183-184.

¹⁹¹Ibid., pp. 185.

¹⁹²Ibid., pp. 183.

¹⁹³Ibid., pp. 184.

United States.¹⁹⁵

The broad deference given to PHS officers in deciding on medical exclusions did not shrink in the following years. In 1938, the Southern District of New York granted almost absolute deference to a PHS officer's decision to exclude a temporary visitor from Europe on the grounds that she was infected with ringworm of the toenails.¹⁹⁶ The court did not reject the petitioner's argument that ringworm of the nails was comparable to the condition called 'athlete's foot' and was therefore not properly within the definition of a dangerous or loathsome disease. Nonetheless, it upheld the medical officer's decision, showing complete deference to the Surgeon General's judgment in deciding which diseases would suffice to exclude an immigrant.¹⁹⁷ In United States ex re. Siegel v. Shinnick, a 1963 case involving the quarantine detention of a visitor from Sweden, the Eastern District of New York reaffirmed this deference yet again. In this case, a PHS officer detained the Swedish traveler on the basis of a World Health Organization declaration that Stockholm (where the detainee had visited prior to her arrival in the United States) was infected with smallpox.¹⁹⁸ Because Mrs. Siegel did not present a valid certificate of vaccination of smallpox, the medical officer detained her at the PHS hospital at Stapleton, Staten Island for the fourteen day period of incubation.¹⁹⁹ Mrs. Siegel's daughter argued that she had only been in Stockholm from July 21 through 25, while the last case of smallpox in Stockholm had occurred on June 22. Nonetheless, the court concluded:

¹⁹⁵Kraut, Alan M. Silent Travelers: Germs, Genes, and the Immigrant Menace. Basic Books: 1994, pp. 65.

¹⁹⁶United States ex re. Frumcair v. Reimer, 25 F. Supp. 552 (1938).

¹⁹⁷District Judge Patterson wrote: ... [M]y first impression was that the relator was being excluded for a trifling ailment and that the case was one where the courts ought to give relief. A more careful study has convinced me that whatever the true character of the ailment may be, and as to that I say nothing, the courts are foreclosed from interfering with the decision of the immigration officials where the medical certificate on arrival shows that the alien is afflicted with a loathsome or dangerous contagious disease. United States ex re. Frumcair v. Reimer, 25 F. Supp. 552, 554.

¹⁹⁸United States ex rel. Siegel v. Shinnick, 219 F. Supp 789 (1963).

¹⁹⁹Ibid., pp. 790.

It is idle and dangerous to suggest that private judgment or judicial ipse dixit can, acting on the one datum of the date June 22 as the last identified and reported case, undertake to supercede the continuing declaration of the interested territorial health administration that Stockholm is still a small pox infected local area.²⁰⁰

Despite the lack of evidence showing that Mrs. Siegel had been exposed to smallpox, the court deferred to the PHS officer's judgment that the risk of her exposure was significant, and held that the decision to detain her was neither arbitrary nor discriminatory.²⁰¹

After the end of World War I in 1918, the influx of passengers from Europe increased dramatically and presented a new level of medical danger. In response to disastrous epidemics of typhus in parts of Europe, the PHS stationed officers at European ports to oversee disease-control measures there. At the time, shipowners were required to establish sanitation and disinfection facilities, with PHS officers monitoring their procedures. When, as happened from time to time, European governments interfered with or prevented the United States' medical officers from performing their duties, the United States responded by detaining the offending country's ships at our quarantine stations for the entire incubation period of the suspected disease, and passed that significant cost on to the foreign shipowners. The United States government only had to take this action a few times before foreign governments agreed to comply with PHS inspections at their ports. In the end, the effort was successful; typhus never made it past these inspection points into the United States.²⁰²

The influx of travelers and immigrants from Europe in the post-WWI period led to the construction and expansion of new quarantine and inspection stations. The station at Leading Point, in Baltimore, Maryland, was typical of the smaller stations created at that time. Like the medical officers working at stations at Ellis Island and Angel Island, the medical officers of these smaller stations lived at their quarantine stations. Unlike those at the larger stations, however, they inspected a less diverse and smaller set of passengers,

²⁰¹Ibid., pp. 791.

²⁰²Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 88.

allowing them to use the stations for domestic quarantine purposes as well.²⁰³ At the Baltimore station, in fact, the majority of quarantine patients were local residents who had been diagnosed with smallpox.²⁰⁴

During this period, the Surgeon General instituted two other policy changes regarding the inspection of incoming ships and their passengers. First, the government promulgated a list of dangerous contagious diseases which, if present at a ship's port of origin or on the ship itself, would require great scrutiny by quarantine inspectors. If one of the diseases was present on board, all passengers were detained at the quarantine hospital and the ship was disinfected and fumigated while flying the yellow flag which symbolized quarantine. The dangerous contagious diseases listed during this time included: yellow fever, smallpox, plague, cholera, leprosy, anthrax, and typhus.²⁰⁵

The other major policy change which took place during this time commenced in 1924, when Congress provided for a system of overseas medical inspection of immigrants prior to their departure for the United States. The Act of 1924 required that each immigrant obtain a statement from a local physician testifying to his or her health.²⁰⁶ The measure attempted to prevent situations in which immigrants made the costly and somewhat hazardous trip to the United States only to find out that they would be forced to return for medical reasons.²⁰⁷ The validity of these statements, however, proved unreliable, and Surgeon General Cumming

²⁰³In an typical year, medical officers at the Baltimore station inspected about 700 ships, over 29,000 persons, and fumigated over 300 ships, amounting to between three and five percent of the total federal quarantine work. *PHS Chronicles: A Gate to the City: The Baltimore Quarantine Station, 1918-1928*, Public Health Reports, March-April 1995, Vol. 110, No. 2, pp. 219.

²⁰⁴*PHS Chronicles: A Gate to the City: The Baltimore Quarantine Station, 1918-1928*, Public Health Reports, March-April 1995, Vol. 110, No. 2, pp. 219.

²⁰⁵*PHS Chronicles: A Gate to the City: The Baltimore Quarantine Station, 1918-1928*, Public Health Reports, March-April 1995, Vol. 110, No. 2, pp. 219.

²⁰⁶Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 108.

²⁰⁷Division of Quarantine publication. www.cdc.gov/dq, pp. 5. The situations this measure intended to prevent is exemplified by the following not uncommon experience recollected by a medical officer in the earlier years at Ellis Island: A Scandinavian farmer might spend years in Minnesota earning enough money to pay the passage for his wife and their five children. When they would finally arrive, and the long separated family would be reunited, ours would be the painful duty of singling out one of the children, and of saying, 'She has trachoma. She cannot enter' The mother and the rest of the children would often have to return to Europe with the diseased one, and, until the boat sailed, the father, wretched and unhappy, would haunt the detention quarters, while his family kept up a constant wailing and crying. Mullan, Fitzhugh, *Plagues and Politics: The Story of the United States Public Health Service*. Basic Books, Inc., New York, 1989, pp. 45.

soon recommended a different approach. In 1925, the United States government began performing medical examinations of prospective immigrants abroad, first experimenting with a pilot program in Britain, and then expanding the service to all major foreign ports. Though a clean bill of health at the port of departure did not guarantee an immigrant's entry into the United States, it did make the immigration process more humane.²⁰⁸

Resource Struggles and the Advent of Air Travel

The increased quarantine and inspection duties which resulted from the increased volume of immigrants and travelers strained the PHS's lagging resources. In the mid- to late-1920's, the PHS consisted of about 180 commissioned officers, including those employed in emergencies and those assigned at ports overseas; those assigned to ports in Europe alone comprised sixteen percent of the regular commissioned corps.²⁰⁹ Considering these numbers, one recognizes that each outbreak of disease imposed a serious strain on the agency's capacities. For instance, when the 1927 flood in the Mississippi Valley required twenty PHS officers to provide disaster relief medical services, that occupied over thirteen percent of all PHS medical officers stationed in the United States. In partial response to this strain on resources, the PHS began to allow radio pratique on a limited basis in 1937. Radio pratique is the process by which a quarantine station issued permission to enter a port without inspection, based on the belief that the vessel posed little threat of disease. The policy in the late 1930's at the Port of New York (the first port at which radio pratique was

²⁰⁸Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 110.

²⁰⁹Ibid., pp. 151.

implemented) allowed radio pratique for only those ships which carried a certified physician on board.²¹⁰ This practice gradually expanded throughout the following decades, as resources remained small relative to the agency's responsibilities. One PHS historian notes that the new responsibilities in the 1920's and 1930's spread the commissioned corps so thin as to almost reach the breaking point.²¹¹

The advent of air travel in the post-WWI years led to the Air Commerce Act of 1926.²¹² The statute authorized the Public Health Service to quarantine and inspect passengers arriving in the United States via air, and designated the first airport of entry as Meachem Field at Key West, Florida. Soon after the advent of quarantine and inspection at Key West in December of 1927, the Public Health Service commenced similar operations at airports in New York City, Tampa, and Miami. The rapid increase in air travel was tremendous over the following years, with 5,384 aircraft inspections in 1930 growing to 47,113 by 1949.²¹³ During this era, a PHS officer (though not necessarily an actual physician²¹⁴) inspected each international airplane arriving in the United States and examined the passengers for indications of quarantinable diseases. The airports then directed disembarking international passengers into a separate arriving area, so that if disease were discovered in one of the passengers or if a disease vector were discovered on the airplane, it would not infect others in the airport. In addition, airports contained small quarantine facilities in the inspection area to accommodate those whom quarantine inspectors suspected to be infected with a dangerous contagious disease.²¹⁵

²¹⁰Ibid., pp. 99.

²¹¹PHS Chronicles: A Gate to the City: The Baltimore Quarantine Station, 1918-1928, Public Health Reports, March-April 1995, Vol. 110, No. 2, pp.150.

²¹²Air Commerce Act of May 20, 1926.

²¹³Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 93-94.

²¹⁴Conversation with Dr. Ray P. Vanderhook, 3/27/2002, recalling Public Health Service medical inspector Frank Stiso. At least by the mid-1960's, airplane inspectors were trained so that they possessed some medical knowledge, but not educated as physicians. If an inspector noticed a sign of disease in a traveler, he called the PHS Medical Officer in Charge of the station, who then came to inspect the passenger. The initial inspections, however, were performed by these trained laymen.

²¹⁵Division of Quarantine publication. www.cdc.gov/dq, pp. 3.

Medical inspectors were not only concerned about the prospect of diseased passengers, but also by the possibility that disease-carrying insects might also travel on international flights. The old concerns of yellow fever rose again, particularly after the variety of mosquito which carried the disease were found on board airplanes coming from the tropics in 1931.²¹⁶ Because of the yellow fever threat, as well as new varieties of insects introduced into the United States by air travel, the Public Health Service implemented an insecticide program for international aircraft in the 1930s.²¹⁷ The policy included spraying aircraft with insecticides, as well as PHS surveys of mosquitoes around air and sea ports in order to determine the risk of mosquito transportation from various areas.²¹⁸

The end of World War I also brought into focus a public health problem which had not previously been addressed by federal authorities. The most common medical diagnosis made at many quarantine hospitals during the post-war years was of sexually transmitted disease.²¹⁹ Because of the prevalence of venereal diseases contracted during the war, federal and state governments used quarantine laws to detain prostitutes who worked near military bases (for longer periods than criminal statutes prohibiting prostitution would otherwise allow). Strikingly, no actual diagnosis of a venereal disease was required as a prerequisite for detention. Rather, a reasonable belief that a woman was a prostitute sufficed as grounds for quarantine detention, effectively lengthening the sentences for prostitution without trial.²²⁰ After the end of World War I, Surgeon General Parran continued to promote federal efforts to curb the spread of venereal diseases, creating a Division of Venereal Diseases within the Public Health Service and beginning an educational campaign. This led to the National Venereal Disease Control Act of 1938, which provided funding for research and education about venereal diseases.

²¹⁶Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 93-94.

²¹⁷*Ibid.*, pp. 94. Division of Quarantine publication. www.cdc.gov/dq, pp. 3.

²¹⁸Division of Quarantine publication. www.cdc.gov/dq, pp. 3.

²¹⁹*PHS Chronicles: A Gate to the City: The Baltimore Quarantine Station, 1918-1928*, Public Health Reports, March-April 1995, Vol. 110, No. 2, pp. 219.

²²⁰Min, Kollin K. The White Plague Returns: Law and the New Tuberculosis. *Washington Law Review*, October 1994, v. 68, n. 4, pp. 1121-1142, pp. 1137.

This moment in the late-1930's saw the first instance of decentralization in contagious disease control in the United States. The Venereal Disease Control Act attempted to achieve its goals not through federal action, but through significant grants to the states.²²¹ This measure came close on the heels of the Social Security Act of 1935, which had authorized health grants to the states on the principle that the most effective way to prevent the interstate spread of disease is to improve state and local public health programs. With this legislation, the PHS became adviser and practical assistant to state and local health services.²²² Though this change met with little fanfare, it began a transfer of disease control powers from the federal government to state governments that has been occurring, with few exceptions, ever since.

