‘To Bring Them under Control’: Vaccination and Medical Authority in England, India, and Jamaica, c. 1800-1910

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This dissertation explores medical professionalization, public health, and vaccination in England, India, and Jamaica in the nineteenth century. England was the site of the most sustained anti-vaccination agitation of any British possession in the second half of the nineteenth century. Yet by the early twentieth century, the medical profession was a trusted authority and vaccination enjoyed wide public support. In India and Jamaica, we find the opposite. India and Jamaica did not have organized resistance to vaccination on the scale of England, yet vaccination and public health floundered in both areas. In England and the Empire, doctors had a trust problem. New technology and expanding health legislation sparked backlash against the medical community. How doctors responded to that backlash shaped public health and influenced medical authority into the twentieth century. By analyzing the role of trust in the process of medical professionalization in a comparative framework, my dissertation allows us to analyze how medical authority is created and functions in society.

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Introduction

My dissertation explores medical professionalization, vaccination, and public health in England, India, and Jamaica in the nineteenth century. England had the most organized, sustained anti-vaccination campaign of any British possession, yet by the end of the century the medical profession was well-established as a medical authority, trust in the profession was growing, and vaccination was gaining in popularity. In the empire this was not the case. Neither India nor Jamaica had organized resistance to vaccination on the scale of England. Yet by the end of the century, both vaccination and British medicine were unpopular and faced growing crises of trust. Why did the medical community become a trusted authority in England despite a half-century of resistance? And why did doctors fail to develop trust within the Empire? At home and abroad, the medical community had a trust problem. Their growing authority, new technology, and legislative interference created profound problems of trust between lay people and the medical community. I argue that how doctors responded to that distrust shaped the medical profession and set the foundation of public health.

The nineteenth century laid the foundation for 'modern' medicine, yet it was not inevitable that the medical profession would form into a coherent group. In the early part of the century, doctors were a small group who mostly catered to the needs of the wealthy. Their medical training was based on ancient medical texts along with the moral education of an Oxbridge scholar. As the century progressed, the rising middle-class of doctors challenged the inherited privileges of well-connected doctors whom they claimed held the profession back. One of the goals of this growing sect of doctors was to oust the

aristocracy and set medicine on a 'scientific' and meritocratic basis. Many middle-class general practitioners (GPs) claimed elite doctors were poorly trained and unscientific. Middle-class physicians created new journals and professional organizations to wrest control of the medical community from the aristocrats. [1] But new medical legislation, such as compulsory vaccination, threatened to divide this still inchoate group further. As inherited privilege declined, new rifts formed between public and private doctors and London consultants and regional practitioners.

Changes in health cultures created profound issues of distrust between doctors and lay people; how doctors solved the trust problem impacted how public health formed and how firmly doctors established themselves as authorities within society. Prior to the nineteenth century wealthy people were the only ones likely to call in a licensed physician. The middle and working classes used herbalists, 'wise women,' bonesetters, apothecaries, and anyone else they thought could cure an illness. In the nineteenth century, legislation started to wall-off the licensed medical community from the unlicensed granting licensed physicians certain privileges such as government contracts. This brought common people into more contact with licensed physicians, but people still chose other types of healers. As the century progressed and the government expanded the role of medical professionals, doctors began to rely on a corporate rather than individual reputation. This required a high level of trust in the medical community, trust that at mid-century when much of this legislation took place, the community had not earned.

In India and Jamaica, doctors tried to professionalize in the same ways as their English counterparts but failed to solve the trust problems their growing role created. In

[1] M. Jeanne Peterson, *The Medical Profession in Mid-Victorian London* (Berkeley and Los Angeles: University of California Press, 1978).

India, doctors were responsible for maintaining the health of troops and the small White population. As disease continued to threaten these groups, the medical mandate expanded to include the non-European population. Doctors failed to partner with trusted indigenous medical experts who could have helped them organically expand public health. They attempted to replace local health cultures with imported ones which left Indian people without autonomy in their encounters with British doctors. Top-heavy medical schemes, such as vaccination, exacerbated distrust. Public health floundered. In Jamaica, the medical community failed to outgrow its roots in slavery. The medical profession catered to the mostly White elite and their work among poor Black Jamaicans was to ensure a labor force for plantation work. However, many Black Jamaicans chose other forms of work over plantation work, and White elites saw little value in promoting public health if Black Jamaicans refused to do plantation work. Public health was hampered by White unwillingness to spend 'their' money on Black bodies. Medical authority remained tied to state authority rather than becoming an independent social authority. In both places, British elites declared 'public health' to be a failure and blamed the local population rather than the medical community or the state.

By the end of the century, as public health floundered in India and Jamaica, doctors transferred their attentions from public health to 'tropical medicine.' A new field at the end of the nineteenth century, tropical medicine offered doctors and medical scientists scope to expand knowledge and their careers in a way that required less public cooperation.[2] In India and Jamaica, tropical medicine became the norm, not because they

[2] For example, see Aldo Castellani, *Microbes, Men, and Monarchs: A Doctor's Life in Many Lands* (London: Gollancz, 1960). For a recent example of a triumphalist interpretation of tropical medicine see Gordon C. Cook, *Tropical Medicine: An Illustrated History of the Pioneers* (London: Elsevier Ltd., 2007). Gordon argued that 'medicine in the tropics' existed since 'time immemorial' (ix). These works blamed

were unique disease environments, but because doctors failed to form the necessary trust relationships for robust public health. They foisted public health onto inadequately equipped local governments, declared public health a failure due to indigenous resistance, and moved on to careers that focused on scientific research that required less public support. The medical community flourished, but it flourished at the expense of quality public health with engagement from the people.

Exploring the medical trust problem in a comparative framework allows us to push past old historiographical arguments of why medicine failed in the Empire and offers new insight into how medical authority was created and functions in society. The stories detailing professionalization, vaccination, and imperial medicine has been told.[3] What is missing from these analyses is a comparative approach that takes trust seriously as a central part of the professionalization process. Vaccination and anti-vaccination have not been studied comparatively in all three contexts nor has the anti-vaccination movement been used as a site from which to think about the professionalization of the

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local population for public health failures, echoing the colonizers own arguments. Later works have undercut this argument. R. Jeffery, *The Politics of Health in India* (Berkeley: University of California Press, 1988). Randall Packard, *White Plague Black Labor: Tuberculosis and the Political Economy of Health and Disease in South Africa* (Berkeley: University of California Press, 1989). Ian Catanach, "Plague and the Tensions of Empire, 1896-1918," in David Arnold (Ed.), *Imperial Medicine and Indigenous Societies* (Manchester: Manchester University Press, 1988), 149-171. Ira Klein, "Malaria and Mortality in Bengal, 1840-1921," *The Indian Economic and Social History Review* 9/2 (1972), 132-160. John Farley, *Bilharzia: A History of Imperial Tropical Medicine* (Cambridge: Cambridge University Press, 1991). However, the idea that public health has failed due to the 'backwardness' or intransigence of indigenous people has persisted with negative ramifications for modern medical schemes in formerly colonized places.

[3] For representative works see Irving Loudon, *Medical Care and the General Practitioner, 1750-1850* (Oxford: Clarendon Press, 1986). Eliot Freidson*, Profession of Medicine: A Study of the Sociology of Applied Knowledge* (New York: Dodd, Mead, 1970). W.F. Bynum and Roy Porter (Eds.), *Medical Fringe and Medical Orthodoxy, 1750-1850* (London: Croom Helm, 1987). David Arnold, *Colonizing the Body: State Medicine and Epidemic Disease in Nineteenth Century India* (Berkeley: University of California Press, 1993). Allison Bashford, *Imperial Hygiene: A Critical History of Colonization, Nationalism, and Public Health* (New York: Palgrave MacMillan, 2004). There are numerous works that examine medicine and public health as an arm of the state. They are important and illuminate the state and state power but tell us less about doctors and the medical community. Douglas Hayes, *Fit to Practice: Empire, Race, Gender and the Making of British Medicine, 1850-1980* (Rochester: University of Rochester Press, 2017).

medical community in England and its different fates in India and Jamaica. My dissertation focuses on the problem of trust at the site of contact between doctors and otherwise healthy patients in the three very different contexts. This focus shows that the relationship between doctors and patients and how doctors responded to distrust profoundly influenced the shape of the medical profession and the growth of public health.

Vaccination is a key site from which to explore the trust problem in medical history. Vaccination was attempted, with varying degrees of success, in England, India, and Jamaica and provoked cooperation and distrust depending upon the context. Most historiography on vaccination and anti-vaccination has focused on the political and legal aspects.[4] My work differs from these by examining the relationship between doctors and patients with less focus on the state and politics. Vaccination challenged reigning health cultures across classes in two important ways. First, it was practiced on healthy bodies, usually children's bodies challenging Victorian notions of purity and pollution. Second, for those who could not afford a private physician, individuals were given little choice in the doctor. Rather than rely on the individual reputation of a doctor, the new system demanded trust in the medical community as a corporate body. This created a clash of health cultures and spurred resistance. It is therefore a useful site from which to think about professionalization as a process.

[4] Deborah Brunton, *The Politics of Vaccination: Practice and Policy in England, Wales, Ireland, and Scotland, 1800-1874* (Rochester: Rochester University Press, 2008). Nadja Durbach, *Bodily Matters: The Anti-Vaccination Movement in England, 1853-1907* (Durham: Duke University Press, 2005). R. MacLeod, "Law, Medicine, and Public Opinion: The Resistance to Compulsory Health Legislation, 1870-1907," *Public Law* (1967), 189-211.

Because of the high level of trust required for vaccination, it is a valuable site from which to examine how responses to attempts to vaccinate local populations shaped the medical profession. Existing explorations of the professionalization process for the British medical community have mostly looked at the internal factors that shaped the community.[5] Important exceptions come from Roy Porter and Christopher Hamlin. Porter argued that the historical focus on doctors had ignored and erased the patient as an active participant. He claimed there was a need to bring back the "sick man" to the study of medical history.[6] Hamlin showed the importance of placing medical history into its historical context.[7] My work builds on the work of both Porter and Hamlin. Public health required the support and engagement of patients, the subjects of public health. Vaccination required a high level of social trust. How doctors approached the trust problem profoundly influenced the way the medical community professionalized.

Medicine in India and Jamaica diverged from a focus on public health to 'tropical medicine' in the late nineteenth century. I argue this was a direct result of doctors being unable to solve the trust problem. In India and Jamaica, the medical community shifted to a form of medicine that targeted subject bodies—as hosts and sites of contamination—while distancing themselves from the failed public health of the last century. Imperial

[5] Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge: Cambridge University Press, 1994). Anne Digby, *The History of British General Practice, 1850-1948* (Oxford: Oxford University Press, 1999). Anne Hardy, *The Epidemic Streets: Infectious Disease and the Rise of Preventative Medicine* (Oxford: Clarendon, 1993). A valuable exception comes from Penelope J. Corfield, *Power and the Professions in Britain, 1700-1850* (London: Routledge, 1995). She argued that traditional forms of power continued to be important to doctors as they tried to expand their authority.

[6] Roy Porter, "The Patient's View: Doing Medical History from Below," *Theory and Society* 14/2 (1985): 175-198. See also, Roy Porter (Ed.), *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Historical Society* (Cambridge: Cambridge University Press, 1985).

[7] Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick, Britain, 1800-1854* (Cambridge: Cambridge University Press, 1998).

medical history has largely focused on the political aspects of vaccination and public health.[8] Imperial governments have rightly shouldered the blame for failed public health, but this is not the whole story.[9] Mark Harrison in his tome *Public Health in British India* pushed the field forward by showing the complex relationships that existed between the state, doctors, Indian elites, and municipal governments. He argued that ultimately co-operation was difficult because of the cultural differences between ruler and ruled with the needs of the ruler taking precedence.[10] I will further complicate Harrison's picture by showing the specific cultural contexts in which distrust flourished in India and Jamaica and how doctors' responses affected their professional growth and public health. In both locations the medical community failed to develop into a legitimate profession with clear authority and trust.

Trust has been an implicit category in much medical history but has rarely been explored as an important aspect of medical professionalization.[11] In a 2006 article, Geoffrey Hosking argued that trust was vital to understanding most social phenomenon.

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[8] Arnold, *Colonizing the Body*. Roy MacLeod and Milton Lewis (Eds.), *Disease, Medicine, and Empire: Perspectives on Western Medicine and the Experience of European Expansion* (New York: Routledge, 1988). Pratik Chakrabarti, *Medicine and Empire, 1600-1900* (New York: Palgrave MacMillan, 2014). Sheldon Watts, *Epidemics and History: Disease, Power, and Imperialism* (New Haven: Yale University Press, 1997). Priscilla Ward, *Contagious: Cultures, Carriers, and the Outbreak Narrative* (Durham: Duke University Press, 2008).

[9] The following works argued that imperial medicine failed because it did not outgrow its 'enclavist' roots and remained focused on the needs of the British ruling class. Radhika Ramasubban, *Public Health and Medical Research in India: Their Origins and Development under the Impact of British Colonial Policy* (Stockholm: SAERC, 1982). Radhika Ramasubban, "Imperial Health in British India, 1857-1900," in MacLeod and Lewis (Eds.), *Disease, Medicine, and Empire*, 38-60. Anil Kumar. *Medicine and the Raj: British Medical Policy 1835-1911* (Walnut Creek, CA: Altamira Press, 1998).

[10] Mark Harrison, *Public Health in British India: Anglo-Indian Preventative Medicine 1859-1911* (Cambridge: Cambridge University Press, 1994).

[11] For works on trust that informed my analysis see Barbara Misztal, *Trust in Modern Societies* (Cambridge: Cambridge Polity Press, 1996). For other sociological discussions of trust see Adam B. Seligman, *The Problem of Trust* (Princeton: Princeton University Press, 1997). Steven Shapin. *A Social History of Truth: Civility and Science in 17th Century England* (Chicago: University of Chicago Press, 1994).

While power has been an important area of analysis for historians, Hosking claimed this needed to be balanced with studies that examined the function of trust along with power.[12] Hosking argued that a "web" of encounters and traditions make trust possible in society and that historians are uniquely suited to study that web.[13] My work builds on Hosking's recommendations by examining trust-building as a formative process for both the medical profession and public health. This lends balance to other analyses that have focused on state and medical power. I have also built upon the work of James C. Scott. In his analysis of modern development schemes, James C. Scott argued that authoritarian, high-modernist development schemes replaced "thick, complex, quasi-autonomous social (and natural) orders" with "thin, simplified, mechanical orders that function badly."[14] Using the anarchist model of "mutuality without hierarchy," Scott explored how trust functions in a society and how trust was disrupted by technocratic schemes. Imagining trust as an "all-purpose social glue" formed through a "skein of behavior and habits," Scott showed how top-down modernization schemes attempted to replace local social orders with "dependent, compliant, legible order from the center."[15] The same process was used in India and Jamaica to try to enforce medical schemes that originated within Britain. By focusing on trust as a central process in the creation of the medical profession, my dissertation answers why the medical profession in England gained authority and trust in the nineteenth century and failed so signally to develop this trust in India and Jamaica.

[12] Geoffrey Hosking, "Trust and Distrust: A Suitable Theme for Historians?" *Transactions of the Royal Historical Society* 16 (2006), 95-96.
[13] Hosking, "Trust and Distrust," 105.
[14] James C. Scott, "Geographies of Trust, Geographies of Hierarchy," in Mark Warren (Ed.) *Democracy and Trust* (Cambridge: Cambridge University Press, 1999), 273-289.
[15] Scott, "Geographies of Trust," 275, 280, 283.

Chapter 1 will show that there was no simple line from medical legislation to medical authority or legitimacy. In this chapter I explore the responses of the medical community to medical legislation as they worked to develop a coherent identity and cultivate social trust. Far from medical legislation advancing the profession, it created new medical factions, produced disagreements between state actors and physicians, and exacerbated public distrust. Medical legislation was an important part of raising the status of medical men, but it fell short of establishing the community as a pre-eminent profession as its members desired. Rather, state actors tried to extend public health without granting greater authority to physicians. Doctors and legislators often found themselves on opposite sides of public health questions. As the state worried about individual rights, doctors sought to promote the communal good. Ultimately, doctors and their new vision of medical science won the day and helped to establish public on a foundation of communal responsibility. But at mid-century, when compulsory vaccination began, distrust characterized the relationship between doctors, the state, and their public patients. Overcoming this distrust proved critical for advancing the professional goals of the medical community.

In Chapter 2, I examine the anti-vaccination movement and the importance of cross-class alliances to put pressure on the medical community. Through this decades-long negotiation, medicine and public health became culturally acceptable across all classes. This extension and acceptance of medical authority has often been characterized by historians as internal and top-down. But the creation of medical authority in England was a relational process that came out of decades of resistance. The working-classes resisted medical legislation that conflicted with their own efforts of self-help and

independence. Ideological anti-vaccinators, mostly from the middle-classes, consciously joined with working-class members who opposed the biased nature of medical legislation and the sub-standard vaccination poor children experienced. The first few decades of the agitation produced little state action and doctors continued to ignore the legitimate concerns of parents.

In Chapter 3, I chart the turning point of the anti-vaccination campaign and show how the agitation created a consensus around science, statistics, and rationality. Anti-vaccinators became sophisticated in their use of statistics to 'prove' their claims against vaccination. This ended up creating a consensus around science and statistics. Doctors, anti-vaccinators, and concerned parents all learned to speak the same language in their arguments over vaccination. At the same time, anti-vaccinators used older cultural and religious touchstones to situate their agitation as a positive force in society. In the 1880s, Parliament launched a seven-year investigation into vaccination. By 1907 compulsion was a dead letter. Doctors, forced to engage and educate without coercion, made changes to the vaccination operation and the process became safer and more popular. Having achieved greater autonomy in their own medical decisions, the working-classes granted the medical community the authority they sought.

In Chapter 4, I argue that the medical community limited the natural circulation of vaccination and sabotaged their own attempts to expand its use. Vaccination in India began with the limited goal of protecting British health and interests. As it expanded, doctors saw in vaccination a way to promote their professional interest. Doctors refused to engage with trusted Indian healers, preferring to keep vaccination in British hands. In trying to extend vaccination without the support of trusted, local medical elites, doctors

kept vaccination from naturally diffusing through society. Doctors relied on native intermediaries to do the actual work of vaccination, but they distrusted these subordinates. They did not come from traditional healer castes and many Indian people distrusted the vaccinators. In their efforts to prove their superiority over other healers, British doctors created the very resistance that crippled their vaccination efforts.

In Chapter 5, I argue that layers of identity informed how and why different groups resisted vaccination. I also explain why Indians used religious idioms and cultural touchstones to express dissent. Rational decision-making informed Indian responses to vaccination. Prejudice and faulty assumptions kept British doctors from responding adequately to Indian concerns about vaccination. Doctors tried to leverage other sources of power to enforce vaccination. They tried to coopt elite Indians to promote vaccination, but often denied these power brokers equal partnership. Elites became a source of resistance rather than help in many areas. For elites and common people, group identity structured who resisted and how they resisted vaccination. While much resistance was couched in religious terms, there is no evidence that religious preference dictated either resistance or acceptance of vaccination. Other beliefs about vaccination that were not religious show embedded fears of replacement, exile, and death. In the 1890s, bubonic plague swept through India. When faced with an unprecedented public health emergency, British and Indian responses followed the patterns established over the past one hundred years of vaccination. British doctors and the state alienated Indian power brokers, provoked distrust among the people, and ultimately sabotaged their own public health aims. At the turn of the century, the state and doctors showed less interest in public health, turning their energy and money toward the field of tropical medicine.

In Chapter 6, I argue that Jamaican public health failed to outgrow its roots in slavery limiting the ability of doctors to professionalize and leaving ordinary Jamaicans to construct their own health networks. British medicine before and after slavery relied on Black healers, enslaved and free, to provide health care. Doctors and plantation owners simultaneously devalued the work of these healers denigrating and even outlawing Black medical practices. While some British doctors pushed for robust public health measures post-emancipation, the medical community was too small and too divided to adequately pressure the state or landowning elites into funding public health. When Jamaica became a Crown Colony in 1867, the Colonial government made half-hearted attempts at public health, but the efforts remained underfunded and unpopular among Jamaican Whites. Reform-minded doctors tried to use public health to promote their profession as their counterparts in Britain did. But the rigid racial structure and doctors' role in upholding it doomed their efforts to failure. Barred from robust participation in the dominant health culture, Black Jamaicans created alternative health networks that were utilized by White and Brown people yet were publicly denounced by White elites. The medical community remained dependent upon state and local patronage and failed to become an independent profession. Without agitation from below or from the medical community, public health routinely faltered leaving the colony open to cycles of disease and destruction into the twentieth century.

How doctors solved the trust problem impacted public health formation and medical authority. Trust has garnered little attention from medical historians, yet it is the foundation of public health. By taking the role of trust seriously as a part of the professionalization process, my dissertation pushes past old narratives of why medical

endeavors often failed in the Empire and offers new insight into how medical authority is created and functions in society. In England, agitation and growing political and economic power allowed the working-classes a voice in public health. Robust public engagement helped form public health and the medical profession into trusted entities. In India and Jamaica, doctors sabotaged their public health goals. They provoked distrust in the population and depended upon state power to expand public health regardless of public engagement. After a century of failed public health, doctors blamed local people and turned their attention to 'tropical medicine.' The relationship between doctors and patients, and doctor's ability to solve the trust problem, laid the foundation for public health and medical authority with profound implications for health care into the twentieth century.

