Public Health Chronicles

The U.S. public health infrastructure is among the most decentralized of any in the world. Not only is our health-care system funded and maintained through a patchwork of local laws, financing systems, and private and public insurance mechanisms, but its public health infrastructure is also a quilt-like assemblage of differing local, state, and federal agencies bound together by a common mission but radically different histories and social philosophies. The sometimes tense and antagonistic relationships that emerge over specific policies among the various actors who organize services have been a hallmark of recent debates on issues ranging from health-care reform to disaster preparedness.

This article by Admiral Jerrold Michael looks at the attempt in the late 19th century to create the National Board of Health, a body that some hoped could provide a unified vision of public health for the nation. Here, we can discern some of the discordant themes of local prerogatives within a federal system with which the public health community has struggled for the past 125 years.

David Rosner, PhD
Ronald H. Lauterstein Professor of Sociomedical Science and History
Co-Director, Center for the History & Ethics of Public Health, Columbia University

THE NATIONAL BOARD OF HEALTH: 1879–1883

Jerrold M. Michael, ScD, DrPH

The last decades of the 19th century were marked by dramatic changes in the nation's economy, government, and health. At the beginning of the century, the nation was largely composed of a series of relatively independent, disparate, and isolated rural, agrarian towns separated by huge expanses of space and culture. By the turn of the 20th century, the country had emerged as one of the leading industrial societies in the world, with huge cities built around steel production, railroads, and a host of smaller industries. The commercial cities of the Northeast grew in population exponentially, with New York City leading the way, transforming from a modest community of 45,000 people in 1800 to a metropolis of more than four million people in 1900.

What was once a series of independent local economies became increasingly interdependent and interlocked by the transcontinental railroads, national and international trade, and growing specialized industrial centers, where the steel produced in Pittsburgh would be used to build the skyscrapers of Manhattan, and where the meat grown in the Midwest would be sent via boat and railway to the cities along the Eastern Seaboard.

New economic and social relationships accompanied the transformation of the economy. The need to standardize laws governing interstate and international commerce, for example, led to the movement of authority and power, first from local organizations to state houses and then to the federal government. In the decades following the Civil War, new federal agencies were organized with the hope of standardizing and organizing the laws and rules by which this new economy and society would function. The creation of the Interstate Commerce Commission, the passage of the Sherman Anti-Trust laws, the passage of the federal Food and Drugs Act, and the organization of the Federal Trade Commission in the late 19th and early 20th centuries represented the dramatic rethinking of the relationship between federal and state regulatory responsibilities.

The transformation of the U.S. from a rural and agricultural nation of small towns into an industrial powerhouse of huge cities was both awe-inspiring and disruptive. On the one hand, it was hard not to marvel at the extraordinary dynamism of the society and its culture. On the other hand, the values and relationships—both personal and political—that had defined the nation were challenged. Tensions emerged between local authorities and their federal counterparts, regional and state interests and national goals. Fears—sometimes rational, sometimes not—emerged over the usurping of local power by federal government. All of these issues, which still dominate much of our political culture and discussions today, emerged full-blown during the last decades of the 19th century.

The debates over the role and shape of government

in this huge and disparate nation were also critical for public health. During the second half of the 19th century, the growing cities, ports, and rapidly spreading poverty provided fertile grounds for mass outbreaks of cholera, typhoid, yellow fever, whooping cough, tuberculosis, and a host of other epidemic diseases. What were once local outbreaks of disease often became national in character as shipping and railroads moved humans and animals across the nation in a matter of days. For the most part, health services were then, as now, largely the responsibility of local communities, and the question of what constituted an appropriate national response was central to discussions that led to the creation of the American Public Health Association and other national organizations.

This article investigates one such effort: the short-lived National Board of Health (1879–1883) and the resistance to that effort both from within and outside of the public health establishment. It traces the need to address national epidemics of disease at a moment when the growing problem of infectious diseases in the nation's urban and commercial centers threatened the future emergence of the country as a major commercial and industrial nation.