Boundaries to PHS Quarantine Power: Quarantine Powers of the Department of Agriculture

The tremendous power given to the Surgeon General (through the Secretary of the Treasury) under the quarantine and immigration regulations seems to leave little need for other quarantine and inspection powers. The prevalence of contagious diseases brought in by plants and animals, however, posed a serious problem to American farmers by the early twentieth century. Inspection of plants and animals was clearly not a physician's area of expertise, and required the involvement of other agencies. The regulations promulgated under the powers of the Department of Agriculture over the years have kept the Public Health Service's quarantine powers bounded to the control of human diseases and some animal diseases that can be transmitted to humans.

²²¹ Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 171.

²²² www.nih.gov, NIH timeline. P.L. 74-271, 49 Stat. L. 634.

The Plant Quarantine Act of August 20, 1912 authorized the Department of Agriculture to establish and maintain quarantine districts for plant diseases and insect pests; to permit and regulate the movement of fruits, plants, and vegetables therefrom. . . ²²³ The statute prohibited the importation or acceptance of nursery stock in contradiction with the regulations made by the Secretary of Agriculture for this purpose. The regulations the Secretary was empowered to promulgate included:

- 1.
- 2.
- 3.
- 4.

The statute also authorized the Secretary of Agriculture to forbid the importation of any category of plants, fruits, vegetables, roots, bulbs, seeds, or other plant products as he deemed it necessary to prevent the introduction of any tree, plant, or fruit disease or of any injurious insect, new to or not theretofore widely prevalent or distributed within and throughout the United States,²²⁵.

At the time the statute was enacted, these regulations were enforced by a combination of agents of the

²²³The Plant Quarantine Act, Act of August 20, 1912 (as amended through Public Law 106-170, Dec. 17, 1999), pp. 1.

²²⁵The Plant Quarantine Act, Act of August 20, 1912 (as amended through Public Law 106-170, Dec. 17, 1999), Section 7, pp. 1-2.

Department of Agriculture and the customs agents of the Department of the Treasury.²²⁶ It imbued agents of the Department of Agriculture with an inspection power similar to that held by PHS officers:

[A]ny employee of the Department of Agriculture. . . who has probable cause to believe that any person coming into the United States, or any vehicle, receptacle, boat, ship, or vessel, coming from any country or countries or moving interstate, possesses, carries, or contains any nursery stock, plants, plant products, or other articles the entry or movement of which in interstate or foreign commerce is prohibited or restricted by the provisions of this act, . . . shall have the power to stop and, without warrant, to inspect, search, and examine such person. . . .²²⁷

This power is written as broadly as that of the Quarantine Act of 1878, leaving three barriers to entry into the United States: the customs officer, the medical officer, and the agricultural officer.²²⁸

The other side of the Department of Agriculture's quarantine and inspection power deals with animals and meat, rather than plants. The Cattle Contagious Diseases Act of 1905 authorized the Secretary of Agriculture to quarantine any area or state if he determined that any cattle in that area were infected with any contagious disease.²²⁹ Soon after the passage of the 1905 Act, a federal court upheld the Secretary's power to regulate the shipment of cattle into the United States against constitutional challenge.²³⁰ Though the power to regulate cattle in interstate spread of disease was also upheld²³¹, the Supreme Court did strike the Secretary of the Agriculture's attempt to regulate intrastate commerce in diseased cattle.²³² The Supreme Court later

²²⁶Ibid., Section 7, pp. 1-2.

²²⁸The Plant Quarantine Act has been used for purposes as broad as a plant quarantine of the entire state of Hawaii. In the case *U.S. v. Schafer*, the Court of Appeals for the Ninth Circuit upheld the Secretary of Agriculture's decision to prohibit the transportation of plants from Hawaii without prior inspection, and to require inspection of all baggage and other personal effects of passengers. . . of . . . aircraft moving from Hawaii. . . to ascertain if they contain any of the articles or plant pests prohibited movement by the quarantine. . . . *U.S. v. Schafer* (1972) 461 F. 2d 856, 857.

²²⁹21 USCS Sec.123. Title 21. Food and Drugs, Chapter 4. Animals, Meats, and Meat and Dairy Products, Prevention of Introduction and Spread of Contagion,. Act of March 3, 1905, ch. 1496, 33 Stat. 1264, entitled An Act to enable the Secretary of Agriculture to establish and maintain quarantine districts, to permit and regulate the movement of cattle and other live stock therefrom, and for other purposes.

In 1973, the Court of Appeals for the Fifth Circuit held that the federal government was not liable for damages to animals which resulted from the forced exposure of healthy animals to diseased animals within the quarantine area. *Rey v. United States* (1973) 484 F. 2d 45, 48.

²³⁰The Secretary of Agriculture has the power to determine in each epidemic whether shipments can be made consistently with public safety at all and, if so, upon what conditions. *United States v. Louisville & N.R. Co.* (1910) 176 F 942.

²³¹Congress has the power to enforce a quarantine to prevent the spread of diseases among livestock involved in interstate commerce. *Whipp v. United States* (1931) 47 F 2d 496.

²³²*Illinois C.R. Co. v. McKendree* (1906) 203 US 514.

distinguished this decision, allowing the Department of Agriculture to regulate intrastate quarantine and disinfection of cattle if for the purpose of preventing the interstate spread of disease.²³³ This power included the power to destroy infected cattle, but with a limited requirement of compensation.²³⁴ Because cattle were by far the greatest concern, it was not until 1962 that Congress expanded the statute to cover any animals.²³⁵ Though this power was not officially granted until 1962, the Secretary of Agriculture had successfully used the statute prior to that year to regulate other animals, particularly poultry.²³⁶

It is important to note that not all disease-related regulations on animals and plants were implemented by the Department of Agriculture. Those animals and plants that carried diseases which could be transmitted to humans were also under the purview of the Public Health Service's contagious disease control powers. One such measure, regulating the importation of psittacine birds, was enacted in 1930 in response to a 1929 outbreak of 170 cases psittacosis, 33 of which were fatal.²³⁷ By executive order,²³⁸ the Surgeon General absolutely prohibited the importation of psittacine birds (i.e. birds in the parrot family) from any foreign port in February of 1930.²³⁸ Under pressure from the pet dealers lobby, the PHS softened this regulation in

²³³It is finally urged against this conviction that the statute . . . is unconstitutional in that Congress had no power to make it a duty of a federal employee to dip cattle and suppress disease among cattle within a State;...that such legislation by Congress can not be sustained as a regulation of interstate commerce, because it is not confined to interstate commerce and the cattle treated were not in interstate commerce. It is very evident from the Act of 1884 and the subsequent legislation and the regulations issued under them that everything authorized to be done was expressly intended to prevent the spread of disease from one State to another by contagion, which of course means by the passage of diseased cattle from one state to another. This is interstate commerce. *Thornton et al. v. United States* (1926) 271 U.S. 414, 424.

²³⁴A dairy farmer whose cattle were destroyed following the discovery by the Department of Agriculture that some were infected with tuberculosis was entitled to compensation in the amount prescribed by regulations promulgated under 21 USC 114(a) as opposed to fair market value prescribed by 21 USC 134(a) where Secretary of Agriculture did not declare national emergency as contemplated by 21 USC 134(a)(b), and where cattle were not moving interstate or into the United States. *Loftin v. United States* (1984) 785 F. 2d 1117.

²³⁵Act of July 2, 1962. 21 USCS Sec. 134a, Title 21, Ch. 4: Prevention of Introduction and Spread of Contagion, July 2, 1962.

²³⁶*Must Hatch Incubator Co., v. Patterson* (1928) 27 F 2d 447. The Department of Agriculture's power to destroy animals who were infected with or exposed to communicable disease of poultry. *Slocum v. United States* (1975) 515 F. 2d 237.

In 1979, the Department of Agriculture prohibited the interstate transport of swine with pseudorabies virus, and indirectly regulated intrastate quarantine and inspection of swine by severely restricting the interstate commerce in swine if the state did not implement a quarantine system that met federal standards. 9 C.F.R. 85.7

²³⁷Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 99.

²³⁸Executive Order No. 5264, January 24, 1930. Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 99.

October 1930, replacing the prohibition with a set of sanitary restrictions and a requirement of certification. Still, all imports were required to spend a mandatory two-week observation period in a federal quarantine facility.²³⁹ In 1933, regulations regarding psittacine birds were expanded to cover interstate transport. The federal government cooperated with state health officers in this effort, notifying the state authorities as each shipment was released from its two-week federal quarantine. The regulations appeared successful, as rates of psittacosis decreased after their implementation.²⁴⁰

World War II, Malaria, and the PHS Act

The outbreak of World War II impacted the Public Health Service in many of the same fundamental ways that it affected the rest of American society. In the physician's most traditional wartime role, medical officers served overseas providing medical care to soldiers. At the same time, however, PHS officers were tasked with some additional contagious disease control measures necessitated by the war. In 1940, the War Department asked PHS medical officers to implement public health systems near military camps in the United States, which soon included a malaria control program throughout the southeast and the territories.²⁴¹ This

²³⁹Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 99.

²⁴⁰Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 100. The psittacine bird regulation led to a variety of litigation. The Ninth Circuit Court of Appeals, in Duke, Ballard, and Buono v. United States (1958) 255 F. 2d 721, ruled on the contention of psittacine bird smugglers that they should be subject only to the penalty under the PHS Act for violating quarantine laws, rather than the harsher penalty under the federal smuggling statute. The defendants claimed that the Public Health Service regulation preempted the smuggling statute as applied to this case. In rejecting this claim, Judge Fee ruled that these contentions have no validity. Appellants may have committed two crimes, one a misdemeanor and the other a felony...If there is any conflict between the statute and the regulation, the former prevails. Clifford L. Duke, Jr., Louis Glenn Ballard and Vic Buono, v. United States of America, 255 F. 2d 721; January 7, 1958. (U.S. Court of Appeals, Ninth Circuit), pp. 723-724.

²⁴¹Parascandola, John, From MCWA to CDC – origins of the Centers for Disease Control and Prevention; Malaria Control in

necessity, combined with the shortage of physicians due to the war, led the PHS to employ non-physicians as quarantine inspectors for the first time.²⁴² The PHS's efforts during this time were spurred by public and media concern about the risk of epidemics of strange and exotic diseases which might be carried by soldiers coming home from tropical locations.²⁴³

The Surgeon General created a new division of the Public Health Service to deal with malaria, called Malaria Control in War Areas (MCWA). Because its domestic efforts were concentrated mostly in the South, the MCWA's headquarters were located in Atlanta, where it has evolved to become the present-day Centers for Disease Control.²⁴⁴ The primary method of malaria control during World War II involved the spraying of insecticides: first Paris Green, then diesel oil, and finally DDT. The DDT spraying efforts were so successful, and the threat of malaria so widespread, that Congress appropriated funding for spraying in areas besides the military locations previously covered. Most residents had no fear of the chemical, and houses were sprayed with a formulation of DDT that adhered to the walls, furniture, and other surfaces and retained its insecticidal property against mosquitoes for long periods.²⁴⁵ The prevalent view of DDT at the time clearly predated our current concerns about the carcinogenic properties of pesticides; all that was known at the time was that DDT was a miracle insecticide, and incredibly effective at preventing malaria.²⁴⁶

This expanded role of the Public Health Service, as well as heightened visibility during the war, led to the most important legal moment in the Public Health Service's twentieth century history – the passage of the Public Health Service Act of 1944. The Act itself actually created little new law; rather it consolidated

War Areas. Public Health Reports, No. 6 Vol. 111, November 21, 1996. pp. 549.

²⁴²Each quarantine station still had a Medical Officer in Charge, who could be called in to confirm the opinion of the inspector in questionable or threatening cases. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 93.

²⁴³Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 95.

²⁴⁴The MCWA had typhus added to its purview in 1944, and the agency was gradually granted authority over the control of yellow fever, amoebic dysentery, diarrheal disease, polio, venereal disease, and tuberculosis by 1960. Parascandola, John, From MCWA to CDC – origins of the Centers for Disease Control and Prevention; Malaria Control in War Areas. Public Health Reports, No. 6 Vol. 111, November 21, 1996, pp. 549.

²⁴⁵Ibid., pp. 549.

²⁴⁶Ibid., pp. 549.

the provisions of the 1878 Act and the multiple statutes passed for similar purposes in the ensuing sixty-six years. Because so little of the Act actually presented new law, and because of the public support for the malaria control and other PHS efforts which transpired during the War, the bill was almost entirely uncontroversial.²⁴⁷ The report on the bill by the House Committee on Interstate and Foreign Commerce cited the importance of clarifying the sometimes unclear and even contradictory hodge-podge of laws authorizing federal health activity:

Passed at different times, these provisions of law have generally neither expressly repealed nor expressly amended their predecessors, but have simply superimposed new duties and authorities on those already existing. . . . [T]hey have led to serious inconsistencies and ambiguities, as well as to gaps and duplications in substantive authority. . . .²⁴⁸

According to Surgeon General Parran, the areas of public health law most in need of codification were the provisions which addressed quarantine and inspection.²⁴⁹

The Section of the PHS Act which deals directly with quarantine and inspection laws is Section 361. Because most of the section simply organizes and reasserts earlier laws, this description of the statute will limit itself to the central provisions and any changes from past laws. The crux of the powers conferred by the Act of 1893 were embodied in Section 361(a), which authorizes the Surgeon General to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession.²⁵⁰ In a hearing of the subcommittee of the Interstate and Foreign Commerce Committee,

²⁴⁷Indeed, no witness at the hearing before the Interstate and Foreign Commerce Committee opposed the bill's passage. April 20, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Bulwinkle, from the Committee on Interstate and Foreign Commerce, 78th Congress, 2d Session, House of Representatives, Report No. 1364, pp. 2.