1.0 'Ever Enduring Glories':

The Medical Community and the Struggle for Status

Introduction

In 1853, smallpox vaccination became compulsory for children over three months of age in England and Wales. The medical profession was divided over this action. Writing in the *Associated Medical Journal*, one unnamed doctor claimed the law was "unwise, unsafe, and, if not indeed unconstitutional, at least inexpedient at present." He believed that with time and education the lower classes would accept vaccination.[16] But other doctors, especially medical officers burdened with the task of public vaccination, believed compulsion was necessary to ensure compliance and save lives. Writing in 1857, Medical Officer of Health Samuel Pearce argued, "The compulsory character of the vaccination act has been much represented, as a forcible interference with independence of Englishmen and the discretionary power of parents." But after all, he wrote, "All law is an infringement on personal freedom, for the sake of public good; but we must not allow children to die…much less can we suffer the lives of others to be placed in danger by such neglect."[17] If infringing on liberty was what it took to save lives, so be it. Robert Barnes, Medical Officer of Health for Shoreditch, believed the law did not go far enough in giving medical men the power to enforce vaccination. He claimed medical men needed more authority to surveil and enforce the compulsory aspect of vaccination.[18] But the

[16] *Association Medical Journal* Vol. 1 (1853), 357.
[17] Samuel Pearce, *First Annual Report of the Medical Officer of Health of the Sanitary State and Transactions in Bethnal Green during 1856* (1857), 12. Robert Barnes, *Fourth Annual Report of the Medical Officer of Health for Shoreditch, 1859* (1860), 6, 19.
[18] Robert Barnes, *Fourth Annual Report of the Medical Officer of Health for Shoreditch, 1859* (1860), 6, 19.

heavier compulsion became, and the greater powers public doctors gained, the more backlash they faced.

Historians have framed medical legislation as a key part of the process that established the medical profession as a preeminent institution, yet medical legislation exacerbated social distrust and strained relationships. [19] Public health has been examined as though doctors and the state were a singular institution creating greater networks of surveillance and control. The reality was more complicated. State actors did not want to elevate the medical profession and public health legislation was often crafted to secure public health without granting added power to medical professionals. The government distrusted the ambitions of the large class of general practitioners who were politically engaged, vocal, and growing. For their part, doctors were often trying to goad an unwilling and parsimonious state to more forcibly enact medical legislation. Doctors distrusted the poor and the working classes and saw them as hindrances to public health. Medical legislation was an important aspect of bringing more people in contact with licensed physicians, but it brought to the surface the distrust present between doctors and patients, doctors and the state, and doctors and each other.

In this chapter, I will explore vaccination as a site that shows how doctors began to create a new public identity and worked to develop trust around themselves as experts. Much of the sanitary and public health legislation in the period focused on large

[19] For a few representative works see: Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (Cambridge: Cambridge University Press, 1999). Baldwin explored public health as an extension of state power. He claimed that vaccination was the first area that new forms of state power were applied "directly and tangibly." Pamela Gilbert, *Cholera and Nation: Doctoring the Social Body in Victorian England* (NY: State University of New York Press, 2008). Gilbert argued modern governments staked their claims to authority on their ability to manage the social body and that medical science was a vital part of the government's ability to make that claim. Allison Bashford, *Imperial Hygiene: A Critical History of Colonization, Nationalism, and Public Health* (New York: Palgrave MacMillan, 2004). Bashford, writing about imperial spaces, described public health as a spatial form of governance.

structures such as housing and sewage. Vaccination was different. Vaccination was a direct assault on the bodies of the poor and working classes. It did not conform to contemporary ideas of health. And it demanded a high level of trust in doctors. Historians have argued that medical legislation provided a path for doctors to align themselves with the state and promote their professional growth.[20] While this was the end result, the path to this outcome was neither direct nor inevitable. The immediate result of medical legislation at mid-century was to create new factions and competing identities within the medical community, to foster a contentious relationship between doctors and government officials, and to create public distrust.

1.1 Medical Legislation

Medical legislation in the nineteenth century had mixed results for the medical community and often provoked backlash. In 1834, the New Poor Law ensured that only 'licensed medical professionals' could access government jobs. But it also extended earlier practices that hurt professional incomes and made doctors subservient to Poor Law Guardians on matters of health. And since there were no standards for licensure, there was lingering confusion about who could and could not take the title of 'doctor.' The 1858 Medical Act defined the medical profession as physicians, surgeons, and apothecaries. It was important legislation in enabling the medical community to establish boundaries, but it would take several decades before doctors agreed on standards of licensure and education. Medical legislation was an important part of increasing the

[20] Jeane Brand, *Doctors and the State: The British Medical Profession and Government Action in Public Health, 1870-1912* (Baltimore: Johns Hopkins Press, 1965). Matthew Newsome Kerr, *Contagion, Isolation, and Biopolitics in Victorian London* (New York: MacMillan, 2018). Anthony S. Wohl, *Endangered Lives: Public Health in Victorian Britain* (Cambridge: Harvard University Press, 1983).

status and professional prerogatives of medical men, but it fell short of establishing the medical community as a preeminent profession.

State medicine and public health legislation brought more people into contact with trained medical men, but this did not advance the medical community as a trusted profession. In 1834, the New Poor Law required Boards to hire only 'qualified practitioners.' This was still a loose term. There was no standardized education for doctors, nor was the community capable of regulating who did and did not call themselves a doctor. But the law was an important step in legally establishing the medical community as a defined group with certain prerogatives, but there were many aspects of the law doctors disliked. The New Poor Law circumscribed doctors as a separate class of healer, but it also undermined professional incomes and prestige. Prior to 1834, overseers of Parish boards made arrangement for the sick poor to receive care and doctors either recovered their charges or were hired at an annual rate. Neither system appealed to doctors. They considered the wages too small and the competition caused doctors to work for rates lower than their 'class' should have allowed. The law required practitioners to attend the sick poor in a timely manner supplying medicine *gratis* from their own pockets. The medicines doctors supplied were often in excess of their payment. Doctors claimed members who performed public work were doing so unremunerated. In 1840, new legislation provided free vaccination to paupers, and these duties were added to the other duties of public medical men still at low pay.[21] The net result of this legislation was to devalue the work of doctors and lower their incomes.

[21] *An Act for the Amendment and Better Administration of the Laws Related to the Poor of England and Wales* (14 August, 1834). Full text available at www.workhouses.org/poorlaws. (Accessed 8 August, 2020). Ruth G. Hodgkinson, "Poor Law Medical Officers of England, 1834-1871," *Journal of the History*

The Public Health Act of 1848 enhanced the position of licensed practitioners, but it also created new tensions internally that doctors had to overcome and problems between the state and physicians. The Act created a General Board of Health with the goal of creating Local Boards of Health. It mandated parishes hire a Medical Officer of Health (MOH) who performed public duties, created reports, conducted vaccination, and advised the parish government. This group of public physicians became a powerful force in shaping medical priorities, but it was a long slow process that threatened to divide the profession and alienate state actors. The expectation was that these Boards would serve a mostly advising role to parishes in their handling of disease. Government officials hoped to avoid giving too much power to the medical community while still safeguarding public health. Guided by Edwin Chadwick, a noted sanitarian, the Central Board in its early stages focused on large-scale sanitary matters like sewers and removal of nuisances. However, in 1853, the General Board of Health was reorganized and John Simon became the new Chief Officer. He used the Board to create more central control over health initiatives, most notably vaccination, than his patrons expected. The Public Health Act began a new era of infighting, between government consultants and rank-and-file practitioners, and Medical Officers of Health and local parishes, which will be explored further in the chapter.

The 1858 Medical Act defined the modern medical profession, but the process of creating this profession as a reality was a contested, yet successful process throughout the nineteenth century. The stated goal of the Act was to enable lay people "to distinguish

of Medicine and Allied Science 11/3 (July 1956), 299-338. Royston Lambert, *Sir John Simon, 1816-1904, and English Social Administration* (London: MacGibbon and Kee, 1963).

qualified from unqualified practitioners."[22] Historians have noted that the 1858 Act, though important, was hardly the defining moment of medical professionalization.[23] Along with record keeping, the Act ensured that only licensed physicians could obtain government jobs and in the latter half of the nineteenth century, this became a massive source of employment.[24] This was not limited to British society. The 1858 Act not only gave physicians sole access to government jobs at home, it also meant only British-trained physicians could access government jobs throughout the Empire.[25] However, legislation alone could not transform doctors into trusted professionals nor could it provide the internal stability necessary to safeguard their community. It was decades before the profession had agreed upon standards of education and registration and older forms of patronage still dominated at mid-century.

London-based doctors with elite patrons held an inordinate amount of power, and middle-class doctors, the largest group numerically, opposed these inherited privileges. In the early nineteenth century, rank-and-file doctors, often known as general practitioners (GPs), were fighting the elites of their field as much as they were fighting the unorthodox.[26] General practitioners were a large, ambitious group working to establish their reputations under intense market pressure and changing scientific practices.[27]

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[22] M.J.D. Roberts, "The Politics of Professionalization: MPs, Medical Men, and the 1858 Medical Act," *Medical History* 53/1 (2009), 37-56.
[23] Peterson provides one of the best overviews on what the Act did and did not accomplish for the medical community. Peterson, *The Medical Profession in Mid-Victorian London*. More recently Hayes explored the Act in its imperial context in *Fit to Practice*.
[24] Digby, *The History of British General Practice*.
[25] Marcus Ackroyd et. al, *Advancing with the Army: Medicine, the Professions, and Social Mobility in the British Isles, 1790-1850* (Oxford: Oxford University Press, 2007). Hayes, *Fit to Practice*.
[26] Loudon, *Medical Care and the General Practitioner*. Bynum and Roy Porter (Eds.), *Medical Fringe and Medical Orthodoxy*.
[27] Digby, *Making a Medical Living*.

Through print organs such as the *Lancet* and the *British Medical Journal*, GPs in the nineteenth century worked to elevate their status and the importance of licensure, standardized training, and 'scientific' medicine. Legislation was a key part of this, but it was only a small part in allowing doctors to become a trusted professional organization. Doctors, the state, and contemporaries all used the term 'profession' to discuss the medical community, but in reality the group was fractured and lacking unified public authority. While doctors used the terms 'medical profession' and 'orthodox medicine' when discussing their role in society, these categories were flexible and open to interpretation. The 1858 Medical Act defined doctors as belonging to one of three categories: physicians, apothecaries, and surgeons. Each of these designations carried different meaning and signified not only levels of training but levels of class and respectability.

Physicians were united under the College of Physicians, a body that in the 1830s was sharply divided along class lines. It was composed of the Fellows and the Licentiates. Fellows were elite and received patronage positions through their aristocratic connections. Licentiates were from middle and lower middle-class backgrounds. Fellows attended Oxford or Cambridge where, one disgruntled Licentiate groused, "They are taught to plume themselves under their supposed superiority, in having been educated under the *moral restraints!* and *pious discipline!* of Oxford and Cambridge." Licentiates trained in other Universities which, they argued, not only afforded them the moral and religious training of an Oxbridge education, but also allowed them to study medicine "extensively and thoroughly…in all of its branches."[28] Only Fellows were allowed seats

[28] "The Address of the British Medical Association," *Hume Tracts* (19 January, 1837), 14.

within the College and to manage its governmental affairs. The College of Physicians was supposed to safeguard the whole community of physicians, but their elite status and London location meant rank-and-file physicians felt they had no corporation advocating their needs. Licentiates also attacked Fellows for being poorly trained in the medical arts and claimed their medical education was more a training in obsequiousness than medicine. Licentiates were more likely to have hospital training as well as their University training which they claimed made them more qualified.

The College of Surgeons was a second branch of the profession, but surgeons varied wildly in class and training. There were some who plied the healing arts whose work fell roughly under the rubric of surgery, such as bonesetters and dentists, but these practitioners were not part of the medical community. Bone setting and dentistry were considered trades and their practitioners learned through apprenticeship rather than college. Many of them were illiterate. Rank-and-file surgeons sought to separate themselves from 'barber-surgeons' and also reform the elitist College of Surgeons. The council of the College of Surgeons was composed of 21 members who were self-elected and served for life. They served a membership of around 12,000 most of whom lacked the pedigree to ever hold a council position. Most of the great body of doctors who were designated General Practitioners or GPs were members of the College of Surgeons. This was the fastest growing type of practitioner in the medical community, yet GPs were barred from serving on the council. Those positions were open only to London-based consulting, or "pure" surgeons who, in the 1830s were estimated to number around 100 in London and another 100 in the large towns. Rank-and-file doctors were trying to wrest

control of their profession out of the grip of elites while also trying to distinguish themselves through education and respectability from the 'tradesmen' in the community.

The final branch of the medical practitioners was the Apothecaries who attained official status in 1617 through royal charter and were granted the power to license and regulate medical practitioners in England and Wales through the 1815 Apothecaries Act. Many rank-and-file doctors felt the Apothecaries were unprepared by their education for this task, but Apothecaries, despite this authority, were never the focus of rank-and-file reform as the other two colleges were. [29] They were not seen as elite nor as powerful as the other two colleges and they promoted wide educational opportunities along with apprenticeship for practitioners. Many GPs carried dual training as both surgeons and apothecaries. Apprenticeships lasted for seven years and apothecaries were literate and some had University training as well. Apothecaries were considered part of the medical profession while herbalists and patent medics were not. Herbalists and apothecaries used the same *materia medica* (medical material), but an Apothecary was separated by class and training. Herbalists were often self-trained, may or may not have been literate, and included women. Patent-medicine traders were definitely 'quacks' according to 'orthodox' doctors. But 'unorthodox' practitioners remained an important part of health care and health culture even as the state increasingly regulated medicine to protect public health.

People used numerous types of healers in the nineteenth century and at mid-century it was rare for all but the elite to use a licensed physician. The rich called in physicians while the poor and working classes opted for less expensive care from

[29] "The Address of the British Medical Association," *Hume Tracts*, 16.

apothecaries, surgeons, herbalists or a local 'wise' woman. The growing middle-class might call in a physician but they were just as likely to use herbal remedies. Women were an integral part of medical care and most medical decisions were made by women as was nursing which was done in the home of all but the poorest families.[30] In the decades preceding compulsory vaccination, medicine was slowly taking on a new form and role, but traditional patterns of care continued throughout the nineteenth century despite rapid changes in health care.[31] The three branches of Physician, Surgeon, and Apothecary were what doctors meant when they discussed 'orthodox' medicine. This also became the legal definition of the medical 'profession' through the 1858 Medical Act. But for most of the population, healers were chosen based on personal reputation, skill, and cost rather than licensure or orthodoxy. This was what the rising middle-class of doctors sought to change. Throughout the nineteenth century, GPs began to stake their claim to authority on the fact that medicine was a 'scientific' pursuit. Vaccination was an important part of the new, 'scientific' medicine doctors promoted.

1.2 Vaccination Legislation

The state wanted to promote public health and extend vaccination, but state actors simultaneously tried to limit the power of the medical class. Vaccination was 'discovered' by Edward Jenner in 1796 and for the most part the state allowed the practice to expand gradually and organically. The medical community rapidly accepted

[30] Lucinda McCray Beier, *For Their Own Good: The Transformation of English Working-Class Health Culture, 1880-1970* (Columbus: The Ohio State University Press, 2008).
[31] Loudon, *Medical Care and the General Practitioner*. W.F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994). Loudon and Bynum argue that medicine assumed its recognizable, modern form by 1850. While it is true that the foundation was laid for the profession there were dramatic changes in the areas of licensure standards, market control, and prestige in the latter half of the nineteenth century. These would be important areas doctors were trying to control through the 19th century.

vaccination, but it was practiced by non-medical men as well. Early legislation to promote vaccination stopped short of making it compulsory or extending its use through public doctors. The government did not legislate vaccination until 1840 and gave power for overseeing vaccination to state and local officials, not doctors. Later legislation built upon this early foundation and showed the tension between the state goals of checking the spread of disease while simultaneously limiting the power and authority of the medical class. Disappointment with compulsory vaccination laws spurred doctors to become more politically engaged to protect their professional prerogatives as well as public health.

Vaccination epitomized the promise of scientific medicine in the nineteenth century. It was the first, and for nearly a hundred years, the *only* disease prophylactic available to physicians. Prior to smallpox vaccination people practiced inoculation. An ancient practice in Asia and Africa, inoculation had only been practiced in England since the 1720s.[32] It was popularized by Lady Mary Wortley Montagu who learned of the practice in Turkey where it was common. For inoculation, also called variolation, the live smallpox disease was selected from a person with a mild disease and then introduced to another with the expectation that they too would have a mild case. Vaccination first began in England in 1796 with the discovery by Edward Jenner that the disease of cowpox, when inoculated into humans, protected against the more dangerous disease of smallpox. Vaccination slowly began to replace the older process of inoculation. However, inoculation continued in certain areas and among certain classes and was not outlawed in

[32] Some historians have theorized that inoculation may have been practiced in rural areas prior to its popularization by Lady Montague in the 1720s. There is a possibility that inoculation existed among peasants in rural pockets but was unknown to the upper classes.

Britain until 1840. Jenner's discovery faced criticism from contemporaries. Inoculation produced the live virus and subsequent disease, proving its efficacy in the mind of the public. Since vaccination produced few or no symptoms many disbelieved Jenner's prophylactic accomplished anything. There were other fears associated with vaccination. People told wild stories about children becoming bovine and brutish following vaccination. Still others claimed it was unnatural and un-Christian to usurp God's power over life and death. Religious detractors said vaccination was heresy and the mark of the beast.[33] Variations of these criticisms cropped up from time to time, but overall vaccination was well-received in Britain and internationally, sped along by the British Army and Navy. Practitioners sent samples of *lymph*, or vaccine material, to colleagues and friends to make their own experiments. Books, pamphlets, and magazine articles proclaimed the wonder of vaccination.

While several contemporaries were working to find the connection between smallpox and cowpox, what Jenner accomplished was to show that cowpox, once inoculated into humans, could be continued in humans. [34] Once a child was vaccinated, a pustule or *vesicle*, as it was called, would form at the vaccination site. On the seventh or eighth day, if doctors milked this vesicle, *lymph*, a clear viscous fluid, would flow from the site and this material could be used to vaccinate four to six other children.[35] Jenner's great discovery was to formulate a method by which cowpox, once harvested from a cow, could be kept up and carried from body to body outside of its original point of origin. The

[33] *Homeopathic Times* v.3 (1852), 622-623. "Smallpox and Vaccination," *The Times* (28 June, 1860), 6.
[34] L. Thurston and G. Williams, "An Examination of John Fewster's Role in the Discovery of Smallpox Vaccination," 45 *Journal of the Royal College of Physicians of Edinburgh* (2015), 173-179. J.F. Hammerstein et. al. "Who Discovered Smallpox Vaccination: Edward Jenner or Benjamin Jesty?" *Transactions of the American Clinical and Climatological Association* 90 (1979), 44-55.
[35] J.F. Marson, "Surgeon to the Smallpox Vaccination Hospital," *The Times* (17 February, 1857), 7.

children used for this purpose were called *vaccinifers*, and this method of transmission became known as *arm-to-arm vaccination*.

Promoting smallpox became a government priority and while medical men widely supported the practice early vaccination was not always done by trained doctors. In 1809, Parliament created provisions for a National Vaccine Establishment. The NVE produced *vaccine lymph*, the material inserted into the skin, for civilians, the Army, and Navy. By 1818, they were sending out over 50,000 charges of lymph nationally and internationally and had seventeen vaccine stations across London. Starting in 1814, volunteers went out with free lymph, instructions on how to vaccinate, and a register to keep track of their efforts. Throughout the nineteenth century, the NVE remained the only lymph producing establishment funded by the central government though local establishments were created which relied on charity and parishes for funding. Local parishes switched from inoculation schemes to vaccination. Hospitals and dispensaries offered free vaccination to the poor. Some people preferred inoculation, but inoculation cost money and through various programs vaccination could often be obtained for free. Amongst the wealthier classes, smallpox vaccination was fashionable and the ability to call in their own doctor to perform the procedure convinced many in the upper and middle-classes of its safety.

The government recognized the value of vaccination, as shown by their support of the NVE, but government officials hesitated to make vaccination compulsory and refused to legislate vaccination for over forty years. In 1802 and 1808 the government gave grants to Jenner to thank him for his contribution to the health of the country. In 1808, a "Bill to Prevent the Spreading of the Infection of Smallpox" was presented to the House of Commons. This bill advocated setting new rules that would have restricted the use of

inoculation to control smallpox. The bill garnered little interest and was dropped. The next bill related to smallpox was presented in 1813 and included provisions for marking houses which had either natural or inoculated smallpox and for fining people who were found on the street infected with smallpox. This bill was rejected as an infringement on individual liberty. In 1815, legislation was introduced that would have created a national system of free, but not compulsory, vaccination through the poor law. It was rejected when an opponent in the House of Lords, Earl Stanhope, argued that this would unfairly benefit public vaccinators and limit competition among doctors. Parliament would not debate smallpox legislation again until 1840.[36]

Parliament passed the first piece of direct vaccination legislation in 1840 and it became the foundation on which all later vaccination laws built. It shows that state actors tried to promote public health without expanding the authority of the medical community. Rather than giving control of vaccination to doctors, this act placed vaccination in the hands of the Poor Law Guardians who were tasked with hiring and overseeing the work of public vaccinators for their parish. According to Deborah Brunton, this caused concern among practitioners who saw the legislation as an attack on their professional prerogative to oversee their medical duties.[37] Far from being a way to increase the authority of their community, medical men saw this as undermining their role in society. The tensions produced in this first piece of legislation contributed to a growing distrust among the

[36] Brunton, *The Politics of Vaccination*. Medical men were greatly concerned with pay once the Act was in force. Their many arguments with the Boards of Guardians in different parishes may have begun the distrust that would characterize future vaccination legislation. Pay and refusing to be part of the tender system were regular parts of the discussion. Little was said about its scientific aspects, though the parsimony of some Boards toward the poor, as well as doctors, was discussed. Charles F.J. Lord, "The Extension of Vaccination Act," *The Lancet* 904/35 (26 December, 1840), 472-473. H. Nankivel, "The Vaccination Act," *The Lancet* 35/896 (31 October, 1840), 214. "The Vaccination Act in Cornwall," *The Lancet* 34/890 (19 September, 1840), 941.
[37] Brunton, *The Politics of Vaccination*.

medical community toward the state. This distrust prompted doctors to become more politically engaged. It also created a divide between rank-and-file GPs doing the work in the field and the medical experts they felt had failed them in Parliament. These tensions will be explored below.

