

“A SPIRIT OF BENEVOLENCE”:
MANCHESTER AND THE ORIGINS OF MODERN PUBLIC HEALTH, 1790-1834

by

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This thesis was prepared under the direction of the candidate's thesis advisor, Dr. Douglas Kanter, Department of History, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the Dorothy F. Schmidt College of Arts and Letters and was accepted in partial fulfillment of the requirements for the degree of Master of Arts.

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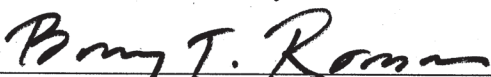
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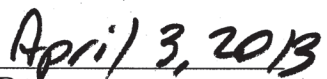
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ABSTRACT

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This thesis argues that the British Public Health movement did not begin in 1842 with Edwin Chadwick’s publication, *Report on the Sanitary Conditions of the Labouring Population of Great Britain* (1842), or in 1848, with the subsequent passage of the Public Health Act. The beginning of the public health movement was instead the product of local initiatives such as the Manchester Board of Health, administered not by central government, but by members of the local community supported by predominantly philanthropic funding. The Manchester movement predated Chadwick’s efforts by at least half a century and bore a greater resemblance to the modern idea of an organized public health system than that advanced by Chadwick and his contemporaries. This is because the Manchester movement emphasized not only those sanitary ideas ascribed to Chadwick but also included a broader spectrum of public health measures, including but not limited to; preventative medicine, occupational health, and the reduction of contagious diseases.

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INTRODUCTION

Examining the public health movement in Manchester in the years between 1770 and 1835 provides an excellent opportunity to explore a microcosm of the evolution of the greater public health movement in England. Mancunians faced various public health crises in this period typical for the country, including outbreaks of fever, smallpox, and cholera. Resembling much of the rest of urban England they also suffered growing pains from the Industrial Revolution, such as rapid population growth and an impoverished working class. The city by 1758 was in the midst of a population explosion. In that year, Manchester held 17,000 inhabitants, a number that would expand to twice that by 1788, quadruple to 70,000 by 1801, and double yet again by 1831 to 142,026.¹ These huge increases in population were due in large part to a combination of higher birth rates and immigration.² Most of those who flocked to Manchester came looking for work. This included several waves of Irish immigrants, who made up the largest percentage of non-British inhabitants. Most came because of the promise of work in one of the many factories emerging in the region at that time dedicated to the processing and weaving of cotton. No permanent national public health authority existed in Britain during this time,

¹ British Association for the Advancement of Science. *Manchester and Its Region: A Survey Prepared for the Meeting [of the British Association for the Advancement of Science] Held in Manchester, August 29 to September 5, 1962* (Manchester: Manchester University Press for the British Association, 1962), 134. James Wheeler, *Manchester: Its Political, Social and Commercial History, Ancient and Modern* (London: Whittaker and Co., 1836), 246.

² British Association, *Manchester and Its Region*, 134.

leaving communities to devise their own solutions to problems with the welfare of their population, including public health.

Even in good weather, living conditions in industrial Manchester for the poor and working class usually meant many people crowded together. Outbreaks of diseases such as typhus fever, smallpox, scarlet fever, measles, and influenza were common, although in some years outbreaks were worse than others. The endemic diseases, scurvy and tuberculosis, were prevalent and once acquired, were not easily remedied. There were also occasional accidents and normal ailments like toothaches, troubled pregnancies, and rheumatism. Not all of these diseases could be prevented, but Manchester physicians did their best to discover the causes and treat the sick. Under the Elizabethan Poor Law, medicine was considered another form of relief for the impoverished along with food and shelter. This included general medical care, midwifery and eye complaints, treatment in local infirmaries such as the Manchester Infirmary, treatment for mental illness, individual contracts with parish doctors, and the prevention of smallpox by inoculation, and later, vaccination.³ Despite the Old Poor Law being legislated nationally, the actual provision of relief was Parish based, which created some variation in how medical relief was applied, making the study of medical relief more relevant when assessed at the county or parish level.⁴ The rapid growth of Manchester's population, along with the developing challenges of industrialization, created major obstacles with regard to public health in the city, as legislation designed under one set of social and economic conditions

³ E.G. Thomas, "The Old Poor Law and Medicine," *Medical History* 24, no 1 (1980): 1-19.

⁴ *Ibid.*

was adapted, in the late eighteenth and early nineteenth centuries, to a very different set of circumstances.

Many historians in different fields of study consider Edwin Chadwick to be one of the great men of British politics in the nineteenth century for his civil service work in reforming the Poor Law, the education system, and police.⁵ In the field of public health reform, Edwin Chadwick is considered by some historians as the father of the public health movement. A Benthamite, Chadwick began his government career in 1831 as an assistant commissioner investigating Poor Law reform, where he impressed many with his attention to detail and exhaustive reports.⁶ A year later he was promoted to the Poor Law Central Commission, and almost simultaneously was appointed Chief Central Commissioner of the Royal Commission on Factories, where he opposed the Ten Hours Bill. He was made secretary to the Poor Law Commission in 1834. His work in public health began in this capacity, when the Home Secretary, Lord John Russell, initiated an investigation into the relationship between unhealthy environments and pauperism.⁷ This report was well received in 1838 and resulted in an expanded inquiry into the conditions of the working population in the entire country, which although the work of many individuals, was published under Chadwick's name in as the *Report on the Sanitary Condition of the Labouring Population of Great Britain* (1842). The report was one of the best received publications of the British government up to that time and made many

⁵ S. E. Finer, *The Life and Times of Sir Edwin Chadwick* (London: Methuen, 1952), 1.

⁶ Anthony Brundage, *England's "Prussian Minister": Edwin Chadwick and the Politics of Government Growth, 1832-1854* (University Park: Pennsylvania State University Press, 1988), 16-22.

⁷ *Ibid.*, 80.

people aware of the foul conditions in some of the worst areas of Britain.⁸ A popular wave of support for sanitary reform resulted in the passage of the Public Health Act of 1848.⁹ While mostly voluntary, this act was the first national public health act in Britain.

There is some disagreement amongst historians of public health in Britain regarding the level of Chadwick's significance involving the origins of the public health movement. Until the 1950s, Chadwick was lionized by historians as the undisputed leader of that movement. Two of the works considered as the starting point for any research on Chadwick are the mostly biographical writings of S. E. Finer and R. A. Lewis. Both authors agree that the period Chadwick spent researching and writing the *Report on the Sanitary Condition* and the subsequent Public Health Act (1848) were some of the most significant of his career, and both place the beginnings of the movement squarely on his shoulders.¹⁰ The first, and perhaps most famous, argument disregarding Manchester's role in the historiography of public health is that of E.P. Hennock, who agrees with Finer and Lewis.¹¹ Hennock writes that the public health movement began definitively with Edwin Chadwick's *Report on the Sanitary Condition*. While aware of earlier municipal reform movements, such as that in Manchester, Hennock cites what he considers a "gap between intention and achievement," in Manchester, and he notes the lack of local public health legislation, in the form of improvement bills, passed for Manchester between

⁸ Brundage, *England's "Prussian Minister"*, 83. Edwin Chadwick, *Report on the Sanitary Condition of the Labouring Population of Gt. Britain*, ed. M. W. Flinn (Edinburgh: University Press, 1965).

⁹ Public Health Act, 1848, 11 & 12 Vict. c. 63.

¹⁰ Finer, *Life and Times of Sir Edwin Chadwick*, 1-3. R. A. Lewis, *Edwin Chadwick and the Public Health Movement, 1832-1854* (London: Longmans, Green, 1952), 3-4.

¹¹ E. P. Hennock, "Urban Sanitary Reform a Generation before Chadwick?" *The Economic History Review* 10, no. 1 (1957): 113-20.

1796-1842.¹² Another author, W. M. Frazer, places the beginnings of English public health history decisively in 1834. He dismisses early public health advocates in the industrial north of England such as “Currie in Liverpool, Thackrah in Leeds, and Percival in Manchester” as the “isolated voices” who “were not penetrating enough to reach the ears of those in the seats of power in London.”¹³ Frazer insists that only the participation of central government could ensure what he refers to as “effective action” in matters of public health.¹⁴ John V. Pickstone, a prolific author on the subject of the Manchester health system, similarly valorizes Chadwick’s contributions by pointing out the “vast difference in scale” between earlier municipal efforts on the one hand, and Chadwick’s national reforms on the other.¹⁵ Most recently, Robert Ekelund and Edward Price reinterpret Chadwick’s contributions to the history of economic theory and his “invention of some of the essential tools of modern microeconomics applied to economic policies.”¹⁶ As part of their praise they laud Chadwick as “an almost singular progenitor of public health in the UK and elsewhere.”¹⁷

Although Chadwick’s reforms were undoubtedly significant, a number of historians have sought to revise the history of the early public health movement, and in

¹² Ibid.

¹³ W. M. Frazer, *A History of English Public Health, 1834-1939* (London: Ballière, Tindall and Cox, 1950), 2.

¹⁴ Ibid.

¹⁵ John V. Pickstone, “Ferriar’s Fever to Kay’s Cholera: Disease and Social Structure in Cottonopolis,” *History of Science* 22, no. 4 (1984): 402.

¹⁶ Robert B. Ekelund and Edward O. Price. *The Economics of Edwin Chadwick: Incentives Matter* (Cheltenham, UK: Edward Elgar, 2012), viii.

¹⁷ Ibid., vii.

doing so they have reduced Chadwick's contribution substantially. Keith-Lucas was the first to suggest that the special weight placed on Chadwick's contributions be reconsidered with the Manchester movement in mind. He maintains that, "it was not ... until the 1770s that the subject of public health was studied in a really scientific way."¹⁸ He identifies Manchester as the perfect illustration of his point due to the subject matter in the publications of the Manchester Literary and Philosophical Society and the formation of a local Board of Health in 1796. Similarly, in an analysis of the national response to the European cholera outbreak of the early 1830s, C. Fraser Brockington argues that Chadwick, "may have been building more on what had gone before than some of his biographers and historians have given us to believe."¹⁹

While local public health activists have thus received attention from some historians, others have noted that legislation provides an imprecise measure, at best, of support for early public health reform in Britain. As M.W. Flinn notes, "there are two chronologies ... the familiar story of public commissions and public health acts; and the less well-known progress of the actual state of the health of the general public."²⁰ He argues that while there were many pieces of public health legislation passed in the nineteenth century, both local and national, there was not a significant drop in mortality in England, including Manchester, until the beginning of the twentieth century. In

¹⁸ B. Keith-Lucas, "Some Influences Affecting the Development of Sanitary Legislation in England," *The Economic History Review* 6, no. 3 (1954): 291.

¹⁹ C. Fraser Brockington, "Public Health and the Privy Council, 1831-4," *Journal of the History of Medicine* 16, no. 2 (1961): 185.

²⁰ M. W. Flinn, introduction to *The Medical and Legal Aspects of Sanitary Reform* by Alexander P. Stewart and Edward Jenkins (Leicester: Leicester University Press, 1969), 7.

addition, Flinn reflects on an issue very important to this thesis, that “by its very nature, public health must devolve on local government.”²¹

More recent studies of Chadwick, meanwhile, have viewed him with a more jaundiced eye. Historian M. J. Cullen opines that Chadwick was not concerned with public health until the late 1830s, when he sensed that his influence as Secretary of the Poor Law Commission was at an end.²² Cullen also writes that, even then, Chadwick made an effort to exclude medical men from the decision making process, only acquiescing when he thought it would placate enemies of the New Poor Law, behavior he repeated with the Public Health Act.²³ In an important biography of Chadwick, Anthony Brundage argues that the public health movement predated Chadwick’s interest in the subject. Brundage writes what he describes as a revisionist account of Chadwick’s political life and, dissenting from the conclusions of Finer and Lewis, Brundage insists that Chadwick “hit upon the public health movement relatively late, but he developed its connection with crime, ignorance, and the rest of the reform agenda more thoroughly than others.”²⁴ Hamlin more recently comments on the overemphasis on Chadwick as being the sole architect of sanitary and public health at the national level. Instead he

²¹ Ibid, 10.

²² M. J. Cullen, “The Making of the Civil Registration Act of 1836,” *Journal of Ecclesiastical History* 24, no. 1 (1974): 56-9.

²³ Ibid., 56-8.

²⁴ Brundage, *England's "Prussian Minister"*, 79-81.

observes that Victorian Public Health Reform constitutes “an ongoing process involving central government, local communities, and individuals.”²⁵

One critique of Chadwick by historians is that he concerned himself predominantly with the sanitary engineering aspect of public health and did so to the exclusion of social issues. Christopher Hamlin argues that Chadwick focused only on the aspects of public health and sanitation that he thought were easily solvable by the installation of new pipes and cleaning of streets, while ignoring other social concerns, like bad working conditions or a lack of nutritious food.²⁶ A work that reinforces this interpretation is by Sylvia Tesh, who argues that “however diverse the beliefs about the causes of diseases and however various the measures taken to prevent them, at base the beliefs and measures throughout the [middle and late nineteenth] century were narrow, not broad.”²⁷ She maintains that, in order for modern public health to be comprehensive, policymakers should avoid Chadwick’s myopic idea of “plumbing and garbage” sanitary reform and embrace a wider model of that also incorporates social concerns. As this thesis demonstrates, social as well as sanitary reforms were the view espoused by the Manchester Board of Health previous to 1834.

Other historians have noted that many early physicians, including some in Manchester, held beliefs that were not shared by Edwin Chadwick, although these ideas are considered fundamental to the concept of public health today. Their emphasis on the

²⁵ Christopher Hamlin and Sally Sheard, “Revolutions in public health: 1848, and 1998?” *BMJ* 317, no. 29 (1998): 590.

²⁶ Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800-1854* (Cambridge, UK: Cambridge University Press, 1998), 31-4.

²⁷ Sylvia N. Tesh, “Miasma and ‘Social Factors’ in Disease Causality: Lessons from the Nineteenth Century,” *Journal of Health Politics, Policy and Law* 20, No. 4 (1995): 1002.

importance of ensuring vaccinations, nutritious food, adequate sleep, and reasonable work hours, for instance, all anticipated modern public health policy, but were not endorsed by Chadwick. In his analysis of early nineteenth-century medical thought, Hamlin suggests that early public health experts were divided between those who identified “exciting” and “predisposing” causes of disease.²⁸ Those physicians who believed in predisposing causes were likely to postulate that disease was caused by underlying social factors, such as malnutrition and overcrowding, as opposed to bad sanitation and foul air. Many of the Manchester physicians, as this thesis reveals, believed (unlike Chadwick) that predisposing causes of disease were of particular importance. By studying within the time period of 1790-1834, the presupposition that the passage of the New Poor Law ameliorated the concerns of housing, food, and clothing amongst the poorest of the poor is removed.

Another historical interpretation that de-emphasizes the contribution of Chadwick is the view that that he adopted the sanitary ideas of the medical men who served as authorities for the Poor Law Commission. He then modified these ideas in his publications to include only those theories that supported his proposals for reform. George Rosen is one of the first to promulgate this idea in his widely read *History of Public Health*, in which he quotes Chadwick naming physicians and fellow Benthamites Southwood Smith and Neil Arnott as inspirations.²⁹ Historian Margret Pelling maintains that these physicians, in addition to James Phillip Kay, believed in the idea of miasmatic

²⁸ Christopher Hamlin, “Predisposing Causes and Public Health in Early Nineteenth-Century Medical Thought,” *Social History of Medicine* 5, no. 1 (1992): 43-70.