EVENTS LEADING TO THE NATIONAL BOARD OF HEALTH

On March 3, 1879, a National Board of Health (NBH) was created by an Act of the 45th U.S. Congress titled "An Act to Prevent the Introduction of Infectious or Contagious Disease into the United States and to Establish a National Board of Health."[1] The NBH as designated comprised 11 members: seven appointed by the President, with the advice and consent of the Senate; three medical officers detailed from the Army, Navy, and Marine Hospital Service (MHS, later known as the Public Health Service); and one representative from the office of the U.S. Attorney General. The NBH was charged with (*1*) obtaining information on all matters affecting public health; (*2*) advising governmental departments, the Commissioners of the District of Columbia (DC), and the executives of several states on all questions submitted by them—or whenever in the opinion of the NBH such advice may tend to the preservation and improvement of public health; and (*3*) with the assistance of the Academy of Science, reporting to Congress on a plan for a national public health organization, with special attention given to quarantine and especially regulations to be established among the states, as well as a national quarantine system.[2] The NBH discontinued operations in 1883, four years after its inception.

THE HISTORY OF THE NBH

The history leading to the creation, operation, and demise of the NBH involved a series of national infectious disease epidemics, the emergence of a national movement to create a single overarching health agency, the formation of a new professional association created to address the increasingly important field of public health, and the personal interrelationships of three strong-willed and effective health professionals.

The founding of the American Public Health Association

Four National Sanitary Conventions held between 1857 and 1860 all dealt with the subject of the need for a national quarantine service. Until 1872, however, when the MHS was given national public health mandates, the federal government was not deeply involved in public health matters. Public health was a function of the individual states and, of course, in the case of large communities, municipal governments.[3]

Secretary of the Treasury, George S. Boutwell, intended to appoint Dr. John S. Billings, a U.S. Army Major and public health advocate, as the first Director or Supervising Surgeon of the MHS through a detail from the Army. That plan was deliberately blocked by the Senate Committee on Commerce, which crafted

Dr. John Shaw Billings (courtesy of the National Library of Medicine, Bethesda, Maryland)

a bill eliminating the potential for the President to detail an Army or Navy officer to the post. That bill was signed by President Ulysses S. Grant on June 29, 1870. Nevertheless, Boutwell delayed the appointment of a head of the MHS and made one more attempt to get Dr. Billings appointed.[4] Congress took no action on his request and the legislative session ended in March of 1871. The following month, Secretary Boutwell appointed Dr. John M. Woodworth as the Supervising Surgeon of the MHS.[5]

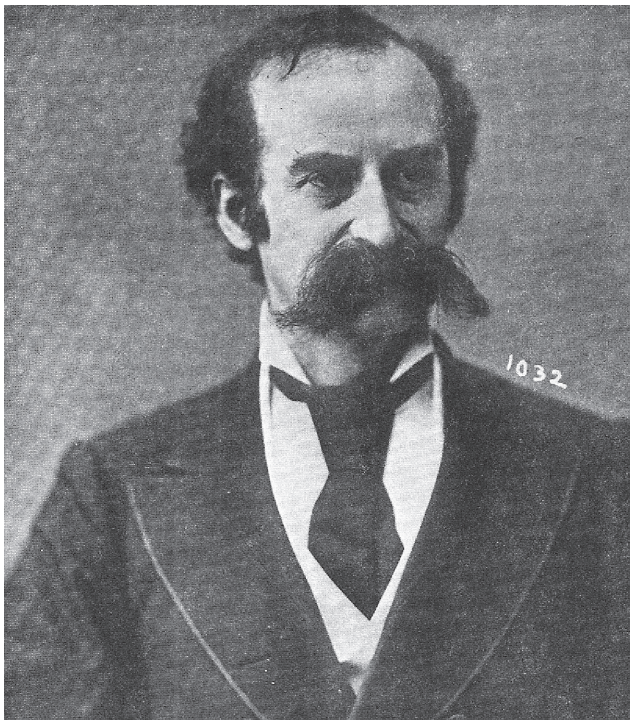
On September 12, 1872, a group of well-respected professionals, mainly physicians, who were committed to the field of public health, adopted the constitution for a new health-related organization, the American Public Health Association (APHA).[6] Dr. Woodworth was named as the first head or Supervising Surgeon (later to be called Supervising Surgeon General) of the MHS in 1871. Because of his position, he was selected as a member of APHA's executive committee. He would soon be in bureaucratic conflict with another APHA executive committee member, Dr. Billings, who had previously been in contention for Dr. Woodworth's position, and who was an active member of that committee and central to the APHA's governance process.