A series of vaccination acts from the 1850s to 1870s established compulsory vaccination throughout England and Wales. In 1853, new legislation made vaccination compulsory for all infants by three months of age and mandated fines or imprisonment for those who resisted. Riots erupted in some areas and a London based Anti-Vaccination League was established. However, this law had little real teeth. At the time, there was no systematic registration of births in England so establishing that a parent was in defiance of the Act was difficult. There was also confusion about who was in charge of punishment so few penalties were levied for non-compliance. It was not until the 1867 Act that vaccination became truly compulsory. The 1867 Act was extended to include children up to 14, and clear language was added to give Magistrates and Parishes the right to levy multiple fines for non-compliance. In 1871, additional legislation allowed municipal courts to levy repeated fines on those who failed to vaccinate their children. The appointment of paid vaccinators became compulsory and the system of registration and certification was strengthened. It was this legislation, the last vaccination legislation for twenty-seven years that created serious opposition which would continue until Parliament relaxed compulsory vaccination in 1898. It extended the role of public doctors, but tried to keep control and authority in the hands of local parish authorities rather than physicians.

1.3 Liberty versus Obligation

Historians have generally explored public health as an extension of state power arguing that both the medical profession and the state grew through the regulation of bodies.[38] So studies of bodies and their regulation have often become studies of state power. But by analyzing the two separately, it becomes clear that while the public and state actors were often concerned with protecting individual liberty, it was the medical community who advocated for prioritizing the needs of the social body over that of the individual. Doctors argued in favor of 'modern' public health efforts by using 'pre-modern' notions of obligation and communal solidarity. Discussions of compulsory vaccination tend toward conflating doctor and state, but the two were often at odds in approaches to medical legislation. While the medical profession at times did the work of the state, overzealous physicians were also held back by the state, and physicians had to chivvy a parsimonious state into contributing to public health for the public good, not just when it coincided with state needs. It is reasonable, then, to think about the medical profession and the state as imperfect bedfellows whose goals sometimes overlapped but were equally capable of clashing.

The medical community saw their work as supremely important to society and felt that the state should defer to doctors when crafting public health policy. *The Lancet* noted in 1850 the "ingratitude, and indeed almost contempt, with which the greatest discoveries in medical science have been treated by the state." And yet, the writer questions, "What are all the military glories we have reaped in this century compared with the ever enduring glories springing from the discovery of Edward Jenner?"[39] Samuel Pearce,

[38] Baldwin, *Contagion and the State in Europe*. Gilbert, *Cholera and Nation*. Hamlin, *Public Health and Social Justice*, 5, 17.
[39] *The Lancet*, v.2 (1850), 216.

MOH for Bethnal Green, rhapsodized over the medical arts writing, "No pursuit can be purer, nothing more Godlike than to give health to man!"[40] Doctors also claimed the inattention of the state to medical matters was tantamount to murder. James Morgan, MOH for St. James, claimed the death of 2000 and the affliction of 12,000 to smallpox could only be blamed on the "reckless indifference to human life that characterizes our imperial and local government." According to Morgan, smallpox was the easiest illness to guard against, and it was only official pecuniary interest that hindered medical progress.[41] Doctors believed the state ignored their concerns and that, if given control, they could solve many of the health problems facing the industrializing nation. For that reason, one doctor wrote, "We desire the medical profession to be fairly represented in parliament…and a voice in the legislative assemblies of our country."[42] But at mid-century, it was only elites of the field, not the rank-and-file, who had the most influence on compulsory vaccination legislation.

Public medical men advocated for strong compulsory public health laws even as state actors worried that medical legislation infringed on personal liberty. This tension is at the heart of public health. How to balance personal freedom and communal obligation was the problem doctors and the state grappled with, and the two groups were often on opposing sides of the issue. Old ties of obligation were fraying under new social organization and health cultures. As ideas of contagion changed, doctors argued it was a communal obligation to protect society from disease. There were already laws that restricted people from knowingly disseminating disease. Refusing vaccination, doctor

[40] Samuel Pearce, *First Annual Report of the Medical Officer of Health of the Sanitary State and Transactions in Bethnal Green during 1856* (1857), 16.
[41] James Morgan, *Report of the Medical Officer of Health for St. James, Westminster, 1864* (1865), 48-49.
[42] *British and Foreign Medical Chirurgical Report*, v. 20 (1857), 253.

argued, was the same. Yet state officials continued to worry that public health interfered with the 'liberty of the subject.' Doctors tried to allay these fears with a number of arguments. For one, doctors argued that ALL law was an infringement on liberty, but that the freedom of one individual could not be set against the safety of a community nor the health and life of innocent children.[43] Some doctors argued that what was needed was not less, but more, compulsion. Robert Barnes, MOH of Shoreditch, wrote, "I believe nothing short of individual inspection by medical men will accomplish the object."[44] For "however finely the net of supervision be woven" it required that "everyone should give them(selves) conscientiously" to the task of "abolishing those perpetual nuisances—the unvaccinated."[45] Under pressure of new diseases and disease patterns, the state recognized it had to do something to safeguard the health of the population. This resulted in new surveillance and disease containment laws as well as laws making vaccination compulsory.[46] The tension between liberty and obligation persisted through the vaccination debates.

The doctors who supported compulsion placed obligation to the community over the rights of the individual. Doctors made numerous statements on the important, communal benefits of vaccination and downplayed the idea that vaccination was nothing more than a personal choice. They argued that "vaccination…so far from being despotic in its operation, is, on the contrary, directly conducive to personal freedom." It allowed people to move through society without fear of catching a contagious disease and kept

[43] Henry Pink and William Flashman, *First Annual Report Medical Officer of Health for Greenwich District, 1856* (1857), 12.
[44] Robert Barnes, *Fourth Annual Report of the Medical Officer of Health for Shoreditch, 1859* (1860), 6.
[45] James Morgan, *Report of the Medical Officer of Health for St. James, Westminster, 1859* (1860), 9-12.
[46] Durbach, *Bodily Matters*.

people from being confined due to illness. Physicians also sought to define what liberty meant in the context of health and disease. "Is this the liberty of the citizen, the right of the parent to destroy his children, to spread death and disease amongst the children of his neighbors?"[47] Doctors lamented the insistence of those opposed to mandatory health measures as a feeling "fatal to all combined action for the civilization and welfare of mankind, which demand that individual natural rights should be given up for the public good."[48] Doctors also pointed to other common interferences with the individual as a justification for vaccination. Dr. Lankester, MOH for Lewisham argued that the law did not allow a man to expose his children to smallpox "as it does not allow him to kill himself or his children."[49] Compulsory medical legislation was a new phenomenon in Victorian Britain giving new powers to both doctors and the state. However, in the justification of these powers, doctors were implicitly calling on older forms of communal obligation to encourage cooperation while simultaneously demanding the state create new powers of surveillance and control.

Ultimately, the view of the medical community became the view that guided public health. Notions of communal obligation became the underpinning of modern public health. Even as the medical profession demanded new authority and as medical ideas changed to encompass new scientific breakthroughs, the foundation of modern public health rested on communal solidarity not the rights of the individual. There was tension between the rights of the subject and the obligation to the many and this battle was fought throughout the nineteenth century and beyond. Not all doctors agreed with

[47] *The Lancet*, v.2 (1856), 168-169.
[48] Edwin Lankester, *Report of the Medical Officer of Health, St. James, Westminster, 1863* (1864), 42.
[49] Edwin Lankester, "Facts and Reason in Favor of Vaccination and the Vaccination Laws," *The Report of the Board of Works for Lewisham District, 1869* (1870), 16.

compulsion, and not all doctors put communal needs over individual desires. But the large number of public doctors eventually came to speak for the profession and guide public health. That process will be explored below. It is important to realize that modern public health rested on much older foundations of social organization and that 'pre-modern' ideals of social obligation underpinned and were enshrined in modern public health.

1.4 New Factions, Growing Distrust

Medical legislation highlighted the many fractures in the medical community and it was a long process and several decades before the medical community began to speak in one voice on matters of public health. Up until now I have discussed the medical community more or less as a homogenous group. But medical legislation and internal distrust divided this group. Many doctors believed that vaccination offered an opportunity to highlight the superiority of their class over other healers. But compulsion highlighted the internal dissension of the community. Public doctors felt that they were poorly remunerated for their work and had too little control. In theory, the needs of public GPs were represented by the Central Board of Health, but in reality London experts blamed public doctors for vaccination failures. Public doctors in turn accused private physicians of performing substandard vaccination and bringing the practice, and the profession, into disrepute. Internal strife damaged the credibility of the community a problem that persisted until the community became more cohesive.

Doctors believed that vaccination was a way to showcase their superiority over other practitioners and improve their position in society. One doctor writing in *The Lancet* encouraged medical men to rise to the challenge and to use vaccination as a way

to promote their community. Since only registered medical men could be hired by the state at least "a line has been drawn between medicine and charlatanry." Since the Act placed the onus, if not the control, squarely on doctors, it was up to them to make it a success and prove they deserved esteem and authority. Vaccination was a primary way doctors could prove their value to society and the state. As one *Lancet* author wrote, "The honor of the profession is now concerned with the result."[50] The author urged medical practitioners to unite behind vaccination as a duty. This went beyond vaccinating well. It meant medical men needed to be consistent in the performance of vaccination, to avoid public controversy, to speak with one voice on the subject, and to curtail public attacks on one another over the subject. As opposition to vaccination grew over the next few decades, the distrust between medical groups would grow as different factions sought to promote their interests at the expense of others.

Compulsory vaccination was supposed to provide vaccination to every member of society at a fair rate to the doctors performing the work, but there were flaws in the law and in its execution. The legislation mandated "no less than 1s.6d." for public vaccinators who traveled less than two miles. For over two miles they were given "no less than 2s.6d." In an ideal scenario, public vaccination was performed as follows. A guardian or parent would bring the child for vaccination and the doctor would quickly assess whether the child was fit for vaccination. Reasons not to vaccinate included teething, skin rashes, eczema, diarrhea, and malnourishment, bit it was ultimately at the doctor's discretion to vaccinate. If a child was fit for vaccination the doctor performed the operation, lancing the child in four places and filling the cuts with lymph. Seven to eight days later the

[50] *The Lancet* v. 2 (1853), 582.

parent/guardian would bring the child back for inspection. If an adequate vesicle was produced at one of the sites, vaccination was considered a success. The parent/guardian was given a certificate, filled out by the doctor, to prove vaccination. The doctor was then expected to fill out another certificate and send that in to the local Register of Births and Deaths to be placed on public record. If a child was too unwell to vaccinate, the parent/guardian was given a certificate to that effect and had to continue to bring the child until it was deemed well enough for the surgery. If vaccination failed to produce a vesicle, the child had to be re-vaccinated. If the procedure continued to fail (three to four times or more) the child was given a certificate that it was 'unsusceptible' to vaccination.[51] In reality vaccination never functioned in this pristine way and medical men felt that they were poorly paid and overworked.

One of the key points of frustration for medical men was that they were only paid for *successful* vaccination. If a child was unwell they still had to examine it, work they were not paid for. If a child was declared unsusceptible doctors were not paid. And if parents refused to return for the examination, doctors again were not paid. It was upon this second visit, the examination, that children would be chosen as vaccinifers, breaking open their vesicles for lymph to perform another round of vaccination. Of course many parents objected to having their children used in this way, so they avoided the second examination depriving doctors of their pay. When parents failed to bring their children for inspection, this also meant that doctors were unable to continue vaccination via the arm-to-arm method. If they could not procure vaccine matter from other doctors or the

[51] "An Act Further to Extend and Make Compulsory the Practice of Vaccination, August 20th, 1853," printed in *The Lancet* 62/1575 (5 November, 1853), 447-448.

NVE, they could not vaccinate. Both the state and inconvenienced parents blamed doctors for these shortages.

A constant refrain from members of the medical community is that their pay reflected neither their status as experts, their position in society, nor the benefit they provided to their communities. Medical men had great hopes that the 1853 Vaccination Act would remedy some of the issues inherent in the 1840 Act, among these low pay. Instead, the Act gave medical men additional duties for a sum they felt was insultingly insufficient. When the 1853 Act passed, many Boards of Guardians already had a MOH who was also conducting public vaccination. The Act declared families should not be forced to go too far from their home, but there was no portion of the law that demanded how many vaccination stations a parish should have nor how many MOsH it must have. This meant Boards were given tremendous latitude in how they staffed their Parish and how they delivered vaccination. Many Guardians, loathe to spend public money, simply added to the duties of the local MOH without additional staffing. [52] The Guardians were responsible for overseeing public health, but they were responsive to the rate payers, not the poor who utilized free public health services. Doctors felt that they, not parsimonious Guardians, should be overseeing vaccination for maximum safety.

There were other significant problems in the legislation that made it more difficult for medical men to perform their work. The machinery for enforcing compulsion was weak and left the Boards of Guardians confused. The Act said they were entitled to claim £1 from vaccination defaulters which would go into the poor rates, but there was no information on who should prosecute or how. Further, the registration of births was still

[52] *The Lancet* v. 2 (1853), 449.

in its infancy so many registrars were unable to verify who was, in fact, defaulting on vaccination or who failed to return for the their examination. And a lot depended on how important vaccination was to individual Boards and how stringently they wanted to enforce vaccination. This left public medical men, as they complained, responsible for the success of compulsory vaccination without being able to control the workings of it.

In theory, doctors had a powerful voice in medical legislation through the Central Board of Health. In reality, medical experts were amassing more power and state control while GPs, especially public GPs, had little voice in their community or legislation. One of the most powerful figures of public health in the 1850s was John Simon.[53] Trained as a surgeon through apprenticeship he took his exams to become a Member of the Royal College of Surgeons in 1838. He held several lucrative sinecures in surgery and was appointed the country's second Medical Officer of Health in 1848 and became the head of the newly reconstituted Board of Health in 1855. From his position as the President of the Board of Health, he conducted ambitious and far-reaching public health plans, sometimes to the dismay of his government backers who expected him to promote local methods of public health rather than centralize control in his own hands. Over the next decade, Simon used vaccination as a method to further medical experts' roles in government even as the government tried to limit his powers. In 1858 the General Board of Health was dissolved and Simon was moved to the Medical Office of the Privy Council. From this post, Simon issued guidelines for vaccinators and tried to create a more centrally controlled public vaccination service. He claimed this was necessary because of the substandard vaccination being produced and blamed the failure of

[53] Christopher Hamlin, "Simon, Sir John," *Oxford Dictionary of National Biography* (23 September, 2004), https://doi.org/10.1093/ref:odnb/36097. (Accessed September 17, 2020).

vaccination on poorly trained doctors.[54] These attacks created distrust between the medical experts wielding power from above and the public MOsH who felt they had no political voice.

Another fracture within the community was that between public and private medical men. Any registered medical man could and did vaccinate for a fee, usually not too much in excess of that paid to public vaccinators. Parents who could bear the cost would call in a doctor they knew and trusted to perform vaccination on their children. It was in the interest of these private doctors to keep their clients happy. This meant performing vaccination in a way that soothed anxious mothers and conformed to the needs of their patients. Throughout the period, public vaccinators and medical officers of health accused private practitioners of offering sub-standard vaccination to their private clients to soothe parent's fears. This included performing the operation in only one or two places, as opposed to the four mandated for public vaccinators, or sometimes merely creating a false impression of vaccination by pricking the skin but not using any lymph. Public vaccinators felt that private physicians were opening up vaccination to disrepute when their "vaccinated" patients succumbed to the disease. [55] In theory, bringing vaccination into disrepute hurt the entire medical community, but that was not the case. Private doctors relied on personal engagement to establish trust with their patients. Public doctors—vaccinators, MOsH, etc.—were forced to rely on their corporate status, which they were still in the process of consolidating. They saw too many patients and performed too many operations to develop individual trusting relationships. For these public doctors

[54] John Simon, *Papers Relating to the History and Practice of Vaccination* (1857), xxv, lxxiv, lxxv.
[55] T. Orme Dudfield, *Report of the Medical Officer of Health for Kensington for the Year 1882* (1883), 114.

to be successful, the medical community as a whole needed to do their part to make vaccination a success. As public health efforts grew, public doctors began to form a coherent identity separate from that of their private counterparts.

Doctors argued that it was their lack of cohesion that allowed the government to treat them so poorly and that public health suffered as a result. Robert Glover, a doctor from Newcastle-on-Tyne declared doctors were the "worst remunerated class in Her Majesty's Dominions" and argued that the profession needed to band together against their persecution.[56] Another doctor described the work of public doctors as not just poorly paid but unremunerated. By this he referred not only to the paperwork required of public vaccinators, but of the expectations that doctors would provide medical care if illness occurred after vaccination. This care was not legislated in the Act, but doctors knew the public expected these services. Whereas private physicians could charge their own fees, public doctors were beholden to Boards of Guardians and the demands of a public that distrusted the financial motives of the doctors who served them. For the good of their class and for public health, public medical men argued they needed a stronger voice in both legislation and social issues.

1.5 A New Medical Regime

Historians have focused on the growing power of doctors over society, but the bodies of the poor were vital to the success of vaccination. Matthew Newsome Kerr, for example, claims that one outcome of public health was to produce "docile subjects" and described the "frequently awful social power of doctors."[57] Other historians have argued

[56] *The Lancet*, v.2 (1853), 41.
[57] Kerr, *Contagion, Isolation, and Biopolitics in Victorian London*.

that the medical community extended their reach through increasing claims to knowledge ignoring the role of the public in shaping public health.[58] Mary Wilson Carpenter argued that by the end of the century medicine had taken on its "modern, recognizable form" and that "patients were no longer the first authority about their bodily condition…the doctor had become the first and most valid authority."[59] Such analyses fail to acknowledge the relatively weak social position of doctors at mid-century and ignore the processes that allowed medicine to become a powerful profession by the end of the century. M. Jeanne Peterson claims medical authority derived from "the social evaluation placed on the work itself."[60] In other words, a key part of extending the authority of the medical profession was to make their work socially acceptable. Yet medical legislation often produced distrust, not acceptance. How doctors handled the distrust that arose from medical legislation laid the foundation for public health. For much of the period, doctors ignored the fears of working-class people exacerbating distrust and undermining their own public health efforts even as they needed poor bodies to incubate the vaccine. This section explores the distrust and prejudices of doctors which kept them from responding practically to public concerns. The actions and arguments of opponents to vaccination will be explored in later chapters. Far from compulsory vaccination advancing the reputation of physicians, vaccination legislation produced resistance to the practice and the medical community as a whole.

The needs and expectations of the working classes often challenged the goals of the medical community. Ideas of health and healing were rapidly changing in this period,

[58] Pamela Gilbert, *Mapping the Victorian Social Body* (Albany: State University of New York Press, 2004).
[59] Mary Wilson Carpenter, *Health, Medicine, and Society in Victorian England* (Santa Barbara: ABC Clio, 2010), 4-5.
[60] Peterson. *The Medical Profession in Mid-Victorian London*, 4.

and, as noted above, people's personal ideas of health were an amalgam of tradition, new 'science,' and personal predilection.[61] Lucinda Beire used the term "health cultures" to explain the overlapping beliefs about health and wellness. She argued that public health history has been too physician centered. In their focus on areas of professional interest and agency, historians have ignored the role of the public in shaping public health. Building on Gramscian notions of hegemony and Paul Starr's work on cultural authority, Beire argued that medical authority changed in this period. But this was not a top-down process. Rather it was a negotiation between patients and the medical community. Doctors were claiming new authority based on rationality and the scientific basis of their practices. As the only disease prophylactic, vaccination became an important battleground to show the superiority of the medical community over other healers. But the practice challenged working-class autonomy and notions of health.

As anti-vaccination movements grew, doctors went from believing persuasion was the best method to extend vaccination to demanding more legislation and compulsion. As we saw above, att mid-century, doctors were divided on whether vaccination should be compulsory. Many medical professionals thought resistance to vaccination was isolated to the poor and could be overcome through education, not compulsion. Thomas Hillier, Medical Officer of Health (MOH), St. Pancras wrote in his 1859 report, "The importance of vaccination is now almost universally admitted, and its value has been incontestably established on the most incontrovertible data." Despite this

[61] Roger Cooter, "Anticontagionism and History's Medical Record," in P. Wright and A. Treacher (Eds.), *The Problem of Medical Knowledge* (Edinburgh: Edinburgh University Press, 1982), 87-108. Michael Sigsworth and Michael Worboys, "The Public's View of Public Health in Mid-Victorian Britain," *Urban Health* 21/2 (1994), 237-250. Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865-1900* (Cambridge: Cambridge University Press, 2000).

he preferred "moral suasion" over compulsion.[62] Many doctors believed tracts, hand-bills, hygiene awards, and education were the best methods for increasing vaccination.[63] As opposition to vaccination grew, doctors began to take a harder line in support of compulsion. Doctors assumed that it was the poor who were most opposed to vaccination. "Apathy and indifference" were regular charges as were assumptions of "ancient and absurd prejudices" motivating parents to reject vaccination.[64] With the growth of anti-vaccination movements, many physicians became convinced that compulsion was the only way to ensure public safety. Education campaigns were not enough to combat the 'ingrained' prejudices of the poor and the misinformation of the anti-vaccinationists.

Public vaccination was the norm for those who could not afford to hire a doctor and it was often inconvenient and dangerous. Public vaccination could be performed at any location that offered public access and space. In cities, pubs were common vaccination sites and in rural areas often a private cottage was used. Parents might have to travel a long distance for public vaccination. [65] At the vaccinating station, parents, usually mothers, might wait for hours, surrounded by other babies and children. The opportunities to catch contagious diseases simply by being in the room were enough to keep some parents away. Nor could doctors guarantee vaccination due to uncertain supplies of lymph. Local physicians and public vaccinators were tasked with procuring supplies of lymph as the Vaccination Acts did not provide for vaccine production. In

[62] Thomas Hillier, *Report of the Medical Officer of Health, St. Pancras, 1859* (1860), 9.
[63] T.B. Chappell, *Report of the Medical Officer of Health for Hanover Square, St. George, 1860* (1861), 14.
[64] *Associated Medical Journal* (1853), 357. John Liddel, *Report of the Medical Officer of Health for Whitechapel, 1860* (1861), 5.
[65] *Vaccination Inquirer* (December, 1883), 182.