²⁹ George Rosen, Edward Morman, and Elizabeth Fee, *A History of Public Health*, rev. ed. (Baltimore: Johns Hopkins University Press, 1993), 184-5.

disease that Chadwick adopted, which is the theory that infectious diseases were acquired by inhaling the fumes of decaying material.³⁰ These three men are attributed with being the main contributors to the *Report on the Sanitary Condition*, yet their names are not attached to the final document.³¹ She opines that they held these beliefs years before Chadwick first mentions the subject, in the case of Smith, as early as 1825.³²

While certainly not the only advocates of public health reform, members of the medical community in cities like Manchester played a significant role in their development. This was in part because physicians, particularly those working for the medical charities, visited poor patients in their homes and so witnessed the squalid, overcrowded living conditions that they could then directly associate with disease. Pickstone views Manchester physicians in the period from 1782-1832 as evolving; the 1700s as the vestiges of “Enlightenment medicine” and the 1820s and 1830s reflecting views anticipating those of Chadwick.³³ His purpose is to see what “continuities and discontinuities” existed between John Ferriar and James Phillip Kay, two similarly Edinburgh-trained physicians. Pickstone examines how they conceptualized their poor patients in Manchester during two similar outbreaks of infectious disease, observing that they may have been influenced by their politics and social norms, more than their education and training. Pickstone provides some of the best scholarship produced to date on the Manchester Fever Hospital, the Manchester Infirmary, and on a broader level, the

³⁰ Margaret Pelling, *Cholera, Fever, and English Medicine* (Oxford: Oxford University Press, 1978), 58-63.

³¹ *Ibid.*

³² *Ibid.*, 6-7.

³³ Pickstone, “Ferriar's Fever to Kay's Cholera,” 401-19.

Manchester Board of Health, from the creation of the Infirmary in 1752 to the development of a county-wide health system by 1946.³⁴ He modifies his earlier conclusions about the centrality of Chadwick to early public health reform when he states that the Manchester Fever Hospital, established in 1796, was an early example of a “kind of hospital largely sprang from the ‘public health movement,’” which “provided a model for English fever hospitals, including that in London.”³⁵ While mostly narrative in nature, his work traces the evolution of health care institutions from their beginnings as voluntary organizations paid for by subscribers to the twentieth century, when they were replaced by the more comprehensive system of state healthcare.

The city of Manchester serves as a useful case study for several reasons. Often referred to as a “shock city of the Industrial Revolution,” it operates as a bellwether for other manufacturing areas of Britain that grew quickly because of industry, particularly in northern England and lowland Scotland.³⁶ Cities such as Glasgow, Nottingham, Liverpool, and Birmingham all experienced growth in population similar to Manchester.³⁷ This expansion resulted in the problem of a population explosion combined with a lack of housing affordable to the lower and working classes. Factories often ran twenty-four hours a day, and the utilization of the steam engine in manufacturing combined with a ready supply of coal meant a nonstop production of

³⁴ John V. Pickstone, *Medicine and Industrial Society: A History of Hospital Development in Manchester and its Region, 1752-1946* (Manchester: Manchester University Press, 1985).

³⁵ *Ibid.*, 3.

³⁶ Ian Douglas, Rob Hodgson and Nigel Lawson, “Industry, Environment and Health Through 200 Years in Manchester,” *Ecological Economics* 41 (2002): 235.

³⁷ Wheeler, *Manchester*, 250.

smoke. The expanded use of chemical bleaches in cotton manufacturing meant that the main waterways of Manchester were subjected to runoff, and the “back to back” and basement apartments which had between twenty and thirty families sharing privies resulted in untreated sewage flowing directly into drinking water sources.³⁸ Local government in cities like Manchester struggled to keep up with the increase in population in the provision of services such as police and street paving.³⁹ By the time the *Report on the Sanitary Condition* was published, living conditions in cities such as London, Edinburgh, and Manchester were all characterized by overcrowding and pollution, resulting from suddenly emerging environmental and social problems.

It cannot be denied that Edwin Chadwick and his contributions played a significant role in the development of the medical and sanitary beliefs embodied in the Public Health Act of 1848. But the public health movement did not spring full formed from Edwin Chadwick’s pen, like mythical Athena from the head of Zeus. This thesis argues that the British Public Health movement did not begin in 1842 with Edwin Chadwick’s magnum opus, the *Report on the Sanitary Condition*, or in 1848, with the subsequent passage of the Public Health Act. The beginning of the public health movement was instead the product of local initiatives such as the Manchester Board of Health, administered not by central government, but by members of the local community supported by predominantly philanthropic funding. The Manchester movement predated Chadwick’s efforts by at least half a century and bore a greater resemblance to the modern idea of an organized public health system than that advanced by Chadwick and

³⁸ Douglas, “Industry, Environment and Health,” 240-1.

³⁹ British Association, *Manchester and Its Region*, 135-6.

his contemporaries. This is because the Manchester movement emphasized not only those sanitary ideas ascribed to Chadwick but also included a broader spectrum of public health measures such as preventative medicine, occupational health, and the reduction of contagious diseases. The argument of this thesis is supported by investigating the response of the Manchester community to fever outbreaks in the late eighteenth century, exploring the creation of hospitals and local initiatives to meet new health challenges in the early decades of the nineteenth century, and examining the mobilization of the Manchester community as it anticipated a nationwide outbreak of cholera in the early 1830s. Additional investigation reveals the evolving response of the population served by this movement, mainly Manchester's poor and working class, towards the medical community in a changing social and political environment. This analysis suggests that the public health movement in Britain originated with the provincial reformers of the later eighteenth century, rather than with Chadwick in the middle of the nineteenth century.

I. EARLY RESPONSES TO DISEASE: THE BEGINNING OF THE MANCHESTER BOARD OF HEALTH, 1789-1802

Many situations cause illness, either alone or in combination. What Manchester physicians considered the causes of disease in the late 1700s can be determined in two ways, by examining the circumstances in which disease arose, and analyzing the recommendations they gave regarding prevention. One of the earliest documented accounts of a fever outbreak is in October 1784 when the justices of Radcliffe, Lancaster County, invited Infirmary physicians Thomas Percival, John Cowling, Alexander Eason and Edward Chorley to investigate an outbreak that supposedly started among the employees of the town's cotton works. The doctors determined, "that a low, putrid fever, of a contagious nature, has prevailed many months in the cotton mills, and among the poor."¹ While they did not conclusively determine where the fever originated, they opined that it was "aggravated" by the living conditions of the workers. This aggravation was attributed to overcrowding, "putrid effluvia," and children subjected to "confinement and too-long-continued labour" in the cotton mills. It was not unusual for cotton workers in the late 1700s to live at the mills at which they were employed, particularly

¹ William Henry Clerke, *Thoughts Upon the Means of Preserving the Health of the Poor, by Prevention and Suppression of Epidemic Fevers. Addressed to the Inhabitants of the Town of Manchester, and of the Several Populous Trading Towns Surrounded and Connected with It* (London: J. Johnson, 1790), 4.

apprentices. Workers slept in shifts so that machines could run continuously, with one worker going to sleep in the bed that another just vacated. In the physicians' report the remediation advice to the owners of the mills indicates that these conditions did not meet the expectations of the physician inspectors. "These evils, we trust, are not without remedy, and from the benevolent attention which the proprietors of the Radcliffe works have shown to the sick and infirm under their charge, we may reasonably presume to hope that they will be induced to adopt the following practicable regulations."² While it is unknown what the typical behavior between workers and owners was, by the owners, the physicians addressed the owners in a way that appealed to their patriarchal relationship with their employees. In addition to the suggestions for the factory to have greater ventilation and cleaning, a part of the physicians' advice was the earnest recommendation that there be shorter works hours and more breaks, particularly for children under the age of fourteen, "for the active recreations of childhood and youth are necessary to the growth, the vigour, and the right conformation of the human body."³

The outbreak described above is one example of an invitation from local authorities to members of the Manchester medical community to investigate what those Radcliffe justices considered an issue of public health. This chapter demonstrates that the public health movement in Manchester predated Chadwick's reforms by almost half a century. It reveals that a small group of physicians and philanthropists, responding to another severe new outbreak of fever in the mid-1790s, developed the early institutions of public health, as well as a set of comprehensive regulations of working and living

² Ibid., 4.

³ Ibid., 6.

conditions, intended to prevent the formation and spread of disease in the municipality. Because these regulations were initially permissive, they depended upon the voluntary compliance of landlords, manufacturers, and workers. As a result, they were generally ineffective. The early history of the public health movement in Manchester, however, was not entirely a story of failure. The Board of Health established, in the House of Recovery, a durable municipal institution, and its inquiries into factory conditions resulted in the passage of the Factory Health and Morals Act (1802), the first legislation to address factory conditions in the United Kingdom, and a milestone in public health legislation. This chapter challenges narratives of public health reform that valorize Chadwick's efforts and portray public health reform as a top-down movement. On the contrary, it suggests that the public health movement emerged from the bottom-up, drew upon the pre-existing resources of the community, and helped to propel reform at the national level.

The Manchester Infirmary

The foundation of the early Manchester health system was the Manchester Infirmary, developed in 1752 by Manchester resident Joseph Bancroft and physician Charles White. The Infirmary was a voluntary hospital, one of many that were developed across Britain and Scotland as part of the voluntary hospital and dispensary movement of the eighteenth century.⁴ Provided for by donations or subscribers from the local community, the cost was initially two guineas for the right to admit one in-patient and two out-patients (for home visits). As Bernard Porter states, "philanthropy was assuredly

⁴ Rosen, *A History of Public Health*, 123-5.

in fashion” in eighteenth-century England, and donating to hospitals was popular because there were no religious or political connotations to this form of giving.⁵ It was also easy for those of varying levels of wealth and standing to contribute equally.⁶

Once a patient was recommended by a subscriber, he or she applied for admission to the hospital, with admissions occurring every Monday on a weekly schedule. Patients were supposed to be known to the subscriber as well as being indigent. Subscribers discovered to be recommending patients who could afford to pay for their own care were chastised.⁷ The problem with this system was that the working poor were unable to receive medical care, since they could conceivably pay for it. Another issue was the need to appeal to a subscriber in order to get a chance for admission. Since individual subscribers could only nominate one patient for in-hospital treatment at a time, the necessitous often waited until a space opened to receive care. A patient, once treated, who failed to thank the subscriber sufficiently risked not being referred again.⁸ The relationship of the physicians to the poor and working class of Manchester was paternalistic. A patient admitted to the hospital was required to follow the strict rules created by the Infirmary Board and enforced by Infirmary staff. Rules included no begging “any where in the town,” swearing, playing cards or smoking in the wards

⁵ Roy Porter, “The Gift Relation: Philanthropy and Provincial Hospitals in Eighteenth-century England,” In *The Hospital in History*, ed. Lindsay Granshaw and Roy Porter (London: Routledge, 1989), 149.

⁶ Pickstone, *Medicine and Industrial Society*, 11.

⁷ Reports on the State of the Infirmary, Dispensary, Lunatic Hospital and Asylum, in Manchester, 1852-1966, the Manchester Medical Collection, GB 133 MMC/9/6, the John Rylands University Library, the University of Manchester, Manchester, UK (hereafter cited as Infirmary Annual Report).

⁸ Infirmary Annual Report, June 24, 1756 to June 24, 1757.

without permission.⁹ Patients who received care and broke one of the Infirmary rules risked being banned from receiving future treatment. Patients were only allowed visitors for two hours once a week, so the proposition of staying in the Infirmary might seem lonely compared to being cared for in the home, however dirty it was. The idea of trading personal freedom and privacy for medical care may have deterred some prospective patients, particularly those who may have unfavorably associated it with the poorhouse or local prisons.

Physicians employed by the hospital were initially hired for either in-house or home visiting, with in-house physicians serving either in the Infirmary (in-patient) or the Dispensary (out-patient). Most of the doctors did not make a sufficient income just from the Infirmary and used their position to acquire regular patients, either as a result of treating the subscribers, or by benefitting from the word of mouth that came from the position. The Manchester Infirmary Board consisted of leading members of the community, including lawyers, clergy, shopkeepers and manufacturers. Because physicians were hired by board decision, they were subject to the personal preferences of board members, which in some cases may have influenced treatment plans.

Infirmary physicians often worked with the members of the local charitable community, creating a patchwork of voluntary services that catered to the needs of the sick poor. These institutions included the Strangers' Friend Society, the Committee for Distributing Provisions and Coals to the Poor, the Committee for the Relief of the Poor,

⁹ Manchester Infirmary, *Rules for the Government of the Infirmary and Lunatic-Hospital in Manchester and also of the Public Baths* (Manchester: R and W Dean, 1816), 17.

and the Committee for the Relief of the Sick Poor.¹⁰ Thomas Percival was one of the signatories of the petition for the new Manchester Poor House Act of 1790 and served on many of these committees.¹¹ Maternity charities were also created, partly as a response to the early Infirmary policy of refusing pregnant women. The creation of the Lying-in Charity in 1790 by the Whites and the Hall family of physicians was a reaction to the arrival of another male midwife, William Simmons, and his offer to provide midwife services, in addition to an Infirmary crisis of that same year regarding expansion of the hospital.¹²

The Formation of the Manchester Board of Health and Fever Hospital

In the winter and spring of 1789-1790 an epidemic of fever struck in Manchester and the nearby village of Salford. Symptoms of the fever included severe body aches, mostly of the head and back, cough, difficulty urinating, and delirium. It was not considered a particularly deadly epidemic and Manchester Infirmary physician John Ferriar stated that “out of the first ninety patients whom I attended in it, two only died,” although, he claimed, “we had a dreadful account of its ravages in some of the neighboring towns.”¹³ This disease struck both rich and poor, but by Ferriar’s accounts when the less fortunate patients contracted the disease it was almost expected:

Fevers of this species always exist among the poor, in certain quarters of this town; and their ravages are only checked by the privilege which patients in

¹⁰ Hindle, *Provision for the Relief of the Poor*, 112-3.

¹¹ *Ibid.*, 29.

¹² Pickstone, *Medicine and Industrial Society*, 31-2.

¹³ John Ferriar, *Medical Histories and Reflections*, 1st ed. (Warrington, UK: Eyres, 1792), 117-20.

indigent circumstances enjoy, of being visited at their own houses by the physicians of the infirmary... But the abuses which perpetuate the germ of the disorder cannot be remedied by the activity of any individual, or the succors of any charitable institution now existing. It will not be useless, however, to point them out; if they cannot be entirely done away, they may be lessened; and though a spirit of benevolence already prevails among the inhabitants of Manchester, it may add strength to its exertions to shew, that the health of the rich is often nearly connected with the welfare of the needy.¹⁴

The fever of 1789-1790 was most likely a typhus or louse borne relapsing fever, both being vector borne diseases, which transferred from person to person by a host, such as a mosquito. Cold, damp weather kept people indoors and increased the opportunities that the vector of these fevers, the body louse, had to travel from person to person and transmit the disease.

In the fall of 1794 the reports of fever increased within the town, particularly among the poor, which persisted through 1795 and into 1796.¹⁵ This time the social problems of Manchester threatened to breed political discontent. This new fever outbreak coincided with rising food costs, prompting a meeting of the town's Committee for the Relief of the Sick Poor in 1794, and the creation of a Committee for the General Relief of the Poor a year later. The years 1795 and 1796 were worse, with high grain prices and riots in the Manchester markets.¹⁶ The Infirmary may have been a form of poor relief, but it was not a panacea.

¹⁴ Ibid., 135.

¹⁵ Hindle, *Provision for the Relief of the Poor*, 86.

¹⁶ Hindle, *Provision for the Relief of the Poor*, 86-7; Pickstone, *Medicine and Industrial Society*, 24-5.

The amalgamation of previous outbreaks and the outbreak of 1794-1796 convinced a number of Manchester community leaders that something decisive had to be done, and led to the emergence of an organized local public health movement. As Ferriar noted only a few years earlier, the lives of the rich and the lives of the poor often intertwined. The poor brewed the beer, grew the food, served as the domestic help, and worked in the factories of the wealthy. Less innocuously, they also might riot if conditions deteriorated too greatly. For Manchester's physicians, the fever outbreak and the fear of public disorder provided an opportunity to promote measures that they had long believed would prevent the formation and transmission of disease.