²⁴⁹March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 138.

²⁵⁰Section (a) also provides: For the purposes of carrying out and enforcing such regulations, the Surgeon General may provide for such inspection, fumigation, disinfection, sanitation, pest extermination, and other measures as in his judgment may be necessary. March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign

Congressman Willcox led Surgeon General Parran through a description of the changes to previous law inherent in the section. One of these changes added to the interstate and foreign quarantine power the ability to destroy contaminated or infected objects or animals.²⁵¹ The most significant change in Section 361(a), however, was to remove an obstacle to the Surgeon General's power to regulate quarantine and inspections. The previous law had conditioned that regulatory power on the nonexistence or inadequacy of state and local regulations, while also requiring that the federal regulations be uniform. Section 361(a) eliminated this condition, for the reasons articulated by Congressman Willcox:

The States . . . have wholly withdrawn from the field of foreign quarantine regulation. So far as this part of the authority is concerned, the conditions upon the exercise of Federal authority which may have been appropriate in 1893 seem no longer to have any function. In the field of interstate quarantine. . . Federal regulation has been confined to matters pertaining to the interstate movement of people or things over which the States have both constitutional and practical difficulties in achieving effective control.²⁵²

This change allows the Surgeon General to promulgate regulations regardless of whether a state or locality had also enacted regulations.

Sections 361(b) and (c) clarify the detention and apprehension powers involved in medical inspections of people coming from other countries.²⁵³ This aspect of the law remained mostly unchanged, with the exception of a provision for conditional release of detainees. Prior to passage of the 1944 PHS Act, persons suspected

Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 16.

²⁵¹Destruction of infected animals or contaminated articles would be permitted as a part of interstate or foreign quarantine procedures, where such animals or articles are likely to infect human beings with a dangerous disease and no disposition other than destruction can safely be made. April 20, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Bulwinkle, from the Committee on Interstate and Foreign Commerce, 78th Congress, 2d Session, House of Representatives, Report No. 1364, pp. 3-4.

²⁵³(b) Regulations prescribed under this section shall not provide for the apprehension, detention, or conditional release of individuals except for the purpose of preventing the introduction, transmission, or spread of such communicable diseases as may be specified from time to time in Executive orders of the President upon the recommendation of the National Advisory Health Council and the Surgeon General.

(c) Except as provided in subsection (d), regulations prescribed under this section, insofar as they provide for the apprehension, detention, examination, or conditional release of individuals, shall be applicable only to individuals coming into a State or possession from a foreign country, the Territory of Hawaii, or a possession. March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 16.

of having dangerous communicable diseases were detained at the point of entry, but the question of whether they might be released on certain conditions had been unresolved. Subsections (b) and (c) provide for the release of detainees on the condition of meeting requirements that ensured that the suspected disease would not spread, for example, regular reporting to a health authority. This provision was needed in order to deal with the increased level of travel by air, which introduced the heightened likelihood that travelers would contract a disease in their home country, pass through quarantine without showing symptoms of the disease, and develop symptoms soon after.²⁵⁴ The Act specified that the set of diseases for which a person could be detained or conditionally released would be listed by Executive Order of the President.²⁵⁵

Section 361(d) provides for similar detention powers, but as related to interstate quarantine, rather than foreign quarantine powers. Under this subsection, federal health officers were authorized to examine and detain any individual reasonably believed to be infected with a communicable disease. . . and (1) to be moving or about to move from a State to another State; or (2) to be a probable source of infection to individuals who. . . will be moving from a State to another State.²⁵⁶ Like the examination and detention provisions under subsection (b), this power is authorized only in regard to the list of communicable diseases set by Executive Order.²⁵⁷ Though the legislative history indicates that this action was already available to federal health

²⁵⁴March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 139-140.

²⁵⁵March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 16.

²⁵⁶The full language of the subsection reads as follows: On recommendation of the National Advisory Health Council, regulations prescribed under this section may provide for the apprehension and examination of any individual reasonably believed to be infected with a communicable disease in a communicable stage and (1) to be moving or about to move from a State to another State; or (2) to be a probable source of infection to individuals who, while infected with such disease in a communicable stage, will be moving from a State to another State. Such regulations may provide that if upon examination any such individual is found to be infected, he may be detained for such time and in such manner as may be reasonably necessary. March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 16.

²⁵⁷March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 140.

authorities, the provision clarified a power doubted by some.²⁵⁸ The drafters of subsection (d)(2) intended it to apply primarily to prostitutes with venereal diseases who were likely to pass their diseases to people who would then cross state lines to infect others.²⁵⁹ Persons detained under this provision, as well as those detained under the foreign quarantine provision, were entitled under the statute to medical treatment by the Public Health Service.²⁶⁰

Though Section 361 deals most directly with quarantine and inspection, other provisions of the PHS Act complement the powers and duties provided for in that section. For instance, the Act continued the Public Health Service's control over all quarantine stations²⁶¹ and required each vessel to present a bill of health at its point of entry into the United States.²⁶² Section 311 formalized the cooperative relationship between state and federal health authorities, directing the Surgeon General to accept voluntary assistance from state and local governments, and to aid state and local governments with the enforcement of their quarantine and health regulations.²⁶³ Section 325 addresses the Public Health Service's role in medical examination of aliens, directing the Surgeon General to provide for making such physical and mental examinations of arriving aliens as are required by the immigration laws, subject to administrative regulations prescribed by the Attorney General and medical regulations prescribed by the Surgeon General,²⁶⁴. Section 362 complements Section 325 by authorizing the Surgeon General to prohibit the introduction of persons and property from such countries or places as he shall designate, when there exists a serious danger of introduction of a communicable disease

²⁵⁸Ibid., pp. 140. See 42 U.S.C. 92 and 42 U.S.C. 25.

²⁵⁹March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 141.

²⁶⁰This is decreed under Section 322(c) of the Act. April 20, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Bulwinkle, from the Committee on Interstate and Foreign Commerce, 78th Congress, 2d Session, House of Representatives, Report No. 1364, pp. 3-4.

²⁶¹March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 17. Section 364(a).

²⁶²Ibid., pp. 17-18. Section 366.

²⁶³Ibid., pp. 8.

²⁶⁴Ibid., pp. 11.

being transmitted from a certain country or other location.²⁶⁵

Other sections of the PHS Act create powers that had not been formalized previously. Section 363 confers upon the Surgeon General special powers during times of war, in order to protect those in the armed services from communicable diseases. The section authorizes the Surgeon General to apprehend and examine:

any individual reasonably believed (1) to be infected with such disease in a communicable stage and (2) to be a probable source of infection to members of the armed forces of the United States. . . .if upon examination any such individual is found to be so infected, he may be detained for such time and in such manner as may be reasonably necessary.²⁶⁶

This provision differs fundamentally from the similar provision in Section 363 finding its Constitutional basis not in the protection of interstate commerce, but in the protection of members of the armed forces.²⁶⁷

This section's Congressional supporters seemed to believe that the Surgeon General already possessed this authority, but were advised by the Attorney General against attempting to assert it without a clearer legislative basis than now exists. Though the inclusion of this section was actually prompted by the threat of venereal diseases, its language is broad enough to encompass emergencies that might arise with regard to other diseases as well.²⁶⁸

The Act also formally updated the federal quarantine power by expanding it officially to aircraft. Section 367 authorized the Surgeon General to command all quarantine and inspection activity for civil aircraft, holding

²⁶⁵The language of the section is carefully structured, and reads as followed: Sec. 362. Whenever the Surgeon General determines that by reason of the existence of any communicable disease in a foreign country there is serious danger of the introduction of such disease into the United States and that this danger is so increased by the introduction of persons or property from such country that a suspension of the right to introduce such persons and property is required in the interest of the public health, the Surgeon General, in accordance with regulations approved by the President, shall have the power to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate in order to avert such danger, and for such period of time as he may deem necessary for such purpose. March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 16.

²⁶⁷*Ibid.*, pp. 140.

²⁶⁸March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 140.

the same powers over this mode of transportation as he had exercised over seagoing vessels. Surgeon General Thomas Parran testified in support of this new measure, arguing that the revolution in travel brought about by airplane has necessitated the revolution of our methods of control and our defense against disease. All of the implications of that statement I cannot see even at this time.²⁶⁹ Perhaps because of the unknowable implications of air travel, this section of the Act is written extremely broadly, without specific references to methods or processes of inspection.²⁷⁰ It does, however, refer to the powers under Sections 364-367, which authorize the Surgeon General to create and direct quarantine stations, authorize the use of customs and Coast Guard officers to enforce quarantine regulations, and require bills of health. The extent and manner in which these powers would be used, however, would be at the discretion of the Surgeon General.²⁷¹

One provision which was discussed heavily as an amendment to the PHS Act would provide for the control and prevention of the spread of tuberculosis, a disease which posed a significant threat at the time, and continues to vex us today. The proposed amendment would require:

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²⁶⁹Ibid., pp. 45.

²⁷⁰Section 367. The Surgeon General is authorized to provide by regulation for the application to civil air navigation and civil aircraft of any of the provisions of sections 364, 365, and 366 and regulations prescribed thereunder (including penalties and forfeitures for violations thereof), to such extent and upon such conditions as he deems necessary for the safeguarding of the public health. March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 18.

²⁷¹April 20, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Bulwinkle, from the Committee on Interstate and Foreign Commerce, 78th Congress, 2d Session, House of Representatives, Report No. 1364, pp. 26.

3.

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The primary policy goal of this bill was to increase funding for x-ray screenings for tuberculosis, in order to identify those who were infected but not yet symptomatic.²⁷³ The report by the House Committee on Education and Labor emphasized the importance of this measure, noting that developments in x-ray technology [made] it possible within a few years' time to locate, at a moderate cost, practically every case of tuberculosis in the population. . . .By these means we can stop the human and economic waste of chronic disability and premature and unnecessary deaths. . . .²⁷⁴ The bill's most immediate priority, however, was to fund the screening and treatment of war workers and their families who were not often eligible for sanatorium care because of state residence requirements.²⁷⁵

At the time of the bill, the number of deaths from tuberculosis was significant enough to merit the highest level of public health concern, and there was reason to believe it might climb even higher in the near future. Tuberculosis caused sixty-thousand deaths in the United States annually, and was the most common cause of death among people between the ages of fifteen and thirty-five. The rate of the disease was even higher in the African-American population, amounting to one third of all deaths of African-Americans between the ages

²⁷³ June 21, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Thomas of Utah, from the Committee Education and Labor, 78th Congress, 2d Session, Senate, Report No. 1027, pp. 6.

²⁷⁴ *Ibid.*, pp. 7.

²⁷⁵ June 21, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Thomas of Utah, from the Committee Education and Labor, 78th Congress, 2d Session, Senate, Report No. 1027, pp. 7.

of twenty and thirty-four.²⁷⁶ Tuberculosis imposed greater economic costs than most fatal communicable diseases, because it most often struck people in the prime of their productivity. To make matters worse, history had shown that rates of tuberculosis usually increased after wars, due to the return of soldiers who had contracted the disease abroad. In 1944, this caused even greater worries over an increased burden from tuberculosis, particularly because the disease had spread in Europe during the war.²⁷⁷ This increase already appeared in the United States at the time of the bill; according to the Metropolitan Insurance Company, tuberculosis rose by 7.8 percent among its policyholders in the first three months of 1944.²⁷⁸

The use of x-ray technology as a tuberculosis screen presented a way of addressing the most difficult aspect of the disease from a contagion standpoint: the problem of dealing with patients who were infected but not yet contagious, since the disease only becomes contagious when the patient exhibits symptoms.²⁷⁹ Surgeon General Parran argued the merits of mass x-ray screening on the basis of being able to keep those who are not yet contagious from developing symptoms and infecting others, and also on the basis of improving the recovery prospects of those being screened: The particular value of mass X-ray examinations is that two-thirds of the cases discovered are in the earliest stage when recovery is almost certain, with good care.²⁸⁰ Absent a

²⁷⁶For some sense of scale, the rate of death from tuberculosis far outpaced the rate of death from war: Between 1776 and 1940 we have had 19 years of war in the United States and during that time there were 244,450 soldiers who died from the direct effect of war, but in 4 years, between 1937 and 1940, there were 254,688 people died of tuberculosis in this country. Statement of Hon. A. L. Miller, Representative from Nebraska, June 13 and 14, Hearing before a subcommittee of the committee on interstate and foreign commerce, on A bill to establish, for the investigation and control of tuberculosis, a division in the Public Health Service, and other purposes, House of Representatives, 78th Congress, 2d Session, pp. 13. June 21, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Thomas of Utah, from the Committee Education and Labor, 78th Congress, 2d Session, Senate, Report No. 1027, pp. 6.