Drs. Woodworth and Billings held differing views as to the best governmental approach to the management of national health issues, including quarantine. Their views were later articulated at annual meetings of the APHA and at other professional meetings, as well as in private sessions with members of Congress.

Dr. Woodworth used the 1873 APHA meeting as a forum to advance his strategic approach for the management of national public health issues. He noted in his presentation:

> [It is] the acknowledged power of a state to provide for the health of its citizens, but it is probably equally obvious that the national government in the exercise of its express powers, that, for example—to promote the general welfare—may use means that may also be used by any state in the exercise of its acknowledged power—that for example of regulating quarantine and health matters of every description. . . . To wait until the potential of active germs of disease in the persons . . . of emigrants [sic] arrive within the jurisdiction of the port before enforcing preventive and preservation measures is hardly the highest sanitary wisdom.[7]

In 1875, a meeting attended by representatives of many state and city health departments was held in DC that focused on developing plans for a federal health department. It did not result in any agreed-upon findings as to the design and, perhaps more importantly, the management of such a department, owing to the rivalry between the medical services and the MHS. At the meeting's conclusion, however, Dorman E. Eaton of New York, a lawyer who had drafted the pioneering Metropolitan Board of Health Act of New York in 1867, was asked to prepare a consensus document. What resulted from his work placed the medical departments of the Army, Navy, and the MHS on equal status. Predictably, the separate groups rejected the draft, and each at once moved to secure its own legislation from Congress, which would make its service more prominent in national health efforts.3



Dr. John Maynard Woodworth (courtesy of the National Library of Medicine, Bethesda, Maryland)

In 1876, Rutherford B. Hayes was elected President of the United States. On March 4, 1877, President Hayes appointed his campaign manager, John Sherman, brother of General William T. Sherman of Civil War fame, as Secretary of the Treasury.[8] General Sherman's personal medical officer in his famous "march to the sea" during the Civil War was none other than Dr. Woodworth.[3] As a result, Dr. Woodworth's positioning within the Treasury Department improved considerably.

Dr. Billings used the 1876 APHA annual meeting to present his strategy for a national health effort. He said:

> In this country, legislation on public health must be mainly a matter for individual states. The general

> government cannot interfere with police matters, and the only way in which it can touch the subject is through its rights to regulate commerce and to protect the health of its Army and Navy, that is to say by legislation and quarantine regulations. . . . We have heard a good deal during the last few years about a National Health Bureau (an idea proposed by Dr. Woodworth among others), and several bills have been introduced into Congress looking to the formation of such an institution. But such a bureau can do nothing except to collect information. . . . It is to state and municipal boards of health, and to some organization yet to be devised [referring to the National Board of Health] which shall secure concerted action between these boards, that we must look for all positive and effective action in this matter.[9]

The National Quarantine Act

On April 29, 1878, Dr. Woodworth got in part what he had long been lobbying for in Congress through the passage of the National Quarantine Act (NQA).[10] The NQA gave his MHS the authority to make rules and regulations governing the retention of vessels having cases of contagious diseases on board, or coming from foreign ports at which contagious diseases existed. Unfortunately, the MHS was given no appropriations to carry out the requirements of the NQA.