The first meeting of the potential Board of Heath occurred on January 7, 1796, at the Bridgewater Arms Hotel in Manchester, where barrister T B. Bayley was named as chairman and local surgeon Thomas Bellott as secretary. The board consisted of the magistrates of Manchester and Salford, community physicians, Poor Law overseers, members of the Strangers' Friends Society, and other community leaders.¹⁷ According to Dr. Percival,

The objects of the Board of Health are threefold;

- I. To obviate the generation of diseases:
- II. To prevent the spreading of them by contagion:
- III. To shorten the duration of existing diseases and to mitigate their evils, by affording the necessary aids and comforts to those who labour under them.¹⁸

The plan of the newly formed Board of Health was to address all three of these objectives, aimed at eliminating both predisposing and exciting causes of disease.

¹⁷ Manchester Board of Health, *Proceedings of the Board of Health in Manchester* [1796-1804] (Manchester: S. Russell, 1805), 1-4.

¹⁸ *Ibid.*, 5.

Predisposing causes left the corporal body weak and open for invasion. Those causes included cold, dampness, insufficient food, lack of sleep, bad air, and overwork. A body subjected to lengthy or multiple predisposing causes made it susceptible to the exciting causes, which came from spoiled food, exposure to miasmatic vapors and what was generally referred to as contagion. Once infected, it was important to be separated from those carrying the fever, so as to minimize the exposure of the healthy to disease. In terms of compelling residents to comply with the Board's recommendations, Dr. Percival proposed ways in which the Board's suggestions could be enforced. Percival believed that either receiving a police appointment or having the Board of Health sanctioned by the magistrate and appointed during the Courts of Quarter Sessions might be possible solutions.¹⁹ There is no evidence, however, that Dr. Percival's suggestions made it past the stage of discussion within the committee.

Various members of the Board made suggestions aimed at preventing the generation of disease. Dr. Ferriar proposed to the committee that all lodging houses should be required to obtain a license, making them fall under the enforcement of the local magistrate.²⁰ To minimize the predisposing causes, he suggested that houses should be inspected to prohibit those that were, "so close; noisome or damp as to be rendered incapable of being tolerably salubrious."²¹ Percival and Ferriar both had a problem with the Manchester landlords who catered to the poor. Factory workers visited at home by physicians were not often mentioned in the newspapers or Board minutes as

¹⁹ Ibid., 7.

²⁰ Ibid., 12.

²¹ Ibid., 5.

homeowners, and were likely at the mercy of a local landlord. The rapid rate of population growth in the city created a significant problem of overcrowding, and no legislation existed regarding occupancy rates. Whole families frequently inhabited only one or two rooms. Ferriar observed after many cases that often new lodgers from the country, drawn to Manchester on the promise of work, became infected after moving into a room recently inhabited by a fever victim. In the case of one landlady, he had specifically “warned her of the danger of receiving new lodgers into a house infected in every room.”²² Persons who could no longer afford the rent because they fell ill were unceremoniously ejected, while others died of fever as they were still paying rent. Either way, rooms were turned over to the next tenant as quickly as possible, and rarely with a thorough cleaning. Since the rented rooms often came furnished, that meant the sickbed was passed on to the next person as well.

Because both renters and landlords wanted to avoid the window tax, those buildings that did feature windows were often boarded up. The windows that remained were broken and stuffed with rags or paper to retain the heat, but this solution also hindered ventilation from stoves and unwashed bodies. Basement rooms had the cheapest rent, but often resulted in dampness and frequent flooding. The rooms lacked proper drainage and the back alley basements often flooded, and seepage from poorly dug privies came in from nearby.²³ It was not uncommon for a lodging house to be built downhill from a slaughterhouse, stable or tannery, with the smell and waste fluids washing through into the cellars.

²² Ferriar, *Medical Histories*, 1st ed., 127.

²³ *Ibid.*, 135-6.

The Board of Health proposed that the streets should be better cleaned, dunghills removed, and local tanners and slaughterhouses policed for the reduction of “noxious effluvia.”²⁴ Local markets would be supervised “with a view to the prevention of the sale of putrid flesh, or fish, and of unsound flour, or other vegetable productions.”²⁵ Houses in which the sick resided should be whitewashed and all the linens and bedding aired out or burned.

Working conditions in Manchester’s factories represented a predisposing cause of particular concern to the members of the Board of Health. The members of the Board of Health felt strongly enough about the deleterious effects of Manchester’s working environment to suggest that manufacturers allow the interference of health officials with their business affairs. This was something public health experts could not assume most factory owners and operators would welcome, but only Dr. Ferriar made the comment that “I am uncertain how far the committee could with propriety interfere.”²⁶ Some members of the Board proposed that local manufacturers allow inspection of their factories to remedy any potential cleanliness or ventilation problems. The committee also recommended that workers be given extra time for meals and sleep, as well as more reasonable work hours that did not involve night shifts. To prevent disease transmission and fever relapses, factory owners should also stop allowing infected and newly cured persons from returning to work.²⁷ To legitimize their requests, committee members

²⁴ *Proceedings of the Board of Health in Manchester* [1796-1804], 5-6.

²⁵ *Ibid.*

²⁶ *Ibid.*,18.

²⁷ *Ibid.*

solicited letters from individuals outside the community. These included David Dale, the utopian social reformer and mill owner. In a letter, the Board members inquired about the health of Dale's workers, the means employed at his mill to prevent and correct typhus infections, and the rules he had instituted regarding the health and cleanliness of workers, as well as work conditions. Dale stated in his reply that he had not had any fever outbreaks in his mills, only occasional cases, and that bad health was not the fault of the cotton mills, but was to be attributed to "other causes."²⁸

Manchester physicians on the Board of Health considered child welfare, particularly working conditions, to be an essential part of the fight against fever outbreaks. Cleanliness, of both body and clothing, was most important in the health of children. Physicians vehemently opposed night shifts for child workers of any age, but particularly the very young. Children were robbed of light, clean air, and "refreshing and quiet sleep."²⁹ Night work also deprived children of the chance to play, go to school, and attend church, which was considered damaging to their morals.

In order to insulate the healthy population as far as possible from the exciting causes of disease, the Board of Health wanted officials to have the power to remove those already infected as rapidly as possible to a location that was not only separate from the healthy, but also from those already suffering from other non-fever illnesses. Physicians recognized that the fever was not the same as other contagious diseases such as smallpox, and being sick with one disease did not protect a patient from being infected with another at the same time. For this reason the Board of Health investigated the possibility of

²⁸ Ibid., 56.

²⁹ Ibid., 6-7.

building of a separate fever hospital for those for whom home treatment was not possible. This would include patients who lived in the cotton mills, those whose homes were so inhospitable that they would hinder recovery, and patients living in homes so overcrowded that one infected person would surely infect the whole family. Infirmary doctors frequently visited those patients who were struck with fever in their homes, which were often dirty, damp and ill lit. For physicians who believed that cold, dampness, inadequate food, lack of cleanliness, and overcrowding caused illness, the treatment of patients in these situations must have added an element of futility. The Infirmary did not admit fever patients, nor did the poorhouse, and the Infirmary was never meant to operate as a substitute.

A separate fever hospital was logical for several practical reasons. Those who would normally consider faking an illness for food and a warm bed in the Infirmary would not do so if they knew it meant they might actually catch a contagious fever.³⁰ The separation of the sick from their families and coworkers would prevent the spread of disease to others. The patients could then be frequently bathed and have their bedding and clothing changed. Those being treated would likely recover more rapidly than those remaining in their own homes, and those who died while in the fever hospital could be quickly buried to reduce their exposure to others. Patients would not be released until the physicians felt that they were no longer a potential danger. Ferriar believed a separate hospital would be considered reputable enough to attract female employees who would

³⁰ Infirmary Annual Report, June 24, 1757 to June 24, 1758.

be suitable as nurses.³¹ It would also serve as an effective way to measure the progress of the illness at the community level in a population that was not always the easiest to track.

Finally, the new Board wanted to assume responsibility for those sick poor who were already ill, including both those being treated in their homes and as part of the fever hospital admission. To provide the requisite care, they needed funds for additional nurses and physicians, medicine, food clothing, and medicinal wine.³² Dr. Ferriar recommended to the Board of Health that physicians not have the power to grant relief to their patients in the form of money, food, or vouchers, because this led to “false claims, which intercept the expenditure and attention due to real sickness.”³³ In January 1795, one year prior to the constitution of the Board of Health, the Infirmary Board supported the creation of the Committee for the General Relief of the Poor because they believed that citizens abused the system and sought recommendation to the Manchester Infirmary for the benefit of food and clothing, not because of sickness.³⁴ In-patients to the proposed fever hospital would be admitted in much the same fashion as those who sought access to the Infirmary, despite some of the problems with that procedure.³⁵ Physicians would have the power to admit existing Infirmary patients to the fever wards, although they would not be on the fever hospital board.

³¹ *Proceedings of the Board of Health in Manchester* [1796-1804], 14-15.

³² *Ibid.*, 7.

³³ *Ibid.*

³⁴ Hindle, *Provision for the Relief of the Poor*, 113-4.

³⁵ *Ibid.*, 22.

The physicians who advocated for a fever hospital understood that not everyone would share their enthusiasm for a new hospital being located on the same grounds as the Infirmary. A small group met at the residence of Dr. Percival a month before the first official Board of Health meeting to discover the best means of presenting the issue. The minutes of the first Board of Health include a letter dated from the day before the meeting sent to Dr. Percival from Dr. Haygarth of the nearby Chester Infirmary.³⁶ The Chester Infirmary already had separate fever wards (one for men, and one for women), and Dr. Haygarth reported that in the twelve years that he kept these wards, “the dilution of fresh air” was enough to prevent any of the other patients in the hospital from catching the fever.

The letters from various members of the committee and their associates revealed the variance of opinions existing in the late 1700s regarding how contagion was formulated and spread. It also revealed that vocal participation from local physicians was not limited to Dr. Ferriar and Dr. Percival. In one address, “A.B.” warned of the possible passing of infection through saliva, and cautioned that “persons with an empty stomach are most liable to become infected.”³⁷ In another, a Dr. Garnett stated “that the effluvia from the human body, communicating infection, is hydrogen gas, charged with some animal substances.”³⁸ Another theory suggested the importation of fever in shipments of cotton. Ferriar claimed that tobacco smoke “is more likely to excite, than to prevent

³⁶ *Proceedings of the Board of Health in Manchester* [1796-1804], 9-11.

³⁷ *Ibid.*, 37.

³⁸ *Ibid.*, 43.

disease.”³⁹ In children, another physician warned, the difference in temperature between the inside of a warm room and outside winter air was sufficient to cause fever.⁴⁰

Significantly, the physicians did not identify a variety of other possible causes of the fever and there was limited discussion of any type of discrete sanitation, including water pollution. Most importantly, none of the medical experts associated with the committee recognized that the true culprit of typhus transmission was the body louse.

In an attempt to reduce local concerns about the existence of a fever hospital within the grounds of the existing Infirmary, the Board of Health suggested calling the institution a “House of Recovery.” Nevertheless, a vocal group of citizens who lived near the Infirmary felt “some degree of alarm” at their proximity to the contemplated hospital, and believed it should instead be located nearer the poorhouse.⁴¹ One of the proponents of this alternate site was the former Infirmary surgeon and founder, Charles White.⁴² White never expressed this opinion on contagiousness of fevers in his work on puerperal fever, even when comparing it to other infectious fevers.⁴³ In response, the medical committee of the Board of Health claimed that for every one person admitted to the fever hospital, that forty would be spared contracting the disease.⁴⁴ They also assured those residing in the area of the Infirmary that effluvia could travel no more than a few yards.

³⁹ Ibid., 20.

⁴⁰ Ibid., 26.

⁴¹ Ibid., 87-8.

⁴² Pickstone, *Medicine and Industrial Society*, 26-7.

⁴³ George Adami, *Charles White of Manchester (1728-1813), and the Arrest of Puerperal Fever* (Liverpool: University Press of Liverpool, 1922), 64. Ibid, 64n.

⁴⁴ *Proceedings of the Board of Health in Manchester* [1796-1804], 47.

The House of Recovery was established in 1796, and by the end of the first year it admitted 371 patients. With its opening, the House of Recovery became the first freestanding fever hospital in Britain.

Implementing and Enforcing Public Health

The newly constituted Board of Health confronted Manchester's significant public health problems without sufficient legislative support for its remediation efforts. The first police act to regulate lighting and scavenging in Manchester passed in 1792, although it was initially proposed in 1783.⁴⁵ The act included provisions for the cleaning, lighting and widening of certain Manchester roadways, as well as providing for fighting fires.⁴⁶ Had it been a comprehensive and successful improvement act perhaps there would not have been as many problems related to street sanitation in the reports from the first Board of Health. The act had several inadequacies. Penalties assessed varied widely depending on types of offenses. The damage of a fireman's bucket or street lamp resulted in the replacement of the item, plus a five pound fine for the first offense and ten pound for the next two offenses, while a scavenger who deposited waste in any of the waterways would only receive a fine of five shillings per occurrence.⁴⁷ Many of the new rules regarding streets and alleys applied only to new, public roadways, not to existing or private roads. The act also attempted to regulate too many aspects of city life, from the size of a baker's woodpile to muzzling mastiffs, making it very difficult to enforce.

⁴⁵ Wheeler, *Manchester*, 90.

⁴⁶ Manchester and Salford Police Act, 1792, 32 Geo.III, c. 69.

⁴⁷ *Ibid.*

Finally, many of the manufacturers and landlords to whom the act applied were permitted to sit as commissioners, effectively making them responsible for policing themselves.

Percival and Ferriar believed in both the carrot and the stick when it came to public health. In the case of patients, it was paternal advice and incentives. Presumably as a result of Infirmary physicians' frequent exposure to patients, both in the Infirmary and during home visits, these doctors grew accustomed to the behavior of a typical patient and understood how to incentivize patients' compliance. The Board of Health offered a bounty of two shillings, for example, for those who divulged the names of neighbors they suspected of being infected.⁴⁸ In terms of policing, Percival astutely suggested in the first letter to the Board of Health members that they should consider multiple options for enforcing the public health regulations they were creating. He questioned whether the Board of Health had the authority to ensure compliance or whether it needed to receive some form of deputizing from the magistrates or police.⁴⁹ Ferriar wanted lodging houses registered under the control of a magistrate, to be subject to inspection.⁵⁰ Regarding factory work and children, there was also the veiled threat of acquiring parliamentary legislation "if other methods should appear not likely to effect the purpose."⁵¹

Because all of the suggestions made by the Board of Health were initially permissive, substantive reform was slow and uneven. Where lodging houses were concerned, for example, the magistrates did not receive additional national powers of

⁴⁸ John Ferriar, *Medical Histories and Reflections*, 3rd ed. (London: Cadell and Davis, 1798), 214-15.

⁴⁹ *Proceedings of the Board of Health in Manchester* [1796-1804], 7.

⁵⁰ *Ibid.*, 12.

⁵¹ *Ibid.*, 34-5.

enforcement until 1851, with the passage of the Common Lodging Houses Act. Where the regulation of factory conditions was concerned, legislative interference occurred earlier, but was only modestly effective. The minutes of the Manchester Board of Health provide many examples of the opinions Manchester physicians held regarding the negative effects of factory work on the general public. By 1800 it became increasingly common to employ pauper children as apprentices in English fabric manufacturing, particularly the factories utilizing water mills.⁵² These children worked in the fabric mills, often hundreds of miles from their families. J.K. Howard writes that, during the apprenticeship, these children were “theoretically under the care of their masters during this indenture, but in the great majority of cases this was a legal fiction in which the rights of the apprentice did not appear.”⁵³ Since they were “apprenticed” to factory owners, the children lived in the mills, in some cases working shifts that exceeded twelve hours. Manchester chronicler John Aiken observed in 1795 that “children of a tender age are employed; many of them collected from the workhouses in London and Westminster.”⁵⁴ The working conditions of the mills left much to be desired, as “these children are usually too long confined to work in close rooms, often during the whole

⁵² Joanne Innes, “Origins of the Factory Acts: The Health and Morals of Apprentices Act, 1802,” *in Law, Crime, and English Society 1660-1830*, ed. Norma Landau, 230-55 (Cambridge, UK: Cambridge University Press, 2002), 232-3.