²⁷⁷There has been a 13-percent increase in tuberculosis deaths in England. There are 1,500,000 new cases in France and in the Low Countries there has been an enormous increase, and you cannot get any statistics out of Germany. Statement of Dr. Victor Cullen, General Superintendent of the Maryland State Tuberculosis Sanatorium. June 13 and 14, Hearing before a subcommittee of the committee on interstate and foreign commerce, on A bill to establish, for the investigation and control of tuberculosis, a division in the Public Health Service, and other purposes, House of Representatives, 78th Congress, 2d Session, pp. 24.

²⁷⁸June 13 and 14, Hearing before a subcommittee of the committee on interstate and foreign commerce, on A bill to establish, for the investigation and control of tuberculosis, a division in the Public Health Service, and other purposes, House of Representatives, 78th Congress, 2d Session, pp. 24.

²⁷⁹Ibid., pp. 10.

²⁸⁰Statement of Dr. Thomas Parran, Surgeon General, United States Public Health Service. June 13 and 14, Hearing before a subcommittee of the committee on interstate and foreign commerce, on A bill to establish, for the investigation and control of tuberculosis, a division in the Public Health Service, and other purposes, House of Representatives, 78th Congress, 2d Session, pp. 32.

mass examination program, these non-symptomatic tuberculosis victims would not present themselves for medical care until their disease was 70 percent advanced, when their prospects for recovery were much less hopeful.²⁸¹ Prior to the bill's passage, the resources were not available to screen on a large-scale. With the armed forces examination stations rejecting over 100,000 people and sending them back to state and local authorities, those facilities were completely overwhelmed by the numbers of at-risk and infected persons.²⁸² Similarly, federal resources were unable to meet the needs of those infected, with only enough funding for eight mobile x-ray units.²⁸³

The Gradual Post-War Relaxation of Federal Control

Though a snapshot of quarantine law in 1955 would not differ substantially from one of quarantine law in 1900, the comparison offers insight into the translation of strict quarantine and inspection requirements into relatively modern circumstances. In 1955, the default rule under federal quarantine policy was that all airplanes and ships entering the United States were examined by federal medical inspectors. Some ships were exempted, if their ports of origin were known to be free of infectious diseases, but even these underwent

²⁸¹Statement of Dr. Victor Cullen, General Superintendent of the Maryland State Tuberculosis Sanatorium. June 13 and 14, Hearing before a subcommittee of the committee on interstate and foreign commerce, on A bill to establish, for the investigation and control of tuberculosis, a division in the Public Health Service, and other purposes, House of Representatives, 78th Congress, 2d Session, pp. 25.

²⁸²June 21, 1944, Report [to accompany H.R. 4624] on Consolidation and Revision of Laws Relating to the Public Health Service, by Mr. Thomas of Utah, from the Committee Education and Labor, 78th Congress, 2d Session, Senate, Report No. 1027, pp. 6.

²⁸³June 13 and 14, Hearing before a subcommittee of the committee on interstate and foreign commerce, on A bill to establish, for the investigation and control of tuberculosis, a division in the Public Health Service, and other purposes, House of Representatives, 78th Congress, 2d Session, pp. 3.

examination at their ports of departure.²⁸⁴ The diseases which were deemed quarantinable at the time were similar to those in 1900: smallpox, cholera, yellow fever, typhus, and plague.²⁸⁵ After the passage of the PHS Act, x-ray examinations for tuberculosis were included in the medical inspection of immigrants and most visitors as well.²⁸⁶ In addition to these regulations, the 1946 Foreign Quarantine Regulations imposed additional restrictions for the purpose of rabies prevention on the importation of dogs, cats, and monkeys. Though the rabies vaccination requirements for cats and monkeys were eventually discontinued, these animals are still subject to inspection at points of entry, and the vaccination requirement for dogs continues today. Animals from areas known to have animal infections of various human-contagious diseases were also barred.²⁸⁷

In 1952, the Immigration and Nationality Act required that not only would every prospective immigrant be medically examined prior to entry into the United States, but that he submit to a medical examination before receiving a visa and departing for the United States. Though the 1952 Act required examinations for every person applying for immigrant visas, it made medical examinations optional (at the discretion of the consular officer) for those applying for nonimmigrant visas.²⁸⁸ In 1976, the issuance of a visa was determined not to be sufficient to guarantee entry into the United States, only guaranteeing the holder the right to reach the point of entry and be inspected at that point.²⁸⁹

Though the level of communicable disease vigilance shown in the 1955 snapshot resembles that of the turn of

²⁸⁴Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 98.

²⁸⁵This list of diseases is not to be confused with the much more extensive list of diseases which would prohibit a person from immigrating to the United States. This shorter list of more dangerous diseases applies to everyone who attempts to set foot on U.S. soil, rather than those who intend to immigrate. Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 98.

²⁸⁶21 FR 9829, December 12, 1956. Chapter 1, Subchapter C – Medical Care and Examinations, Part 34 – Medical Examination of Aliens.

²⁸⁷Williams, Ralph Chester, M.D., The United States Public Health Service, 1798-1950. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 98.

²⁸⁸USCS Sec. 1201, Title 8: Aliens and Nationality, Chapter 12: Immigration and Nationality; Immigration; Issuance of Entry Documents.

²⁸⁹Hermina Sague v. United States (1976, DC Puerto Rico) 416 F Supp 217.

the century, the next decade would lead this protection into decline. As advances in medical technology during the 1950's and 1960's (particularly the success of vaccines) succeeded in weakening communicable diseases, public concern waned and the voice of anti-regulation commerce interests became louder and more credible. Two primary factors led to a change in federal quarantine power which would fundamentally change the role of federal quarantine power in public health policy. The first of these factors was the tremendous victory over smallpox. The Centers for Disease Control (a department of the Public Health Service) combined forces with the World Health Organization in the 1960's and 1970's to end naturally-occurring smallpox worldwide.²⁹⁰ The other factor involved in weakening quarantine powers was an institutional one; because some in Congress felt that the PHS should be more accountable to the public, they changed the its leadership from the relatively autonomous Surgeon General to a political appointee, the Assistant Secretary for Health.²⁹¹ Though it is impossible to weigh the relative importance of these two factors, it is clear that both political and policy concerns played a role in the deregulatory efforts made in federal quarantine powers in the late 1960's and following decades.

A comparison of the Centers for Disease Control, Division of Quarantine's inspection and quarantine policies in 1967 and 1970 illustrates the 1967 reorganization's dramatic changes.²⁹² The Division of Quarantine itself was transferred to CDC control in 1967, and the transfer signaled a change in the way quarantine was viewed by both government and the public.²⁹³ The CDC Division of Quarantine primarily handled foreign

²⁹⁰Russell, Cristine, Centers for Disease Control: 40 Years of Demystifying Illness. The Washington Post, September 4, 1986. First Section, Page A15, The Federal Page, pp. 2.

²⁹¹Until the mid-1960s, PHS was led entirely by career commissioned officers... with no member of the civil service having ever run a bureau. The Surgeon General, although appointed by the President, had always been a career member of the Commissioned Corps. The 1968 reorganization transferred the responsibility for directing PHS from the Surgeon General to the Assistant Secretary for Health and Scientific Affairs (a political appointee position that had been created originally as an adviser to the Department Secretary). For the first time, a noncareer official became the top official in PHS... In general, beginning in this period the heads of PHS bureaus were increasingly not members of the Corps, and were frequently brought in from outside the Federal government. The Surgeon General was no longer responsible for the management of PHS but became largely an adviser and spokesperson on public health matters. Candidates for the position of Surgeon General no longer necessarily came from the ranks of the Corps but were often appointed from outside PHS and commissioned upon their appointment. John L. Parascandola, Public Health Service, pp. 487-93 in ed. George Thomas Kurian, A Historical Guide to the U.S. Government. New York: Oxford University Press, 1998.

²⁹²Division of Quarantine publication. www.cdc.gov/dq.

²⁹³Division of Quarantine publication. www.cdc.gov/dq, pp. 6. This transfer had far from neutral effects on the strength of

quarantine issues, with the FDA (made a part of the PHS during the 1967 reorganization) responsible for interstate quarantine issues.²⁹⁴ A number of measures were relaxed in the years after the transfer. In 1967, each person entering the United States for any reason was required to present for inspection documentation proving that he or she had been vaccinated against the quarantinable diseases. By the mid- to late-1970s, due to the near-eradication of smallpox, no one was required to show proof of vaccination.²⁹⁵ (Interestingly, the last natural case of smallpox was reported in Somalia in 1977, a full ten years after the U.S. significantly decreased its protections against entry of smallpox-infected travelers.²⁹⁶)

The infrastructure for inspecting and quarantining people arriving by airplane dissolved during this time as well; separate arrival and inspection areas were no longer required by the mid-1970s, and passengers moved unrestricted for health reasons into airports.²⁹⁷ Similarly, while in 1967 every boat and airplane arriving in the United States from a foreign port was inspected by a federal quarantine inspector, by the mid-1970s, no airplanes and boats were inspected unless the pilot reported an illness to the quarantine station.²⁹⁸ At the same time, overseas inspections were drastically reduced, phasing medical inspectors out of the inspection process.²⁹⁹ In the early 1970s, the federal government streamlined the multiple inspection process (involving the Public Health Service, Immigration Service, Customs Service, and Department of Agriculture) so that passengers enjoyed one stop inspection in which any one of these agencies could authorize their entry.³⁰⁰

quarantine powers. The journal entry of the Dr. Ray H. Vanderhook, Deputy Director, U.S. Quarantine Service and Medical Officer in Charge, U.S. Quarantine Station, Staten Island, New York on November 20, 1967, reads Meeting at CDC with FQ people and CDC people. Doesn't look good for future of quarantine.

²⁹⁴The authority over interstate control of communicable human diseases shifted back to the CDC's Division of Quarantine in response to the reappearance of tuberculosis in 1992. Division of Quarantine publication. www.cdc.gov/dq, pp. 14.

²⁹⁵Even as early as 1967, the policy of requiring vaccinations was relaxed so that no vaccinations were required unless travelers were from areas known to be infected with quarantinable diseases. Entry for December 4, 1967, Journal of Dr. Ray H. Vanderhook, Deputy Director U.S. Quarantine Service; Medical Officer in Charge, U.S. Quarantine Station, Staten Island, NY.

²⁹⁶Russell, Cristine, Centers for Disease Control: 40 Years of Demystifying Illness. The Washington Post, September 4, 1986. First Section, Page A15, The Federal Page, pp. 2.

²⁹⁷Division of Quarantine publication. www.cdc.gov/dq, pp. 7.

²⁹⁸Ibid., pp. 7.

²⁹⁹Ibid., pp. 9.

³⁰⁰Division of Quarantine publication. www.cdc.gov/dq, pp. 6. This process actually began earlier in New York City, with joint inspection starting on April 17, 1967 at John F. Kennedy Airport. Journal of Dr. Ray H. Vanderhook, Deputy Director

The Division of Quarantine also began to reduce its role in cargo and animal inspections, allowing Customs officers to perform these inspections as well.³⁰¹

The relaxation of communicable disease vigilance during this time included the end of medical inspection at the U.S.-Mexico border. In 1967, smallpox vaccinations were required for every person crossing the border. Besides being a protective measure, this policy led to the free administration of more than 800,000 smallpox vaccinations each year. By the late 1970s, however, the threat of smallpox no longer justified this expense.³⁰² Tuberculosis had also been a long-feared disease which often found its way into the United States via Mexico, and the quarantine policies of the 1960s required people crossing that border to show Border Crossing Cards proving that they had been screened and were free of the disease. The CDC dropped this requirement in the early 1970s,³⁰³ and by the late 1970s, there was no CDC presence at the Mexican border: [T]he border . . . was virtually open for health purposes.³⁰⁴

Many of these deregulatory measures seem simply logical and efficient. A switch to one stop inspections, rather than the burden inspection by three different agency inspectors, must have seemed like a clearly superior move. One wonders, however, whether the policymakers involved intended to phase out medical inspections altogether, or whether they expected one inspector to effectively screen for agricultural, medical, and commerce purposes. It is clear that the primary push against quarantine came from commerce interests, to whom medical inspection and quarantine represented a costly and unnecessary barrier to trade.³⁰⁵ With the great scourge of smallpox vanquished, quarantine opponents had their moment – a relatively disease-free world in which fears of post-war importation of tropical diseases had faded from the cultural memory. In this sense, the PHS quarantine officers had worked themselves out of a job. An article in the *Journal of*

U.S. Quarantine Service; Medical Officer in Charge, U.S. Quarantine Station, Staten Island, NY.

³⁰¹Division of Quarantine publication. www.cdc.gov/dq, pp. 7.

³⁰²*Ibid.*, pp. 7.

³⁰³*Ibid.*, pp. 9.

³⁰⁴Division of Quarantine publication. www.cdc.gov/dq, pp. 7.

³⁰⁵Ackerknecht, Erwin H., *Anticontagionism Between 1821 and 1867*, 22 *Bull. His. Med.* 562, 567 (1948), pp. 547.