1862, a Wandsworth physician declared that he "continued to supply most of my medical brethren in the neighborhood with vaccine lymph."[66] In 1863, one Medical Officer of Health report declared the National Vaccine Establishment was exhausted of lymph.[67] It was not until 1872, nearly twenty years after vaccination became compulsory, that the MOsH reported a new arrangement to "ensure a good supply of lymph rather than points or tubes."[68] This 'new arrangement' was in fact not new, it simply mandated and organized the 'arm-to-arm' method of vaccination.

Opponents and proponents of vaccination had concerns about arm-to-arm vaccination, but they were not always the same concerns. One consistent fear of parents and some doctors was that illnesses other than cowpox were transferred from child to child. Alfred Collinson, an MD who hoped to restore the purity of vaccination, wrote in an 1859 *Times* article, "Thus in a number of our poor infant population lurks the poison of inherited syphilis, or scrofula, or cancer or other deranged states of constitution."[69] He did not oppose vaccination, but he was concerned about the quality of the vaccination offered. He was not alone. Many lay people had the same concerns for their children. Opponents of vaccination argued that other diseases like syphilis, scrofula, tuberculosis, and erysipelas were being spread from the infected into healthy children. Doctors claimed this was improbable if lymph was "taken from *selected* children" who were clear of visible signs of disease and had the ideal vesicle. But many opponents argued that the

[66] Medical Officers of Health, *Report on the Sanitary Condition…Wandsworth District, 1862* (1863), 21.
[67] Edward Ballard, *Report on the Sanitary Conditions of the Parish St. Mary, Islington, 1863* (1864), 13.
[68] Thomas Stevenson, *Seventeenth Annual Report…on the Sanitary Condition of St. Pancras, 1872* (1873), 5.
[69] Alfred Collinson, *The Times* (November 17, 1859), 8.

vaccination of working-class people by public doctors was rarely done carefully. Lymph was taken from unhealthy children spreading disease amongst the working-class.[70]

Vaccination relied on the bodies of the poor for its success, yet the poor were treated as a nuisance. Since the National Vaccine Establishment could not supply the whole country, many physicians and public vaccinators with access to large amounts of children would incubate the disease in these children, then store the lymph procured on points and tubes to be sent to less populated areas. One doctor, who remained anonymous, wrote in *The Standard* that he "never sent to London for vaccine without a qualm of conscience, supplied as it is well known to be from the lowest grade of infected children, born of parents steeped in the most loathsome diseases, highly communicative by blood."[71] As late as 1896, there continued to be "vaccine lymph nurseries" in which "young children (were) purposely kept unvaccinated, in rotation with those in other villages for the collection, at the proper time, of the vaccine lymph."[72] Physicians depended upon the bodies of the poor for the success of their vaccination efforts. Despite numerous anecdotal accounts and growing bodies of statistical evidence, most physicians refused to acknowledge arm-to-arm vaccination presented significant risk to the public. Smallpox, they argued, was the greater risk. But how doctors perceived risk and how parents perceived it were often two different things.

Vaccination was not just a new therapeutic, it was a practice that defied established understandings of health. Doctors could not explain it. Physicians were asking the public to trust them as a body and to rely on their expertise and their corporate

[70] Edward Ballard, M.D. *Report on the Sanitary Condition of the Parish of St. Mary, Islington, 1860* (1861), 7.
[71] 'Vaccination,' *The Standard* (September 15, 1869).
[72] 'The Epidemic of Smallpox at Gloucester,' *The Times* (April 17, 1896), 13.

reputation. Prior to vaccination, doctors and others in the healing arts were judged based on their efficacy. Was pain ameliorated? Was the bone set? Was the tooth removed? Was the child delivered safely? Doctors and unorthodox practitioners had few efficacious remedies against most maladies, so the public did not necessarily see death as a failure as long as the practitioner did what was expected of them. But vaccination asked patients for a much higher level of trust. By the twentieth century, the focus on one disease and its eradication via a prophylactic would become the medical standard. In the nineteenth century, this was still a dangerous and bizarre method that did not follow normal medical practices. Making the practice compulsory sparked opposition against doctors.

The idea that doctors deserved trust based on their corporate rather than individual reputation was at odds with prevailing trust relationships. Healers, whether they be doctors or homeopaths, chemists or midwives, were called in based on their reputation and experiences of the family, their neighbors, and kin. Reputations were fragile things, based on a number of non-health related issues. How the healer made the patient feel was a vital part of the medical encounter, especially when, as often happened, the practitioner was powerless to cure the disease. Doctors in the period were trying to advance their authority based on science and their corporate rather than individual reputation. But they faced serious challenges from a public more interested in individual experiences and expectations. Compulsory vaccination highlighted and exacerbated this distrust.

Public doctors experienced the growing public distrust yet failed to counter it because of their own prejudices against those who resisted vaccination. Doctors assumed their own class had the best intentions. They gave one another the benefit of the doubt and imputed the worst motives to parents who rejected vaccination. One doctor, after

complaining about the onerous duties required of public vaccinators, declared, "We are laboring, unpaid and unthanked, to annihilate the sources of professional incomes (disease)." Yet the public suspected doctors of "some deep and diabolical plot…to have originated in all this show of philanthropy; and, as if with a view to bring us to confession, every new act…has, in the true spirit of the inquisition, tried our sincerity by a process of slow starvation."[73] Doctors complained about the public distrust. They felt their position and the benefits they provided to the community should have made them valuable figures to the people they served. They pointed to their disinterest, the work they performed for low pay, and the high professional standards they exerted for care. But distrust characterized the relationship between public doctors and their patients on both sides of the divide. This distrust furthered the breech between middle-class doctors hired as vaccinators and the working-classes whom they were primarily tending.

Doctors, especially those tasked with public health, viewed the working-class as a group to be feared and controlled. Physicians' assessments of the poor and working classes are hard to separate from their concerns as middle-class citizens. Doctors' claims that the poor were contagious and dangerous easily blended into their class-biased fears of the poor as politically dangerous and unstable. In 1858, MOH Thomas Hillier offered a fictitious example of how diseases spread from poor to rich. He told the story of a poor woman, living in a garret, who had the care of three children who were sick with smallpox. She was employed as a seamstress making "handsome silk dresses." The lady who bought that dress would in due time come down with smallpox herself. Through this fabricated incident, Hillier argued illnesses spread from the poor to the rich and it was

[73] *The Lancet* v. 2 (1853), 250.

therefore vital to all of society to see that vaccination was taken up by every member, by compulsion if necessary.[74] This was taken as a statement of fact without statistics or supporting evidence, but it was proffered as a medical opinion, not a social one. Medical officers of health claimed that the poor "herded together." They blamed outbreaks of smallpox on gypsies who "infested" the commons in "swarms" and from the migratory poor "who carry with them the germs of contagious diseases."[75] The poor due to their "mode of life," "reckless disregard," and "carelessness and want of foresight" were considered "particularly liable to contagion."[76] It was not just their poverty that frustrated doctors but that the poor were unwilling to change their station in life. One officer complained, "If the people at large were as anxious to procure for themselves cleanliness, comfort, and health as the local boards are to procure these things for them, we should soon witness a rapid decline of the above named maladies."[77] Doctors distrusted the poor and working classes and responded to their legitimate fears of vaccination with accusations of vice, cruelty, and dislike of their own children.

Poor parents faced a barrage of abuse in the popular and medical presses from nearly every type of medical practitioner. John Simon, at the time the London Medical Officer of Health and future President of the Central Board of Health, stated in 1849, "The death of a child by smallpox would in most instances call for a verdict of 'homicide

[74] Thomas Hillier, *Third Annual Report of the Medical Officer of Health to the Vestry of St. Pancras, 1858* (1859), 7.
[75] Edward Ballard, *Report on the Sanitary Condition of the Parish St. Mary, Islington during the Year 1859* (1860), 7. "Smallpox Propagated by Gypsies," reprinted from *The Lancet* in *Report on the Sanitary Condition of the Several Parishes Comprised in the Wandsworth District, 1859* (1860), 24.
[76] Edwin Lankester, *Report of the Medical Officer of Health, St. James, Westminster, 1863* (1864), 40. J. Burdon-Sanderson, *Report on the Health of Paddington during the Half-Year Ending Lady-Day, 1863* (1864), 7.
[77] W. Murdoch, *Ninth General Report of the Vestry of Rotherhithe, Surry, 1864* (1865), 19.

by omission' against the parent who had neglected daily opportunities of giving it immunity."[78] The following year, Simon stated in his report that that the death of children to smallpox should be put down to "criminal neglect" and the "omission of a recognized and imperative duty." Simon also advocated procuring coroner's inquests every year in order to bring charges against the parents whose children had died of smallpox.[79] This shocking attack on grieving parents made sense to a number of medical officials who suspected poor parents were deliberately killing their children. It was not only smallpox deaths, but accidents, that medical professionals believed were the result of malice rather than bad luck.[80] In 1884, the *Vaccination Inquirer*, an anti-vaccination publication, reported a public vaccinator as saying that it was "the father who objects…and it makes it very suspicious…The father would like the family as small as possible that he works for." A noted vaccinator, Mr. Marson, claimed this was giving working class fathers too much credit for "looking much farther ahead than people in that class of life generally do."[81] Given their disdain of the poor, which lumped the very poor and the working classes together into one dangerous group, doctors grew more strident in their demands for greater powers to fight disease.

As doctors publicly expressed their distrust of the poor and the working-class, they refused to acknowledge the important role of poor bodies in the success of vaccination. MOH Barnes urged parents "to submit their children to inspection at the proper time after the operation, in order to afford the surgeon the means of verifying and

[78] John Simon, *Report on the Sanitary Condition of the City of London for the Year of 1849-50* (1850), 15.
[79] John Simon, *Report on the Sanitary Condition of the City of London for the Year 1850-51* (1851), 13-14.
[80] Hillier, *Third Annual Report, 1858* (1859), 11.
[81] *Vaccination Inquirer* (January 1884), 196.

registering its success."[82] This was not only to ensure the operation was a success, but because compulsory vaccination could not function without access to infant bodies to incubate the disease. The poor were vital to the success of vaccination as *vaccinfers*. The NVE did not produce enough quality lymph for the country and producing lymph directly from the cow was difficult and required space, cattle, and veterinarians. Vaccination could not succeed without successive bodies of poor children. Despite their importance to the success of vaccination, the poor were vilified by medical professionals. They blamed the bodies of the poor for housing disease, yet used those bodies to incubate the disease they needed to disseminate. The poor were never given credit or even compensation for the work they did in vaccination. Receiving the prophylactic *gratis* was considered enough of a reward for using poor bodies to continue the work. Despite the importance of the poor to the work of vaccination, the medical community often alienated these groups with vicious attacks in the public press. Medical men, who were mostly middle-class, had deep prejudices against the poor. They distrusted them as parents, as citizens, and as partners in the public health enterprise.

Conclusion

Parliament created significant medical legislation in the nineteenth century, but the result was mixed for the medical community. While medical legislation created new definitions and allowed doctors to separate their community from 'quacks' and less educated healers, it was not enough to establish the medical community as a pre-eminent profession. For their part, state actors tried to expand public health without expanding the authority of the medical profession. In this they were ultimately unsuccessful, but it was

[82] Barnes, *Report…Shoreditch, 1858* (1859), 11.

not inevitable that medical legislation would further the aims of the medical community. Legislation that mandated medical practices, such as compulsory vaccination, provoked fierce backlash to doctors. It also highlighted fractures within the group that kept them from presenting a united front to the public. As backlash grew, doctors demanded greater state authority, yet the more the state tried to mandate public health the more backlash grew. Doctors responded poorly to the concerns of working-class parents due to their own class-based prejudices against the poor and working classes. But protest would profoundly shape the medical profession and public health as we will see below.

2.0 'Harried from House to House':

Public Health, the Working Classes, and a Cross-Class Alliance

Introduction

Compulsory vaccination did not apply equally to all classes. The poor had no kindly family physician to allay their fears. They had the public vaccinator. Their children were vaccinated in crowded open pubs and dirty private houses. They might wait hours for their turn, and even then, the vaccinator might run out of lymph and demand they repeat the whole dismal process on another day, losing valuable wages. Once vaccinated, parents waited anxiously to see if their child would contract other illnesses from the surgery. 'Hereditary' diseases, such as syphilis were a persistent fear, but more likely, and deadly, the child might contract a skin infection such as erysipelas. This could lead to loss of limbs or even death for the infant. Doctors claimed, rightly, that vaccine lymph could not cause skin diseases arguing that a child could contract erysipelas through any scratch. They urged parents to keep the vaccination scratches clean, but the housing and lifestyle of the poor did not enable them to do so. Doctors were concerned with keeping vaccination from "falling into disrepute" but parents were concerned about their children.

Compulsory vaccination was not the only medical legislation that unfairly targeted the poor. Public Health in Great Britain advanced rapidly throughout the nineteenth century, but members of Parliament hesitated to restrict the rights of members of their own classes.[83] They viewed the poor as a threat and a danger to public health and

[83] The historiography of public health is voluminous. For a few representative works see Baldwin, *Contagion and the State*. Brand, *Doctors and the State.* Hamlin, *Public Health and Social Justice*. Anthony S. Wohl, *Endangered Lives: Public Health in Victorian Britain* (Cambridge: Cambridge University Press, 1983).

medical legislation was often targeted at the danger the poor presumably presented. Notification of infectious diseases, disallowing the use of cabs for the ill, enforced hospitalization, and seizure of their bodies for science after death were all pieces of public health legislation that disproportionately applied to the poor and the working classes. Compulsory vaccination was another in a long list of public health legislation that surveilled and controlled the lower classes while leaving the upper classes relatively free to make their own health choices. Public health legislation was antithetical to working-class health norms and eventually created resistance.

There are two types of anti-vaccinators, and it is nearly impossible to separate them in the literature. There were ideological anti-vaccinators. These were the people who did not agree with the medical science (still rudimentary) backing vaccination and had their own theories of Jenner's work. Many of these people were also teetotalers and vegetarians who believed that they could combat disease by keeping out impurity. These anti-vaccinators often came from the middle-classes or from the upper strata of workers such as tradesmen who had enough leisure and education to read journals and argue medical theory. It is their voices we hear the most in anti-vaccination journals and newspaper articles. But there was another type of anti-vaccinator. These were parents who wanted to make decisions in their children's health. They may not oppose vaccination, but dislike the public vaccinator or the *vaccinifer* he used. Ideological anti-vaccinators joined with concerned parents and offered the working classes an opportunity to be heard and respected. Anti-vaccinators deliberately worked to gain support from the working-classes in their fight against vaccination. Part of this strategy was pointing out the class-biased nature of the legislation. But anti-vaccinators went farther than this and

made common cause with the working-classes on a number of issues. Among these were the problem of poverty and the role that unclean food, air, and water played in the mortality of the working-class.[84]

Doctors on the other hand saw the working classes as a hindrance to vaccination and public health. In their excitement over their ability to protect against disease on a large scale, they lost sight of the poor as patients with their own needs and expectations in the medical encounter. From trying to educate and cajole the unwilling, doctors demanded greater legislation to check the spread of disease. They never got as much as they demanded from the state and coercion led to rejection and overt public agitation against the medical community. Doctors had a trust problem. The more heavy-handed public health became, the more people rejected it. Yet by the beginning of the twentieth century the medical profession was an organized, trusted corporate body.

How did doctors transform from distrusted 'tradesman' into trusted professionals whose work became a part of working-class life? I argue it was through the ability of cross-class organizations, to place pressure on the medical community to provide medical care that conformed to patient expectations. Through this negotiation, which took decades, medicine became culturally acceptable across all classes. Medical formation was not an internal formation, nor a top-down process, as historians have often characterized it.[85] It was a relational process in which every class of society had a part. The result was that by the end of the century, the distinction between public and private medicine had lessened and public vaccination was safer and more convenient. How anti-vaccinators

[84] *Vaccination Inquirer* (May 1880), 24.
[85] For a few representative works see the following: Freidson, *Profession of Medicine*. Loudon, *Medical Care and the General Practitioner*. Digby, *Making a Medical Living*. Digby, *The History of British General Practice*.

and concerned parents managed to shape the medical profession is the subject of the next two chapters. In this chapter, I explore the context of compulsory vaccination and how doctors tried to avoid the controversy without adapting to the needs of the people. In the next chapter, I show how anti-vaccination became a movement that forced the medical community to alter its methods and become more responsive to the needs of the working classes.

2.1 Who Were the Anti-vaccinators?

The vaccination law of 1867 provided a clear mechanism to punish defaulting parents. It also allowed parishes to fine parents an indefinite number of times until their children were vaccinated. It was after 1867 that vaccination resistance became widespread as parents, especially working-class parents, were unfairly targeted with ruinous fines, court costs, and lost wages. But were all of these people ideological 'anti-vaccinators'? Did they hold a moral or philosophical opposition to the prophylactic? Historians have not always been sensitive to this question. In histories of medicine's triumphant rise, anti-vaccinators were little more than a footnote. They were the medical equivalent of industrial Luddites, and their opposition showed that they were on the wrong side of history.[86] These assumptions have been challenged, most notably by Nadja Durbach, who focused entirely on anti-vaccinators and argued their struggle was a central component of working-class identity building as they sought to gain political power.[87] But Durbach's focus is too narrow. By exploring only opposition, what anti-vaccinators opposed becomes flattened into a caricature. The anti-vaccinators are too heroic, the

[86] Hardy, *The Epidemic Streets*.
[87] Durbach, *Bodily Matters*. MacLeod, "Law, Medicine, and Public Opinion," 189-211. R. MacLeod, "The Frustration of State Medicine, 1880-99," *Medical History* 11 (1967): 15-40.

doctors too indifferent, and the state too powerful. Logie Barrow argued we need more focus on relationships between and among groups.[88] We cannot understand opposition without understanding both sides. For the rest of this chapter, I will explore the complex relationship that existed among doctors, parents, anti-vaccinators (who were also doctors and parents), and the state.

Anti-vaccination was a small but important movement. While its numbers were never large, it had an enormous impact on working-class identity, medical professionalization, and the shape of public health. Brunton argued that what was surprising about vaccination was how *little* society cared about something central to the medical profession and the state. Representatives barely discussed vaccination legislation before casting their votes in a nearly empty Parliament. It seems as though the state embarked on its first intervention in the bodies of its citizens in a 'fit of absence of mind.'[89] Brunton showed that the number of anti-vaccinators was never high and often confined to certain areas, like Leicester, though London had a fair share. Ideological anti-vaccinators could mostly be found amongst the middle-class and the working-class elite—skilled trades, etc.—not the laboring and unskilled population. Anti-vaccination coincided with other reform movements, and many of the middle-class members opposed other health legislation and promoted sanitary solutions to disease. Many working-class members were politically active and ranking members of trades unions or other corporate bodies.

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[88] Logie Barrow, "Clashing Knowledge Claims in Nineteenth-century English Vaccination," in Willem de Blécourt and Cornelie Usborne (Eds.), *Cultural Approaches to the History of Medicine: Mediating Medicine in Early Modern and Modern Europe* (New York: Palgrave MacMillan, 2003), 179.
[89] Bernard Porter, *The Absent Minded Imperialists: Empire, Society, and Culture in Britain* (Oxford: Oxford University Press, 2004). Brunton, *The Politics of Vaccination*.

Ideological anti-vaccinators—people who opposed the prophylactic on the grounds that it was ineffective and dangerous—were a small but vocal group even after the 1867 legislation. There were some who came from lower middle-class backgrounds such as W.G. Ward, described as a "gentleman" in one periodical.[90] He was a regular contributor to anti-vaccination journals and founded one of his own. He was a noted vegetarian and temperance advocate.[91] He was also a trustee of the National Agricultural Labourers' Union, where he clashed with Secretary and fellow anti-vaccinator Henry Taylor. Taylor was a British Trade Union Leader and trained carpenter who wrote regularly for anti-vaccination journals. He eventually became a member of the House of Commons for Leicester on an anti-vaccination platform. Henry Pitman, brother to Swedenborgian Isaac Pitman, the creator of 'Pitman shorthand,' published an anti-vaccination journal and tried to create more deliberate partnerships with the working-classes. John Gibbs, a hydropathic operator, along with his cousin Richard Gibbs, founded the Anti-Compulsory Vaccination League in 1867 and worked to partner with provincial anti-vaccination leagues to create a national movement. Members of the clergy such as William Hume-Rothery and his wife Mary founded an anti-vaccination league in Cheltenham in 1874. William Tebb, a successful businessman and active reformer, founded a London league, and published the influential *Vaccination Inquirer*, which, among other things, told the stories of poor and working-class parents and agitated for Parliamentary reform.[92] There was never one anti-vaccination movement. There were

[90] "Ward v. Taylor," *The Country Gentleman's Magazine* v. 4 (1876), 53.
[91] Charles W. Forward, *Fifty Years of Food Reform: A History of the Vegetarian Movement in England* (London: The Ideal Publishing Union, 1898), 16.
[92] Dorothy Porter and Roy Porter, "The Politics of Prevention: Anti-vaccination and Public Health in 19th-century England," *Medical History* 32 (1988), 231-52.

tensions between the provincial and city leagues. 'Leaders' squabbled amongst themselves over anti-vaccination aims and other disputes arose around separate issues as many of the leading lights of anti-vaccination were involved in other reformist campaigns.[93] What made this movement successful by the end of the century was its ability to harness working-class frustration coupled with the clear class disparity within the laws. Anti-vaccination journals gave the poor and the working-classes a place to be heard, a place where their stories of vaccination prosecutions and accidents would be printed, believed, and sympathized with. Cross-class pressure was an important aspect of the anti-vaccination movement.