⁵³ J.K. Howard, “Dr Thomas Percival and the Beginning of Industrial Legislation,” *The Journal of the Society of Occupational Medicine* 25, no. 2 (1975): 58.

⁵⁴ John Aiken, *A Description of the Country from thirty to forty miles round Manchester* (London: Stockdale, 1795), 219.

night: the air they breathe from the oil, &c. employed in the machinery, and other circumstances, is injurious.”⁵⁵

The notable industrialist, Sir Robert Peel, owned several of these factories, and by the 1780s they provided him with the substantial income that was to eventually make him a member of the landed gentry. It was Peel’s cotton factories in Radcliffe that were the origin of the 1784 fever outbreak, which Percival and the other Infirmary physicians investigated. The investigation and subsequent report published by the physicians in the local papers portrayed the factories and their owner in an unfavorable light. Peel claimed that he was unaware of how bad the conditions were, and somewhat lamely attributed his lack of knowledge to “having other pursuits.”⁵⁶ Peel’s belated response, as MP for Tamworth, was to draft the first piece of legislation that addressed the poor working and living conditions in England and Ireland (Scotland was excluded), the Factory Health and Morals Act, which passed easily in 1802.⁵⁷ In an 1816 report on the state of the children employed in manufacturing, Peel directly attributed the assistance of “Dr. Percival and other eminent medical men of Manchester” in helping him secure passage of the 1802 act.⁵⁸ Many of the concepts that Percival and other physicians advocated were covered under the bill.

⁵⁵ Ibid.

⁵⁶ House of Commons, “Report of the Minutes of Evidence respecting the State of the Health and Morals of Children employed Manufactories, chiefly as to Cotton Factories,” Sessional Papers, 1816, Select Committee on the State of Children employed in Manufactories, 1816 vol. 3, p. 35.

⁵⁷ Factory Health and Morals Act, 1802, 42 Geo. 3, c. 73.

⁵⁸ House of Commons, “Report of the Minutes of Evidence respecting the State of the Health and Morals of Children,” 35.

The resulting act was national and directly concerned public health, although perhaps not as comprehensively as the doctors preferred. The legislation pertained to mills in England, Wales, and Ireland that employed more than three apprentices or twenty regular employees. The moral requirements of the act mandated males and females sleep in separate apartments, attend school regularly, and have provision for religious instruction. Those sections of the act that directly addressed the health of apprentices required that all sleeping rooms for the apprentices be “washed with quicklime and water twice a year,” and that there be sufficient windows and fresh air. Another requirement of the act called for owners to provide apprentices with two complete sets of clothes, and another new set yearly. Children could sleep no more than two to a bed. Apprentices were restricted from working between the hours of nine in the evening and six in the morning, with no shift lasting longer than twelve hours, not including meals. The act also stipulated that, during the Midsummer Session, the Justices of the Peace should appoint two inspectors, called visitors, to report on the condition of factories and mills at the Quarter sessions. The act dictated that visitors could be in no way be connected to, nor have interest in, the factory or mill in question. In order to control potential outbreaks, the act gave the authority for these visitors to require factory owners to “call in a physician or other competent medical person” in the event that infectious disease was suspected.⁵⁹

The Factory Health and Morals Act had limited success because over the coming two decades the use of “apprentice” labor fell out of favor.⁶⁰ But the act did serve, however, as a precedent for other factory legislation to come later. This legislation,

⁵⁹ Factory Health and Morals Act, 1802, 42 Geo. 3, c. 73.

⁶⁰ Innes, “Origins of the Factory Acts,” 254-5.

although often considered as an example of early factory or industrial legislation, was also a pioneering public health act. It related specifically to what Percival, Ferriar, and other Manchester physicians considered predisposing causes: warm clothing, sleeping in less crowded beds, decreasing work hours, and the sanitary condition of the sleeping quarters. It also called for mandatory reporting of potential disease outbreaks, something missing from subsequent factory legislation prior to 1853.⁶¹ These were also all reforms that Ferriar wanted to apply to the general public, particularly the impoverished, which is evident in his advice to the poor.

Advice to the Poor

In his *Medical Histories and Reflections*, Ferriar directly addressed the poor on measures to prevent fever and other forms of illness. It was written after the 1794 outbreak and the formation of the Manchester Board of Health. In it he wrote, “We [physicians] can only stop the progress of diseases after they have once begun, but it is greatly in your power to prevent them from beginning at all, by attending to the simple directions which follow.” Given his significance as a pioneer of preventative medicine, it is worth quoting Ferriar’s instructions at some length:⁶²

1. Avoid living in damp cellars: they destroy your constitutions and shorten your lives. No temptation of low rents can counterbalance their ill effects.
2. Always wash your children from head to foot in cold water . . . and never allow them to go to work without giving them their breakfast, though you should have nothing to offer them but a crust of bread

⁶¹ Thomas Tapping, *The Factory Acts*, (London: Shaw and Sons, 1855), 6.

⁶² Ferriar, *Medical Histories*, 3rd ed., 211-19.

3. If you know any of your neighbors are in a starving condition, apply to some opulent person in the neighborhood Want of necessary food produces bad fevers.
4. You ought to be cautious in purchasing old clothes, or second hand furniture; as they may be bought from houses infected with fever.
5. It should be necessary to remind you that much sickness is occasioned by passing your evenings at alehouses Perhaps those who are most apt to expose themselves in this manner, would pay little attention to dissuasive arguments of any kind.
6. There is a subject of great importance to you, on which you seem to want information. A great number of children die of the natural smallpox, almost every year. This mortality must be imputed, in a great degree to your own negligence
7. You ought to be informed, that there is scarcely any thing more injurious to the health of children, than allowing them to work at night in the cotton mills.

There are several different characteristics of this address to consider. This advice was both patronizing and supportive. Ferriar's frustration, particularly regarding the situation of children, was obvious, but at the same time he expressed an understanding that paupers and the working poor did not always have numerous options regarding living situations and income. Notably, he appealed to the potential reader as a person who enjoyed some control over his or her environment. Ferriar possessed faith in his working-class audience, and believed that they possessed the intelligence and reasoning power to be swayed by his admonition. Ferriar wrote in an imploring tone, one that was neither threatening nor demanding.

Manchester physicians, like many physicians across all of England, did not conclusively understand what caused diseases like fever and smallpox in the late 1700s. They believed that a combination of predisposing and exciting causes would in many cases make it more likely that disease would be contracted and spread. These medical men did not always concur on the specific causes, although the members of the

Manchester Board of Health were in general agreement. Unclean, overcrowded, and damp living conditions would make people sick and prevent them from getting better. Poor food, exposure to cold, and sleep deprivation would weaken one enough to allow contagion into the body. Sharing clothing and bedding, returning to work too early, and lack of ventilation would cause disease to spread. The members of the Manchester medical community indicated in their writings that they felt the responsibility for the poor situation was shared between the patients who could not keep themselves or their homes clean, the landlords who allowed dirty, damp hovels filled with infected bedding to be passed from family to family, and the overseers of the factories who imposed long, debilitating work hours in close environments. The Board of Health felt the most effective method for combating these evils included educating the public, creating rules that improved living and working conditions, and establishing enforcement mechanisms for those unwilling to comply with permissive regulations.

Through an examination of public health reform in Manchester during the 1790s, this chapter has demonstrated that the British public health movement originated at the grass roots, and was not associated with Chadwick specifically, or with Benthamite ideals of the bureaucratic state more generally. The Manchester Board of Health established itself as vehicle of change for the population. Board members solicited support for their decision from individuals they trusted from across the nation, including other health professionals and industrialists. Armed mostly with advice and admonitions, the Board sought to establish rules to allow for better living and working conditions for the Manchester working class. Despite good intentions, the Board did not succeed in

improving sanitation in Manchester. The Board did, however, give a significant impetus to the passage of the Factory Health and Morals Act, which provided the foundation for future factory laws. As a national law, its passage affected all factory owners with apprentices equally, as opposed to local legislation that might have created a trade disadvantage for Manchester merchants. The only directly successful implementation of the Manchester Board of Health that endured for Manchester was the House of Recovery, which was not coincidentally the product of the Board that the physicians had the most control over. In the years to come, the Manchester Board of Health focused less on the management of the sanitation of an entire city and more on the day to day charitable operations of the House of Recovery.

II. THE EXPANSION OF HEALTH SERVICES IN MANCHESTER, 1790-1830

As groundbreaking as its establishment was, the House of Recovery did not meet all the medical and public health needs of a rapidly growing industrial city like Manchester. In this chapter, Manchester health services between 1790 and 1830 are examined to see how they expanded to meet the health needs of previously underserved populations such as pregnant women, those suffering from venereal disease, and children. This time period shows the Manchester medical community took the initiative to create their own education system in the form of medical schools, which created physicians who would then be available to stay and serve in the city. In addition, the medical community, through the Manchester Infirmary system, began to offer preventative medicine through the provision of smallpox vaccinations. Once again, the local population recognized a lacuna in services to paupers and the working poor, and in response created their own initiatives to solve these problems, all without the assistance of the national government.

Manchester hospital development before 1800 was mostly limited to expansions of the Infirmary, including the House of Recovery. There was also a Lunatic Hospital attached to the Infirmary in 1763, one of the first in England built outside of London.¹ In 1781 a Dispensary with a home patient service was established from the Infirmary, but it was not considered to be a separate entity. The Infirmary did not admit pregnant women, although several physicians, particularly the Whites and the Halls, were eager to treat

¹ Pickstone, *Medicine and Industrial Society*, 16.

them. Infighting with some of the more radical Whig doctors and board members caused the Whites and the Halls, who were Tories, to resign and establish a Lying-in Charity for poor women in May 1790.² This charity assisted with the delivery of babies in the family's home, and was mostly done by trained midwives.

One other hospital founded in Manchester in this period was the Manchester Lock Hospital, established in 1774, which existed specifically to treat female patients suffering from infectious venereal diseases such as syphilis and chlamydia. The Infirmary had treated both male and female patients with venereal disease since its founding, but only as out-patients.³ Thomas Percival was one of the physicians who spearheaded the early initiative to develop the Lock Hospital. At its establishment he hoped that “so laudable an example may be followed in other places.”⁴ But venereal disease was considered by some contemporaries to be the product of “immoderate passions and vicious indulgences” and its treatment was not supported with the same enthusiasm as charities for other conditions.⁵ The method of admission to an infirmary was nomination by a subscriber. In the case of venereal hospitals there would be some hesitancy to have an association with this type of patient. The first Lock Hospital only remained open for three years and presumably closed due to insufficient support from both the Infirmary board and local

² Ibid., 31-2.

³ T. J. Wyke, “The Manchester and Salford Lock Hospital, 1818-1917,” *Medical History* 19 (1975): 74.

⁴ Thomas Percival, *Essays Medical, Philosophical, and Experimental*, rev. ed. (Warrington: printed by W. Eyres, for J. Johnson, London, 1789), 203.

⁵ Ibid., 204.

subscribers.⁶ Percival and other staff members continued to advocate for admitting venereal patients to the Infirmary for the next fifteen years, but the same lack of support that closed the Lock Hospital prevented the physicians from swaying the Infirmary trustees.⁷ Dr. Percival died in 1804, and never saw a separate ward or special hospital established, although the Infirmary continued to service the infected as out-patients.⁸

The Infirmary continued to refuse admission to men with venereal disease as late as 1881.⁹ The only available treatment facility for pauper men was the workhouse infirmary or as an outpatient.¹⁰ This was also the situation in other towns such as Liverpool.¹¹ While considered a moral failing, venereal disease was also recognized as a sanitary problem. Dr. William Blair, a surgeon who specialized in venereal diseases, remarked on the detrimental effects of sexually transmitted diseases in the military as early as 1798, pointing out that “venereal disease deprives the service of a great many useful men.”¹² Military physicians treated venereal disease in soldiers, but according to Blair, these men often hid their disease in its early stages or sought the help of

⁶ Wyke, “The Manchester and Salford Lock Hospital, 74.

⁷ *Ibid.*, 74.

⁸ William Blair, *Essays on the Venereal Disease and Its Concomitant Affections* (London: J. Johnson, 1798), 96-106.

⁹ Frederick W. Lowndes, *Lock Hospitals and Lock Wards in General Hospitals* (London: J. & A. Churchill, 1882), 12-13.

¹⁰ Wyke, “The Manchester and Salford Lock Hospital,” 74.

¹¹ Lowndes, *Lock Hospitals and Lock Wards*, 14-9.

¹² William Blair, *The Soldier's Friend Or, the Means of Preserving the Health of Military Men; Addressed to the Officers of the British Army* (London: Longman, 1798), 147-9.

nonprofessionals to avoid being declared unfit for duty and thus losing pay.¹³ Ironically, waiting for treatment often made the condition so bad that the soldier was ultimately discharged from service.

It was not until 1818 that another permanent Lock Hospital was founded in Manchester.¹⁴ A hospital was also established in Newcastle around the same time (1813).¹⁵ Most of the credit for the development of the Manchester hospital went to surgeon Joseph Jordan, although surgeons William Brigham, Michael Stewart, William Simmons and John Hull were also listed as founders.¹⁶ This hospital had no affiliation with the Infirmary, although Simmons served on the Infirmary staff. The second attempt at establishing a Lock Hospital was more successful because the level of financial support increased, primarily as a result of the participation of Quaker manufacturer David Holt.¹⁷ The hospital was mostly for the care of the indigent, and subscribers were encouraged to verify the financial state of possible patients.¹⁸ To convince potential subscribers that the hospital did not encourage illicit or immoral behavior, the Hospital board agreed that once a patient was admitted and cured she could not apply for relief again unless she received special permission.¹⁹ As was the case in the London Lock

¹³ Ibid.

¹⁴ Wyke, "The Manchester and Salford Lock Hospital," 73.

¹⁵ Ibid.

¹⁶ Frederick William Jordan, *Life of Joseph Jordan, Surgeon: And an Account of the Rise and Progress of Medical Schools in Manchester, with Some Particulars of the Life of Dr. Edward Stephens* (London: Sherratt & Hughes, 1904), 29.

¹⁷ Wyke, "The Manchester and Salford Lock Hospital," 77.

¹⁸ Ibid.

Hospital, an asylum, or halfway house, was attached to the Manchester hospital to discourage female recidivism. To give additional legitimacy to the institution Sir Oswald Mosley, a local landowner, was attracted to be the president of the Lock Hospital board, with other local community leaders serving as well.²⁰ By the 1870s the Lock Hospital treated men, women, and children, although only women were admitted as in-patients. The admission numbers for 1880-1881 reveal that of the 4,108 patients treated, at least seventy five percent were men, and a little over two percent of the patients were children.²¹ The Hospital continued to struggle with finances for most of the century, but survived until 1917, when it was reorganized as a free clinic and became known as St. Luke's.²²

The Lock Hospital was not the only specialized hospital developed after 1800. By the 1820s Manchester was flush with an influx of physicians, a combination of the increased output of medical schools and the post war release of physicians from the military.²³ Traditionally, physicians aspired to positions in voluntary hospitals as a way to establish themselves and generate a patient base for a supplemental private practice. As the these positions became scarce, some physicians responded by creating their own specialized hospitals. In addition to the Manchester Lock Hospital, the Manchester Institution for Curing Diseases of the Eye was another voluntary hospital created in 1818,

¹⁹ Ibid., 76.

²⁰ Ibid., 77.

²¹ Frederick W. Lowndes, *Lock Hospitals and Lock Wards in General Hospitals* (London: J. & A. Churchill, 1882),12-13.

²² Wyke, "The Manchester and Salford Lock Hospital," 84.