Commerce, written in 1967, summarized this feeling well with its criticism of archaic quarantine.³⁰⁶

The CDC's own description of the deregulation accords with the criticism of pre-1967 quarantine policy as unnecessarily costly. Because of this assessment, the CDC curtailed the quarantine program and changed its focus from routine inspection to program management and problem intervention.³⁰⁷ This change in focus resulted from the conclusion that dangerous communicable diseases had been largely eradicated, and that the only significant danger would come from isolated hot spots. In 1979, the Division of Quarantine further relaxed control of foreign disease immigration by discontinuing the routine spraying of aircraft due to the concerns about the health effects of pesticides and the lack of evidence that aircraft spraying played a significant role in disease control,³⁰⁸. The CDC also discontinued the mosquito surveys it had conducted near airports and sea ports (in order to monitor yellow fever and malaria threats), relying instead on local authorities to perform this function.³⁰⁹ In order to identify and protect against hot spot outbreaks, the CDC developed a surveillance program to monitor emerging epidemics in other countries. The Division of Global Migration and Quarantine, which administered this surveillance program, was authorized under the PHS Act to detain, medically examine, or conditionally release individuals and wildlife suspected of carrying a communicable disease.³¹⁰

Soon after the decline in medical inspections of ships abroad and upon entry into the United States, serious outbreaks of gastrointestinal diseases began to occur on cruise ships. When the problem became significant, in the early 1970s, the CDC's Division of Quarantine initiated sanitation surveys and an inspection program, leading to the beginning of the Vessel Sanitation Program in 1975.³¹¹ Though the Vessel Sanitation Program

³⁰⁶Journal of Dr. Ray H. Vanderhook, Deputy Director U.S. Quarantine Service; Medical Officer in Charge, U.S. Quarantine Station, Staten Island, NY. December 7, 1967.

³⁰⁷History of Quarantine, from CDC web site: <http://www.cdc.gov/ncidod/dq/history.htm>.

³⁰⁸Division of Quarantine publication. www.cdc.gov/dq, pp. 7.

³⁰⁹Division of Quarantine publication. www.cdc.gov/dq, pp. 7.

³¹⁰History of Quarantine, from CDC web site: <http://www.cdc.gov/ncidod/dq/history.htm>.

³¹¹Division of Quarantine publication. www.cdc.gov/dq, pp. 14, and Capitol Hill Hearing Testimony, September 28, 1994 by Richard J. Jackson, Director of the National Center for Environmental Health, Centers for Disease Control and Prevention, pp. 2.

was authorized under Section 361 of the PHS Act, cooperation with the program is voluntary and funded by fees charged to the ships.³¹² Even for those ships that did participate in the program, the level of enforcement is slight. If a ship receives a failing score on its inspection exam, it is merely reinspected within thirty to sixty days. If the ship shows an imminent health hazard, however, the inspector can recommend that the ship not sail.³¹³ Though this recommendation has been made only rarely (five times since 1987), the CDC has enforced its recommendation against disobedient cruise lines, as in the following situation in which a ship disregarded the recommendation against sailing:

This ship was boarded upon its return to a U.S. port, and with the assistance of the U.S. Coast Guard, CDC was prepared to detain the ship to port. The ship's management was able to implement immediate corrective actions which removed the imminent health risk. At any time, the Director of CDC may determine that failure to implement corrective actions presents a threat of introduction of communicable diseases into the United States and may take additional action to include detention of the ship in port.³¹⁴

This detention power, though reminiscent of earlier quarantines for on-board sanitation problems, is much more limited in scope and in actual enforcement. The fact of voluntary cooperation, despite the insurance incentives for cruise ships to cooperate with the program, separates this program entirely from a system in which federal officers inspected every vessel destined for the United States not only for gastrointestinal disease-related sanitation, but for the communicable health of its passengers and crew as well.

Though the practical applications of Section 361 weakened during the 1960s and 1970s³¹⁵, courts still deferred to agencies in the exercise of those powers. *State of Louisiana et al. v. David Mathews, Secretary of Health, Education, and Welfare* involved a challenge to a regulation by the Food and Drug Administration, promulgated under the authority of Section 361 of the PHS Act, which banned the sale and distribution of small turtles.³¹⁶ The plaintiff,

³¹²Capitol Hill Hearing Testimony, September 28, 1994 by Richard J. Jackson, Director of the National Center for Environmental Health, Centers for Disease Control and Prevention, pp. 2-3.

³¹³Ibid., pp. 3.

³¹⁵This regulation formalizes the series of deregulating and modernizing moves during the 1970s. 50 FR 1516, January 11, 1985, amending the regulations in 42 CFR Part 71. From Department of Health and Human Services, Centers for Disease Control, final rule with discussion of comments, 50 FR 1516, January 11, 1985, amending the regulations in 42 CFR Part 71.

³¹⁶*State of Louisiana et al. v. David Mathews, Secretary of Health, Education & Welfare, et al.* Civ. A. No. 75-1941.

the State of Louisiana (on behalf of the National Turtle Farmers and Shippers Association) sought to enjoin the ban on the grounds that it was arbitrary and capricious and exceeded the FDA's authority under the Act.³¹⁷ The plaintiffs contended that the regulation exceeded the FDA's authority because it banned both infected and uninfected small turtles, whereas (plaintiffs argued) the FDA was authorized to prohibit only the interstate shipment of turtles which may spread communicable disease,³¹⁸. The court concluded, however, that the ban on turtles could not be so limited because it could not be shown that a total ban was unnecessary to prevent the spread of disease.³¹⁹ The plaintiffs also argued that the regulation's attempt to control intrastate commerce exceeded the PHS Act's scope. The court rejected this claim as well, deferring to the FDA's judgment that the ban on the intrastate sale of turtles was necessary to prevent the interstate spread of the diseases Salmonella and Arizona.³²⁰ In upholding the regulation, the court referred to the broad, flexible powers granted to federal health authorities who must use their judgment in attempting to protect the public against the spread of communicable disease,³²¹.

Authority under Section 361 also left to the CDC the discretion to define a list of diseases that would serve as grounds for quarantine and detention, and another list of diseases which would be grounds for rejecting an applicant for immigration. During the period of the 1970s, this too was streamlined. Prior to 1971,

United States District Court for the Eastern District of Louisiana. 427 F. Supp. 174. February 4, 1977, pp. 175.

³¹⁷Plaintiffs argued against the regulation on other grounds as well, but the arguments addressed here include only those relevant to the limits to the FDA's power under the PHS Act. *State of Louisiana et al. v. David Mathews, Secretary of Health, Education & Welfare, et al.* Civ. A. No. 75-1941. United States District Court for the Eastern District of Louisiana. 427 F. Supp. 174. February 4, 1977, pp. 175.

³¹⁸Plaintiffs based this argument on previous regulations banning only infected psittacine birds and infected lather brushes. *State of Louisiana et al. v. David Mathews, Secretary of Health, Education & Welfare, et al.* Civ. A. No. 75-1941. United States District Court for the Eastern District of Louisiana. 427 F. Supp. 174. February 4, 1977, pp. 175-177.

³¹⁹Studies show that a large percentage of turtles certified as organism-free are eventually recontaminated. One survey showed a 54% recontamination rate; other figures suggest incidence of recontamination which is higher. 40 Fed. Reg. At 22543. Under these circumstances, it is clear that the law does not require the adoption of an onerous testing scheme under which every turtle, or lot of turtles, is to be tested every week so as to find that percent which becomes reinfected. Such a testing alternative is patently unreasonable, and a total ban is permissible as necessary to prevent the spread of communicable disease. *State of Louisiana et al. v. David Mathews, Secretary of Health, Education & Welfare, et al.* Civ. A. No. 75-1941. United States District Court for the Eastern District of Louisiana. 427 F. Supp. 174. February 4, 1977, pp. 176-177.

³²⁰*State of Louisiana et al. v. David Mathews, Secretary of Health, Education & Welfare, et al.* Civ. A. No. 75-1941. United States District Court for the Eastern District of Louisiana. 427 F. Supp. 174. February 4, 1977, pp. 176.

³²¹*State of Louisiana et al. v. David Mathews, Secretary of Health, Education & Welfare, et al.* Civ. A. No. 75-1941. United States District Court for the Eastern District of Louisiana. 427 F. Supp. 174. February 4, 1977, pp. 176.

the list of dangerous contagious diseases which disqualified potential immigrants included several parasitic and fungal diseases which could be fatal if untreated. However, because these diseases were not directly transmittable from person to person, the CDC removed them from the list.³²² The list was last amended in 1987 (adding HIV), to include the following eight diseases: chancroid, gonorrhea, granuloma inguinale, HIV, infectious leprosy, lymphogranuloma venereum, infectious syphilis, and active tuberculosis. It is worth noting that six of these eight diseases are generally sexually transmitted.³²³ Although the removal of the treatable, difficult-to-transmit, parasitic and fungal diseases seems logical, some health policy experts have questioned why Hepatitis B and malaria, which can be transmitted in some of the same ways as HIV and syphilis, are not listed.³²⁴

Of course, these are not the only diseases which will prevent a person from moving freely into the United States. The list of quarantinable diseases, promulgated by Executive Order, defines those diseases for which federal medical officers have the power to detain, isolate, or conditionally release people. This list grew to include as many as twenty-six diseases, but was reduced after 1982, removing: anthrax, dengue fever, leprosy, ringworm, and several sexually transmitted diseases. Since that time, the list has included: suspected smallpox, cholera, yellow fever, plague, diphtheria, infectious tuberculosis, and viral hemorrhagic fevers (i.e. Ebola virus and others).³²⁵

Regulations passed in 1985 formalized the regulatory relaxation that had evolved since 1967. The 1985 regulations lifted the previous requirement that a vessel departing for a U.S. port must obtain and deliver

³²²Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 745-746.

³²³*Ibid.*, pp. 746 and 42 CFR 34.2. Revised as of February 25, 2002.

³²⁴Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 747.

³²⁵Division of Quarantine publication. www.cdc.gov/dq, pp. 1 and 42 USCS 264 (aka §361 of the PHS Act). This is the 2001 version.

a bill of health.³²⁶ They also formally discontinued a measure which had, in the previous half century, helped control plague – rodent inspection of vessels.³²⁷ Most significantly, the regulations also formalized the practice of controlled free pratique which had evolved over the previous twenty years. This practice allowed ship captains to radio ahead to the quarantine station attesting to the health of the ship, thus exempting the ship from medical inspection.³²⁸ With this freedom, however, came responsibility. 42 CFR 71.21(a) requires that:

the master of a ship destined for a U.S. port shall report immediately to the quarantine station at or nearest the port at which the ship will arrive, the occurrence, on board, of any death or any ill person among passengers or crew (including those who have disembarked or have been removed) during the 15-day period preceding the date of expected arrival or during the period since departure from a U.S. port (whichever period of time is shorter).³²⁹

Subsection (b) made the same requirements of aircraft commanders.³³⁰ Granting of a controlled free pratique did not prevent inspectors from boarding a ship or plane in order to confirm that conditions were as reported. However, the switch to controlled free pratique drastically diminished the number of medical inspections performed on arriving vessels and airplanes.³³¹

The decreased level of daily vigilance in quarantine and inspection was matched by a decrease in resources. In 1985, six years after the CDC formally ceased its mosquito surveys and its practice of spraying airplanes with pesticides, a variety of mosquito previously unknown in the United States was found in Texas. The *Aedes albopictus* (Asian tiger) mosquito, native to East Asia, is a vector of dengue fever and encephalitis. After the CDC's study of the infestation revealed that the mosquitoes had been imported in used tire casings, it required importers of used tire casings from Asia to disinfect their imports prior to shipment. Nonetheless,

³²⁶42 CFR 71.11. From 50 FR 1519, Jan. 11, 1985. Current through Feb. 25, 2002.

³²⁷Division of Quarantine publication. www.cdc.gov/dq, pp. 8.

³²⁸42 CFR 71.1. From 50 FR 1519, Jan. 11, 1985. Current through Feb 25, 2002.

³³⁰Ibid.

³³¹42 CFR 71.31: Foreign Quarantine – Health Measures at U.S. Ports: Communicable Diseases. From 50 FR 1519, Jan. 11, 1985. Authority under 42 USC 264.

the CDC reported that it was unable to fully monitor and enforce this requirement because of resource problems.³³² This reduction in resources, while at least arguably merited, is striking. According to the CDC, In 1967, at the time of the transfer to the CDC, the Division [of Quarantine] operated 55 quarantine stations and 43 medical examination posts abroad with a staff of over 600. Today, the Division of Quarantine operates 7 quarantine stations and two overseas posts with a [total] staff of 70 employees.³³³

Issues in Current Quarantine Law

The current version of Section 361 of the PHS Act does not differ measurably from the its predecessors.³³⁴

³³²Division of Quarantine publication. www.cdc.gov/dq, pp. 8. These resource problems also seemed to stifle a moment in which a world health emergency could have spurred a renewed interest in a strong communicable disease control system; the outbreak of Ebola in Zaire occurred at the same point in 1995 when the U.S. Congress was at its height of budget control. Rochell, Anne, CDC at 50: Crusades and Controversies. The Atlanta Journal and Constitution, January 21, 1996, page 02H, pp. 2.

³³³Division of Quarantine publication. www.cdc.gov/dq, pp. 11.

³³⁴42 U.S.C. 264. Regulations to control communicable diseases:

(a) Promulgation and enforcement by Surgeon General. The Surgeon General, with the approval of the Administrator [Secretary], is authorized to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession. For purposes of carrying out and enforcing such regulations, the Surgeon General may provide for such inspection, fumigation, disinfection, sanitation, pest extermination, destruction of animals or articles found to be so infected or contaminated as to be sources of dangerous infection to human beings, and other measures, as in his judgment may be necessary.