Ideological anti-vaccinators deliberately allied themselves with working-class parents in the fight against vaccination. We saw in the last chapter that parents who avoided vaccinating their children were excoriated by medical men. At best, they were assumed to be ignorant, apathetic, and lazy and at worst they were accused of willfully killing their children.[94] Anti-vaccinators, on the other hand, ranged themselves on the side of poor parents. Francis Newman, anti-vaccinator and anti-vivisectionist, described parents who refused vaccination as "martyrs" who "deserve a sympathy akin to those who are martyrs of religion" for standing up against "medical popery."[95] Parents were described as "brave and loving" in anti-vaccination presses rather than "ignorant" and "prejudiced" as they were in the medical press.[96] Anti-vaccinators also acknowledged that poor and working-class people experienced the laws differently than the comfortable

[93] For more information on the politics of the anti-vaccination movement and its leading lights see Durbach, *Bodily Matters* and MacLeod, "Law, Medicine, and Public Opinion."
[94] John Simon, *Report on the Sanitary Condition of the City of London for the Year 1850-51* (1851), 13-14.
[95] *Vaccination Inquirer* (May 1880), 25.
[96] *Vaccination Inquirer* (August 1879), 68. *British Medical Journal* (30 March, 1895), 708-711.

classes. This was not only through arbitrary prosecutions and low public vaccination standards, as we will see below, but even in their ability to reject the law without destroying their fortunes. One *Vaccination Inquirer* article argued, the poor man "knows the law is not equal. He knows that the wealthy man pays his fines, and laughs at the impotent authorities, whilst the poor is crushed under their (sic) affliction."[97]

By attacking the legislation as class-biased, ideological anti-vaccinators secured poor and working-class support. The *Vaccination Inquirer* referred to compulsion as "unblushing class legislation."[98] Mr. Tebb, a prominent anti-vaccination agitator, gave a speech entitled "The Inequality of the Vaccination Acts." He quoted an expert on lymph who told him the "guinea lymph (£1 1s.) is the best but the second class lymph (5s.) is not bad." "What shall we say," demanded Mr. Tebb, "Of the lymph used at the vaccination stations supplied by the Government?...Here then we have lymph and safety graduated by fees; and to the plutocratic mind what could be fairer."[99] In January of 1880, the *Vaccination Inquirer* made sure their reading public knew that when the Queen wanted her children vaccinated she sent to the Belgian vaccine institute for lymph. "Doubtless," the writer argued, "the precautions taken for the prince might fairly be claimed for the peasant."[100] Uniting the classes was a powerful step toward checking the 'medical despotism' being forced upon all classes of people.

The anti-vaccination leagues cultivated a respectable image and included the working-classes in this respectability. Anti-vaccinators claimed they and their supporters

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[97] *Vaccination Inquirer* (June 1879), 35. The *Vaccination Inquirer* (November 1879), 113 described vaccination among the poor as "inconsistent" and "careless." *Vaccination Inquirer* (July 1880), 44.
[98] *Vaccination Inquirer* (October 1880), 97.
[99] *Vaccination Inquirer* (April 1881), 10. *Vaccination Inquirer* (May 1881), 23.
[100] *Vaccination Inquirer* (January 1880), 147.

were doing their duty by objecting to unjust laws. Their stirring rhetoric ranged themselves alongside visionary reformers of the past. One of the classic historical battles they tied themselves to was the battle against slavery. Enough time had passed from the early, problematic days at the end of slavery that most Englishmen, especially middle-class reformers, could look with pride on their anti-slavery history. Thus, when the *Vaccination Inquirer* made reference to Englishmen as "vassals and slaves" under the compulsory laws this had a particular resonance among the anti-slavery set. One *Inquirer* writer argued, "Englishmen for the best dozen years or less, have been flung into an intolerable slavery."[101] Mr. Tebb went so far as to assert that the horrors he learned about in speaking to a former slave in the United States were "nothing" compared to the horrors of vaccination.[102] The Anti-Compulsory Vaccination League (AVL), the closest thing England had to a full national league, also referenced the political and religious battles that had been fought within the country for the rights to be "free Englishmen." In stirring language the editors exhorted, "Englishmen, who have destroyed in turn the despotism of the soldier and of the priest seem in a fair way to fall to the despotism of the doctor."[103] This rhetoric accomplished a number of things. It tied their battle in with the great battles for freedom that were viewed across political and class lines as legitimate. This added not only to the legitimacy of their cause, but to the respectability, even the greatness, of the current members who could see in themselves a Wilberforce or a Cobbett. It also made it harder for the medical profession to dismiss them out of hand, as they were using cultural tropes and figures that had a resonance with the British public and the doctors

[101] *Vaccination Inquirer* (August 1879), 68. *Vaccination Inquirer* (September 1879), 79.
[102] William Tebb, "Royal Commission on Vaccination," *The Times* (December 25, 1890), 4.
[103] *Vaccination Inquirer* (November 1882), 126.

themselves. Such calls were stirring to working-class men and women who had ties to political radicalism and were still fighting the 'tyranny' that disenfranchised them in large numbers.

The rhetoric and respectability offered by anti-vaccinators was important for working-class men demanding full participation in society. Logie Barrow explored vaccination legislation between 1867 and 1898, alongside the political legislation of the period related to the growth of enfranchisement in 1867 and 1884. He argued that both agitations—compulsory vaccination and political enfranchisement—dealt with the same question, "the human validity of the majority of one's fellow Britons."[104] While the medical presses attacked them as little better than murderers, anti-vaccination journals, and even public prosecutions, offered working-class fathers and mothers the ability to perform their respectability and publicly hold the role of concerned parent. The following section will show how the lower classes experienced the Acts and how anti-vaccination publications and leagues promoted the cause of the poor in matters of health legislation and sanitation.[105]

2.2 Compulsory Vaccination and the Poor

Not everyone who avoided vaccination did so out of an ideological rejection of the prophylactic, but anti-vaccination leaders seized on the problems of the law that resonated with working-class people. There was regional and parish variability to how

[104] Barrow, "Clashing Knowledge Claims".
[105] There was a stark difference between being a part of the working-class and a pauper dependent on public charity. But that distinction was less obvious to middle-class reformers who often used the words poor and working-class interchangeably. For reformers, poverty was their concern, and poverty was experienced by members of the working-class and paupers. It was the mode of living—in cramped housing, without water, and with bad food—that they used to define class status. Working-class members used the terms differently as pauper status meant the loss of rights and independence. I use the terms interchangeably as many of my sources do.

the law was implemented. Some parishes fined parents the smallest amount while others imprisoned them. Many working-class people resisted the laws because of their arbitrariness. Anti-vaccinators scoured the country uncovering variations in the law and its implementation, giving voice to frustrated working-class people who were usually the focus of state and medical surveillance. Anti-vaccinators also advocated for mutuality and self-help in the anti-vaccination fight, two ideals that resonated with the working classes as they fought against the state and doctors for their autonomy in matters of vaccination.

Prosecutions for non-vaccination were notoriously irregular and involved significant inconvenience for working-class people. In 1859, Benjamin Bailey wrote into the *Huddersville Chronicle* that he had answered a summons for non-vaccination. He and several others were kept there for over four hours with no prosecutor present. Many of the children had already been vaccinated or contracted smallpox. Others—such as Bailey's child—had died before it was old enough to vaccinate. He wrote that he and the others "felt it very keenly when the magistrates told us that it was not in their power to allow remuneration for our loss of time." He was writing to the papers "that the public may know the manner in which some of our public officers perform their duty." This man, far from being a radical or a trouble maker, was a local Chief Constable.[106] The case did not end there. The local public vaccinator was made to answer the charges against him. He claimed that his attendance at the proceedings was unnecessary even though he had received notice to attend. He also accused Chief Constable Bailey of having two unvaccinated children despite proof that Bailey had vaccinated one and had a

[106] *Huddersville Chronicle and West Yorkshire Advertiser* (May 21, 1859).

waiver for the other which was too sick to vaccinate.[107] This case shows how difficult it was to establish the fact of vaccination and the importance of the public vaccinator in creating trust or distrust. Much of the efficacy of public vaccination depended on how well public vaccinators performed their duties and the relationships they fostered with their public patients.

Not all those opposed to the law opposed vaccination, rather, they opposed the arbitrariness and irregularity of the law. The 1867 Vaccination Act was supposed to make the system more regular by establishing clear, regular punishments for refusing vaccination. It set a maximum cost of 20s plus court costs, but it allowed defaulting parents to be fined repeatedly. The Act did not create a regular system of vaccination enforcement as intended. Districts with a large number of organized anti-vaccinators opted to give low penalties or no penalties at all. At Oldham in 1881, the guardians decided to limit prosecutions to one summons. Meanwhile, Mr. Joseph Abel of Faringdon, in the same year was given his 35th fine and summons for non-vaccination. A man in Saltford was fined for non-vaccination though he had proof that his child had been vaccinated five times without the vaccination 'taking.' Mothers, with babes in arms, were imprisoned for non-vaccination and repeated prosecutions excited sympathy and created more opposition to the law.[108]

Some parishes were harsh in their dealings with parents who resisted vaccination and anti-vaccinators seized on these stories to stoke outrage. And there was reason for outrage. The inconsistency of the law was regularly attacked through tale after tale of

[107] *The Times* (June 4, 1859), 8.
[108] *Vaccination Inquirer* (April 1881), 10, 14. *Vaccination Inquirer* (May 1881), 5. *Vaccination Inquirer* (January 1882), 184. *Vaccination Inquirer* (June 1881), 56. *Vaccination Inquirer* (February 1882), 192.

working-class woe. Anti-vaccination presses told the story of a chemist whose goods were seized for payment of vaccination fines even as he grieved the death of the same child. In Leicester, anti-vaccinators showed that the local government was seizing goods far in value of the fines. Leicester officials claimed this was due to the low price such goods were fetching at sales because local citizens, either through solidarity or intimidation, refused to buy the goods at auction. Some citizens in Leicester had taken to rioting outside the sales forcing them to close and scaring away possible buyers. The central government censured the Leicester government, arguing that it was their responsibility to conduct an orderly sale and that they could not seize 'extra' in order to procure a certain amount at sale. Anti-vaccinators also launched proceedings against the local jails. One notable case was in Derby where a Mr. Burnum was treated "as a felon" put to hard labor, forcibly shaved, and given no bed. The law specifically stated that non-vaccinators could be imprisoned, but they were not to be treated as felons nor given hard labor. Through the legal defense waged by anti-vaccinators, Mr. Burnum was awarded £20 for damages.[109]

While most of the vaccination fight occurred in cities, anti-vaccinators were also willing to investigate rural areas in which parents who refused vaccination had less recourse than in the cities. In 1880, the *Inquirer* ran a special article titled "Vaccination Tyranny in the Villages." In the journal and a subsequent tract, they told the story of Thomas Jones, labourer, who had resisted vaccinating his child. He fell ill and his wife applied for poor relief. She was told that she would get no out-door relief unless she vaccinated her child. None of the vaccination acts linked pauper relief to vaccination and

[109] *Vaccination Inquirer* (December 1882), 143, 148. *Vaccination Inquirer* (February 1883), 174. *Vaccination Inquirer* (January 1880), 146.

this action was based on local custom and the whim of local power holders rather than law. The wife of the local squire, a Mrs. Kyrle, took a personal interest in the case stating at a mother's meeting that Mrs. Jones would be turned out of her cottage if she refused to vaccinate her child. She also declared Mrs. Jones "would be expelled…from the clothing club, and that, if ill, neither bit nor drop should she have from her house." Under such intense local pressure, Mrs. Jones took her child to the local vaccination station, but was told she would need to go to a station nine miles away, probably due to lack of vaccine material. The methods employed by the squire and his wife to enforce vaccination were all extra-legal. There was nothing in the law that sanctioned such punitive punishments, but there was also no law or machinery in place to protect the rural poor from whatever punishments local elites meted out. We do not know the final outcome for Mr. and Mrs. Jones and their child, but Mrs. Kyrle, the squire's wife, was attacked in the anti-vaccination presses by name. Mr. Ward, a leading anti-vaccinator in the UK and the US, declared, "She may yet learn that in trampling on a mother's feelings and trying to uproot a father's right, she is only preparing a curse for her own children." [110] Anti-vaccinators' focus on the arbitrariness of the law was a powerful way to foster working-class allegiance and bring the laws under greater scrutiny.

The anti-vaccinators advocated mutuality and self-help, a message that resonated with working-class people. Anti-vaccinators came up with several schemes for insurance in the event vaccination caused a death or accident. They also proposed societies similar to Friendly Societies, that would allow members to pay in and have their fines for defaulting taken out of the communal pot. The expectation was that wealthier anti-

[110] *Vaccination Inquirer* (January 1880), 147-148.

vaccinators would pay higher amounts to subsidize poorer members who "are fighting a battle" in which "we foolishly allow privates here and there to sustain the entire brunt of attack."[111] Although some local groups did band together to pay fines communally, many of these schemes remained mere ideas. However, the ideals of self-help and mutuality and the idea that rich and poor alike were fighting the same battle, was a powerful way to organize across class lines.

2.3 Nineteenth-Century Public Health and the Working-Classes

While medical men claimed compulsory vaccination applied to all equally, it was clear that the poor and the rich experienced these Acts differently. Compulsory vaccination was not, however, the only class-based legislation that unfairly targeted the poor. Medical legislation interfered with the ability of the working-classes to move around the city, work, and care for each other, and did not restrict the upper classes in the same way. Public health in Great Britain advanced rapidly throughout the nineteenth century, but there were concerns by state officials about the amount of power they were handing physicians and how much they were violating 'the liberty of the subject.' The legislation they passed affected the poor and working-classes more than it did the well-off and this was often by design. Neither state actors nor doctors saw the working-classes as full, political citizens. So it did not trouble them to create and enforce laws that affected the poor. For their part, doctors viewed the working-classes as causes of disease, not partners in public health. Such cavalier dismissal of the needs of the bulk of the population created resistance to public health and limited its effectiveness.

[111] *Vaccination Inquirer* (May 1882), 25.

Doctors had a narrow focus on checking the spread of disease and state actors had an even more limited goal of avoiding epidemics and keeping the labor force well enough to work. There was no one advocating for the working-classes in matters of health legislation and laws to reduce the spread of disease disproportionately affected the poor and working-classes. For example, in the early 1860s, a new law was created that demanded people notify the cab driver if they were ill. The result, of course, was that most cabs refused to carry the sick. This did not inconvenience the wealthy who had their own transportation, but greatly affected those who depended upon public conveyance. Recognizing this problem, public medical men launched a movement to provide cities with an ambulance service for transporting the contagious ill to hospitals, and by 1863 ambulance carriages were in use.[112] But ambulances were for rides to the hospital only. There was no special conveyance for the sick trying to go home who were now barred from riding cabs but had no transportation of their own.

An early piece of legislation that caused intense backlash and increased fear of the medical profession for decades was the 1832 Anatomy Act. This Act, whose purpose was to stop medical grave robbing, forced anyone planning to study anatomy to get a license and allowed people to donate their bodies upon their deaths. However, it also permitted the bodies of criminals and paupers to be used for science. A decent burial could be expensive and it sometimes took years for working-class people to come up with the money. This law allowed their bodies to be taken and used before their friends could afford a proper burial. It was an emotional bill for many working-class people and the backlash to it surprised members of Parliament. The poor claimed it criminalized poverty

[112] Edward Ballard, *Report on the Sanitary Condition of the Parish of St. Mary, Islington, during the Year 1863* (1864), 13.

and rumors abounded over what doctors really did with the bodies of their relatives. It created a ghastly impression in the minds of the poor and working-classes.[113] Anti-vaccinators also opposed the Anatomy Act, which was still in force during the anti-vaccination controversy. They also opposed vivisection which allowed doctors to dissect animals. One *Inquirer* article declared, "The doctors can't be trusted from rifling churchyards…the doctors cannot be trusted with a dog, or a cat, or a torture chamber…but the child of every Englishman is handed over to the despotism and cruelty of the vaccination doctor."[114] Doctors often failed to help themselves win back the trust they were losing through this class-biased legislation. One Medical Officer declared that workhouses and hospitals should withhold the bodies of smallpox victims from their friends. The goal was to limit the spread of disease, but in the context of other laws doctors appeared not only callous, but their desire to keep the bodies of the poor was suspicious.

The Contagious Diseases Acts, which subjected working-class women to increased surveillance and seizure, were passed during the height of the anti-vaccination agitation in several England naval cities. Through three successive pieces of legislation in 1864, 1866, and 1869, the Acts allowed women "suspected of being prostitutes" to be forcibly seized and examined and if found suffering from venereal disease to be quarantined in hospital for up to a year.[115] Aside from the obvious problem that women

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[113] Elizabeth T. Hurren, *Dying for Victorian Medicine: English Anatomy and its Trade in the Dead Poor, c. 1834-1929* (New York: Palgrave Macmillan, 2012).
[114] *Vaccination Inquirer* (September 1879), 79.
[115] Judith Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State* (Cambridge: Cambridge University Press, 1980). Parliament enacted Contagious Diseases Acts (Women) in 1864, 1866, and 1869. They created significant agitation among many anti-vaccinators as well as other reformers and from working-class people. Parliament repealed the Acts in 1886. This is another example of productive cross-class agitation in the period.

were being snatched off the streets, there were other issues with the legislation. Doctors could not infallibly detect venereal diseases and other illnesses were often mistake for them. There was also no efficacious treatment for venereal disease and the 'treatments' offered could kill or injure the patients. Working-class men felt this was a direct attack upon 'their' women, while working-class women faced increased surveillance and the threat of being pulled from their very streets if a medical man or constable 'suspected' them of prostitution. Women could be held for up to a year at the recommendation of a medical man.

Notification of disease and its laws were problematic until the end of the century and they split medical men between public and private. The first infectious disease notification acts were the 1851 and 1853 Common Lodging Houses Acts. The 1851 Act required all keepers of lodging houses to notify authorities if a lodger fell ill and the 1853 Act allowed lodgers to be removed to hospital with the consent of authorities. Public medical men, agreeing with the need for disease notification, wanted legislation that would extend to private houses as well. But they wanted the onus of responsibility placed on householders not doctors. One MOH, Charles Tidy of Islington, prior to the creation of the legislation, argued having doctors notify authorities of disease in houses would "render medical men too much like common informers or medical detectives and so destroy that mutual confidence between the doctor and the family, which in our profession is very essential."[116] However, this 'mutual confidence' was something between doctors and paying patients, not public medical men and the poor. The rights of the poor in illness were being rapidly retracted, yet little of the legislation even attempted

[116] Charles Meymott Tidy, *Report on the Sanitary Condition of the Parish St. Mary, Islington for the Year 1876* (1877), 10, 62.

to do the same to the wealthy. There was no similar disease notification legislation for householders until the 1880s and 90s and private doctors resisted the new laws as an infringement on their duty to their patients. The poor were clearly entitled to no such privacy.

Hospitals were another area in which the poor had negative experiences with the authorities. As also happened with vaccination, Poor Law Authorities were unsure what actions were pauperizing. Pauperization was a fear of the working classes. Anyone who became a pauper, or dependent upon the Parish for support, lost their rights including the right to vote. T. Orme Dudfield, MOH for Kensington, noted that men who had willingly gone to infectious hospitals funded out of the poor rates had their vote contested by the authorities.[117] Medical Officers resisted the pauperizing association as they feared this would cause the poor to hide their diseases thereby increasing the spread. But as public health was mostly run by Poor Law Guardians, the association of public health with pauperization and loss of rights continued.

Medical legislation also violated the expectations of the poor to care for their own in sickness, and they developed an intense fear of the hospital. Medical legislation limited the choices poor people could make during illness and created distrust between doctors and patients. Anti-vaccinators emphasized this unequal treatment. They reminded working men and women, "It is *your* children who are sent to overcrowded smallpox hospitals."[118] Lurid stories were printed in the *Vaccination Inquirer* of people forced into hospitals who subsequently died of poor care. One man lost his wife and several children

[117] T. Orme Dudfield, *The Annual Report…of the Parish of St. Mary Abbotts, Kensington for the Year 1878* (1879), 27.
[118] *Vaccination Inquirer* (May 1880), 24.

only for authorities to find no fault with the hospital.[119] Another poor woman, Ann Elizabeth Snook, claimed she knew her children would have lived had she been able to nurse them herself. But they were forced into the hospital by medical authorities.[120] Such stories appeared routinely in anti-vaccination literature, and no doubt they circulated informally through gossip and other networks. The poor at times wondered if the government was deliberately trying to destroy them and class-biased legislation contributed to fears of vaccination, surveillance, and removal.

2.4 Working-Class Health Cultures

Roy and Dorothy Porter argued that by the 1890s the public was becoming acclimated to invasive health legislation.[121] Graham Mooney deepened this analysis claiming that it was not surveillance and control that the working-classes objected to, it was surveillance and control by the state rather than their neighbors.[122] Working-class people across England and Wales were subject to surveillance within their communities and social networks. Through Friendly Societies, their conduct and work was investigated, and they relied on their reputations for work, parish support, and health care.[123] Sick working-class men were subjected to surveillance from sick stewards and contracted club physicians. Inspections and consultations were routine to prohibit

[119] *Vaccination Inquirer* (October 1881), 124.
[120] *Vaccination Inquirer* (December 1883), 184-187.
[121] Dorothy Porter and Roy Porter, "The Enforcement of Health: The British Debate," in Elizabeth Fee and Daniel Fox (Eds.), *Aids: The Burdens of History* (Berkeley: University of California Press, 1988), 97-120.
[122] Graham Mooney, "Public Health versus Private Practice: The Contested Development of Compulsory Infectious Disease Notification in Late-Nineteenth-Century Britain," *Bulletin of the History of Medicine* 73/2 (Summer 1999), 240-241.
[123] Penelope Ismay, *Trust among Strangers: Friendly Societies in Modern Britain* (Cambridge: Cambridge University Press, 2018).

malingering.[124] Working-class women were also subjected to surveillance, even more than their men. With the new health legislation, what the working-classes objected to was that the state and medical outsiders were interfering with their own networks of mutuality and interdependence. State aid threatened working-class independence. And the doctors advocating the laws treated the working classes like children or animals, devaluing their role as productive adults. Anti-vaccinators, on the other hand, attacked the doctors and held up the working-classes as ideal subjects of society.