²³ Pickstone, *Medicine and Industrial Society*, 44.

as a way for a newer physician to establish himself. William James Wilson, the founder, was the pupil of J.C. Saunders, who had developed England's first eye hospital in London thirteen years earlier. By 1830 the hospital treated over a thousand patients a year.²⁴ Another special hospital was the Dispensary for Children, created in 1829 by general practitioners W.B Stott and John Alexander.²⁵ It was Manchester's first pediatric hospital, and was meant to fill the gap that existed from low Infirmary admission rates for children.

As time progressed, a larger percentage of patients admitted to the Infirmary were accident victims, mostly from mishaps occurring in the factories. In the 1801-1802 reporting year, 680 patients, or around ten percent of the total patients seen that year, were accident cases. In the yearly report for 1805-1806 there was already a mention of the role of machinery in the increase of accidents and it creating a need for more income for the hospital. By the time the yearly report was issued for the 1819-1820, accidents had jumped to seventeen percent of all cases.²⁶

Manchester's boundaries expanded just as its population of physicians did, and the Infirmary was no longer large enough to meet the needs of the residents of Manchester's newest suburbs. This resulted in the creation of new hospitals, which were independent entities rather than extensions of the existing Manchester Infirmary system. The Chorlton Row Dispensary opened in 1825, in response to a fever outbreak in the

²⁴ Edmund Lyon. "Sketch of the Medical Topography and Statistic of Manchester," *The North of England Medical and Surgical Journal* 1, no. 1 (August 1830): 147.

²⁵ Pickstone, *Medicine and Industrial Society*, 53. Lyon, "Sketch of the Medical Topography," 47.

²⁶ Infirmary Annual Report, June 24, 1819 to June 24, 1820.

area, this was not surprising since it contained the overcrowded and impoverished neighborhood of immigrants referred to as Little Ireland.²⁷ It employed two physicians, two surgeons, and an apothecary.²⁸ Next to be established was the Salford and Pendleton Dispensary in 1826, with two physicians, four surgeons, and an apothecary.²⁹ Last came the Ardwick and Ancoats Dispensary, opened in 1828, with two physicians, two surgeons, a consulting surgeon, and an apothecary.³⁰ All of these new dispensaries came at the request of local ratepayers who were not likely to be part of the dispensaries' clientele, but were concerned about a lack of medical provision for the working poor in their neighborhood.³¹

One of the major events in Manchester medicine in the period from 1800 to 1830 involved the development of medical education. The passage of the Apothecaries Act by Parliament in 1815 gave new emphasis to certification of physicians.³² This national act required that all general practitioners be certified, with part of the certification requirements being attendance at lectures and six months' apprenticeship in a hospital.³³ One of the lecture subjects, perhaps the most popular, and most difficult to acquire as an instructed class, was anatomy. Practical anatomical teaching required cadavers, made

²⁷ Pickstone, *Medicine and Industrial Society*, 53-4.

²⁸ Lyon, "Sketch of the Medical Topography," 147.

²⁹ *Ibid.*

³⁰ *Ibid.*

³¹ Pickstone, *Medicine and Industrial Society*, 51-3.

³² Anatomy Act, 1832, 55 Geo.III, c.194.

³³ Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity*, (New York: W. W. Norton, 1997), 316-17.

available only when a person died and the family or will designated donation. A limited number of bodies from executed criminals became available from prisons every year, but typically a shortage existed. The most common solution to the shortage of bodies available before the passage of the Anatomy Act of 1832 was grave robbing. Since a corpse sold for as much as seven pounds, many enterprising people became “resurrectionists.” William Hare and William Burke of Edinburgh went even further in 1828, and smothered seventeen of the lodgers in Hare’s boarding house in order to sell the bodies to anatomist Dr. Knox of the Edinburgh Medical School.³⁴ Such scandals caused the general public to have less trust in doctors generally. Knox was never implicated in the murders, although he briefly went into hiding and a mob damaged his anatomy lab.³⁵ In 1818 one of the Manchester Infirmary surgeons, Thomas Fawdington, was accused of dissecting the body of a young girl without the consent of her parents.³⁶ This resulted in an Infirmary policy that no postmortem examinations would occur without the permission of the family.³⁷ When available, anatomy instructors sold surplus cadavers to other instructors outside the area, presumably to make extra money while not supplying local competitors for medical students. Joseph Jordan, founder Manchester’s second Lock Hospital, also supplied Knox with bodies. Jordan founded the first of Manchester’s anatomy schools in 1814. The discovery of at least ten of his barrels packed with corpses bound for Edinburgh resulted in smashed windows in Jordan’s anatomy

³⁴ Ibid., 317.

³⁵ Ibid.

³⁶ F. Renaud, *A Short History of the Rise and Progress of the Manchester Royal Infirmary from the Year 1752 to 1877* (Manchester: J.E. Cornish, 1898), 86-7.

³⁷ Ibid.

studio.³⁸ He commented in 1854 on the frustration of trying to teach anatomy without access to proper dissection subjects:

You were required to understand your profession, yet you were utterly forbidden to dissect. You had no means of obtaining subjects, you were prosecuted if you robbed the churchyards. Here you were; the public and the Legislature demanding of you a knowledge of your profession, and yet the law utterly prevented you from obtaining that knowledge.³⁹

In order to meet the increasing demand for formal medical education outside of London, Manchester developed anatomy and surgical schools. The Infirmary and Manchester Literary and Philosophical Society already offered certain lectures to apprentices, but these sessions did not occur regularly, and the topics could vary. In response, new schools appeared. In addition to Jordan's, two other schools opened by 1830 teaching anatomy and surgery.⁴⁰

Manchester Medicine and the Prevention of Smallpox

Physicians in Manchester knew that one of the diseases that frequently affected all of its inhabitants, particularly children, was smallpox. Unlike other diseases of the time, physicians understood the contagious nature of smallpox and also knew that an effective way to prevent the disease was by variolation or vaccination. Smallpox occurred as an epidemic in England in the same way that fever and cholera did. Although mostly endemic by the late 1700s, there was a spike in deaths in England from smallpox in the

³⁸ Jordan, *Life of Joseph Jordan*, 33.

³⁹ Willis J. Elwood and A. Félicité Tuxford, *Some Manchester Doctors: A Biographical Collection to Mark the 150th Anniversary of the Manchester Medical Society* (Manchester: Manchester University Press, 1984), 71.

⁴⁰ Pickstone, *Medicine and Industrial Society*, 186.

years 1800-1804 and again from 1817-1819.⁴¹ Two varieties of smallpox existed, variolas major and variolas minor. Variolas minor, a milder form of smallpox, was relatively rare in England, with a fatality rate of roughly one percent of those infected. Variolas major, the more virulent form of the disease, had a fatality rate from twenty to forty percent, or higher if it occurred in an area of famine, or infected an individual that had some form of existing sickness.⁴² Thomas Percival calculated that from 1769-1774 around fifteen percent of all disease deaths in Manchester could be attributed to smallpox, climbing as high twenty-seven percent in 1771.⁴³ Most of the victims were under the age of two.⁴⁴

Smallpox usually entered the body through the respiratory system, and was easily transferred from person to person, and in its dried form could live outside of the body for up to a year. A person incubated the disease for twelve days on average, and once struck, the victim often deteriorated quickly, usually within forty-eight hours. Initial complaints consisted of severe muscle pain, high fever, headache, and a spreading rash that eventually became pustules or “pox.” The pox then filled with fluid and the pressure became so great that the sores opened. These open areas of flesh were susceptible to opportunistic secondary infections and gangrene, which then caused a second, though smaller, round of fatalities. Those who survived past this stage were usually out of danger, although victims often had deep scars that did not easily fade, particularly on the

⁴¹ Creighton, Charles. *A History of Epidemics in Britain* (Cambridge: Cambridge University Press, 1894), 2:568-9.

⁴² Ralph W. Nicholas, “The Goddess Sitala and Epidemic Smallpox in Bengal,” *The Journal of Asian Studies* 41, no. 1 (1981): 24-5.

⁴³ Thomas Percival, *The Works Literary, Moral, Philosophical, and Medical, rev. ed.* (London: J. Johnson, 1807), 69.

⁴⁴ *Ibid*, 78.

face. Because these papules would often form on the inside of the eyes, around one percent of those who survived infection were blind, and male infertility was also a possibility.⁴⁵ Once a person contracted smallpox they either died or were immune to re-infection for the rest of their lives. By the late 1700s enough of the population had already suffered infection that smallpox was more endemic than epidemic; the infections stayed limited mostly to those children who had never had the disease.

There was no cure for a smallpox infection. The only way to fight the disease was to prevent it from occurring in the first place. This was accomplished one of two ways, either by smallpox variolation or by cowpox vaccination. Variolation, also known as inoculation, was used for hundreds of years before vaccination. It was the process of taking matter from a smallpox pustule and transmitting the infected matter under the skin of the healthy person. If done correctly, the individual would have a smallpox outbreak which was less violent, with fewer days of fever, fewer eruptions, and a chance of survival that was usually greater than ninety-five percent. The practice of prevention evolved to vaccination once Edward Jenner published his discovery in 1798 that passing the cowpox virus on to a person as opposed to the smallpox virus was safer and more effective. This was because there was virtually no fatality rate with cowpox, and those dosed with cowpox had a lesser chance of passing their infection to others.

In 1784 the medical men of the Manchester Infirmary requested and were granted the ability to offer smallpox inoculation to the poor. Since patients who had the smallpox were not allowed admission to the Infirmary, physicians also received permission by the

⁴⁵ Alfred W. Crosby, "Smallpox," in *The Cambridge Historical Dictionary of Disease*, ed. Kenneth F. Kiple (Cambridge, UK: Cambridge University Press, 2003), 300-1.

trustees to see smallpox patients at home while they were under quarantine.⁴⁶ This continued until at least 1800, when some Infirmary surgeons became aware of the success of cowpox vaccinations in London and suggested it as preferable to inoculation, although they gave patients the option of having either method administered for those who preferred one procedure to the other.⁴⁷ This was presumably because they wanted to overcome the “unconquerable prejudices” of the general populace to vaccination.⁴⁸ A notice appeared in December 1800, when the entire medical staff published an announcement in anticipation of the upcoming vaccination season. These announcements resulted in vaccinations, although it cannot be determined how effective they were.⁴⁹ Since after 1800 Infirmary and press reports referenced vaccination but not inoculation, presumably the practice of variolation died out among the Infirmary doctors. Those who still preferred inoculation and could afford it would have acquired the procedure from one of Manchester’s local variolators instead.

Manchester was not the only municipality where local medical facilities provided vaccinations to the poor: similar services existed in London, Newcastle, and Glasgow as well.⁵⁰ Certainly not all cities or towns had the same manpower, money, or inclination to provide vaccination to the poor. Nor were all of the hospitals in the Manchester area

⁴⁶ W. Brockbank, *Portrait of a Hospital, 1752-1948, to Commemorate the Bicentenary of the Royal Infirmary, Manchester* (Toronto: Heinemann, 1952), 28.

⁴⁷ *Manchester Mercury*, February 11, 1800.

⁴⁸ *Ibid.*

⁴⁹ Brockbank, *Portrait of a Hospital*, 40. There are cases recorded in Creighton’s *History of Epidemics in Britain* where early smallpox vaccine was for various reasons ineffective and patients still contracted the disease.

⁵⁰ Creighton, *A History of Epidemics in Britain*, 2:582-5.

providing vaccination. While the *Manchester Courier* published vaccination notices for the Infirmary, there were none listed for the Manchester workhouse infirmary, or for the Salford and Pendleton Dispensary.⁵¹ The first recorded vaccinations in Manchester were noted in the in the 1801 Infirmary yearly report.

Although the exact date is not available in the Board of Health minutes, at some point after the House of Recovery was established it began to accept smallpox patients. The number of such patients, however, appears never to have been large. In the 1824-1825 reporting year for example, the House of Recovery accepted 667 patients, of which 4 were smallpox cases, and in 1839, out of 1049 admissions, there were 19 cases.⁵² This number may have indicated an overall reduction in cases, though this is difficult to determine because the number of cases attended by those who could afford private physicians is unclear, as is the number of patients who lived outside of the hospital's radius. It is also uncertain how many children and babies were affected, as the Infirmary and House of Recovery did not normally admit or treat them, but they usually comprised the majority of smallpox fatalities.

The Manchester Lying-In Charity started to offer vaccinations to their infant patients in 1804, and by 1830 they had performed a total of 29,143.⁵³ Since the number of vaccinations exceeded the number of deliveries documented for certain years, it can be assumed that the Lying-In Charity either vaccinated mothers and children, or children not

⁵¹ *Manchester Courier and Lancashire General Advertiser*, February 28, 1829.

⁵² Infirmary Annual Report, June 24, 1825 to June 24, 1826. Infirmary Annual Report, June 24, 1839 to June 24, 1840.

⁵³ John Roberton, "General Remarks on the Best Mode of Securing the Speedy Expulsion of the Placenta," *The North of England Medical and Surgical Journal* 1, no. 3 (1831): 333.

delivered by the charity, or a combination of both.⁵⁴ Each midwife who delivered babies for the charity was expected to “persuade her patients to take their infants to the Hospital to be Vaccinated when they are two months old.” The midwives provided any receptive patients with a “vaccination ticket,” redeemable for the vaccination. As an incentive, midwives who successfully referred twelve “ticket patients” for vaccination received two shillings.⁵⁵

It is apparent that the physicians and board members of the Manchester Infirmary, Board of Health, and Lying-In Charity determined that there was a public health benefit to reducing smallpox episodes in Manchester. Their efforts in this field predated the first of the national Vaccination Acts, passed beginning in 1840, which collectively outlawed variolation and made vaccination compulsory. Despite the continued emphasis on smallpox prevention, there was a reduction in the rate of vaccinations after the year 1825 in both the Infirmary and the Lying-In Hospital (table 1). The Lying-In Hospital proclaimed in 1828 that “no person shall receive the benefit of this charity more than once, unless she brings with her, upon any succeeding application, a certificate of the vaccination of her former child.”⁵⁶ The Infirmary had come to a similar decision at some point prior to 1816.⁵⁷ This was done with the idea that it would “promote vaccination,” but considering the subsequent drop in the vaccination rates after it was announced, it can

⁵⁴ Ibid.

⁵⁵ Ibid., 334.

⁵⁶ *Manchester Courier and Lancashire General Advertiser*, January 19, 1828.

⁵⁷ Brockbank, *Portrait of a Hospital*, 46-7.

Table 1.: Number of cowpox vaccinations performed for the prevention of smallpox by the Manchester Infirmary, 1800-1835.

Time Period	Cowpox Vaccinations by Infirmary
June 1800-Oct. 1801	470
June 1805-Jun. 1806	1,634
June 1810-Jun. 1811	1,010
June 1816-Jun. 1817	1,650
June 1817-Jun. 1818	1,350
June 1819-Jun. 1820	1,715
June 1829-Jun. 1830	461
June 1834-Jun. 1835	260
Total 1800-1835	38,921
Yearly Average 1800-1835	1,112

Source: Reports on the State of the Infirmary, Dispensary, Lunatic Hospital and Asylum, in Manchester, 1852-1966, the Manchester Medical Collection, GB 133 MMC/9/6, the John Rylands University Library, the University of Manchester, Manchester, UK.

hardly be considered a successful decision.⁵⁸ Smallpox outbreaks did not cease with either the free vaccination offers or the implementation of vaccination laws, as demonstrated by the four outbreaks in Manchester that occurred as late as 1872, 1876, 1877, and 1885.⁵⁹ This again demonstrates that simply because an aspect of public health was legislated for did not mean that the problem was solved.

The period of 1790-1830 was one of great expansion of both population and medical services for Manchester. The continued development of these voluntary health services demonstrate a willingness on the part of volunteer physicians and philanthropists to provide for those less fortunate when a need was discovered. The increased utilization of these services by paupers and the working poor show that despite an increase in factory occupations, wages and living condition did not rise to meet all of the populations' needs. This local initiation and growth of services once again indicates that the national government was still unable to organize itself in a way that could accommodate local demand, leaving Manchester to compensate. The foundation of many specialized hospitals meant an increase in medical services for the poor, while offering new physicians an opportunity to bypass the traditional wait for an opening in an established hospital. The implementation of new methods of controlling the transmission of disease included the offer of vaccination for smallpox, particularly among children. Despite moral objections and insufficient funding, the establishment of the Lock Hospital was a step towards combating the spread of sexually transmitted infectious diseases. As

⁵⁸ *Manchester Courier and Lancashire General Advertiser*, January 19, 1828.