(b) Apprehension, detention, or conditional release of individuals. Regulations prescribed under this section shall not provide for the apprehension, detention, or conditional release of individuals except for purpose of preventing the introduction, transmission, or spread of such communicable diseases as may be specified from time to time in Executive orders of the President upon the recommendation of the National Advisory Health Council and the Surgeon General.

(c) Application of regulations to persons entering from foreign countries. Except as provided in subsection (d), regulations prescribed under this section, insofar as they provide for the apprehension, detention, examination, or conditional release of individuals, shall be applicable only to individuals coming into a State or possession from a foreign country or a possession.

(d) Apprehension and examination of persons reasonably believed to be infected. On recommendation of the National Advisory Health Council, regulations prescribed under this section may provide for the apprehension and examination of any individual reasonably believed to be infected with a communicable disease in a communicable state and (1) to be moving or about to move

However, the implementation of the Act differs substantially from the days when federal agents stood on the front line against the international and interstate travel of disease. The changes in implementation have involved both a diminishing federal public health presence and an increased level of responsibility delegated to the states. One of the primary ways in which the Division of Quarantine was able to downsize was by outsourcing its medical examination functions to other agencies and to state authorities. The primary agency to which this responsibility has been transferred is the Immigration and Naturalization Service, which designates and reviews medical inspections of immigrants conducted by civil surgeons.³³⁵ The Division of Quarantine provides technical instructions and advice to those physicians, as well as to inspectors of the Customs Service, Department of Agriculture, and the Fish and Wildlife Service. The instructions to these agencies provide a summary of practical implementation of the current regulations promulgated under Section 361 of the PHS Act. (See Appendix A.) If the inspectors from these agencies detect a situation of public health interest, they notify the CDC's Division of Quarantine so that it can provide assistance.³³⁶ In addition to sharing its inspection authority with these agencies, as of August 2000, the CDC again shares its regulatory authority over communicable diseases with the FDA. While the CDC retains authority for the interstate quarantine of people, the FDA exercises authority over animals and objects.³³⁷

The use of state resources for quarantine and medical inspection seems to signify a return to the local roots of quarantine law. Many aspects of federal-state cooperation seem entirely necessary. For instance, since 1980, the CDC has provided states with information regarding immigrant medical records, and now has a notification system through which it alerts state health departments to the arrival of immigrants with

from a State to another State; or (2) to be a probable source of infection to individuals who, while infected with such disease in a communicable stage, will be moving from a State to another State. Such regulations may provide that if upon examination any such individual is found to be infected, he may be detained for such time and in such manner as may be reasonably necessary. For purposes of this subsection, the term State includes, in addition to the several States, only the District of Columbia. 42 USCS Sec. 264.

³³⁵Medical Examinations from Division of Global Migration and Quarantine, National Center for Infectious Diseases, Centers for Disease Control web site: www.cdc.gov.

³³⁶Field Operations from Division of Global Migration and Quarantine, National Center for Infectious Diseases, Centers for Disease Control web site: www.cdc.gov.

³³⁷Federal Register, August 16, 2000: Final Rule allocating communicable disease control power between FDA and CDC.

serious diseases like tuberculosis or HIV.³³⁸ As federal quarantine enforcement has minimized over the post-war decades, all states have retained authority to quarantine individuals for communicable diseases, allowing them to respond to such warnings with their own resources.³³⁹ The Federal Refugee Act mandates that states provide medical screening of all refugees arriving in the United States in order to follow-up with those already known to carry infectious diseases and to screen recent arrivals for diseases which may have developed after their pre-screening at their ports of departure.³⁴⁰ Unfortunately, however, states are often unable to perform the tasks of monitoring these refugees, frequently failing to perform re-screenings within the required thirty-day period.³⁴¹ Further, the significant differences in screening procedures between states make it difficult to monitor the medical records of immigrants who move from state to state (a serious problem in the case of migrant workers) and ensure the proper level of medical supervision.³⁴²

In addition to the problems with refugee re-screening, states seem to have trouble monitoring and controlling disease generally. A survey of all state communicable disease control systems reported in the *Columbia Law Review* in 1999 concluded that state-level public health infrastructure was in decline.³⁴³ This conclusion was supported by a 1988 report by the Institute of Medicine (IOM), which determined the state-based public health system to be inadequate to protect the public health. According to the IOM, the United States had let down [its] public health guard as a nation, and the health of the public is unnecessarily threatened as a result.³⁴⁴ Though some might quarrel with this conclusion, one cannot argue that the public health

³³⁸Division of Quarantine publication. www.cdc.gov/dq, pp. 11-12. The Refugee Act of 1980 created waivers of excludability which allowed for the immigration of some aliens who were infected with HIV or tuberculosis: An alien with an excludable medical condition may apply to the Attorney General for a waiver if they meet certain criteria. For a communicable disease such as tuberculosis or human immunodeficiency virus (HIV) infection they must have certain familial relationship with a legal resident of the United States. Division of Quarantine publication. www.cdc.gov/dq, pp. 11

³³⁹Grad, Frank P., Communicable Disease and Mental Health: Restrictions of the Person. *American Journal of Law & Medicine*, Fall-Winter 1986, v. 12, n. 3 & 4, pp. 381-403, pp. 387.

³⁴⁰Kennedy, James, MD MBA; Deborah J. Seymour, PsyD; Barbara J. Hummel, RN. A Comprehensive Refugee Health Screening Program. U.S. Department of Health and Human Services, Public Health Rep 1999; 114: 469-477, pp. 3.

³⁴¹*Ibid.*, pp. 3.

³⁴²*Ibid.*, pp. 2.

³⁴³Gostin, Lawrence O., Scott Burris, and Zita Lazzarini, The Law and the Public's Health: A Study of Infectious Disease Law in the United States. *Columbia Law Review*, January 1999, v. 99, i. 1, pp. 59-128, pp. 66.

³⁴⁴Gostin, Lawrence O., Scott Burris, and Zita Lazzarini, The Law and the Public's Health: A Study of Infectious Disease Law in the United States. *Columbia Law Review*, January 1999, v. 99, i. 1, pp. 59-128, pp. 95-97.

infrastructure has been significantly strengthened since the time the IOM made its report. Funding for public health purposes at both the federal and state level has either decreased or remained constant over this period, particularly in regard to communicable disease monitoring. Since states have the responsibility to monitor and report outbreaks of communicable disease to the CDC, their ability to perform that function is crucial to the success of national communicable disease control. Nonetheless, state and local funding for communicable disease monitoring decreased during the 1990s, with less than \$75 million allotted to this function in an average year.³⁴⁵

The requirements for medical inspections also raise questions about how effective that system can be in achieving its goals even if its proscriptions are thoroughly enforced.³⁴⁶ Current law still only requires medical examinations for those foreign visitors applying for immigrant status. Those seeking only temporary or other alien status *may* be examined at the discretion of a consular or immigration officer if the officer has reason to believe that the applicant carries a communicable disease.³⁴⁷

Though an immigrant who stays in the United States permanently will certainly have more time and more opportunities to spread disease, an alien visitor who carries an infectious disease into the country for only a matter of weeks still presents a serious public health threat.³⁴⁸ Though the consular officers who issue even temporary visas are supposed to report visitors who show signs of illness to a medical examiner, most of the diseases for which the law requires exclusion cannot be detected without a full medical examination which is well beyond the expertise of a consular officer.³⁴⁹

³⁴⁵Ibid., pp. 96.

³⁴⁶

³⁴⁷Medical Examinations from Division of Global Migration and Quarantine, National Center for Infectious Diseases, Centers for Disease Control web site: www.cdc.gov.

³⁴⁸Bennett, Victoria L., Medical Examination of Aliens: A Policy with Ailments of its Own? University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 739-753, pp. 748.

³⁴⁹Ibid., pp. 748.

Concerns for the Future

The history of federal use of the quarantine and inspection power shows how that power was shaped by the medical and epidemic state of the world. In this era of antibiotics, vaccines, and rapid international travel, it may seem both unnecessary and impracticable to implement medical inspection and quarantine with the scrutiny used a century ago. However, we face conditions today – outbreaks of communicable diseases worldwide and bioterrorism – which present the possibility that widespread epidemics may recur. These problems are not currently plaguing the United States, but the experience of AIDS and the warning knell of last fall’s anthrax attacks may present a template for unforeseen future troubles. The difficulty of anticipating future needs is that, in the present, the enemy which one is battling is imaginary, and thus difficult to summon political support against. Nonetheless, as one commentator at the Center for Civilian Biodefense Strategies at Johns Hopkins University said, in order to prepare for success, you don’t skate to where the puck is; you skate to where it’s going to be.³⁵⁰

Scott Burris argued in the *Houston Law Review* that the specter of communicable disease is not coming back, but that it never actually left us: Only thirty years separate the effective control of polio in the mid-fifties and the emergence of HIV in the United States.³⁵¹ Currently, infectious diseases rank as the third cause of death in the United States, and are responsible for annual costs of approximately \$120 billion as well as 25%

³⁵⁰O’Toole, Tara, MD, MPH, and Thomas V. Inglesby, MD, Epidemic Response Scenario: Decision Making in a Time of Plague. *Public Health Rep (Suppl 2)* 2001; 116: 92-103. March 2001, April 2001.

³⁵¹Burris, Scott, Law as a Structural Factor in the Spread of Communicable Disease. *Houston Law Review*, Dec. 30, 1999, v. 36, i. 5, p. 1755-1786, pp. 1757.

of all visits to doctors.³⁵² Today, AIDS is not the only frightening communicable disease which threatens us; deaths from communicable diseases worldwide grew by 58% between 1980 and 1992, and the last decade has seen outbreaks of deadly diseases like tuberculosis, Hanta virus, Ebola, Legionnaire's Disease, encephalitis, and salmonella.³⁵³ Further, global disease conditions continue to foster even more diseases; according to the World Health Organization, over thirty new communicable diseases were identified between 1980 and 2000.³⁵⁴ In addition to the new diseases, some which had previously been abated (yellow fever, cholera, and dengue) became more prevalent.³⁵⁵ The ability of insects to introduce deadly diseases into the United States was proven in the summer of 1999, with the small outbreak of West Nile virus in New York.³⁵⁶ The continuing increase of globalization in travel and trade only speeds the processes by which new diseases can reach our shores from areas once too remote to touch the rest of the world.³⁵⁷

Airplane travel is, of course, the primary means by which diseases travel long distances. The speed and availability of travel, however, is not the only unique communicable disease threat airplanes present. Because of the lack of ventilation standards for airplanes, they can become flying petri dishes for disease incubation.³⁵⁸

This unhealthy aspect of flight not only endangers the other passengers on planes that carry an infectious

³⁵²Gostin, Lawrence O., Scott Burris, and Zita Lazzarini, *The Law and the Public's Health: A Study of Infectious Disease Law in the United States*. Columbia Law Review, January 1999, v. 99, i. 1, pp. 59-128, pp. 97 and Bryan, Ralph T. et al., CDC, U.S. Dep't of Health and Human Services, *Addressing Emerging Infectious Disease Threats: A Prevention Strategy for the United States*, 43 *Morbidity & Mortality Wkly. Rep.: Recommendations and Reps.*, Apr. 15, 1994, at 9.

³⁵³Burris, Scott, *Law as a Structural Factor in the Spread of Communicable Disease*. *Houston Law Review*, Dec. 30, 1999, v. 36, i. 5, p. 1755-1786, pp. 1757.

³⁵⁴Sharkey, Joe, *The Nation*; *And You thought Germs in the Subway Were Bad*. *The New York Times*, March 11, 2001, Section 4, Page 3, Column 1, pp. 2.

³⁵⁵Gostin, Lawrence O., Scott Burris, and Zita Lazzarini, *The Law and the Public's Health: A Study of Infectious Disease Law in the United States*. Columbia Law Review, January 1999, v. 99, i. 1, pp. 59-128, pp. 97.

³⁵⁶Burris, Scott, *Law as a Structural Factor in the Spread of Communicable Disease*. *Houston Law Review*, Dec. 30, 1999, v. 36, i. 5, p. 1755-1786, pp. 1763.

³⁵⁷Burris, Scott, *Law as a Structural Factor in the Spread of Communicable Disease*. *Houston Law Review*, Dec. 30, 1999, v. 36, i. 5, p. 1755-1786, pp. 1762-1763.