Those who held an opposing view regarding the relationship between the federal government and state and municipal rights also prevailed in having their views presented in that bill by securing the insertion of the clause expressly stipulating that these rules and regulations must not conflict with or impair any sanitary or quarantine laws or regulations of any state or municipal authority.

The 1878 NQA was also the first authority for the publication by the MHS of the *Bulletin of the Public Health*, the first issue of which was printed on July 13, 1878. That journal, which has been in almost continuous publication since that time, is now known as *Public Health Reports*.

Funding was of critical importance to implementation of the NQA. However, the MHS had not been provided with any additional funds to carry out the requirements of the NQA. Secretary of the Treasury Sherman noted in his December 1878 annual report that, "The National Quarantine Act with the execution of which the Surgeon General [this term rather than Supervising Surgeon was used, as Dr. Woodworth's title had been changed on March 3, 1875, to Supervising Surgeon General] is charged, was passed so late in the last session of Congress that the appropriation necessary to carry out its provisions could not be made. Not withstanding this fact, everything has been done under the Act which could be accomplished without the expenditure of money."[11]

In 1878, an epidemic of yellow fever introduced from Cuba swept over the U.S. It is estimated that 100,000 people became ill and 20,000 died. The epidemic's impact clearly raised the public's interest for the creation of some type of national health coordinating body.

Forming the NBH

In 1878, Dr. Billings was serving as vice president of the APHA. The APHA president was his friend, Professor James L. Cabell of the University of Virginia. The APHA had set up an Advisory Committee on Legislation that provided advice to the Executive Committee of APHA, which was given authority to act as needed during any session of Congress. This governance pattern put Dr. Billings, as APHA vice president and a permanent resident of DC, in a position to be instrumental in the legislative lobbying effort for the APHA.[11]

The APHA held its 1878 annual meeting in Richmond, Virginia. It was at this meeting that Dr. John B. Hamilton, later to become Surgeon General, was elected to membership in the APHA. Dr. Hamilton, a Civil War veteran of the Illinois 61st regiment, had joined the Army Medical Corps after graduating from Rush Medical School and then transferred to the MHS. The election to the APHA permitted him to participate in organizational affairs, which would become important in his future role as Surgeon General.

THE OPERATION OF THE NBH

When Congress convened in 1879, both the Army and the MHS, headed by Dr. Woodworth, sponsored bills relating to a national health authority. As noted previously, the legislation recommended by the APHA created the NBH, and the MHS was slated to lose its health duties related to quarantine, including maritime quarantine.

Eleven days after the passage of that Act and the creation of the NBH, Dr. Woodworth died at the age of 41. No cause of death had been specified. He had shaped the MHS from an ill-defined patchwork of facilities with doubtful management into a disciplined service with overall direction that in later years would become a model for the National Health Service. Dr. Woodworth's successor as head of the MHS was Dr. Hamilton, who would prove to be no friend of the NBH or its vice president, Dr. Billings.[12]

On April 2, 1879, one month after the passage of the enabling Act, Dr. Billings, who was acting vice president of the NBH, held the first meeting of the

Professor James L. Cabell (courtesy of the National Library of Medicine, Bethesda, Maryland)

smaller Executive Committee of the Board at Ford's Theatre, the site of President Lincoln's assassination and now Dr. Billings' Army headquarters office. The Executive Committee of the Board was the governance instrument through which Dr. Billings would function to manage the NBH operational affairs. In the early days of its operations, the Executive Committee of the Board would meet almost daily.[11] Dr. Cabell served as board president and, thus, he and Dr. Billings—both physicians—held the very same posts in the NBH that they had held in the APHA.