⁵⁹ D. Sage Sutherland, *The Manchester House of Recovery and Board of Health, 1796 to 1852: the History of the Manchester Fever Hospital* (Manchester: Richard Bates, 1929), 46-7.

was the case with the Infirmary, these new hospitals expected obedience and gratitude from the patients. When it was not forthcoming, there was no hesitance to discontinue the offer of service. There was a perceptible change in the attitudes in the working-class population towards those in the medical community, perhaps a reflection of the radical political elements in England at the time. The distrust was evident in the response to the anatomy schools was tested when cholera broke out in Europe and eventually struck England in 1831. The response to the cholera outbreak when it arrived in Manchester in the early 1830s provides an opportunity to observe how a new generation of city leaders reacted to a public health emergency when guided by a national standard.

III. THE ADVANCE OF CHOLERA, 1831-1833

In the year 1831 Manchester was a bustling industrial hub and the center of the British cotton trade with a population that had exploded from 95,000 to over 238,000 in just a thirty year period.¹ The medical and philanthropic community was about to be tested by a three year cholera epidemic that affected all of the Britain Isles and killed over 51,000 inhabitants.² Investigating the response to this public health emergency, both before and during the event, once again demonstrates the ability of the Manchester community to meet local need. What distinguished this event was that, for the first time, the central government issued suggestions and directives. Moreover, the Manchester Special Board of Health formed to meet this particular crisis held compulsory, although temporary, powers to raise revenue for remediation and ensure compliance. Finally, local efforts in Manchester were quite obviously unable to cope with the challenges of the cholera outbreak: local initiative was simply inadequate to resolve the public health crisis. The “upper limit” of local initiative was reached. An unfortunate consequence regarding the involvement of the local public health authority was the hostile reactions of some of the populace, which was undoubtedly mistrustful of some of the new regulations that emerged. Some members of the poor and working class chafed under the

¹ Manchester Special Board of Health, *The Challenge of Cholera: Proceedings of the Manchester Special Board of Health 1831-1833*, ed. Alan J. Kidd and Terry Wyke ([England]: Record Society of Lancashire and Cheshire, 2010), xii.

² *Ibid.*, ix.

paternalistic new management of what was traditionally a private concern, namely residential cleanliness, personal hygiene, and the rights of hospitalization and internment.

Unlike Ferriar's fever outbreak of 1789-90, the advance of cholera in England in 1831 was both obvious and ominous. The pandemic began in India, where the English military gave British government officials the opportunity to hear reports on the virulence of the disease, and it did not take long for those stories to make their way into the press.³ The *Times* first issued reports on the outbreaks as early as October 1818.⁴ The disease migrated out of the military camps and slums of India by September 1821, when Dutch accounts noted the outbreak spreading to Java.⁵ Within two weeks 1,255 people had died, including 101 Europeans. By 1830, the disease had spread via trade routes to Russia, and the reports were more frequent and increasingly dire. Despite the quarantine efforts of Russia, Poland, and Prussia, cholera had migrated west to Hamburg by October 1831.⁶ Since this was only three days by ship from the ports of eastern England, the British government hastily prepared for the worst.

Press coverage of the intractable spread of the disease created an atmosphere of fear that was in some ways disproportionate to the number of fatalities. Compared to cholera, other diseases such as smallpox and consumption (tuberculosis) actually caused

³ Frederick Corbyn, *A Treatise on the Epidemic Cholera as it has Prevalled in India* (Calcutta: Baptist Mission Press, 1832), 4-5.

⁴ *Times*, October 14 1818.

⁵ *Times* September 24, 1821; (citing the Dutch Paper *Haarlam*, September 17, 1821).

⁶ R. J. Morris, *Cholera 1832: The Social Response to an Epidemic* (New York: Holmes & Meier, 1976), 3. For a description of the progress of Cholera country by country see: Peter Balwin, *Contagion and the State in Europe, 1830-1930* (Cambridge, UK: Cambridge University Press, 1999), 37-96.

more deaths annually in a normal year.⁷ By 1832 Jenner's vaccine for smallpox, while not widely available in all rural areas, was well known. In contrast, consumption was endemic in Britain, struck both rich and poor, and was often romanticized in prose as bringing a "beautiful death," due to the slow, lingering progress of the disease.⁸ Demise by cholera was comparatively quick, brutal, and ugly. Cholera is caused by the bacterium *Vibrio cholerae*, which colonizes the small intestine and releases a toxin that prevents the absorption of water and salts, with an incubation period as short as twelve hours.⁹ Death is usually caused by a rapid dehydration brought about by vomiting and persistent diarrhea. As the body quickly loses all of its fluids the eyes sink in, the skin appears blue or grey, and the victim shrivels. Those infected with the disease could feel unwell at breakfast and be dead by dinner. There was no vaccine and the only effective treatment, rehydration therapy, was not discovered until the 1960s.¹⁰

In the absence of national public health legislation, the British government failed to implement a concrete plan to address the impending threat of the epidemic. Instead, policy and procedure were debated until cholera was at the nation's doorstep. With no national health service in existence, the task of managing the response to cholera at the national level instead fell to the Privy Council, a group that normally served in an

⁷ Special Board of Health, *Challenge of Cholera*, x.

⁸ Mary Wilson Carpenter, *Health, Medicine, and Society in Victorian England* (Santa Barbara, CA: Praeger, 2010), 55-6.

⁹ Reinhard S. Speck, "Cholera" in *The Cambridge Historical History of Disease*, ed. Kenneth Kiple (Cambridge, UK: Cambridge University Press, 2003), 74-5.

¹⁰ R.L. Guerrant, B.A. Carneiro-Filho and R.A. Dillingham, "Cholera, Diarrhea, and Oral Rehydration Therapy: Triumph and Indictment," *Clinical Infectious Diseases* 37, no. 3 (August 2003): 398-400.

advisory capacity to the sovereign.¹¹ Charles Greville, the Clerk of the Council, received instruction to implement quarantine measures with the advice of Sir William Pym, a military surgeon with experience combating epidemics.¹² Greville's solution was forming a Central Board of Health in June 1831. He asked Sir Henry Hallford, President of the Royal College of Physicians in London, to be the head of this Central Board, which was to advise the Privy Council on matters of contagiousness, prevention, and treatment. At first, the only option available was to institute quarantine on incoming ships using the guidelines from the Quarantine Act of 1825, which was based on responses to earlier yellow fever and plague epidemics.¹³ Because outbreaks of the epidemic often followed water routes, legislation called for impounding and quarantining ships suspected of carrying infection. The Central Board, drawing upon the advice of the Royal College of Physicians, informed the Privy Council that flax, wool, and fabric could also harbor the disease. It advised that cargo should be quarantined as well. Unsurprisingly, this recommendation did not sit well with manufacturers.¹⁴

The Central Board was to give direction to the local boards of health, including the Manchester Board. This did not include providing management, funding, or enforcement powers, which were to be arranged at the local level. Many towns and cities, moreover, had not established boards, and the Central Board could not compel them to do

¹¹ Morris, *Cholera 1832*, 23.

¹² *Ibid.*, 23-4.

¹³ *Ibid.*

¹⁴ *Ibid.*, 29.

so.¹⁵ Because the Central Board of Health lacked the powers to enforce any regulations from the Privy Council or via the Quarantine Act of 1825, all of its proposals to the local boards were merely suggestions.¹⁶ The first documented case of cholera in England occurred on October 1831 in Sunderland, although it was not reported in the *Times* until the first Saturday of November.¹⁷ October was also the month that the Central Board sent the first of its suggested rules and regulations to the Privy Council to be shared with the local boards. When cholera finally reached London in February 1832, Parliament quickly created and passed “An Act for the Prevention, as far as may be possible, of the Disease called the Cholera, or Spasmodic or Indian Cholera, in England.” This bill allowed for local boards of health to draw funds for the implementation of cholera relief from the poor rates. This power was intended to be temporary, expiring December 31, 1832.¹⁸

The Manchester Special Board of Health

The arrival of Cholera in England prompted the establishment of a new public health association in Manchester, the Manchester Special Board of Health, which met for the first time on November 10, 1831. The Special Board was distinct from the existing Manchester Board of Health, which by 1831 primarily concerned itself with running the Manchester House of Recovery. The reasons the elite of Manchester sought to prevent the cholera in their town went beyond mere altruism. At the time that the Special Board

¹⁵ Michael Durey, *The Return of the Plague: British Society and the Cholera, 1831-2*, (Dublin: Gill and Macmillan, 1979), 79-81.

¹⁶ *Ibid.*, 20-2.

¹⁷ *Times*, November 5, 1831.

¹⁸ Cholera Act, 1832, 2 & 3 Guliemi IV.

first met, most believed that like fever, cholera would mostly attack the poor. A report from Haddington in January 1832, however, warned of “fatal cases in the middle ranks of society.”¹⁹ What these Special Board members feared was transmission of cholera to the middle and upper classes. They also feared having quarantine affect the city. As stated previously, the Central Board inaccurately announced that cholera could be transferred in cloth. Consequently, the Special Board dreaded that an outbreak would severely disrupt both imports and exports from what was then the world’s leading producer of cottons and linens. It would also mean that individuals who used the canal and train systems for transporting goods through Manchester would potentially be stopped or rerouted, further restricting commerce.

At the initial meeting of the Special Board of Health, local notables determined the Special Board’s membership and leadership. Benjamin Braidley, boroughreeve from 1831-1833 and a member of the manufacturing community, was elected chair.²⁰ Other committee members included the constables, churchwardens, members of the local paving and scavenging committees, magistrates, and the leadership of the Collegiate Church. The suggestion of the Central Board was that large communities should divide into sections, “each to consist, if possible, of a resident clergyman and a number of substantial householders, and of one medical man at least.”²¹ By November 21,

¹⁹ Central Board of Health, *The Cholera Gazette, Consisting of Documents of the Central Board of Health, With Intelligence Relative to the Disease, Derived from Other Authentic Sources*, 2nd. ed. (London: S. Highley, [1832?]), 104.

²⁰ Arthur Redford and Ina Stafford Russel, *Manor and Township*, vol 1 of *The History of Local Government in Manchester* (London: Green, Longmans and Co, 1939), 48. Special Board of Health, *Challenge of Cholera*, xv.

²¹ Special Board of Health, *Challenge of Cholera*, 22-5.

Manchester was divided into fourteen districts, which essentially conformed to the boundary lines established by the Police Act of 1792 (figure 1).²²

There was a change in the makeup of the Special Board compared to the earlier Manchester Board of Health, particularly in the participation of certain members of the Board. Like the earlier Board of Health, the Special Board of Health included physicians from the Manchester Infirmary. The Special Board, however, also included members of other local hospitals, including James Philips Kay from the recently formed Ancoats Dispensary, who was a founding physician. A significant change was the addition, at some point shortly after the first meeting, of members of the Manchester Paving and Scavenging Committees.²³ Another distinction was the members of the manufacturing community on the Special Board of Health. Two textile manufacturers, Peter Ewart and Thomas Townend, and local manufacturing chemist Frederick Fincham, were listed as members, although there is no indication that business interests composed significant portion of the Special Board's membership.²⁴

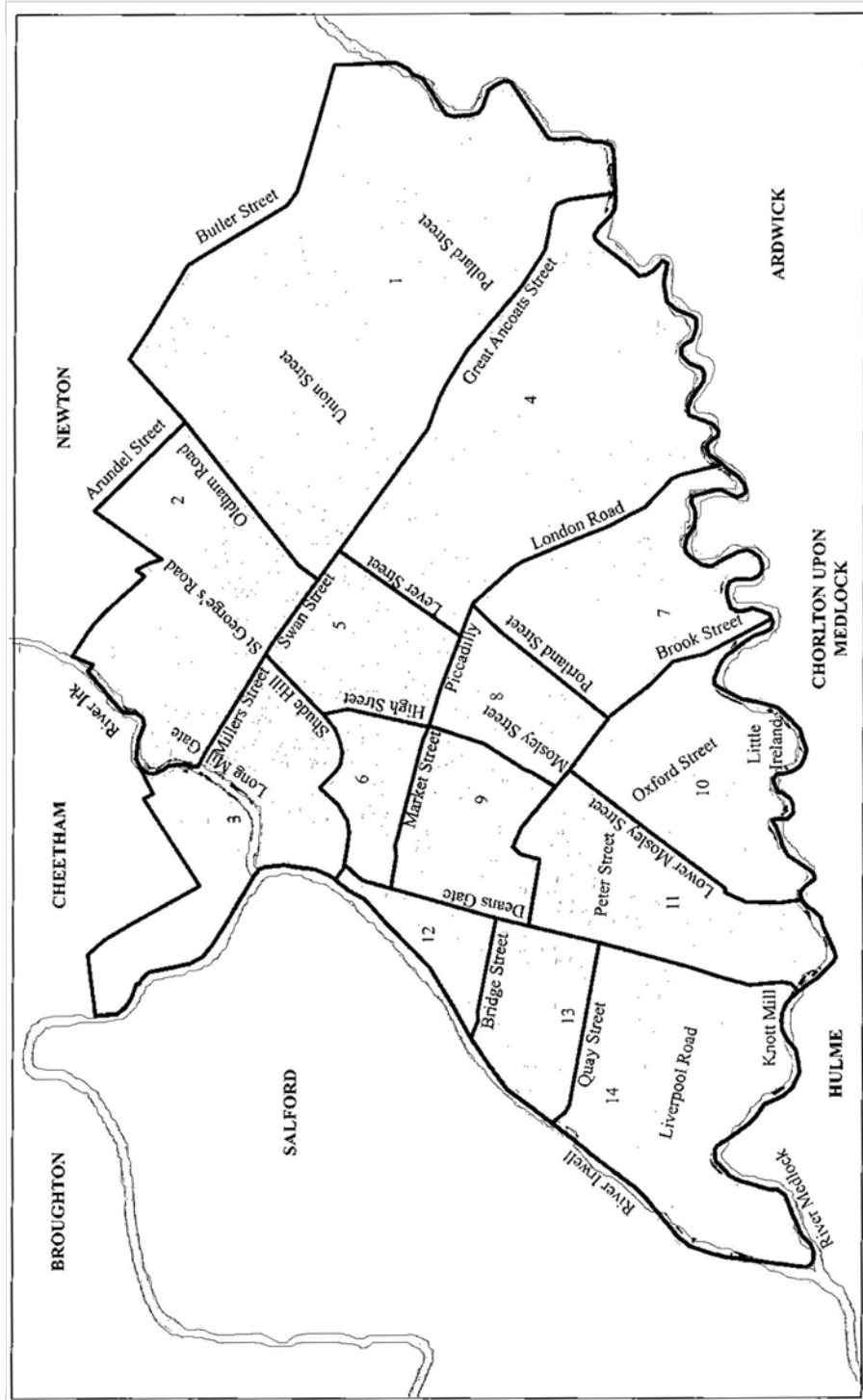
The Special Board met frequently in those first weeks. One urgent priority, a suggestion of the Central Board, was to find locations to serve as a potential cholera hospitals. The Central Board opined that it was not necessary to insulate individual houses where those who caught the disease lived, but recommended that the location chosen for the hospital be “most detached, insulated, and thoroughly exposed to free and open air” and provide the “largest space around the sick.” This was presumably because

²² Redford, *History of Local Government in Manchester*, 208.

²³ Special Board of Health, *Challenge of Cholera*, 14.

²⁴ *Ibid.*, xvi.

Figure 1.: “Manchester Township 1832, showing the Police Commissioners’ Districts”.