³⁵⁸Sharkey, Joe, *The Nation*; *And You thought Germs in the Subway Were Bad*. *The New York Times*, March 11, 2001, Section 4, Page 3, Column 1, pp. 1. Time spent in planes on the ground is particularly dangerous, because the auxiliary ventilation systems used during ground time are less effective. Further, there really are no minimum ventilation standards mandated by law to flush out contaminants, according to Judith Murawski, an industrial hygienist with the Association of Flight Attendants. Sharkey, Joe, *The Nation*; *And You thought Germs in the Subway Were Bad*. *The New York Times*, March 11, 2001, Section 4, Page 3, Column 1, pp. 2-3.

passenger, but also can multiply the threat presented by a single infectious passenger to the destination country. Some recent near-disasters illustrate the potential consequences of airborne disease. For example, eleven passengers arriving from India were identified by New York City health officials as carrying bubonic plague into the United States in 1994. Even more recently, in spring of 2000, four passengers returning to the United States from Saudi Arabia after the annual hajj (to which 15,000 U.S. residents traveled) were diagnosed with extremely contagious and potentially deadly meningococcal diseases.³⁵⁹

The possibility of dangerous communicable diseases being introduced into the United States by airplane is made even more serious by the increasing rate of drug-resistance in some of these diseases. Drug resistant strains of disease evolve due to incomplete treatment with antibiotics, and from general low-dose exposure to antibiotics over time.³⁶⁰ Physicians have identified multi-drug resistant strains (i.e. varieties of disease that do not respond to the usual arsenal of antibiotics) of both tuberculosis and streptococcus.³⁶¹ The emergence of multi-drug-resistant tuberculosis (MDR-TB) has been particularly striking; seventeen states had reported cases of MDR-TB by 1994. Because the majority of tuberculosis infections are borne by immigrants from countries with much higher rates of tuberculosis (primarily Mexico and Southeast Asian countries³⁶²),

³⁵⁹Sharkey, Joe, *The Nation*; And You thought Germs in the Subway Were Bad. *The New York Times*, March 11, 2001, Section 4, Page 3, Column 1, pp. 2.

³⁶⁰The volume of antibiotic use in the United States is highly controversial, particularly with regard to antibiotics fed to cattle and other animals used for meat. Roughly half of the antibiotics in the United States are consumed by animals, and overuse of these antibiotics can – and have, in at least one case – resulted in resistant strains of foodborne pathogens. Burris, Scott, Law as a Structural Factor in the Spread of Communicable Disease. *Houston Law Review*, Dec. 30, 1999, v. 36, i. 5, p. 1755-1786, pp. 1764.

³⁶¹Burris, Scott, Law as a Structural Factor in the Spread of Communicable Disease. *Houston Law Review*, Dec. 30, 1999, v. 36, i. 5, p. 1755-1786, pp. 1761.

³⁶²Health officials say the rise of TB . . . is largely a consequence of the migration of people from parts of the world where the disease is common. It is thought that two-thirds of the cases of TB brought into the United States originated in just three countries: Mexico, the Philippines, and Vietnam. Smith, Leef, TB Still on Rise in N. Va. *The Washington Post*, Monday, March 18, 2002, A1. In the Philippines, tuberculosis has become a banal fact of life, with estimates that over forty percent of the population is infected with the disease, and that roughly one third of those infected have developed drug-resistant strains of the disease. NPR report, 4/25/2002.

immigration-rich areas of the United States tend to have higher rates of the disease than others.³⁶³ The drug-resistant form of tuberculosis is far more deadly than its drug-sensitive predecessor. Only 60% of patients diagnosed with MDR-TB are eventually cured, and the disease is fatal to 80% of HIV-infected patients who contract it.³⁶⁴

Drug-resistant strains of communicable diseases like tuberculosis present new and knotty legal and policy problems. The factors that contributed to the emergence of MDR-TB reveal the ways in which it raises issues of involuntary detention for even those who are not yet infectious. In 1987, federal health officials were confident that tuberculosis would soon be eliminated, due to the steady thirty-year decline of the disease and success in using multiple drug therapy. However, by the end of the 1980s, it was clear that tuberculosis was again on the rise, increasing by 20% between 1985 and 1992.³⁶⁵ Because tuberculosis exists in both symptomatic and non-symptomatic states and requires a long regimen of antibiotics to be fully cured, the greatest risk of MDR-TB comes from patients who stop taking their antibiotics after their symptoms have abated but before the regimen is complete.³⁶⁶ Unlike the days when tuberculosis patients were kept in specialized sanatoria, supervising patients today on an outpatient basis and forcing them to take medication is nearly impossible.³⁶⁷ Once a patient does develop MDR-TB, not only is his risk of death elevated, but the costs of his treatment skyrocket. According to the World Health Organization, treatment of MDR-TB is one hundred times as costly as treating drug-sensitive forms of tuberculosis and requires intravenous drugs, chemotherapy, and sometimes surgery.³⁶⁸

³⁶³ . . . tuberculosis continues to rise in Northern Virginia, where state health officials say immigration is fueling the spread. In 2001, there were 10 new reports of multi-drug resistant TB in Virginia, up from seven cases in 2000 and four in 1999. Smith, Leef, TB Still on Rise in N. Va. *The Washington Post*, Monday, March 18, 2002, A1.

³⁶⁴Min, Kollin K. The White Plague Returns: Law and the New Tuberculosis. *Washington Law Review*, October 1994, v. 68, n. 4, pp. 1121-1142, pp. 1129.

³⁶⁵Min, Kollin K. The White Plague Returns: Law and the New Tuberculosis. *Washington Law Review*, October 1994, v. 68, n. 4, pp. 1121-1142, pp. 1127.

³⁶⁶Smith, Leef, TB Still on Rise in N. Va. *The Washington Post*, Monday, March 18, 2002, A1. Antibiotics are generally required for six to nine months.

³⁶⁷Min, Kollin K. The White Plague Returns: Law and the New Tuberculosis. *Washington Law Review*, October 1994, v. 68, n. 4, pp. 1121-1142, pp. 1130.

³⁶⁸Smith, Leef, TB Still on Rise in N. Va. *The Washington Post*, Monday, March 18, 2002, A1.

The need to ensure that tuberculosis patients take their antibiotics has led some public health theorists to consider detaining those patients who are at risk of transmitting the disease. Because those patients in unsymptomatic (and, therefore, not contagious) phases of the disease are less likely to take their medication and may subsequently develop MDR-TB, health officers would have to be able to detain even those tuberculosis patients who are not presently contagious.³⁶⁹ States do not currently detain unsymptomatic patients, partially because of the questionable constitutionality of the proposal.³⁷⁰ Substantive due process protections against unjustified detention may require proving that an unsymptomatic patient is likely to become contagious soon, or that she engages in behaviors that make her more likely to develop MDR-TB (i.e. failure to take medication consistently).³⁷¹ The power to compel tuberculosis patients to take antibiotics would likely survive a constitutional challenge, in much the same way that state laws requiring mandatory vaccinations have been upheld.³⁷²

Even if this problem were solved, however, the difficulties presented by undiagnosed persons infected with tuberculosis carrying the disease into the country would persist. Because only those applying for immigrant or refugee status are tested for tuberculosis, all other visitors to the United States enter without being tested for the disease. Though tuberculosis is not usually transmitted in one-time encounters, instead passing usually to those who spend significant time with the infected person, it spreads much more easily in facilities with poor ventilation.³⁷³ Given the earlier discussion of airplanes as excellent disease hosts due to bad ventilation, tuberculosis seems quite likely to be transmitted in that environment. Nevertheless, the CDC appears to have rejected the notion of more widespread testing of foreign travelers for tuberculosis. Ken

³⁶⁹Min, Kollin K. The White Plague Returns: Law and the New Tuberculosis. *Washington Law Review*, October 1994, v. 68, n. 4, pp. 1121-1142, pp. 1121.

³⁷⁰Ibid., pp. 1123.

³⁷¹Ibid., pp. 1121.

³⁷²Ibid., pp. 1131 and *Jacobson v. Massachusetts*, 197 U.S. 11 (1905).

³⁷³Min, Kollin K. The White Plague Returns: Law and the New Tuberculosis. *Washington Law Review*, October 1994, v. 68, n. 4, pp. 1121-1142, pp. 1124.

Castro, the Director of Tuberculosis Elimination at the CDC, has maligned the idea: Imagine if. . . you needed a chest X-ray to go to London or France.³⁷⁴ Instead, Castro reiterated the CDC's recent approach to all communicable diseases – to try to stem them at their source: The more important way to solve the problem is to reduce the rate in countries that are highly impacted.³⁷⁵

Though present-day public health policymakers do not embrace the quarantine inspection policies of the past, mainstream authorities have begun to cast the communicable disease threat in terms of national security. Even before the attack of September 11, 2001 and the anthrax assault which followed, the National Intelligence Council (a division of the Central Intelligence Agency) reported to Congress that new and re-emerging infectious diseases will pose a rising – and in the worst case, catastrophic – global health threat that will complicate U.S. and global security over the next twenty years.³⁷⁶ David F. Gordon, who testified before the House panel, argued that the greatest domestic threat came from diseases carried by people traveling by airplane and from objects shipped from abroad. Further, argued Gordon, national security was threatened even by diseases that did not reach our shores, because of the danger to U.S. citizens traveling abroad and to armed forces stationed in other countries.³⁷⁷

Because even diseases which never reach U.S. shores threaten our security, and because of the impossibility of keeping prevalent diseases completely outside of the country, the current dominant approach to defense against the communicable disease threat is not to barricade the borders against disease. Rather, the strategy proposed by the Surgeon General and pursued by the CDC is to detect diseases early in their points of origin and stop them before they gain momentum.³⁷⁸ In 1999, Surgeon General Satcher articulated this view:

³⁷⁴Smith, Leef, TB Still on Rise in N. Va. The Washington Post, Monday, March 18, 2002, A1.

³⁷⁵Ibid.

³⁷⁶cnn.com, Infectious diseases threaten U.S., world security: House panel hears dire warning from health experts. June 29, 2000.

³⁷⁷cnn.com, Infectious diseases threaten U.S., world security: House panel hears dire warning from health experts. June 29, 2000.

³⁷⁸www.cnn.com: June 29, 2000 House panel hears dire warning from health experts.

The health of the American people cannot be fully protected unless efforts are focused on maintaining a system of worldwide health surveillance. It is startling to think that in under thirty-six hours, . . . an individual, a disease, or a product can travel from any one point on the globe to another, and thereby pose a serious threat to the health of the entire world.³⁷⁹

Though this preventative approach dominates current thinking about communicable diseases, renewed focus on the possibility of bioterrorism has recently led health officials to reconsider their abilities to implement wide-scale quarantines. A bioterrorist attack involving smallpox, one of the most often-cited bioterrorism possibilities, could require swift quarantines of entire towns and cities. Though practical responsibility for communicable diseases inside the United States (rather than at its borders) has been shifting to the states over the last three decades, even large states like Texas have had no experience in implementing this sort of large area quarantine.³⁸⁰ Doubtless, state authorities would receive assistance from federal officers and military resources in the case of a widespread smallpox attack, but as yet there is no clear set of procedures through which federal, state, and local health authorities would interact in an emergency situation.

The CDC recognizes this problem and has tried to suggest a template for state response to a smallpox emergency.³⁸¹ The CDC's working document outlining steps states should take to prepare for a bioterrorist attack identifies the problems inherent in having a large-scale outbreak governed by different state public health laws and authorities:

Limited experience with the application and success of various quarantine measures precludes inclusion of standardized guidelines for the implementation of such measures during a bioterrorism event at this time. However, what has been learned during these [simulated bioterrorism events] is that state quarantine laws are in most cases dated and varied. Each state must undertake a review of their own authorities and revise and update their laws to assure sufficient legal powers to carry out an effective response.³⁸²

³⁸⁰Jacobson, Sherry, On guard in case of epidemic: States asked to beef up quarantine powers. The Dallas Morning News, November 19, 2001, Page 1C, pp. 1.

³⁸¹For smallpox, a single case of suspected or confirmed infection warrants immediate public health action including appropriate isolation of the known or presumed infected individual, and initiation of active epidemiologic investigation, contact tracing, vaccination, and enhanced surveillance. Centers for Disease Control, Interim Smallpox Response Plan and Guidelines, Guide C: Isolation and Quarantine Guidelines. January 23, 2002. Pp. 17.

Though Section 361 authorizes the federal government to intervene in a state's quarantine procedure if it is inadequate to control the spread of disease, the reaction of first-responders to an emergency is clearly of critical importance in the case of a highly contagious disease.

In addition to the problem of competent and immediate state response to an outbreak, the interaction of state and federal agencies is particularly complex. The CDC acknowledges that this, too, has not yet been ironed out:

In addition, the division of legal authority between the state and Federal governments requires rapid and efficient coordination of actions to provide a public health response, and should be recognized as an essential part of the overall smallpox response plan.³⁸³

In the case of an outbreak involving multiple states, one can imagine situations in which differing state laws or differing state interests could collide, forcing federal authorities to side with one state over another. This could lead to situations reminiscent of the 19th century yellow fever shotgun quarantines, where state authorities could not move through towns determined to protect their people from any intruders.

The difficulties of state-to-state and federal-state interaction were well-exhibited in a simulation at the Center for Civilian Biodefense Strategies at Johns Hopkins University.³⁸⁴ The simulation involved a bioterrorist attack of bubonic plague (a far less contagious disease than smallpox) on a hypothetical city. As the disease expanded due to inadequate quarantine and hospital facilities, as well as slow diagnosis, the question of forced isolation arose. Once the disease crossed state lines, neighboring states began to inhibit interstate travel at their borders, and those who feared they might be infected fled for states that did not implement forced quarantines.³⁸⁵ At the end of the exercise, the participants came to the frightening conclusion that

³⁸⁴O'Toole, Tara, MD, MPH, and Thomas V. Inglesby, MD, Epidemic Response Scenario: Decision Making in a Time of Plague. Public Health Rep (Suppl 2) 2001; 116: 92-103. March 2001, April 2001, pp. 1.