Surveillance and mutual aid from one's fellow workers left working-class people in control of their health. Working-class women received health care through Friendly Societies and were subject to the same inspections. But women were also responsible for the family reputation which determined the mutual aid a family received in sickness. If neighbors dropped off food this was a sign of a low reputation. A woman of good standing would have neighbors come in to help with cleaning, washing, and nursing.[125] Mutuality was central to the care of the sick. Beire pointed out that working-class health culture avoided state and official channels of help for self-help and mutual aid. This was partially due to the association of state aid with dependency, but also part of a wider network of trust and understanding. Surveillance in and of itself was nothing new for working-class people. They expected it. But they expected it to come from within their community and to follow agreed upon norms. This mutuality functioned through dense networks and understandings that had built up over time. State intrusion and official medical channels were working to replace these networks with top-down processes that

[124] James C. Reilly, *Sick, not Dead: The Health of British Working Men during the Mortality Decline* (London: Johns Hopkins University Press, 1997), 99-104.
[125] Beier, *For Their Own Good*.

did not conform to the logic of working-class culture. The reason public health ended up flourishing in Britain, is because working-class people found ways to assert their agency and force concessions from the system.

As Beier and Michael Worboys have pointed out, health cultures are overlapping, and in England working-class people were able to carve out autonomous spaces, force change from the state, and chivvy doctors into higher standards of public care. This was through cross-class alignment with middle-class agitators, their growing enfranchisement, and direct means such as refusing to vaccinate their children. I noted in the last section that anti-vaccinators deliberately worked to gain support from the working-classes in their fight against vaccination. Part of this strategy was noting the class-biased nature of the legislation. But anti-vaccinators went farther than this and made common cause with the working-classes on numerous issues. Among these were the problem of poverty and the role unclean food, air, and water played in the mortality of the working-class.[126] This was in contrast to doctors who told the poor how to live without ensuring they had the means to do so.

The problems of poverty were many, and while doctors were aware of this, anti-vaccinators hammered this point home in their presses. When doctors claimed 1,582 people died from lack of vaccination, anti-vaccinators asked about their living situation. One *Vaccination Inquirer* writer claimed he was more interested in the social and physical environment of the 1,582 that died than their vaccination status.[127] That poverty was at the root of disease for working-class people was stated in every issue of the

[126] *Vaccination Inquirer* (May 1880), 24.
[127] *Vaccination Inquirer* (July 1881), 60.

Vaccination Inquirer in some form or another. The *Inquirer* attacked one doctor who stated that epidemics attacked rich and poor alike. "It is needless to say that epidemics do *not* attack *alike* the rich and poor…The poor are ever the chief sufferers."[128] Anti-vaccinators also chided medical professionals for their glib pronouncements and recommendations to the poor. "We are sick of the advice given *ad nauseum* to the poor in respect of the avoidance of disease which are due to ills rarely faced by their advisers."[129] Mr. Ward, a prominent anti-vaccinator, claimed in 1879, "I sympathise intensely with the hardships of the poor, and therefore I cannot speak of them without some passion." He represented poor parents before magistrates on multiple occasions finding loopholes in medical law and in their enforcement.[130]

This did not mean the working-classes agreed with their allies on all issues or that it was always an equal partnership. Those running many of the anti-vaccination leagues and clubs were from comfortable middle-class backgrounds. A few, like Taylor, came from skilled trades, but few of the agitators were unskilled workers. Many of the most vigorous reformers were vegetarians who advocated temperance, an ideal at odds with convivial working-class culture. Working-class men may have also disliked being classified as 'poor' by journal writers. Anti-vaccination journals were not always sensitive to the distinction between worker and pauper, as many of the 'ills of the poor' were shared by the working-classes and the destitute. Workers were not paupers, and being lumped together with 'the poor' may have irritated some working-class men. However, anti-vaccinators were willing to acknowledge working men's manliness,

[128] *Vaccination Inquirer* (November 1882), 118.
[129] *Vaccination Inquirer* (July 1879), 58.
[130] *Vaccination Inquirer* (August 1879), 69.

intelligence, and respectability, something many others in the middle-classes refused to do. When a correspondent claimed objectors to vaccination were usually "School Board cases" the anti-vaccinators took umbrage.[131] They described vaccination defaulters as "men who are the very backbone of the community." They were men "willing to suffer for conscience."[132] Anti-vaccinators argued, "Instead of being among the shamefully ignorant classes, as represented, we personally know those of them who are of very superior intelligence."[133] Anti-vaccinators were willing to acknowledge the intelligence and conscience of working-class men at a time when most in the middle and upper-classes were questioning whether the poor were capable of reason or even had a conscience. These same questions were being debated around issues of franchise and anti-vaccinators did not use this language accidentally. They were deliberately making common cause with the poor and working-classes, and it was effective.

While they focused mostly on men, working-class women were also lifted up in anti-vaccination presses. Anti-vaccination literature extoled women as mothers, the best caretakers of home and child, and intelligent beings who should have authority over their children's bodies. While the middle-classes made these same pronouncements about 'their' women, many in the middle-class assumed working-class women were unfit women and mothers. Anti-vaccination literature praised working-class femininity and promoted working-class mothers as rational caretakers who knew best for their children. Anti-vaccinators were even willing to consider working-class women as possible citizens, while their middle-class counterparts were often unwilling to concede this even to

[131] *Vaccination Inquirer* (November 1879), 114.
[132] *Vaccination Inquirer* (September 1879), 97.
[133] *Vaccination Inquirer* (June 1880), 40.

working-class men. One writer claimed, "If the mothers of England had votes, the Vaccination Laws would be repealed in the next Parliament."[134] This was because, they claimed, no one knew better than mothers the unwholesome and dangerous effects of vaccination on their children.[135] Compare this to how mothers were treated in the medical presses. One doctor assumed mothers refused vaccination because they didn't want the small amount of trouble that came with a cranky child for a few days.[136] Others claimed it was superstition and religious prejudices that kept mothers from vaccinating. Anti-vaccinators were willing to acknowledge and legitimize the real fears that kept working-class parents from vaccinating their children. Doctors refused to acknowledge the actions of the working-classes as either rational or well-motivated.

Doctors knew that poverty played a part in the diseases of the poor. In 1861 J.W. Griffin, MOH for Clerkenwell, noted the "reduction in the supply of food for the poorer families" was leading to deteriorating health. And MOsH would also put off vaccination and prescribe nutritive food before performing vaccination.[137] Doctors also knew that housing was an issue. In 1866, an MOH declared, "In my opinion, the want of vaccination is not the cause of the great prevalence of smallpox but the overcrowding."[138] The MOH of St. Saviour's in that same year wrote, "When it is considered that the upper and middle-classes are enabled to procure a comfortable and commodious residence for about 1/8th of their income while the laboring classes are obliged to pay over ¼…for

[134] *Vaccination Inquirer* (April 1880), 9.
[135] *Vaccination Inquirer* (December 1883), 182, 187.
[136] Charles Meymott Tidy, *Report on the Sanitary Condition of the Parish St. Mary, Islington for the Year 1876* (1877), 10, 62.
[137] J.W. Griffin, *Medical Officer's Report, 1861* (1862), 20. Medical Officers of Health, *Quarterly Summary…in the Parish of St. George, Hanover Square, Quarter Ended April 2, 1864* (1864), 11.
[138] J.W. Griffith, *Medical Officer's Report (Clerkenwell), 1866* (1867), 29.

insufficient sleeping accommodations alone, it is a marvel that this city should be one of the healthiest in the world."[139] Doctors knew that poverty was an issue, but it was an issue they were unable or unwilling to change.[140] Their goal was better health, and smallpox vaccination, in their opinion, offered that to all regardless of class. This did not mean that doctors were blind to the fact that class was a factor in how people experienced vaccination. But their answer was for society to put greater, not less, powers in the hands of public medical men. This is the opposite of the self-help culture of the working-classes and limited the effectiveness of public health efforts.

2.5 Poverty and Problems

It was during this turbulent period that doctors developed the internal cohesion that is considered a hallmark of professionalization. But this cohesion did not make their profession respected or trusted. Rather, it exacerbated the distrust of parents and opened doctors up to accusations of 'trades unionism' and 'cronyism.' Doctors tried to have things both ways. They wanted the public to trust them as a corporate body, and they wanted the state to place greater control over public health matters in their hands. But when vaccination went wrong, doctors tried to place the blame on individual vaccinators and exculpate the practice and their profession. This did not work. Anti-vaccinators seized on their hypocrisy and pushed for answers in matters of vaccinal accidents. It was a slow process. For nearly two decades doctors and the state and refused to acknowledge the risks of vaccination and viewed anti-vaccinators as troublemakers. But anti-vaccinators were consistent in their attacks on the practice and the profession as a whole.

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[139] J.W. Griffith, *Medical Officer's Report (Clerkenwell), 1866* (1867), 10.
[140] Henry Bateson, *The Annual Report…for the Parish of St. George the Martyr, Southwark* 1871 (1871), 9. See Hamlin, *Public Health and Social Justice* for a discussion of public health and poverty.

Doctors staked their reputation on the efficacy of vaccination and most refused to publicly acknowledge accidents and failure. When it was forced upon them, they fell back on the argument that the problem was with an individual vaccinator, not the operation itself. This did little to encourage concerned parents and made doctors appear callous. When physicians discussed vaccination, and the possibility of injury, they referred to the ideal type as put forward by John Simon in his *Papers*. They claimed vaccination, when performed in this way under ideal circumstances, was safe. But as one anti-vaccinator stated, "We want to know, not what is the value of an ideal vaccination, but what is the value of the *de facto* vaccination."[141] It was this vaccination, not the ideal kind which the poor experienced. It took nearly twenty years of agitation for anti-vaccinators to force state actors and doctors to admit that vaccinal accidents did happen and they disproportionately happened to the poor. This was, in part, because doctors generally hung together, preferring to censure members from within rather than expose their whole community to public scrutiny. But this growing internal cohesion, a hallmark of a modern profession, brought the community into greater disrepute.

Anti-vaccinators attacked doctors for their willingness to protect one another, and vaccination, from public enquiry. They attacked their secrecy and privacy as "trade unionism."[142] In 1880, one writer argued, "Vaccination is a trade, and a thriving trade in London, and is prosecuted with all the arts of specious and unscrupulous shopkeepers."[143] While some anti-vaccinators were willing to admit that doctors did not vaccinate *wholly* out of monetary interest they did not want the public to forget "there is much money at

[141] *Vaccination Inquirer* (April 1883), 14.
[142] *Vaccination Inquirer* (January 1881), 135.
[143] *Vaccination Inquirer* (August 1881), 77. *Vaccination Inquirer* (February 1883): 169.

stake."[144] They also argued, "It is, however, the rule of the profession to stand together…Thus, those who inwardly know they are wrong…remain silent in public."[145] Anti-vaccinators printed apocryphal stories in their journals of public medical men, unwilling to go on record, but privately admitting they did not believe in vaccination and that it was indeed dangerous. For example, in January of 1881, the *Vaccination Inquirer* ran a story claiming an investigation into a vaccinal injury was diagnosed differently by multiple medical men. One claimed privately that it was related to vaccination, but he refused to say so on the stand. This story was reported by 'H.' who described himself as the Constable in the case.[146] But there were also doctors, publicly on record, who not only claimed they had seen the dangers of vaccination, but that the medical presses refused to publish their papers because it would call vaccination into disrepute.[147] This was exactly the goal of ideological anti-vaccinators and they had three consistent arguments they made against vaccination and against the medical community. They claimed that vaccination caused children to contract other blood-borne, 'hereditary' diseases, that it was dangerous and sometimes deadly, and that it offered imperfect protection against smallpox, if it offered any protection at all. The goal of their agitation was to create enough doubt to force Parliament to act, hopefully with the full removal of the Acts.

That vaccination could pass on other illnesses to children was an accusation against vaccination that doctors fought throughout compulsion and would eventually

[144] *Vaccination Inquirer* (January 1881), 172.
[145] *Vaccination Inquirer* (July 1882), 65.
[146] *Vaccination Inquirer* (January 1881), 152. *Vaccination Inquirer* (February 1883), 184. *Vaccination Inquirer* (February 1884), 223. *Vaccination Inquirer* (August 1883), 109.
[147] *Vaccination Inquirer* (May 1880), 24.

injure the reputation of the medical profession when it was proved true. After some early prevarication in the 1850s and early 60s, the bulk of the profession declared it was virtually impossible to transfer diseases other than cowpox through vaccination. They did, however, give themselves some room for error by falling back on the argument that they meant properly conducted vaccination of "pure lymph" without blood. Parents continued to claim that their children contracted other illnesses through vaccination. Syphilis, scrofula, tuberculosis, phthisis, gout, and "idiocy"[148] were all claimed to come from vaccination though syphilis, scrofula, and tuberculosis were the most common concerns. Because of the hereditary and moral associations, syphilis was a particular concern as this would damn either the father or the mother as having been "immoral" or "vicious."

Doctors claimed that, as vaccination happened at the same time as "the external manifestation of constitutional unhealthiness," it could not be definitively linked to vaccination.[149] The *Bradford Observer* noted in 1869 that doctors claimed, other than cowpox, "Diseases cannot be transmitted by vaccination."[150] Doctors' beliefs in its safety was largely based on the statements of Mr. Mason, an MOH of many years who "performed more than 50,000 vaccinations" and had "never seen other diseases communicated with the vaccine disease, nor does he believe they are so communicated." John Simon publicly gave it as his opinion that, "If it (syphilis) could be diffused by the vaccine lymph of children with an hereditary taint of that disease, this possibility must

[148] *The Sheffield and Rotterdam Independent* (June 16, 1868), 7. "Is Vaccination Dangerous—Doctor's Differences," *Western Mail, Cardiff* (June 15, 1869).
[149] J. Burdon Sanderson, *Report on the Health of Paddington during the Quarter Ending Michaelmas, 1861* (1862), 2.
[150] *Bradford Observer* (July 8, 1869).

long ago have been made evident on a scale far too considerable for question."[151] Such arguments continued for the next two decades. In 1878 a MOH certified the death of a 12 month old as "Syphilis (Vaccine)." But the MOH also claimed, "There appears good reason for doubting whether vaccination had anything to do with the illness."[152] In 1881, doctors in *The Lancet* acknowledged that there was growing proof that other illnesses were being transferred through vaccination. But many public medical men still clung to the same arguments and demanded more proof before abandoning or altering the practice. One MOH called this an "interesting" question, "which can be solved in part only be reference to death registers." But he exhibited the extreme bias of the profession by remarking, there is a "variety known as 'idiopathic' which comes on without the previous occurrence of a wound or other injury."[153] Such statements opened medical men up to critiques that they were unwilling to acknowledge the dangers posed by vaccination and that their prejudices and biases were hampering their ability to use the science of the day.

Anti-vaccinators as well as other laypeople had different concerns than the medical profession. "Imperfect" vaccination for them was about the result and the possible dangers their children faced. Erysipelas was one of the most common complaints following vaccination. Erysipelas is an infection of the skin that in an era before disinfecting skin creams could easily lead to loss of limb or fatal blood poisoning. It was also one of the easiest illnesses to link to vaccination because it would come on suddenly after vaccination and would begin at one of the incisions sites. People regularly claimed

[151] Henry Bateson, *Parish of St. George the Martyr, Southward, Annual Report…by the Medical Officer of Health…1870* (1871), 35-36.
[152] T. Orme Dudfield, *The Annual Report of the Health, Sanitary Condition…of the Parish St. Mary Abbotts, Kensington for the Year 1878* (1879), 39.
[153] T. Orme Dudfield, *The Annual Report of the Health, Sanitary Condition…of the Parish of St. Mary Abbots, Kensington for the Year 1881* (1882), 91.

erysipelas poisoning was the result of the vaccine matter being placed in the skin. Doctors were quick to point out that this was not the case. They claimed erysipelas was "due to skin incision" but was not caused by the vaccine matter.[154] In this they were correct. It was not vaccination, but breaking the skin that allowed erysipelas to enter at the site of vaccination. That doctors until the 1890s made incisions on child after child without cleaning their instruments also meant that if one child had erysipelas it would in turn be communicated to other children, though this was unknown at the time. While the exact method of erysipelas poisoning was unknown to doctors and laypeople alike, people who lost children following vaccination did not care about *how* it happened. The immediacy of the illness following vaccination was enough to convince them, and often their neighbors and friends, that vaccination was dangerous.

The medical community never claimed vaccination was infallible, but they argued that it afforded greater protection than any other option.[155] Since the profession did not know how vaccination worked, and vaccinated people sometimes contracted smallpox, they looked for outward signs of success in the "pustule" following vaccination. This was typically described as the "pearl in the rosebud" which should be visible on the seventh or eighth day and gave evidence of a vaccination that had "taken."[156] When children fell ill with smallpox following vaccination, physicians claimed it had been "inefficient vaccination," poor lymph, or that the "character" of the disease had been changed and that the vaccinated child had been less ill than they would have been if unvaccinated.[157]

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[154] *British and Foreign Medico Chirurgical Review*, v.7 (1851), 537-38.
[155] *Provincial Medical and Surgical Journal* (1850), 232.
[156] *Provincial and Medical Surgical Journal* (1850), 320.
[157] Robert Barnes, *St. Leonard, Shoreditch…Fourth Annual Report, 1859* (1860), 20. James Stevenson, *Paddington, Sanitary Report for the year 1881* (1882), 38. Fred Burge, *Seventeenth Annual Report of*

This 'imperfection' was troubling to medical professionals as it undermined public confidence. However, doctors blamed individual error and claimed such errors should not shake confidence in the prophylactic. In 1857, MOH Henry Pink claimed that the deaths among children which individuals had linked to vaccination were not, in fact, due to vaccination. He also claimed that children who had subsequently contracted smallpox were "inadequately vaccinated."[158] In 1865, MOH Thomas Hillier similarly remarked that "many of the prejudices against vaccination arise from imperfections in the operation itself."[159] As late as 1870, physicians were still noting "that a sort of vaccination is very frequently performed." But they claimed that "vaccination was an operation of considerable delicacy…The failures of vaccination to prevent *fatal* smallpox…are almost all of them due to the careless and imperfect manner in which it has been practiced." They used such claims to argue what was needed was greater control over the operation by medical professionals. Public medical men advocated a more stringent system of surveillance and verification over the operation itself. These arguments were seized on by anti-vaccinators as examples of trade unionism and despotism. Doctors, while unable to guarantee either the safety or efficacy of the operation, continued to try to force it on an unwilling public and use it to gain greater powers.

After only spotty reports and mostly hearsay evidence, in the 1870s and 1880s anti-vaccination journals began consistent reporting on vaccination accidents from around the country and made these stories widely available via pamphlets and tracts. One

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Medical Officer of Health (Fulham), 1872 (1873), 11. Edward Ballard, *Report on the Sanitary Condition of the Parish St. Mary, Islington during the Year 1863* (1864), 12.

[158] Henry Pink, *First Annual Report of the Medical Officer of Health for the Greenwich District, 1856-57* (1857), 12.

[159] Thomas Hillier, *St. Pancras, Middlesex, Tenth Annual Report of the Medical Officer of Health, for the Year 1865* (1866), 8.

of the most shocking was titled "How Baby was Killed" which gave a graphic description of death following vaccination.[160] But they did not only collect apocryphal atrocities, they helped working-class people push for answers following suspicious deaths. In this way, reform minded anti-vaccinationists forced municipal authorities and physicians to grapple with the reality of vaccination as practiced and acknowledge the risks. Proving that vaccination accidents were real, verifiable, and happening on a wide scale became the turning point of the anti-vaccination movement.

Conclusion

Compulsory vaccination was one in a long list of laws that disproportionately impacted the poor and the working classes. Public health legislation in the nineteenth-century constricted the ability of the poor to move, work, and care for themselves, yet left the middle and upper-classes largely unscathed. Ideological anti-vaccinators joined with frustrated parents who wanted more autonomy in medical matters. Anti-vaccinators focused on health from a holistic perspective, arguing that the poor needed access to housing, clean air, water, and food rather than vaccination. They also promoted self-help and mutuality and their arguments fit with existing working-class health cultures. But anti-vaccinators gained little ground. Ideological anti-vaccinators and concerned parents were dismissed by doctors, the state, and the popular presses. It was not until 1882 and the Norwich cases, the subject of the next chapter, that anti-vaccinators claims of vaccinal accidents began to be taken seriously and vaccination became a national question rather than an accepted fact.

[160] *Vaccination Inquirer* (December 1880), 130.

3.0 'Reckoned with Politically':

Building a Public Health Consensus

Introduction

In 1882, eight children received vaccination in Norwich. Four of them died, and the other four fell seriously ill. The deaths followed so quickly after vaccination that it raised questions about the safety of the operation. Eventually the local government launched an investigation, partly due to anti-vaccinators keeping the Norwich events before the public. The investigation declared the deaths and illnesses due to vaccination. This was a turning point in the anti-vaccination crusade. Aside from a few isolated and contested incidents, authorities refused to cite vaccination as a cause of death. After Norwich, parishes conducted more investigations and vaccination came under greater scrutiny. Anti-vaccinators considered this a win not only for their cause but for science and rationality.

Anti-vaccinators framed themselves as more enlightened and rational than the medical community. They characterized doctors as 'prejudiced' and situated themselves and their working-class allies as the scientific members of society. [161] Anti-vaccinators grew sophisticated in their use of statistics. While they disagreed with the medical community about the best way to tackle disease, their commitment to using the same tools as the medical profession created a broad cultural consensus about what science was. They may have disagreed about vaccination, but everyone was speaking the same

[161] *Vaccination Inquirer* (April 1881), frontispiece.

language. The importance of this consensus cannot be overstated for it became the foundation for England's public health.