Source: Manchester Special Board of Health, *The Challenge of Cholera: Proceedings of the Manchester Special Board of Health 1831-1833*, ed. Alan J. Kidd and Terry Wyke ([England]: Record Society of Lancashire and Cheshire, 2010), [2].

the Central Board anticipated that those treated in their homes would not reside in “crowded, filthy, badly ventilated habitations;” in such cases removal or quarantine was sanctioned, “for the health and safety of all.”²⁵ It is also likely that the Board was trying to prevent the type of riots that occurred in Prussia and Russia when those countries attempted to quarantine people inside their homes.

The location and acquisition of the proposed cholera hospitals represented a challenge for the Special Board. The House of Recovery did not have enough available beds necessary for the amount of patients anticipated from an outbreak of cholera.²⁶ A special hospital, as opposed to a ward within an existing hospital, might prevent cross contamination of diseases. It would also remove those already infected and living in overcrowded, squalid conditions from spreading the disease to other members of the household. This was the same reason for which the House of Recovery was initially created. The Manchester Infirmary requested that reports from the Special Board be provided on the status of the cholera. The Special Board asserted its authority by deeming the request unnecessary, since it claimed that the entire board of the Infirmary and the majority of the Infirmary physicians were already de facto members of the Special Board.²⁷

²⁵ Ibid., 23-4.

²⁶ Special Board of Health, *Challenge of Cholera*, 36. Renaud, *Short History of the Rise and Progress*, 102.

²⁷ Special Board of Health, *Challenge of Cholera*, 4.

It was also not within the Special Board's power to order any private individual to relinquish their buildings or land to be used for a cholera hospital. The Special Board started with the ultimate goal of having two hospitals, one on the south side and the other on the north side of the town.²⁸ After one of its first meetings, the Special Board inquired about the availability of the local riding school for use as a potential hospital. Perhaps under subtle pressure from the local residents, the riding school owner, though initially receptive to the proposal, suddenly declined the request.²⁹ An initial list of at least 149 hospital locations was narrowed by November 14 to fewer than a dozen places. It appears that even these locations provoked some resistance from residents, since the Special Board was soon considering an empty factory on the far west side of Manchester for use as a hospital, though this location did not appear on the initial list of possible sites. That request, although at first accepted, had been declined by the owner by December 26.³⁰ Another hint that the committee was having difficulty procuring a building was the suggestion that the committee consider purchasing land instead and erecting a hospital, despite the time and money involved in such an undertaking. It was not until the first week of January that the first hospital location was finally confirmed on Pollard Street. Although it was described as "not so convenient as to be desired," due to its location in the far east side of the city, the board quickly approved it.³¹ Eventually, the Special Board

²⁸ Ibid, 13.

²⁹ Ibid.

³⁰ Ibid., 47.

³¹ Ibid.

established additional cholera hospitals on Commercial Street and Swan Street, both locations being near the center of Manchester.

One of the immediate problems that confronted the Special Board was a lack of funds. Because this was not a permanent board, such as the Manchester Board of Health, nor an existing subscription service, like the Infirmary, initially there was no source of guaranteed income. The Central Board certainly provided no money. It was not until April 1832, some five months after its establishment, that the Special Board officially received the right to ask for funds.³² Until then, it had no authority to request money from the ratepayers. This hindered its ability to implement the cleaning that the Central Board had recommended. An early request to the Scavenging Sub-Committee to remediate at least three dozen streets, for example, was not completed in a timely manner. The subcommittee claimed it was behind because it was overextended due to insufficient manpower.³³ The subcommittee then suggested that since these streets were mostly unpaved and privately held, owners should be compelled to clean them.³⁴

The Special Board of Health resolved early in its existence to instigate inspections and generate reports of all the areas of Manchester that it identified as potential sources of disease. It did so for two reasons. First, the Central Board wanted regular reports submitted from across the country on the progress of cholera outbreaks, and on the locations where the disease appeared to originate or incubate. Second, the Special Board wanted to identify locations that were in need of cleaning, in order to improve some of

³² Ibid., 116.

³³ Ibid., 7-12.

³⁴ Ibid.

the worst areas of the city. Several subcommittees were established for specific projects as assigned by the Special Board. The subcommittees were given responsibilities such as scavenging and locating sites for the cholera hospital and, later, the burial ground. Other subcommittees were placed in charge of the fourteen districts established by the Special Board. While there was some guidance from the Central Board regarding the content of the reports, it did not require a specific template. Instead the Special Board decided to use the form that was already in use by the Special Board of Health of London.³⁵

Cholera is transmitted via what is referred to as the “oral fecal route,” which makes proper sanitation and access to clean water vital to prevent the spread of the disease. This was not completely understood in 1831. The common belief was that preventing cholera meant preventing the accumulation of garbage, night soil, manure, and the remains of any number of animal processing businesses. The Central Board did not provide input on where or how cleaning was to take place. Several locations within the town were quickly recommended for cleanup. Most of these locations were those that had been previously affected with outbreaks of fever, so the Special Board members inferred that the same areas would need cleaning. Since Manchester grew in both population and size between 1790 and 1831 there were also new locations to consider for inspection.

In November 1831 cholera was still some ways away from the city of Manchester. The Special Board was busy instituting actions it felt would prevent the outbreak from attacking the populace or, at the least, would minimize the disease’s impact. This included advice to the general public from Dr. Edmund Lyon entitled “The Epidemic Cholera,” which was introduced into the appendix to the November 12 Special Board

³⁵ Ibid., 26.

minutes. Lyon, an Infirmary physician from 1817 to 1841 and an Edinburgh graduate, suggested that that while medical men did not concur on the transmission of the disease, “they are universally agreed” that individuals most likely to acquire cholera were: “Those who occupy crowded, dirty, and ill ventilated dwellings; Those who are ill-clothed, and ill-fed; Those who are weakened, or disordered by intoxication, or intemperance of any kind; Those who after excessive fatigue are exposed to the night air.”³⁶

In order to avoid these conditions, he recommended keeping houses dry and ventilated, cleaning away all “filth and rubbish” from around the house, relieving the overcrowding of houses, and obtaining “the most comfortable clothing and substantial food in your power.”³⁷ In order to do this, individuals should “avoid spending your money in procuring the means of intoxication.”³⁸ Finally he advised “regular hours of work and rest” and staying away from the sick.³⁹ His advice in some ways resembled that of Ferriar, thirty years earlier, for the prevention of fever, including the cleaning of houses, warm clothes and food. What was not apparent in Lyon’s advice was the suggestion Ferriar made to help neighbors if they appeared in need of food by applying for assistance. Nor did Lyon indicate that a place of employment could specifically be a source of illness.

The recommendations that came from the Central Board in November 1831 fell under two categories: precautionary measures, which addressed preventative actions that

³⁶ Ibid., 6.

³⁷ Ibid., 6-7.

³⁸ Ibid., 7

³⁹ Ibid.

local boards were encouraged to implement; and medical and dietetic precautions, which provided advice for maintaining individual health. Under precautionary measures the boards should “endeavor to remedy, by every means which individual and public charitable exertion can supply, such deficiency as may be found to exist in their respective districts in the following primary elements of public health, viz. the food of the poor, clothing, bedding, ventilation, space, cleanliness, outlets for domestic filth, habits of temperance, prevention of panic.”⁴⁰ These suggestions were reiterated, at great length, in December.⁴¹ Some of these recommendations were more enthusiastically implemented than others.

The Special Board was best at implementing those recommendations that concerned ventilation, cleanliness, and outlets for domestic filth. Though these measures were not entirely effective, the Special Board directed much of its effort towards certain projects, such as street cleaning, nuisance removal, and the whitewashing of homes. Three subcommittees implemented these measures. The cleaning of streets and fixing of pipes and sewers fell to the Scavenging Sub-Committee. This group included many members of a single city committee, the Lamp, Scavenging, Fire Engine, and Nuisance Committee, which came under the supervision of the Police Commission. The same was true of the Nuisance Sub-Committee, which was a separate group in the Special Board in charge of investigating potential causes of contagion. Whitewashing of homes and reporting locations of possible contagion fell to the Medical Sub-Committee. Most of the whitewashing occurred in the homes of those who were already infected with cholera,

⁴⁰ Ibid., 22-3.

⁴¹ Ibid., 38.

although it was sometimes done as a preventative measure. There were numerous accounts in the minutes of requests for cleaning and nuisance removal, some reported and others the result of a special inspection.⁴²

The Central Board advised that “It is of the utmost importance to the Public Health that an improved Diet, and Flannel Clothing, at least Flannel Belts and Woollen Stockings, should be given to the poor.”⁴³ The Special Board did not implement these recommendations regarding food, clothing, bedding, overcrowding, and warmth as assiduously. The minutes of the Special Board contain no mention of the provision of food to the poor (except for those admitted to the cholera hospitals), nor any recommendation to do so. The Special Board did establish a special conscription fund to supply clothing, but only to those patients who were being discharged from the cholera hospitals, whose clothes and furniture were burned by the authorities after they had contracted the disease.⁴⁴ There was no fund for provision of clothing or bedding to the poor whose homes were otherwise targeted for cleanup, or for the remaining family members of those who were removed because they contracted cholera. A report of the Medical Sub-Committee’s inspection of one tenement in Little Ireland before the cholera outbreak reveals that all six of their recommendations related to cleaning and the remediation of sewage.⁴⁵ In no case did the Special Board ever suggest that ratepayer funds be applied to the construction of improved housing for the poor, or to the provision

⁴² Ibid., 5, 7, 13.

⁴³ Ibid., 39.

⁴⁴ Ibid., 193.

⁴⁵ Ibid., 45.

of better furniture or bedding. On one occasion, the Classification Sub-Committee submitted a recommendation to the churchwardens for coal “most conducive to the maintenance of the health of the inhabitants.”⁴⁶ But the churchwardens responded that “we do not consider the adoption of the plan proposed, to fall within the range of our duties.”⁴⁷ Afterwards there was no other effort made by the Special Board in that area.

The example of the obstructive churchwardens illustrates an important larger point. Both the Special Board of Health and the Manchester Board of Health were restrained in their actions by the limitations of working with other groups, including the churchwardens, the Police (who were considered a Sub-Committee), and the local populace. The churchwardens in particular were a group with whom the Special Board had some difficulty working. The local populace hindered the ability to create hospitals and keep the streets clean; for instance, nearly 200 individuals signed a petition presented to the Special Board that protested the establishment of the Swan Street Cholera Hospital.⁴⁸ The Police Subcommittees sometimes balked at the flurry of requests that emanated from the Special Board, which included protecting cemeteries and the cholera hospitals. The Scavenging Sub-Committee refused to allow the city’s official carts or carters to remove the furniture of cholera patients from their homes.⁴⁹

Almost no communication existed between the Special Board and the factory owners and managers, beyond the request for buildings. The minutes of the Special

⁴⁶ Ibid., 71.

⁴⁷ Ibid., 73.

⁴⁸ Ibid., 80

⁴⁹ Ibid., 183, 191.

Board cover a time period of nearly fourteen months, yet there was little communication in the minutes either before or during the outbreak regarding the conditions of the factories in Manchester. There is no indication that the manufacturing members had undue influence over whether an inspection of their factories was required, although it is certainly a possibility. One of the few requests from the Special Board was for owners “to enforce cleanliness of person among the workpeople in their employ.”⁵⁰ This contrasted strikingly with the response of the Manchester Board of Health during the fever epidemic in the 1790s, when frequent reference was made to the harshness of factory work and the toll it took on the health and welfare of the poor. Much the same as the earlier board, the Special Board of Health did hold landlords accountable for the conditions of their tenements. Unlike the earlier board, the Special Board had the authority vested in them by the Cholera Act to order the owners to clean up their properties or face fines, or prison, if they failed to pay.⁵¹

Cholera finally made its debut in Manchester on May 17, 1832, when James Palfreyman, a coach painter, was struck with “nausea and pain of the bowels.”⁵² Despite seeing a surgeon, Mr. Stephens, the patient died by three p.m. on Saturday. After the initial episode, reported on May 24, the Special Board received reported cases on a regular basis. Unlike Sunderland, there is no evidence that the initial cases of cholera in Manchester or the surrounding area went unreported, nor that there were misrepresented

⁵⁰ Ibid., 77.

⁵¹ Cholera Act, 1832, 2 & 3 Guliemi IV.

⁵² Henry Gaultier, *The Origin and Progress of the Malignant Cholera in Manchester* (London: Longman, Rees, Orme, Brown, Green and Longman, 1833), 6-7.

cases of endemic English cholera.⁵³ By the time reports were generated regularly, around August 4, 153 identified cases existed, of which 94 individuals, or sixty-one percent, died. That percentage remained between fifty-five and sixty-two percent throughout the epidemic. This was much higher than the national average at that time, around thirty-eight percent.⁵⁴ By comparison, Liverpool had an average twenty-eight percent mortality rate, but many more cases, 3,207, by August 9.⁵⁵ The reasons for the difference in mortality rates are not entirely clear, although mistrust of being admitted to cholera hospitals in Manchester may have caused those who did not consider themselves deathly ill to stay home to recuperate. Another theory was that those born in Manchester were permitted to be buried there, regardless of whether they died there or in another town, which may have resulted in a burial being mistakenly counted as a Manchester cholera death.⁵⁶

Entering a hospital did not mean that a patient had a better chance of survival. Alan Kidd and Terry Wyke argue that the reason patients had higher rates of death in hospitals during the cholera epidemic was because only those in the worst shape would be taken there.⁵⁷ Another possible explanation could be that the patients who were being treated at home tended to be more affluent and were therefore less likely to have the predisposing conditions of being overworked and underfed. Outcomes of cholera

⁵³ Morris, *Cholera 1832*, 39-57.

⁵⁴ *Times*, August 11, 1832.

⁵⁵ *Times*, August 10, 1832.

⁵⁶ *Challenge of Cholera*, xxv-xxvi.

⁵⁷ Special Board of Health, *Challenge of Cholera*, xxv-vi.

infection were sometimes better without a doctor than with one. While there was no established standard of care or guideline for cholera treatment in the general medical community, the Central Board of Health submitted the recommendations of two physicians, Drs. Russell and Barry, who had experience with cholera in the military and had observed physicians in Russia during its outbreak.⁵⁸ Their suggestions were dependent on the progress of disease in the patient and included bleeding by leeches and purging with emetics. Both of these profoundly misguided treatments would only have increased dehydration and hastened death.⁵⁹ More innocuously, but no more efficaciously, Russell and Barry also suggested cupping of the spine cordial and the application of dry heat with bags of bran or friction. Other physicians offered a range of treatments, including the oral administration of quinine, turpentine, cayenne pepper, brandy, camphor, and ammonia. Quinine was utilized because physicians already observed its effectiveness on fevers, particularly malaria. Opioids were frequently prescribed for cholera patients, either as grains of morphine or tinctures of laudanum. Although opioids, when administered at high doses, initially function as emetics, they then can cause constipation with reduced respiration and heart rate. Given the association of cholera with persistent diarrhea, it is easy to see why the Manchester physicians may have considered an opioid as an effective treatment, but its use in Manchester may also explain why some cities that offered less medical care may have had lower mortality rates during the epidemic.

⁵⁸ Morris, *Cholera 1832*, 32-3.

⁵⁹ Special Board of Health, *Challenge of Cholera*, 40-2.