A series of unfortunate events

On June 2, 1879, Congress passed a second Act, titled "An Act to Prevent the Introduction of Contagious or Infectious Diseases into the United States," which clarified and strengthened the NBH's authority and gave the new board wide quarantine powers. This new bill negated portions of the NQA of April 29, 1878, which had given this authority to the MHS. However, the Act had one clause that would prove to be its fatal weak point: it gave these quarantine powers to the NBH for a period of four years, and a reenactment of the bill was needed for its work to continue.[2]

The designated MHS member on the NBH was Dr. Preston H. Bailhache. He apparently served as an information conduit on the operations of the NBH for his superior, Dr. Hamilton. The Navy member of the board, Dr. Thomas Turner, complained to Dr. Billings: "You see that Bailhache has an office in Hamilton's Branch and there is nothing that goes on but is posted—he knows every card in our hand and in his own also—I see very clearly that they propose to run or break up this Board."[11]

Opponents, and particularly those who were concerned about states' rights, decried the NBH's work as coercive and restrictive of trade. One opponent, Dr. Joseph Jones, the president of the Louisiana State Board of Health, spoke of "the insolent pretensions of the National Board of Health with its odious system of espionage and intermeddling."[13] Detractors such as Dr. Jones seized every opportunity to belittle and misrepresent the NBH's activities.

The states' objections reinforced Dr. Hamilton's commitment to use his political skills to restore the dominance of the MHS. If the Act that created the NBH was not reenacted after four years of operation, its powers and functions would revert to the MHS.

THE DEMISE OF THE NBH

Attempts were made by NBH supporters to reauthorize the operations of the NBH. The APHA and a number of state departments of health, including Massachusetts, New York, Illinois, and Michigan, supported that effort. It is likely that the absence of epidemics of infectious disease during that time, coupled with a concern in some quarters about encroachment of the federal government, doomed that movement.

In August of 1882, Dr. Billings resigned from the NBH. Although his views on the NBH failed, Dr. Billings' contributions to the health professions have made him one of the icons of American medicine. He was responsible for the organization of the Library of the Surgeon General of the Army, which later became the Public Health Service/National Institutes of Health Library of Medicine; he created the *Index Medicus*; and he was responsible for the designs of the Johns Hopkins and Peter Bent Brigham hospitals.[14]

The fight between the MHS and the NBH continued when the appropriations for quarantine activities for the following year were debated in the Congress. The State Board of Health of New York, over which the well-regarded NBH member Dr. Stephen Smith of New York City had considerable influence, noted in its 1883 petition that it was "aware that the factious and acrimonious opposition and unworthy criticism which

Dr. John B. Hamilton (courtesy of the National Library of Medicine, Bethesda, Maryland)

sprang up against the National Board some months ago has been used as means for organizing a permanent kind of force against it at Washington; but this must not mitigate against the continued life and usefulness of that branch of public service."[2]

On February 20, 1883, the appropriation for the prevention and spread of contagious diseases was again given to the Treasury Department. The year 1883 was also the date set in the original act of 1879 for the NBH to expire if the law was not reauthorized. That did not happen and, in effect, the operations of the NBH ended.[15]

Although the NBH actually discontinued functioning in 1883, it officially ceased to exist on February 15, 1893, when an Act of Congress was passed granting additional powers and imposing additional duties on the MHS.[16] An attempt was made in 1884 to reestablish the NBH, but it failed, as reported in the December 13, 1884, edition of *The New York Times*. On that date, the newspaper contained the following commentary:

> A genuine surprise has been given to the members of the National Board of Health by the action of the Conference of State Boards of Health, which met in Washington this week. It was confidently expected by the National Board that it would be indorsed [sic] by the conference, the members of which were regarded as special friends of the Board. Instead of doing this, the conference took steps to wipe out of existence the present board and substitute for it another and entirely different body.[17]

WHY DID THE MOVEMENT FAIL?

As noted previously, one issue that impacted support for an NBH was the controversy between state and federal authority. The NBH, in its moves to control infectious diseases, encroached upon the health powers of the individual states, and political sentiment at that time did not entertain the idea of centralization of power. Yet another problem was the lack of cohesion of the NBH itself. The members were experts who lived in different communities and merely attended meetings. There was no central authority and no real unity of opinion.