The repeal of compulsory vaccination offers a paradox. In 1907, compulsory vaccination virtually ended yet the number of vaccinations rose. The dire predictions from doctors that disease would drag society back to the eighteenth century never materialized. Despite having no compulsory mechanism, most people—including working-class people who had agitated against vaccination—vaccinated their children. This outcome was due to the shared cultural and scientific outlook of doctors and anti-vaccinators and the new safeguards over vaccination that allowed working-class people options for how their children were vaccinated. By the end of the century, vaccination became an accepted part of working-class life and doctors had authority among a class that had resisted them for nearly fifty years.

The anti-vaccination movement was instrumental in bringing the language and methods of science and reason to a large group of people and giving common people the ability to speak for themselves on health matters. By the end of the century more working-class people could vote and more of them had some disposable income. Literacy was also rising among this class giving them the tools to take part in society more broadly. The anti-vaccination movement gave working-class people a chance to speak for themselves, but it did more than that. It ensured that when they did speak, they had the cultural tools necessary to situate themselves as rational, science-minded beings. It helped to create a consensus around what science was and expanded who could be a rational, scientific actor in society. This bolstered the authority of the medical community despite the aims of the anti-vaccinators running counter to those of doctors.

3.1 The Norwich Accidents

Anti-vaccinators considered the Norwich case a turning point. The Norwich deaths were so troubling, and followed so quickly after vaccination, that the local government felt compelled to launch an investigation. Not content to let the official machinery take over, anti-vaccinators conducted their own investigation. The Norwich tragedy became a *cause célèbre* for anti-vaccinators, and they ran details of the official investigation and their own in anti-vaccination journals. Anti-vaccinator MP, P.A. Taylor, a member for Leicester, made the tragedy a personal cause and went down himself to oversee the proceedings, though he lacked any official standing. Anti-vaccinators had been broadcasting the dangers of vaccination for decades, but the Norwich case was the first time that state actors seriously investigated a vaccinal injury.

Leaders in the anti-vaccination movement did not trust the local Guardians to conduct an objective investigation. In August, Taylor wrote to the President of the Local Board in Norwich asking if there would be "a searching and public inquiry." The President declared his intention of sending a Medical Inspector to Norwich. Taylor followed up asking if the bereaved families would have the right to call in legal counsel. The President said no but they would be allowed to make statements to the inspector. Taylor did not believe the inspection would be impartial as "a Medical Inspector of Vaccination must of necessity be a partisan of the system." The *Inquirer* cited a recent case in Wolverhampton as proof of official unwillingness to call vaccination into disrepute. The inquiry there had been so perfunctory and the conduct of the public vaccinator so reprehensible that it shocked even pro-vaccination doctors. A Dr. Liddle wrote to the *Lancet*, "There may well be anti-vaccinators when we find Government

inquiries conducted in this purely perfunctory manner." To ascertain the facts and ensure the family was given due process, Taylor sent down his own independent investigator.[162]

In September, the investigation was still ongoing and the *Vaccination Inquirer* declared it would refrain from commenting on the case until both investigations were complete. That did not stop the editors from criticizing vaccination and the medical community. The *Inquirer* claimed that many doctors were unwilling to invoke vaccination as a cause of death and that this created confusion in the public. They pointed to a death certificate from Lancaster in which, among two other illnesses, vaccination was listed as a cause of death. However, in other areas, vaccination was not acknowledged or in some cases it was stricken from the record by opposing medical men attempting to save vaccination from discredit. This meant that the true scope of vaccination injuries and deaths was unknowable and made the Norwich case, with its official and unofficial inquiries, all the more important for anti-vaccinators. [163]

In December of 1882, the results of both investigations were released with the same conclusion: vaccination had caused the deaths and injuries of the children. Anti-vaccinators considered this an important precedent. They applauded both Dr. Henley and Dr. Airy, the Medical Inspectors, for their work "despite their prejudices." Two of the deaths had been put down originally to erysipelas and bronchitis separately. The final investigation changed those diagnoses to death due to vaccination. But this was not the most important outcome of the Norwich investigation. The investigation also showed that the process of "hushing up" vaccinal accidents was relatively common. What was

[162] *Vaccination Inquirer* (August 1882), 74-75.
[163] *Vaccination Inquirer* (September 1882), 88.

different about the Norwich case was that the local government conducted an "open and thorough investigation." Anti-vaccinators put this down to Taylor's independent inquiry as the Local Board did not take up the investigation "spontaneously nor with good grace."[164]

The local government and physicians tried to scapegoat the Norwich public vaccinator, Dr. Guy, attempting to absolve vaccination in general of blame. According to the *Inquirer*, Dr. Buchanan, President of the Local Board, "made of Dr. Guy a sacrifice." The accidents were due to Dr. Guy using ivory points (which was allowed under law), to his use of unclean points, and to his general "slovenliness."[165] Anti-vaccinators asked, if Dr. Guy was such a poor vaccinator, why was he twice commended for the excellence of his work by none other than the President of the Local Board, Dr. Buchanan? "But for (our) exposure," wrote an author in the *Inquirer*, "there would never have been any inquiry at Norwich, whilst Dr. Guy would have gone on operating as hitherto, rewarded at suitable intervals for the perfection of his work." Anti-vaccinators, by forcing an investigation into the Norwich tragedy, had brought to light more than one bad vaccinator. They exposed a system that was more determined to protect itself than it was to ensure the safety of children.

Anti-vaccinators made it their mission to ensure that everyone knew what had happened in Norwich and used it to encourage central and local government to investigate the procedure. Mr. William Young, a prominent anti-vaccinator, offered to send a copy of the Government Report of the Norwich investigation free to anyone who

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[164] *Vaccination Inquirer* (December 1882), 133-134.
[165] 'Points' were implements, usually ivory, covered with lymph. Once the lymph dried they could be used to start up vaccination in areas where the lymph had 'died out' due to a lack of children for the arm-to-arm method.

wanted it upon receipt of 1 shilling for postage. Dr. Collins, a pro-vaccination doctor who opposed compulsion, planned to bring the Report up at the next Conference of the London Society. After the Norwich case anti-vaccinators sought prosecutions against vaccinators whose work resulted in death. While this seldom led to a guilty verdict, it did further erode trust in compulsory vaccination and the medical men promoting it.

3.2 Statistics: A Shared Language

Because doctors could not explain vaccination medically, they used statistics to prove its efficacy, but anti-vaccinators used the same statistics to prove its dangers. By positioning themselves as rational actors, anti-vaccinators, including members of the working-classes, were able to counter medical prescriptions with their own. What eventually happened, by the end of the century, was a consensus that became the foundation of public health. People across classes and ideas agreed on the importance of science, statistics, and 'rational' argument. Public health became an amalgam of sanitation, improved living conditions, and targeted disease eradication. This section will explore the role of statistics in the anti-vaccination fight and how a common language was created for discussing public health.

Statistics were unreliable, a fact admitted by both sides of the vaccination argument, but by using statistical data to make their case, detractors of vaccination furthered the public belief in statistics as a legitimate way of understanding the world. While anti-vaccinators used the language of statistics to make different arguments about vaccination and sanitation, the ultimate result was that a body of men across classes and with differing points of view came to speak the same language within the debate. This allowed working-class men, and eventually women, to become participants in medical

debates while simultaneously reaffirming the scientific basis for the medical profession. In this way, a consensus was reached about what medicine and science were, even as detractors argued against the specific act of vaccination.

Statistics, with a veneer of objectivity, gave public officials and doctors a new reason to fear the poor masses—a reason that was not political, but medical, not biased, but seemingly objective. Statistics created a new way of understanding numerous aspects of the world including disease. John Pickstone argued it was through the use of statistical data that diseases became "message bearing."[166] By tracing epidemics and disease via statistics, disease was transformed from a random, uncontrollable event to something that could and should be controlled.[167] Statistics were a powerful way to identify and isolate problems. However, the way they were wielded often meant certain groups and individuals were perceived as dangerous. In this way, the working-classes became targets of public health rather than partners. Anti-vaccination agitation offered working-class people a chance to situate themselves, not as problems, but as rational people with their own solutions for the problems facing their community. Using the same tools and language as doctors and government officials was a powerful way to assert agency within public health arguments.

Doctors argued that vaccination was an effective prophylactic against smallpox, but since they could not explain how it functioned scientifically they used statistics as

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[166] John V. Pickstone, *Ways of Knowing: A New History of Science, Technology and Medicine* (Chicago: The University of Chicago Press, 2000), 37.
[167] Alain Desrosiéres, Camille Nash (Trans.), *The Politics of Large Numbers: A History of Statistical Reasoning* (Cambridge: Harvard University Press, 1998). Stephen Stigler, *The History of Statistics: The Measurement of Uncertainty before 1900* (Cambridge: Harvard University Press, 1986). Mary Poovey, *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (Chicago: Chicago University Press, 1998). Theodore M. Porter, *The Rise of Statistical Thinking, 1820-1900* (Princeton: Princeton University Press, 1986).

proof of its efficacy.[168] Medical officer of health reports were littered with statistical claims 'proving' the value of vaccination. Mortality was a key measurements. In 1856, a drop in smallpox mortality, from 53% to 13% over a one year period, was attributed to vaccination though the MOH was careful to assign some causality to the lull in "epidemic force." Doctors claimed infants deaths from smallpox were also decreasing.[169] Against charges that vaccination did not protect against smallpox, doctors again turned to statistics. They argued that while some vaccinated people did contract smallpox, unvaccinated people contracted the disease at a higher rate. They also used statistics to argue that many more people *would have* died had smallpox vaccination not been practiced.

Doctors and anti-vaccinators grew sophisticated in their use of statistics, arguing in the popular presses and through tracts. Both sides claimed they had 'proven' their point over detractors. One of the great anti-vaccination debates was on the topic of smallpox nurses. John Simon claimed in a widely circulated tract that all of the nurses in London smallpox hospitals were revaccinated and that none of them had contracted the disease. Tracts about the smallpox hospital nurses and their immunity traveled far and wide. Statistics from the tract, apparently proving the prophylactic power of vaccination, were quoted as far away as Jamaica by one doctor there.[170] Anti-vaccinationists conducted their own inquiry and found that not all smallpox nurses were revaccinated. Some of them had been recruited following their smallpox illness and were deemed valuable assets since they had already had the disease. Anti-vaccinators also claimed that

[168] Robert Bianchi, *The Seventh Annual Report (St. Saviour's District), 1862* (1863), 10, 4.
[169] Robert Barnes, *Saint Leonard, Shoreditch, Annual Report of the Medical Officer of Health, 1856* (1857), 5-6.
[170] CO 137/472/174: "Circular to Ministers of Religion, 21st June, 1871."

some of the nurses had rejected vaccination or revaccination, yet they continued to work in the hospitals without illness. This became such an important point for anti-vaccinators, who felt their arguments were damning to the medical consensus, that they created a pamphlet titled "The Fable of Smallpox Nurses Saved from Smallpox by Revaccination."[171] Statistical data became widely accepted as 'truth,' even if there were competing truths.

Anti-vaccinators accused doctors of being 'superstitious' and 'irrational' two claims that undercut the authority of physicians and allowed anti-vaccinators of all classes to position themselves as rational social leaders. Doctors' inability to explain immunity damaged their credibility and left their authority open to attack. Anti-vaccinators claimed statistics showed that vaccination was ineffective. They argued that smallpox deaths were related to poverty and that the best method of fighting the disease was to improve the living situations of the poor.[172] But they also used statistics to poke fun at the pretensions of the medical profession. An issue of the *Inquirer* noted, "Anti-vaccinators not knowing which rate to die at, go on living and waiting till their time expires."[173] This was an off-hand comment, but it points to how thoroughly the new science of statistics was permeating society. With anti-vaccinators able to use statistics and present their own arguments before the public, they undermined physicians as the only, or even the best, medical authority.

By the 1870s, anti-vaccinators began to set themselves up as a reasonable alternative to the prejudice and superstition of physicians and the government. Local

[171] *Vaccination Inquirer* (April 1881), 2.
[172] *Vaccination Inquirer* (March 1880), 179.
[173] *Vaccination Inquirer* (June 1881), 57.

councils and governments who were expected to carry out the vaccination law came under particular attack from anti-vaccinators. In a July edition of the *Vaccination Inquirer*, one anti-vaccinator wrote, "As has long been known, appeals to reason and pity are wasted on the dull obstinacy of the Karingdon Bench." The writer also remarked disparagingly that "even tyranny commands a certain sort of respect when it is consistent and inflexible." The writer referred to the local councils carrying out compulsory vaccination as "the effeminate imperialism of our new masters."[174] These claims of unreason, prejudice, and tyranny struck a chord with many because of the imperfect and inexact way compulsion was carried out by local governments.

But anti-vaccinators did not just rely on popular feeling, they used statistics to 'prove' that smallpox vaccination was a systemic failure of public health. Anti-vaccinators used statistics to argue that the poor were disproportionately attacked by disease and to argue that vaccination was a poor substitute for systemic attention to the myriad problems of poverty. While doctors tended to narrowly focus on the numbers of smallpox victims, mortality, and their vaccination status, anti-vaccinators explored the class of those who fell victim to smallpox. They accused doctors of being too focused on vaccination to realize the problems created by mass poverty and overcrowding. They used statistical data collected by the government to show continued mortality of the poor, despite vaccination. And they argued that those who avoided smallpox often succumbed to other illnesses. They also showed that certain illnesses—syphilis and scrofula among them—were rising at roughly the same rate as vaccination. They charted the rise of erysipelas as a cause of death and correlated it to the rise of vaccination. Government and

[174] *Vaccination Inquirer* (July 1879), 53.

Parliamentary figures found themselves forced to hear from anti-vaccinators as they harangued the courts and barraged members with paperwork. Gladstone was reported to remark, "Members groaned under the heavy weight of anti-vaccination papers and pamphlets."[175] Anti-vaccinator's work eventually had an effect on Parliament, but the more valuable contribution to public health and the medical profession, was to make the language of science and statistics an accepted way of understanding and attacking problems. Statistics and their 'reasonable' use became culturally accepted across classes. But anti-vaccinators also called on older cultural touchstones to establish their agitation as legitimate.

3.3 Religious Objections

Religion gave anti-vaccinators a powerful cultural foundation from which to build a movement. It allowed them to situate their law-breaking in a tradition of acceptable protest. They used examples of modern and Biblical martyrs that resonated across the political spectrum which also made their agitation more palatable to middle-class members who wanted reform within the confines of the law. Many of those now in the comfortable middle-class came from Dissenting religious traditions and remembered their older family members thrown in jail and losing opportunities for their religious beliefs. Religious symbols became powerful rhetorical tools that drew on a shared religious culture. And anti-vaccinators used a shared Dissenting past to shame religious non-conformists who supported vaccination. Doctors also used religious language and the machinery of the church to bolster their weak authority. Religion was a powerful way to organize and evoke feeling on both sides of the vaccination divide.

[175] *Vaccination Inquirer* (June 1880), 40.

Religious objection to vaccination began with Jenner's first discovery and never disappeared though the specific religious arguments against vaccination changed. In Jenner's day, one of the greatest concerns about vaccination was the use of cowpox. It was considered unnatural to contaminate "the form of the Creator with the brute creation."[176] People told tales of children who raged like bulls and developed tails and cloven hoofs after vaccination.[177] Such stories were no longer in vogue in the later nineteenth century, but anti-vaccinators used religious language and framing in the fight against smallpox.

The language used by anti-vaccinationists had clear religious foundations and would have been familiar especially to Dissenters and other religious non-conformists. One anti-vaccination cleric called vaccination "a sin, a delusion, and a snare." He went on to declare that the government, particularly the local Alderman, was "following in the footsteps of Herod and urging on the "'slaughter of the innocents.'" [178] This accusation was particularly violent and the local Alderman filed suit for defamation. But religious allusions were the norm, not the aberration. One father quoted in the *Glasgow Herald* in 1869 claimed, "I prefer that my children should endure the complaints with which God in his Providence afflicted them."[179] Doctors considered such an outlook foolish and prejudiced, but it was a legitimate cultural expression shared by many people at the time. Anti-vaccinators deliberately framed their fight as a righteous one in their literature and

[176] *British and Foreign Medico Chirurgical Review* v. 20 (1857), 250.
[177] "Smallpox and Vaccination," *The Times* (June 28, 1860), 6.
[178] "The Anti-Vaccination Libel on Alderman Sanders," *The Sheffield and Rotterdam Independent* (February 2, 1869), 4.
[179] "The Vaccination Question," *Glasgow Herald* (August 19, 1869).

in the courts, and this in no way detracted from their claim to be rational, legitimate actors.

Anti-vaccinators used court appearances as opportunities to justify their non-compliance in highly religious terms. In their literature, members described their fight as a "holy and just cause." They painted doctors as not only "irrational" but also "impious," as though religion and rationality were linked.[180] But the courts were their greatest opportunity to gain supporters, and they deliberately used religious language that linked them to the long line of non-conforming religious figures. One man argued that he was "bound as a Christian to disobey unjust law." Another anti-vaccinator, after being served the maximum sentence, declared, "I object to vaccination solely on conscientious grounds, believing it to be a sin against God." They also called on tropes of martyrdom in situating their battle. They claimed, "St. Paul himself would not have obeyed it" and that "every man should bear his own cross." This placed them not only in line with Dissenters but the longer line of individuals who suffered for faith. They claimed there was "all the difference in the world between law which is one with the divine order and law which is at variance with this order."[181] Order and disorder were important aspects of how Victorians understood the world and disorder was linked to chaos, filth, and Satan himself. Again here, anti-vaccinators, while promoting and provoking disorder, did so in a specific cultural framework in which they situated themselves as those bringing order against the forces of chaos.

[180] *Vaccination Inquirer* (September 1879), 79. *Vaccination Inquirer* (October 1880), 94.
[181] *Vaccination Inquirer* (June 1879), 36. *Vaccination Inquirer* (July 1879), 52. *Vaccination Inquirer* (August 1879), 71.

Anti-vaccinators used anti-Catholic religious language to attack the medical community at a time when tensions were high over incoming Irish immigration. With more Catholics coming from Ireland this was a powerful way to leverage anti-Irish sentiment. The middle-classes viewed Irish Catholics as a dangerous element and the working-classes felt the Irish threatened their employment. Anti-vaccinators linked doctors, those "witch doctors" and "high priests of vaccination," with the Pope and tied anti-vaccination to the Protestant battle for religious freedom. Henry Pitman, in a much circulated pamphlet titled "How I became an Antivaccinator," claimed, "We have since learned that it is perilous for people to submit their bodies to the doctors or their souls to the priests."[182] The *Inquirer* referred to vaccination as "Parliamentary Popery" and asked by what authority the state and doctors could so firmly override their rights as parents, rights given to them by God himself.[183] In a sermon, one anti-vaccination minister claimed, "Doctorcraft is becoming as intolerable as priestcraft."[184] These arguments struck a chord among people still fighting to gain or maintain religious freedom.

Anti-vaccinators tried to shame fellow non-conformists out of supporting compulsory vaccination. They demanded to know how a fellow Dissenter could condemn a medical agitator. One *Inquirer* article lamented, "Can anything be more grotesque than a conscientious religious dissenter maintaining that conscientious medical dissenters should be fined or hauled off to prison?"[185] To arguments that they should quietly submit to the law, anti-vaccinators asked, "What would Dissenters say if their children were only

[182] *Vaccination Inquirer* (October 1879), 97.
[183] *Vaccination Inquirer* (May 1881), 27. "Vaccination Prosecution at Leeds," *The Leeds Mercury*, December 23, 1869. *Vaccination Inquirer* (March 1880), 187.
[184] *Vaccination Inquirer* (October 1880), 94.
[185] *Vaccination Inquirer* (May 1880), 15.

exempt from Church baptism on condition that they answered to a summons in police court?"[186] They attacked pro-vaccination clerics many of whom were Anglican. Anti-vaccinators claimed pro-vaccination clerics were "the cruelest when in power" and that they treat "reason, science, and the mercy of good sense as temptations of the devil."[187] Anti-vaccinators also referred to their own movement as "medical nonconformity."[188]

The self-conscious framing of their agitation within the Dissenting religious tradition was a central aspect of anti-vaccination and has received little attention. As we will see in the following chapters, Indians who opposed vaccination also situated their opposition in religious language, but this reinforced racist beliefs about native inferiority and prejudice. For English medical dissenters, however, religion was a powerful way of gaining cultural capital. Religion was a central part of the anti-vaccination movement and continued to be through the end of the century. In 1899, when asked about changes in the law that weakened its compulsory aspect, Mr. Hugh Price Hughes, anti-vaccinator, replied, "I…feel, as a Christian, the strongest *a priori* objection to a system which is essentially a compromise with evil."[189] Religion, reason, and Dissent were deliberately tied together in the anti-vaccination battle.

Doctors used religious arguments as well as the machinery of the church to supplement their own efforts to enforce and provide vaccination. In 1850, a correspondent on vaccination compared it to God's promise, "Thou shalt not be afraid for the pestilence that walketh in darkness, nor for the destruction that walkest at

[186] *Vaccination Inquirer* (July 1880), 44.
[187] *Vaccination Inquirer* (February 1881), 206.
[188] *Vaccination Inquirer* (February 1884), 215.
[189] *Northern Echo* (November 17, 1899).

noonday."[190] One vaccinator claimed avoiding vaccination was "flying in the face of the Divine Providence which has given to mankind so great a good."[191] But it was not just religious language. Doctors wanted to coopt the clergy and the church to enforce vaccination and some clerics easily complied. One cleric claimed, "I always endeavor to remove the prejudices in the parishes committed to my charge as a clergyman and as a registrar."[192] George Buchanan, MOH for St. Giles, argued they should include "our rectors and clergy, ministers of every religion of every denomination…district visitors, and scripture-readers…backed by all the authority which they had acquitted in long years of charitable ministrations."[193] Public medical men tried to leverage church authority because their own authority was weak. While anti-vaccinators might claim they were agitating against the "ancient rights, privileges, and prestige" of physicians, the authority sought by the medical community was quite new and did not compare to that of the church.