A priority of the Special Board of Health was cleansing certain parts of town already known to be unsanitary. One of the areas widely considered to be the most dirty and disgusting was Little Ireland. The Irish began to immigrate into Manchester in larger numbers in the late 1700s, and by 1794 represented eight percent of the population of Manchester and Salford, rising to over 30,000, or twelve percent, by 1841.⁶⁰ Most of the Irish in Manchester tended to live in segregated districts, which were inexpensive and close to Catholic churches. In 1807, Little Ireland was little more than a small field with a few surrounding buildings, but by 1831 it had become a large collection of tenements situated in the flood prone area between the River Medlock and the Rochford Canal.⁶¹ The first call to have Little Ireland inspected by the Board came on December 14, 1831, and a special Sub-Committee was designated for the task.⁶² Its report stated: “We are decidedly of the opinion that should cholera visit this neighbourhood a more suitable soil and situation for its malignant development cannot be found.”⁶³

Many members of the Special Board of Health harbored a low opinion of the Irish population in Manchester both before and after the cholera outbreak. Dr. Lyon wrote an article for the short lived *North of England Medical and Surgical Journal* in which he stated that “the Irish, here as elsewhere are the least thrifty, and most wretched part of the

⁶⁰ M.A. Busteed and R. I. Hodgson, “Irish Migrant Responses to Urban Life in Early Nineteenth-Century Manchester,” *Geographical Journal* 162, no. 2 (July 1996): 141. Special Board of Health, *Challenge of Cholera*, xvii.

⁶¹ Lyon, “Sketch of the Medical Topography,” 15.

⁶² Special Board of Health, *Challenge of Cholera*, 34.

⁶³ *Ibid.*

population.”⁶⁴ Dr. Henry Gaulter, another member of the Special Board, and physician at the Chorlton Upon Medlock Dispensary considered the Irish “remarkable more for their love of tumult and violence and their filthy habits.”⁶⁵ James Phillips Kay also wrote in the *North of England Medical and Surgical Journal* that their homes were “always scantily furnished and dirty.”⁶⁶ Portions of Kay’s article were transcribed verbatim into his famous “Moral and Physical Condition of the Working Classes,” parts of which were then subsequently included in Edwin Chadwick’s *Report on the Sanitary Condition*.

The working-class population of Manchester may or may not have been aware of the feelings that the physicians and other members of the Special Board held for them. It is clear, however, that the general populace had become less accepting of the medical community at large at the time of the cholera, in great part because of the potential for grave robbing. Another cause of irritation among the lower class, particularly the Irish, was the interruption in the burial process because of internment regulations established by the Special Board. Viewings and wakes were considered health hazards, and bodies were to be buried as soon as possible after death, but definitely within twenty-four hours. Fear of physicians, being buried alive, or not being buried according to religious practice were some of the reasons that not all cholera cases were being reported.⁶⁷ This may have resulted in the undercounting of the number of cholera cases in the Manchester region.

⁶⁴ Lyon, “Sketch of the Medical Topography,” 21.

⁶⁵ Gaulter, *Progress of the Malignant Cholera in Manchester*, 36.

⁶⁶ James Phillips Kay, “Physical condition of the poor: I Diet, Gastralgia and Enteralgia, or Morbid Sensibility of the Stomach and Bowels,” *The North of England Medical and Surgical Journal* 1, no. 2 (November 1830): 225.

⁶⁷ *Challenge of Cholera*, xxv.

As described in the previous chapter, post mortem examinations of the dead became a part of medical education in the period between the fever outbreak and the cholera epidemic. Police were stationed outside some of the hospitals from June 1832 in anticipation of potential problems with the populace.⁶⁸ The members of the Medical Sub-Committee had been quick to examine early victims who died of cholera for possible insight into the progress of the disease. Unlike the Infirmary, there was no policy in place at the cholera hospitals regarding contacting family before conducting post mortem exams. This was to change for the cholera hospitals after members of the populace became suspicious that the physicians were using the bodies for instructional dissection. Despite some wishes for no dissections at all at the cholera hospitals, the response of the Special Board was to vote that “no body will be opened at the hospitals without the consent of the friends.”⁶⁹ This meant there would not be autopsies performed without family consent and only unclaimed bodies could then be dissected.

Policies regarding internment of those who died during the cholera outbreak diverged from the precedent established during the fever outbreak of 1790. While in both cases the rapid disposal of the dead was recommended, only the potential cholera outbreak involved acquiring separate cemetery space. The original Board of Health promoted the idea that a body from the House of Recovery “shall be removed as soon as possible, into a room that has been appropriated to that use; it shall then be wrapped in a pitched cloth, and the friends shall be desired to proceed to the internment as early as is

⁶⁸ Ibid., 144.

⁶⁹ Ibid., 145.

consistent with propriety.”⁷⁰ Although the guidelines for the treatment of the bodies of cholera patients came from the experience of both plague and fever victims, response to the disposal methods in 1831-1832 placed a greater emphasis on the requirements for proper internment. There were credible cases in the press across England of communities being in such a hurry to have bodies interred that individuals, still alive, were buried by mistake.⁷¹

Members of the Special Board had to walk an increasingly fine line between doing what they thought was best for the public health and maintaining public order. Victims who died in their homes were not being reported and, once discovered, some families refused to let the bodies be removed. One bereaved family even threatened the hospital envoy.⁷² Others raided the cholera burial ground to disinter the bodies of their loved ones. In order to prevent the disturbance of the cholera burial ground, in August 1832 two police were stationed there to “keep off the populace.”⁷³ Special permission was required to be interred outside the cholera burial ground, which usually involved the body being covered in quicklime and buried in a lead lined lead coffin in a hole at least nine feet in depth. One dissenting minister by the name of Schofield was brought up on charges when he refused to report cholera patients and persisted in burying parishioners in his burial ground without preapproval from the Special Board.⁷⁴ The Special Board

⁷⁰ *Proceedings of the Board of Health in Manchester* [1796-1804], 114.

⁷¹ Central Board of Health, *The Cholera Gazette*, 35-6.

⁷² *Ibid.*, 201

⁷³ *Ibid.*, 192.

⁷⁴ *Manchester Courier and Lancashire General Advertiser*, September 1, 1832.

was so concerned about the response of the public that it determined that “a communication be made to the clergy and the ministers of all denominations requesting that they will take such immediate measures as well in their pulpits as in the Sunday schools as may appear to them best calculated to remove the present prejudices against the cholera hospitals from the minds of the poorer classes of the community.” It is easy to understand why Manchester medical men grew frustrated with their circumstances. One surgeon complained to the Special Board that he was losing his regular patients because he was treating cholera patients, and wished to have his name disassociated with the district to which he was assigned.⁷⁵

The fears and suspicions of the public culminated on September 2, 1832, in one of the worst uprisings in England directly related to the cholera outbreak. This incident took place because a surgeon, Robert Oldham, had removed the head of a four year old Irish cholera victim, presumably so that he could dissect it, and replaced it with a brick.⁷⁶ The victim’s grandfather, John Hase, went to the Swan Street Cholera Hospital and was initially denied entrance. The body was finally procured, and its desecration discovered, on the way to the burial. A mob of over a thousand Mancunians, predominantly members of the expatriate Irish community, made its way to the hospital. Once there, rioters broke windows, damaged bedding and furniture, and destroyed one of the hospital’s transportation vehicles.⁷⁷ They also “freed” several of the patients. Magistrates had to call in the 15th Hussars and eventually the Riot Act was read.

⁷⁵ Special Board of Health, *Challenge of Cholera*, 162.

⁷⁶ *Times*, September 6, 1832.

By November 21, 1832 the Central Board of Health was only reporting the number of cases once a week, as opposed to its practice of daily reporting during the peak of the epidemic in July and August.⁷⁸ The last reported cases of cholera in Manchester occurred in January 1833, although there were likely still unreported cases for some weeks thereafter. The total number of infected was listed as 1,325, with over half of those having died.⁷⁹ While the reaction of the Special Board may seem overzealous in comparison to the eventual severity of the outbreak, the Board had not known for certain how long the outbreak would last or how bad individual cases would be.

There is no reason to believe that Manchester was in any way unique from many of the other large cities in England to suffer from the cholera epidemic. The Special Board was composed of individuals whose membership was largely dictated by the Central Board's mandate. Unlike the earlier fever outbreak, this epidemic allowed for a certain degree of planning, but that did not prevent disobedience and argument. The Special Board was composed of many of Manchester's medical professionals. Yet there was little advocacy for the provision of food and clothing, or reduction in working hours or improvement of factory conditions which had been so evident in the earlier advice of the Manchester Board of Health. More positively, those locations determined to be detrimental to the health of the general public were reported and cleaned with a frequency absent in the previous century. The authority that allowed the Special Board to prosecute

⁷⁷ Morris, *Cholera 1832*, 110-11.

⁷⁸ *Times*, November 23, 1832.

⁷⁹ Wheeler, *Manchester*, 134.

those landlords who failed to improve their properties ended with the expiration of the Cholera Act in December 1832.

As mentioned previously, the mortality rate from those infected with cholera in Manchester was higher than those in other areas. Despite this, Manchester had a lower overall rate of infection than nearby towns such as Leeds and Liverpool. It does not appear that this was due to any particular action by the Special Board of Health, but may have had more to do with the availability of water. Manchester is a city that is surrounded by many different sources of fresh water. Residents of Manchester received fresh water not only from the Gorton reservoir, some four miles outside of town, but also from the local Irwell, Mersey, or Irk rivers, as well as from rainwater cisterns on the roofs and independently dug wells.⁸⁰ Because of the many different sources of water that the inhabitants used, it is possible the risk of contracting cholera from any one particular water source infected with runoff from privies or sewers was reduced.

The feeling of the poor and working-class population towards the medical community appeared to be one of fear. The possibility of being placed into a cholera hospital was considered by some a punishment. The views of the medical professional towards the poor and working class was at best paternalistic. In the case of the Irish, the medical men held an obvious disdain for them, attributing their poor health to a lack of self-control and immorality. The most basic of rights to the lower classes, the ability to make decisions about how to live and subsequently how to die and be buried, were

⁸⁰ Tom Quayle, *Manchester's Water: The Reservoirs in the Hills* (Stroud, UK: History Press, 2010), 12-15.

compromised by some of the actions of these medical professionals, represented by the Special Board.

The locally formed Special Board of Health, despite being a temporary entity, provided leadership to the city of Manchester in order to combat cholera during a public health emergency in the early 1830s. The difference between this event and the previous developments discussed in the first two chapters is the additional guidance offered in this instance by the Central Board of Health in London. Because this was primarily suggestive and came with limited powers of enforcement and funding, it fell to the Manchester community to interpret the direction given by the Central Board in the fashion that best fit the local situation. There were similarities as well as differences in the behavior of the Manchester community in the Cholera years of 1831-1832 when compared to the local public health movement in earlier periods, both because this was a national outbreak and because of changing social and political norms. It is obvious that not all of the initiatives the Manchester community undertook were entirely successful or even fairly applied to all its citizens. What is certain is that Edwin Chadwick did not have a monopoly on instilling a need to recognize that public health guidance was required in British town and cities.

CONCLUSION

It is not sufficient to use traditional models of measurement when considering the success of the early public health movements in Manchester and other British towns. While such metrics may provide useful information, simply recounting the passage of legislation, computing death rates, and calculating the amount of sewage pipes laid does not offer a complete picture of the public health movement in late eighteenth and early nineteenth-century Britain. An account focusing on statistical analysis too exclusively ignores the efforts and intentions of the many dedicated individuals who spent countless hours discussing and debating the problems that affected their communities. Furthermore, the public health problems in Manchester continued for almost the entire nineteenth century. Cholera struck again in 1848-1849, 1853-1854, and 1866.⁸¹ Tuberculosis remained an endemic disease, killing thousands of Mancunians every year. Accidents continued to take the lives of factory workers and miners. Although there was a decline in the national numbers of death from all causes, the crude death rate in urban areas, including inner Manchester, actually increased.⁸² The passage of numerous local acts, including those related to municipal management, paving, street lighting, and sanitation were largely ineffective, particularly in poorer neighborhoods. National acts, including vaccination, health of apprentices, and public health acts, were not much better and either

⁸¹ Special Board of Health, *Challenge of Cholera*, ix.

⁸² Chadwick, *Report on the Sanitary Condition*, 13.

lacked enforcement mechanisms or needed multiple iterations over the century to make an impact. Thus, to use only death rates and legislation as a measure of success is misleading.

In the late eighteenth century, Manchester physicians and community leaders used the existing infrastructure of the voluntary hospital movement to advance their idea of the basis of good public health. As observed in Chapter I, this included providing the House of Recovery as a clean, uncongested environment in which to recover from and prevent the spread of diseases. It also meant advocating for better living and working conditions in factories and lodging houses. Leading members of the first Board of Health realized that, despite their efforts at improving public health through regulatory measures, they lacked an ability to enforce public health rules, and could do little more than offer paternal suggestions to the poor. One significant victory, though it did little to improve public health immediately, was the precedent setting passage of the Health and Morals of Apprentices Act in 1802. What worked best in the shorter term were those initiatives that could be locally implemented and managed, such as the sanitary conditions within the voluntary hospital system that served Manchester's poor and working classes. In the early nineteenth century the physicians increased the types of services they offered for the health of the general public. This included the provision of free vaccinations and the treatment of sexually transmitted infectious diseases. They also expanded medical education and special hospital services. Not all endeavors met with success, and the public could impede the ability to provide needed services, as was the case with the anatomy school protests.

The greatest test of readiness for the public health leaders of Manchester came with the Cholera epidemic of 1832. While there was national legislation and some government support, communities had to develop and implement their own local plans for deterring the spread of the disease. While some communities, such as Edinburgh, Haddington, and certain sections of London, left their citizens to their own devices, with seriously detrimental consequences, the Manchester medical community successfully organized a response.⁸³ Not all of these initiatives, however, appeared positive to community members. Because Cholera hospital admissions were not necessarily voluntary, the poor and working class often found themselves admitted against their will, or risked having their entire household quarantined. Manchester's middle class, in contrast, was not apparently subjected to such coercive treatment. The mistrustful, sometimes hostile attitudes of the poor and working class towards Manchester physicians in some ways mirrored the attitudes of the physicians towards the patients. Investigating these responses, in addition to the newly refocused weight given to the earlier Manchester physicians and their efforts, provides a better understanding of those doctors and architects of public health policy that came after.

In the years immediately following the cholera outbreak, the Poor Law Commission, with Edwin Chadwick as Secretary, was tasked in 1838 with writing a report on the effect of unhealthy living conditions and poverty in certain parts of London. Chadwick chose physicians Neil Arnott, Southwood Smith, and James Phillips Kay to be the co-authors of the report. What followed in 1839 was a request for a new report, which expanded to larger districts, particularly those cities in England, Scotland, and Wales

⁸³ Durey, *The Return of the Plague*, 80.

involved with manufacturing, and requiring the input of multiple officers associated with the Poor Law Commission.⁸⁴ Once finished, their findings were embodied in Chadwick's *Report on the Sanitary Condition*. Arnott, Smith, and Kay were not credited as authors of the document, and while the observations of these doctors and many other physicians just like them were cited extensively in the report, Chadwick wrote that, "aid must be sought from the science of the civil engineer, not from the physician..."⁸⁵ This report was the basis for the Public Health Act of 1848, which became Chadwick's legacy. This act created a General Board of Health to oversee operations of local boards. Local Boards formed either one of two ways; by request of the municipality, or by the General Board when the death rate exceeded twenty-three per thousand in that given area.⁸⁶ These local boards could then implement their own paving projects, sewage plans, removal of "nuisances," and provide for water supplies. Missing from the act were those ideas of public health that the Manchester movement espoused and that are so familiar to public health experts today. Manchester physicians, unlike Chadwick, had espoused that proper nutrition, personal hygiene, adequate rest, moderate work hours, warm clothing, and a safe, clean place to sleep were fundamental requirements for human beings to live and thrive. Edwin Chadwick's efforts in the middle of the nineteenth century, however laudable, have obscured the earlier heroic efforts of pioneers in cities like Manchester. This thesis demonstrates that the historic initiatives of these earlier advocates embraced not only the sanitary reforms subsequently recognized by Chadwick, but also the

⁸⁴ Brundage, *England's "Prussian Minister"*, 80-1.

⁸⁵ Chadwick, *Report on the Sanitary Condition*, 396.

⁸⁶ Public Health Act, 1848, 11 & 12 Vict. c. 63.

nutritional, occupational, and domestic reforms neglected by him. In so doing, they anticipated the public health system of twentieth-century Britain. understanding and embracing the need to provide for the basic tenants of public health that millions enjoy today.

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