There was another factor that contributed to the end of the NBH. Experience dictates that as a group of organizations attempts to aggregate their separate authorities into a central one, an inbred resistance predominates. Whatever the consensus about the need for centralizing authority and resources, the reaction of the individuals from the separate groups is to support the view of the organization with which they are affiliated. Thus, an attempt at centralization of authority, such as in the NBH, faced a mixed allegiance.

The discussions leading up to and after the formation of the NBH presented to the nation a great

Dr. Preston H. Bailhache (courtesy of the National Library of Medicine, Bethesda, Maryland)

opportunity to organize, at that time, a close-knit and effective national public health process. Unfortunately, there was no individual or group of individuals engaged in the deliberations who had the vision, the leadership skills, or the political power to make that happen. That would have to wait until later in our nation's history.

The author acknowledges the assistance of Professor David Rosner, PhD, Ronald H. Lauterstein Professor of Sociomedical Science and History and Co-Director of the Center for the History & Ethics of Public Health at Columbia University in New York City, in the development of this article.

Rear Admiral Jerrold Michael is a retired Assistant Surgeon General of the U.S. Public Health Service and Professor Emeritus and Dean of the University of Hawaii School of Public Health in Honolulu, Hawaii.

Address correspondence to: Jerrold M. Michael, ScD, DrPH, DEE, 16736 Gooseneck Terr., Olney, MD 20832; tel./fax 301-570-2528; e-mail <JerroldMM@aol.com>.

REFERENCES

1. Reports of the actions of the 45th Congress, Sess. 3, Ch. 202, March 3, 1879. An Act to Prevent the Introduction of Infectious or Contagious Diseases into the United States and to Establish a National Board of Health.
2. Annual report of the National Board of Health, 1883. Washington: U.S. Government Printing Office; 1884.
3. Rosen G. A history of public health. New York: MD Publications Inc.; 1958.
4. Annual report of the Department of the Treasury. Washington: U.S. Government Printing Office; December 1870.
5. Office of the Surgeon General, Department of Health and Human Services (US). John Maynard Woodworth (1871–1879) [cited 2010 Sep 22]. Available from: URL: http://www.surgeongeneral.gov/about/previous/biowoodworth.htm
6. Bryce PH. History of the American Public Health Association. Am J Public Health 1918;8:327-35.
7. Woodworth JM. Some defects in the immigration service: suggestions of remedy therefore, with reference to the sanitary interests of the country. Public health reports and papers presented at the Meetings of the American Public Health Association, 1873. Cambridge (MA): Hurd and Houghton, The Riverside Press; 1875.
8. Notable Names Database. John Sherman. Mountain View (CA): Soylent Communications; 2010.
9. Billings JS. The rights, duties, and privileges of the community in relation to those of the individual in regard to public health. Paper presented at the American Public Health Association Annual Meeting, 1876. Public health reports and papers presented at the Meetings of the American Public Health Association, 1875–1876, Volume III. Cambridge (MA): Hurd and Houghton, The Riverside Press; 1877.
10. National Quarantine Act. Sess. 2, Ch. 66, 20 Stat. 37 (1878).
11. Furman B. A profile of the United States Public Health Service: 1798–1948. Washington: U.S. Government Printing Office; 1973.
12. Office of the Surgeon General, Department of Health and Human Services (US). Previous Surgeons General: John B. Hamilton, 1879–1891 [cited 2010 Aug 16]. Available from: URL: http://www.surgeongeneral.gov/about/previous/index.html
13. Mustard HS. Government in public health. New York: Commonwealth Fund; 1945.
14. Arlington National Cemetery. John Shaw Billings [cited 2010 Sep 27]. Available from: URL: http://www.arlingtoncemetery.net/jsbillings.htm
15. Smillie WG. Public health—its promise for the future. A chronicle of the development of public health in the United States, 1607–1914. New York: Macmillan Company; 1955.
16. Ch. 114, 27 Stat. L. 449, February 15, 1893.
17. A new National Board of Health. *The New York Times*, 1884 Dec 13.