³⁸⁵Ibid., pp. 12-13.

We are not, as a nation, going to be able to invoke multiple quarantines across the country and enforce them.³⁸⁶

Professor of public health law David P. Fidler argues that the federal separation of public health powers puts the United States in a particularly weak position to deal with bioterrorist attacks. In a speech before the Department of Health and Human Services, Fidler posed as Rumpole the Malevolent, a lawyer advising a bioterrorist on what kind of legal system would render a country most vulnerable to his evil plans. Rumpole advised his client that:

[Y]our ideal target would be a federal system that has placed public health powers predominantly at the local level. . . . With public health powers vested primarily in local governments, defenses against bioterrorism are only as strong as the local governments' commitment to public health. In addition, with public health powers at the local level, there is more room for diversity and difference across the nation, which undermines a harmonized or coordinated approach to a public health emergency.³⁸⁷

Though public health issues have traditionally been the responsibility of state and local governments in the United States, Fidler argues that the proper template for bioterrorism-related law is not public health law, but national security law. If we view bioterrorism this way, he argues, it becomes clear that federal control should be the primary approach: This country has never developed a legal framework for a national security threat in which state governments are as or more important than the federal government.³⁸⁸ Fidler's argument leads one to the conclusion that the event of a bioterrorist emergency may not be the opportune time to experiment with new paradigms for protecting national security.

Even greater than the separation of legal powers, however, is the problem of resources. Fidler argues that even if state laws did not conflict in problematic ways, and if state and federal authorities were able to co-

³⁸⁶O'Toole, Tara, MD, MPH, and Thomas V. Inglesby, MD, Epidemic Response Scenario: Decision Making in a Time of Plague. *Public Health Rep (Suppl 2)* 2001; 116: 92-103. March 2001, April 2001, pp. 15.

³⁸⁸Fidler, David P., JD. Legal Issues Surrounding Public Health Emergencies, *Public Health Report, (Suppl 2)* 2001; 116: 79-86. 2001 U.S. Department of Health and Human Services; *Public Health Reports, March, 2001 / April, 2001*, pp. 4.

ordinate activities effectively, most state and local public health infrastructures do not possess the resources necessary to handle a full-scale bioterrorist attack. In order to implement multiple quarantines, these governments would require adequate facilities (or at least the ability to claim adequate facilities quickly), adequate transport vehicles, and – most importantly – an adequate supply of persons trained to deal with this sort of crisis. Though state resources are clearly important in this function, absent a strategy to compel states to strengthen their public health systems, the federal government bears the responsibility of ensuring that disease outbreaks will be competently mitigated. The system of domestic disease surveillance at the CDC, which collects information from local health departments and serves as a contact point for local authorities experiencing health emergencies, presents one tool that might compensate for state weaknesses. The communicable disease surveillance system is staffed largely by PHS officers, who also antibiotics, vaccines, and facilities for diagnosis and treatment in the event of health emergencies.³⁸⁹ These officers represent the most specialized practical expertise in communicable disease control, and Congress has (in past years) expressed its desire to see that capability expanded. In 1997, 1998, and 1999, Congress provided funding and a mandate for the Department of Health and Human Services to increase the ranks of the PHS Reserve Corps. Despite this mandate, the PHS Reserve Corps, a collection of trained health specialists (physicians, dentists, nurses, and environmental engineers) who could be deployed in a manner similar to military reserves, was not expanded.³⁹⁰ Since 1989, the number of reserve officers has decreased from roughly 6,000 to 2,500.³⁹¹

Conclusion

³⁸⁹Spiegel, Jayson L., Reinforce Our First Line of Defense. The Washington Post, Sunday, January 20, 2002. B2.

³⁹⁰Ibid.

³⁹¹In addition to the decrease in numbers, the reserve corps is no longer trained effectively. The job offers no routing training, no benefits, and no protection against firing from the reservist's employer due to deployment as a reserve officer. Spiegel, Jayson L., Reinforce Our First Line of Defense. The Washington Post, Sunday, January 20, 2002. B2.

The perennial fact of finite resources requires that every society bear some risk of even the most serious threats. Though we identify weaknesses in our communicable disease security systems, the relevant question is whether fixing those weaknesses can be done in a way that does not require neglecting even more important efforts. It is intuitively clear that this cost-benefit analysis compelled the decision to reduce medical inspections in favor of controlled free pratique as the risk of many major diseases decreased and treatment prospects improved. In that vein, though we identify the flaws in a system which thoroughly examines only those aliens who enter the United States on a permanent immigrant or refugee basis, we also realize that fully examining all those entering the country could be prohibitively costly.³⁹² Further, the diplomatic strain and cost to the travel industry that could result from requiring travelers to undergo medical examinations would likely be too great to make this policy either desirable or politically realistic. Similarly, though state public health laws and resources may be inadequate to deal with possible bioterrorist attacks, complete federal takeover of the state police power to regulate for the purpose of protecting public health would be Constitutional anathema and fiscally unthinkable.

Despite the reality of scarce resources and state police powers, however, Section 361 of the PHS Act directs the Surgeon General to make and enforce such regulations as in his judgment are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession into any other State or possession.³⁹³ Because the long arc of history has shown that states have not been able to fill this role, the federal government must take action as

³⁹²...[E]ach alien would have to undergo a complete physical including chest x-ray, blood tests for HIV and syphilis, and cultures to exclude the presence of other detectable diseases. A conservative estimate of the cost of such an examination puts the cost in excess of \$150 per person, Bennett, Victoria L., *Medical Examination of Aliens: A Policy with Ailments of its Own?* University of Arkansas at Little Rock Law Journal, Fall 1989, v. 12, n. 4, pp. 751.

³⁹³March 1,2,3,7,8,9,10, and 14, 1944: Hearing before a Subcommittee of the committee on Interstate and Foreign Commerce, House of Representatives, 78th Congress, 2d Session, on H.R. 3379: A Bill to Codify the Laws Relating to the Public Health Service, and for Other Purposes, pp. 16.

the sole protector of its citizens from the international and interstate transmission of communicable diseases. Though legal scholars naturally focus on the broad language of the law and the lawmaking power granted under it, it is not the lawmaking power that at this moment requires attention. The legislative history of the bill and the upholding of regulations against challenge has shown that this lawmaking power is quite strong. Instead, the single most important word in this statute today is enforce. As David Fidler concluded, People forget that the 'rule of law' goes beyond, and must go beyond, merely having legal powers on the books. The legal power to act in the public good must be supported by resources. . . to undertake effectively the legal authority that exists.³⁹⁴

What, then, do we make of the broad power allocated to the federal government to protect against communicable diseases under Section 361 of the PHS Act? How is it useful in protecting us from the new sources of communicable diseases that we face today? Since the law itself provides ample power to protect against communicable diseases, the improvements needed today are on the level of enforcement. Comprehensively identifying the specific needed improvements requires first-hand knowledge of the logistics involved in medical screening and emergency response which goes beyond the scope of this paper. There are, however, a few areas in which specific improvements seem merited even without this detailed operational experience:

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³⁹⁴Fidler, David P., JD. Legal Issues Surrounding Public Health Emergencies, Public Health Report, (Suppl 2) 2001; 116: 79-86. 2001 U.S. Department of Health and Human Services; Public Health Reports, March, 2001 / April, 2001, pp. 3.

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Our ability to protect against new threats can only be bolstered by a more vigilant contagious disease prevention and control system. In the post-September 11 world, it is not absurd to think that a man may step on a plane with the intent and ability to kill more Americans than were killed even on that day. But instead of carrying a bomb or a suicide pilot plan, he may carry a weapon in his body, which is undetectable by screeners, eminently fatal, and completely invisible – smallpox. With people willing to sacrifice their lives for the purpose of killing civilians, the question of weaponization of communicable diseases may not be relevant. If this possibility seems too far-fetched to be relevant to policy decisions, I would return us to September 10, and ask whether we would have thought that two planes destroying the World Trade Center towers and halting capital markets for three days was similarly far-fetched. It may be, as Publius Syrus wrote, that He is most free from danger, who, even when safe, is on his guard.³⁹⁶

The old and new threats to our safety from dangerous contagious diseases require that we scrutinize our capabilities to protect against those threats and remedy our deficiencies. Today, diseases that have plagued the world for centuries are again on the rise, and in forms which resist treatment by our most relied-upon

³⁹⁶Williams, Ralph Chester, M.D., *The United States Public Health Service, 1798-1950*. Commissioned Officers Association of the United States Public Health Service, Washington, D.C., 1951, pp. 63.

drugs. The history and experience of American federal control over those epidemic diseases helps us to predict the problems future epidemics may cause, and provides a rough template for controlling those diseases. The yellow fever epidemics in the turn of the century South show in stark relief the counterproductive fear responses of residents in states with ineffectual health systems, and the importance of quick and decisive action. The bubonic plague incidents in San Francisco show the necessity of working with marginalized minority communities that may be most identified with epidemic diseases, so that they can cooperate with health officials knowing that their health is a primary priority. These experiences, as well as the many more detailed facets of federal contagious disease control law and policy, can help us to avoid deadly pitfalls as we move into an era that, in new ways, threatens our society with the diseases of our past.

Appendix A: Instructions for Federal Medical Inspectors

Reference 93: Public Health Screening at U.S. Ports of Entry, A Guide for Federal Inspectors: U.S. Immigration and Naturalization Service, U.S. Customs Service, U.S. Department of Agriculture, APHIS, U.S. Fish and Wildlife Service. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Infectious Diseases, Division of Quarantine. Revised March 2000.

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Cats: Cats are subject only to the general requirements for entry as stated above. No rabies vaccination or health certificate is required for entry.

Dogs: Regardless of age, dogs may be released without restriction if they appear to be healthy and have been exclusively in a rabies-free area for at least 6 months immediately preceding arrival or since birth. Dogs arriving from countries other than those listed as rabies-free may be admitted if they meet all of the following requirements:

- Greater than 3 months of age
- Free of gross evidence of infectious disease
- Accompanied by a valid certificate of vaccination against rabies.

Monkeys and Other Nonhuman Primates:

- Pet Monkeys Banned: Live monkeys and other nonhuman primates may not be imported for use as pets under any circumstances. They may only be imported into the United States for bona-fide scientific, educational, or exhibition purposes. Importers must be registered with CDC, and are responsible for implementing specific disease control measures while the animals are imported and cleared, transported to the importer's facilities, and quarantined for a 31-day period. Registered importers must also hold a special permit, issued by CDC, to import cynomolgus, rhesus or African green monkeys.

- Verify Importer Status: Contact the appropriate Quarantine Station when primates are presented for entry to verify that the importer is currently registered as an importer of non-human primates and that, if required, a special permit has been issued.

- Illegally Imported Monkeys: If a monkey owned by a passenger arrives hand-carried or as baggage, isolate the animal and call the Quarantine Station for advice immediately. *Do Not* handle the animal or allow others near its enclosure.

- Seizure: Inadmissible nonhuman primates are seized and re-exported to the country of origin, donated to facilities approved by CDC, or destroyed.

- Animal Acts: Nonhuman primates that are part of a legitimate animal performing act may, if appropriately registered with CDC, be transported from and returned to the United States. The CDC registration for these acts is in the form of a letter on CDC letterhead...

Turtles: Live turtles with a carapace (shell) length of *less than* 4 inches (measured in a straight line from front to back) and viable turtle eggs may *not* be imported into the United States for *commercial purposes*. An individual may import turtles of less than 4-inches in shell length only if the importation is *not* for *commercial purposes* and the importation includes no more than one lot containing fewer than seven live turtles, fewer than seven viable turtle eggs, or any combination thereof totaling fewer than seven. CDC may issue a permit for an importation of more than the permitted number when the importation is for a bona-fide noncommercial scientific or exhibition purpose. / CDC has no restrictions on the importation of live turtles with a carapace length of greater than 4 inches.

Goatskin Products from Haiti: Untanned goatskin products from Haiti may not be imported into the United States because they may carry anthrax. These items must be seized and incinerated. Precautions (gloves and mask, at a minimum) must be observed when goatskin products from Haiti are handled.

Human Remains: Examine the death certificate to determine the cause of death. Admit unless the person died of a quarantinable disease (cholera, plague, yellow fever, infectious tuberculosis, diphtheria, suspected smallpox, or suspected viral hemorrhagic fever), in which case the casket must be hermetically sealed. If there is no evidence that the casket is hermetically sealed, hold and contact the appropriate quarantine station for instructions. Ashes may be admitted without restriction, regardless of the cause of death.

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- Any living insect or other living arthropod known to be or suspected of being infected with any disease transmissible to humans; also, if alive, any bedbugs, fleas, flies, lice, mites, mosquitoes, or ticks, even if uninfected. This includes eggs, larvae, pupae, and nymphs, as well as adult forms

- Any animal known to be or suspected of being infected with any disease transmissible to humans

- All live bats

- Unsterilized specimens of human and animal tissue (including blood), body discharges and excretions, or similar material, when known to be or suspected of being infected with disease transmissible to humans

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