While co-opting the authority of the church was a simple expedient given their own weak social position, it created more backlash for doctors than they expected. To have the might of both church and state aligned toward medical ends could be overwhelming for the poor, particularly those dependent upon the 'charitable ministrations' of these workers. Doctors suggested legislation to force parents to bring proof of vaccination to baptism and for the minister to keep record of it along with baptismal records.[194] The government never considered this legislation, but it shows the

[190] *Hampshire Telegraph and Sussex Chronicle* (March 2, 1850).
[191] Edwin Lankester, *Thirteenth Annual Report Made to the Vestry of St. James, Westminster for the Year 1868* (1869), 48.
[192] *The Lancet*, v.2 (1853), 207.
[193] George Buchanan, *Sanitary Statistics and Proceedings in St. Giles's District, 1859* (1860), 17.
[194] *The Morning Post* (June 10, 1863).

important social position of the church and how the medical profession relied on the other professions, the law and the church, to make up for its weak authority. It also shows the distrust felt by many doctors for the poor and working-classes. Despite lip-service paid to education initiatives, doctors were ultimately unwilling to partner with the laboring classes, preferring to enforce vaccination by any authority necessary. The tactical use of the Dissenting tradition by anti-vaccinators offset the use doctors made of religious institutions. It was a powerful way to establish the respectable lineage of their agitation while offering working-class people the opportunity to be part of a movement rather than recipients of elite largesse and coercion.

3.4 The Commission and New Legislation

While historians have argued that 'closing off' the profession was a hallmark of professionalization, it was this inward tendency that actually brought discredit on the community.[195] Doctors tried to chastise their members from within, but the profession was too weak to protect the public from bad vaccinators. Their reliance on borrowed governmental authority meant that medical debates were now political debates. In light of the growing complaints against the practice, in 1889, Parliament began a seven-year investigation into the process of vaccination and in 1898 made it easier to gain a legal exemption for vaccination. Legislation in 1907 virtually ended compulsory vaccination. Yet there were no serious spikes in disease and many working-class people chose, without compulsion, to vaccinate their children.

[195] G.B. Larkin. "Medical Dominance in Britain: Image and Historical Reality." *The Millbank Quarterly* 166 (1998), 117-132. Freidson. *Profession of Medicine*. Steve Sturdy. "Looking for Trouble: Medical Science and Clinical Practice in the Historiography of Modern Medicine." *Social History of Medicine* 24/3 (2011), 739-757.

By the 1880s, the anti-vaccination agitation was gaining ground. Whereas in May of 1880, the *Inquirer* claimed anti-vaccinators were generally treated with "contempt and abuse" by detractors, by April of 1883 it noted "a change in the tone of the press toward us," and in June of that year a "very marked advance" with the press.[196] Following the Norwich verdict, local boards were more open to investigating and occasionally prosecuting vaccination 'accidents.' In February of 1883, a death in Derby was put down to vaccination and the public vaccinator, Mr. Legge, found to be at fault. The inquiry showed that he used "dirty, unsealed tubes" for his vaccine matter and that he used dirty instruments. Outraged, Mr. Legge claimed he was not to blame and that the child had died of "idiopathic erysipelas in an unhealthy child." Anti-vaccinators argued that per medical guidelines only healthy children should be vaccinated, and it was the duty of the vaccinator to ascertain health. Either way, Mr. Legge was guilty.[197] The following month saw charges of manslaughter brought against Mr. Dunlop, a public vaccinator, for the death of Lillian Ada, an infant in the workhouse who died following vaccination. At his trial, he was accused of taking lymph from a child whose arm was clearly inflamed. He was found not guilty of manslaughter, but the trial brought further discredit upon vaccination.[198] As more stories of vaccinal accidents were reported, in the public presses not just anti-vaccination journals, parents began pressing their local government boards for inquiries. They were aided by anti-vaccinators in their battle.[199]

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[196] *Vaccination Inquirer* (May 1880), 15. *Vaccination Inquirer* (April 1883), 1. *Vaccination Inquirer* (June 1883), 46.
[197] *Vaccination Inquirer* (February 1883), 174.
[198] *Vaccination Inquirer* (March 1883), 190-191.
[199] *Vaccination Inquirer* (August 1883), 109. *Vaccination Inquirer* (December 1883), 182-187.

The insecurity of the medical community became apparent. The continued attacks by anti-vaccinators showed the community was split over best practices, a fact which their adversaries used against them. In 1879, anti-vaccinators noted that in England the law allowed for vaccinating cows with smallpox to produce more matter. In Ireland, this process was illegal, with doctors there claiming it created a more dangerous version of the vaccine.[200] By 1880, *The Lancet* was admitting the risks of arm to arm vaccination, but still arguing the risks were low, when properly performed, compared to the dangers of smallpox.[201] In 1881, in response to concerns about arm to arm vaccination, the government created calf lymph establishments to produce vaccine matter and assured the public they would deliver only "pure animal lymph." Parents could now choose arm to arm or animal vaccination. Anti-vaccinators took this as a sign that they were winning. One anti-vaccinator wrote, "(It) is of great importance to have our adversaries split in two."[202] Anti-vaccinators argued these establishments were "open confessions of the hitherto denied dangers of ordinary vaccination."[203] By 1881, anti-vaccinators declared the "whole medical profession is in controversy."[204]

Beyond the medical issues, anti-vaccinators maintained that the law was unfair and unequally enforced. Proponents of vaccination tried to argue that anti-vaccinators were exaggerating the uneven application of the law. In 1887, *The Times* told the story of Charles Hayward, Mechanic, fined repeatedly for non-vaccination. *The Times* claimed anti-vaccination groups used Mr. Heyward as their "ewe lamb" to bring compulsion into

[200] *Vaccination Inquirer* (November 1879), 120.
[201] *Vaccination Inquirer* (July 1880), 44.
[202] *Vaccination Inquirer* (April 1882), 1.
[203] *Vaccination Inquirer* (April 1881), 14. *Vaccination Inquirer* (May 1881), 16, 23.
[204] *Vaccination Inquirer* (June 1881), 56.

discredit. He had been tried thirty-seven times for evasion and been fined over £37, which the writer for *The Times* claimed was paid by anti-vaccination groups. *The Times* also argued this was irregular and not indicative of how compulsion normally functioned.[205] However, it was this point anti-vaccinators seized on. Whether this was indicative of compulsion or not, too much power was left in the hands of local Guardians creating an unfair law that was not uniformly enforced.

In 1889, under pressure from without and within, Parliament set up a commission to examine the vaccination question, and during this process, the machinery for compulsion broke down further. This commission held an exhaustive investigation into vaccination over seven years. They conducted 137 meetings, interviewed 187 people, and launched several smaller investigations. A Medical Officer of Health noted in 1895, six years into the commission, that many Boards were abstaining from prosecuting vaccination defaulters until the Royal Commission released their report. This led to growing evasion of the Acts frustrating medical professionals.[206] In 1890, *The Times* reported that the Commission was including noted anti-vaccinators in their list of witnesses.[207] While the profession continued to fight against the idea that vaccination caused erysipelas, they admitted that anyone with open sores was liable to contract erysipelas and that it could be contracted from others at the vaccination station.[208] The

[205] "Vaccination," *The Times* (October 10, 1887), 13. "Untitled," *The Times* (April 6, 1889), 11.
[206] Henry Kenwood, *The Urban Sanitary District of Finchley, Report of the Medical Officer of Health for the Year 1895* (1896), 24.
[207] "Royal Commission on Vaccination," *The Times* (December 25, 1890), 4.
[208] W. Sedgwick Saunders, *Report on the Sanitary Condition of the City of London for the Year 1897* (1898), 15. Sidney Davies, *Plumstead Vestry, Annual Report of the Medical Officer of Health, 1897* (1898), 15.

Commission released the report in August of 1896 with two Commission members dissenting. From the report, Parliament created a new vaccination act 1898.[209]

Neither side was entirely happy with the new Act. Its most important provisions were as follows: It extended the age of compulsory vaccination to six months rather than three. Exemption from penalties could be obtained if the parent within four months "satisfies two justices, or a stipendiary magistrate, that he conscientiously believes that vaccination would be prejudicial to the health of the child." It also limited the penalty to one conviction and fine of 20s. plus costs for the same offense. The medical profession lamented that this would lead to mass un-vaccination and smallpox resurgence. Some areas had high levels of unvaccinated people, yet the dire warnings of doctors never came to pass. Durbach noted that in 1905-06 nearly half the births in the anti-vax strongholds of Loughborough, Northhampton, Banbury, and Keighley received exemptions. In areas not known for anti-vaccination activity nearly all of the exemptions were among the working and lower middle-classes.[210] Yet there was no resurgence of smallpox.

This escape from disease was partly due to the sanitary agitation of anti-vaccinators. While they had used the language of individual rights in many of their arguments against vaccination, anti-vaccinators also recognized their responsibilities to their communities and engaged in high levels of quarantine and isolation. Leicester, an anti-vaccination stronghold, created a complex system of surveillance and control and many other cities adopted aspects of it. The 'Leicester Method' required householders, businesses, and individuals to notify public health officials of possible infectious disease.

[209] Arthur Francis Burridge and Henry M. Stanley, "Vaccination and the Act of 1898," *Journal of the Institute of Actuaries* 37/3 (October 1902), 7.
[210] Durbach, *Bodily Matters*, 171-172.

The public official, whether a Medical Officer of Health or other functionary, would examine the sufferer and, if they suspected infectious disease, would demand the individual quarantine. If the sick person was unable to quarantine in their domicile, they could be housed at a local hospital. They were asked about all of their interactions and anyone in contact with them was also ordered to isolate. Their premises were cleaned and disinfected and their clothes washed. Sometimes clothing or bedding would be burnt and payment made for its destruction. Leicester did not create these methods. They were methods doctors had advocated the central government to advance, but in Leicester they were adopted out of a public consensus not enforced from outside or above.

Committed anti-vaccinationists viewed the new law as an incomplete victory. That people had to present themselves and gain an exemption still struck them as inappropriate. There was also confusion about this Act, and like the previous Act, it was not uniformly enacted. Some justices refused to grant Conscientious Objector status, some Guardians were less likely to offer this status to the working-classes, and there was confusion about whether or not women qualified for this status. As dependents, women fell under the protection of their male kin. Yet the law read that 'parents' could apply for conscientious status. This became an important way for women to claim rights over their children through conscientious objector status. [211] For ideological anti-vaccinators, the battle continued, but there was significantly less support for agitation. After several years of confusion over who could, in fact, possess a "conscience" and receive objector status, new legislation in 1907 allowed anyone who presented themselves as a Conscientious Objector to receive the status. It was the effective end of compulsory vaccination in

[211] For full treatment of this subject, see Durbach, "The Conscientious Objector," *Bodily Matters*: 171-197.

England and Wales. Both pieces of legislation were important for working-class people in their battle for equality before the law.

Following the Act of 1898 parents were no longer liable to fines, imprisonment, and missed work, but the greater victory for the working-classes were the changes made to vaccination. Public vaccination stations were for the most part abandoned. Public vaccinators went door-to-door and the working-classes were allowed to choose the type of vaccination their children received and who would perform it. Modern antiseptic methods were used including cleaning instruments and cleaning and wrapping the wounds of vaccinated children which diminished incidents of erysipelas. The law required public vaccinators to revisit children and make sure they were healing properly, along with confirming vaccination success and were required to care for the children in their own homes until their vaccination injuries healed. In this way, public vaccination was made similar to private vaccination.

While most historians have focused on the political ramifications of the anti-vaccination agitation, it had a profound impact on the medical community. From this agitation, public vaccinators were held accountable when their operations caused harm.[212] The anti-vaccination movement had given the working-classes a new voice in society and effected changes in the public medical system that had ramifications for the later development of national health. Because doctors could no longer count on compulsion to ensure compliance, they made changes to public vaccination which made it safer and easier for families. This led to greater trust in the medical community and contributed to their professional authority. As public doctors learned to persuade rather than coerce the

[212] *Liverpool Mercury* (December 21, 1900).

public, those reliant on public medicine had better experiences and better outcomes creating more trust in the profession as a whole. What doctors had wanted all along was trust in them as a corporate body. But it was agitation which offered the working-classes agency which ultimately created that trust. In 1901, George Bernard Shaw, himself an anti-vaccinator, noted, "They (anti-vaccinators) had to be reckoned with politically."[213] But it was not only politically, but medically, that agitators had to be reckoned with. Through agitation and negotiation, doctors and patients transformed the practice of public medicine. The poor and working-classes were given a stake in public health endeavors creating the broad trust necessary for successful, robust public health. Confrontation established the medical profession as a legitimate, if at times contested, authority.

Conclusion

The agitation against vaccination was central to creating the broad public trust necessary for public health to flourish. Anti-vaccinators used doctors' own statistical data against them to 'prove' the dangers of vaccination. But in the process, they helped to create a new language and a new 'truth' which most of society, across classes, agreed upon. They also used cultural and religious language that resonated with large swaths of society, calling on fears and desires already present to provide legitimacy for their agitation. This undercut doctors' own use of religious institutions and revealed the insecurity of medical authority in the period. The agitation gave the working-classes a stake in public health, and relaxed laws gave them more autonomy in the medical encounter. The working classes had a choice and increasingly they chose vaccination. Vaccination became safer and the dire warnings about resurgent disease from doctors

[213] *The Times* (October 8, 1901), 5.

never came to pass. Sanitary science and vaccination became hallmarks of England's public health, which flourished with wide public support, for the next century.

4.0 'Difficulties Were Continually Thrown in Their Path':

The British Medical Community and the Struggle for Primacy in India

Introduction

In 1855, in Bombay, public agitation grew against a local doctor who was accused of forcibly, illegally vaccinating Indians in the province. A magistrate ordered an investigation which revealed a pattern of illegal activity by the doctor. The 1856 vaccination report for Bombay printed portions of the investigation's findings. The Report read, "It would seem that the system pursued by him was to 'perambulate the streets with his Foujdar (police petty officer), and tell every man they met that he must then and there be vaccinated, no objections being allowed to be of any avail.'" He was also accused of "forcibly entering houses and vaccinating 'not only children but men of 50 or 60 years of age.'" The doctor, who remained unnamed, claimed he never used any violence but did admit that he vaccinated "persons who were disinclined to the operation." The vaccination report noted his actions raised up "a determined spirit of resistance" in Karachi and Hyderabad where he practiced as Vaccination Superintendent. For a time, officials in the area had to cease vaccination operations due to the agitation. Despite his illegal activities and the resistance he inspired, the doctor kept his position as Superintendent of Vaccination. His dismissal was finally demanded by the East India Company Court of Directors, not other doctors or vaccination officials, in 1857. The Court of Directors expressed surprise that the doctor had been kept on, but they also acknowledged the "benevolent motives" that motivated him. The Court declared, "We shall not hesitate to remove from our Service any of our servants who may hereafter manifest such utter disregard for the feelings of the people, and of the deplorable

consequences that ensue to the State from such indiscretion."[214] Despite this sentiment, threat, coercion, and force were the norm for many vaccination departments rather than the exception.

Doctors failed to partner with established, trusted Indian medical practitioners, choosing instead to set up British medicine as an alternative, distinct system without engaging with existing health cultures. This was a reversal of public health efforts in the eighteenth century. From the 1750s to the 1800s, British doctors worked with indigenous healers to extend the practice of inoculation. Inoculation was heavily practiced and culturally embedded in areas like Bengal, and the British wanted to extend the practice to protect public health, particularly military health. British doctors worked with local healers, especially educated Vaids and Hakims, to extend the practice without British doctors directly engaging with the population. By the nineteenth century and with the advent of vaccination, the relationship between local practitioners and British doctors changed. The British considered vaccination a superior operation to inoculation. Vaccination, the first truly preventative therapeutic, was a way to showcase the superiority of the British medical system over Indian ones. Because British doctors failed to engage local, trusted healers or gain the trust of the people, vaccination efforts encountered numerous problems.

Doctors refused to partner with trusted medical elites, working only with Indians in subordinate positions. The trend toward ignoring or replacing traditional medical elites was part of a larger shift in which British elites moved from praising to demeaning Indian culture. As the East India Company, and later the British Crown, took on greater

[214] IP/13/VA.3. *Report on Vaccination Throughout the Bombay Presidency and Sind for the Years 1856-57* (1858), 77.

government responsibility, they looked for ways to highlight their superiority. This was due to an underlying unease with their role. The EIC and the British government ruled a population of millions with a few thousand. They depended upon the local population for government and military functions. British figures expended tremendous energy in defending their role on the sub-continent. From the late eighteenth century, this unease took the form of devaluing Indian traditions. Gone were the Orientalists who, though often condescending, found value in Indian history and culture. [215] They were replaced by utilitarians determined to remake Indian society and prove British superiority. British medicine was caught up in the larger process of imperialism.

Historians have asked why vaccination faced resistance on the subcontinent. The answers they provided fall into three main categories: Enclavism, State inaction, and Cultural differences. Some historians argue that British medicine in India was never designed to serve the needs of the people. British medicine was to serve the needs of the small European population, especially the military, and expanded outward only when it became clear that British health was connected to indigenous health.[216] A second theory, related to studies of enclavism, posits that the state never prioritized the health of the people and failed to create a public health system responsive to the public. The state needed to protect the health of its White administrators and ensure labor and trade continued. The state, therefore, focused on diseases that affected Britons in India, such as

[215] For a discussion of this process see Eric Stokes, *The English Utilitarians and India* (Oxford: Oxford University Press, 1990); Javed Majeed, *Ungoverned Imaginings: James Mill's* The History of British India and Orientalism (Oxford: Clarendon Press, 1992); Javed Majeed, "James Mill's 'The History of British India' and Utilitarianism as a Rhetoric of Reform," *Modern Asia Studies* 24/2 (1990), 209-244.
[216] Kumar, *Medicine and the Raj*. Ramasubban, *Public Health and Medical Research in India*.

smallpox, while ignoring illnesses that were of more importance to the Indian people.[217] Both of these historical arguments conflate the state and the medical community, making doctors seem like extensions of the state rather than a group with their own agenda. The third strand, while still conflating state with medical actors, focuses on the cultural differences between doctors and the patients they served arguing that cultural differences doomed many medical procedures, like vaccination.[218] This strand, best exemplified by David Arnold's *Colonizing the Body*, comes dangerously close to replicating the cultural chauvinism of British colonizers.

My work focuses on doctors as a community with separate aims from the state. Doctors were not an arm of the state. They did not have a powerful role in society or in government, though their influence was growing due to the persistent threat of disease. They were subservient to government whims and lacked a strong social position among the people.[219] Doctors, in service to the state, were trying like their British counterparts, to establish their community as a profession of pre-eminence in India. Vaccination was not only the only prophylactic at the time, it was one of the clearest examples of how British medicine differed from Indian medicine. It gave doctors a way to show the government the value of the medical profession in the imperial endeavor. Vaccination became, for doctors, proof of their medical superiority and by extension proof of British superiority.

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[217] Andrew Cunningham and Bridie Andrews, *Western Medicine as Contested Knowledge* (Manchester: Manchester University Press, 1997). Arnold (Ed.). *Imperial Medicine and Indigenous Societies*. Watts, *Disease, Power, and Imperialism*. Harrison, *Public Health in British India*.
[218] Arnold, *Colonizing the Body*. Arnold's work examined medicine as a part of the larger colonial process, but much of his analysis deals with the cultural role of medicine and religion.
[219] Harrison, *Public Health in British India*.

I argue that an important reason vaccination failed so signally in nineteenth century India is because of numerous actions by the British medical community. In this chapter, I will show that doctors sabotaged their own vaccination agenda by failing to partner with local healers and using coercive, abusive methods to expand vaccination. While my focus is on vaccination, this analysis offers a perspective on public health as a whole. Vaccination was one of the earliest and most consistent experiences many Indians had with British medicine on the sub-continent. Throughout the nineteenth century, vaccination departments grew to become a complex bureaucracy intertwined with public hygiene and education initiatives. It was the first attempt to regulate and discipline Indian bodies through public health. It was also considered, by the end of the century, a failure.

4.1 Inoculation and Vaccination in India, 1750-1805

Vaccination came to India with cultural baggage. Like inoculation, which doctors hoped to supplant, vaccination was more than a medical operation. It had a collection of meanings for the British and for Indians, and it was these meanings that people often resisted, not simply the operation. Some historians argue that public health never grew past an enclavist mentality and that enclavism—the use of medicine primarily for the needs of the White colonizers—characterized Indian public health at least until the 20th century. These historians argue that the government failed to adequately fund public health and that the focus of the medical community and the government was on diseases that threatened Europeans and trade.[220] Other historians have argued that public health quickly grew past its enclavist roots to spread rapidly, though not uncontested, across

[220] Ramasubban, *Public Health and Medical Research in India.* Radhika Ramasubban, "Imperial Health in British India, 1857-1900," in MacLeod and Lewis (Eds.), *Disease, Medicine, and Empire*, 38-60. Kumar. *Medicine and the Raj*.

India.[221] Vaccination offers a unique perspective into this problem. That the British brought vaccination to India to protect the European population is undisputed. Its outgrowth to the Indian population was at first motivated by a desire to protect Europeans by creating a *cordon sanitaire*. However, doctors and the government became committed over the nineteenth century to extending vaccination as widely as possible. This went beyond protecting European lives. It was about establishing British superiority. If accepted it was a clear example of the benevolent rulership of the British. If rejected it showed how badly Indians needed to be ruled. Because of the cultural baggage attached to the operation, its progress across India was uneven, contested, and halting as the state and doctors tried to decide how to promote vaccination while keeping it in British hands.

Cooperation was common between Indian and British doctors in the seventeenth century. Each group cared for their respective populations in culturally appropriate ways. This cooperation is shown in the joint efforts to extend inoculation across the sub-continent. Inoculation was practiced widely throughout Asia and Africa before making its way to England and Europe via Turkey in the 18th century. Inoculation involved inserting live smallpox illness into an open wound in the hopes that the patient would contract a weaker form of the illness. Contemporaries considered it safer than catching smallpox naturally because the inoculator could choose milder cases to communicate. After a mild

[221] Daniel Headrick, *Tools of Empire: Technology and European Imperialism in the Nineteenth Century* (Oxford: Oxford University Press, 1981). Headrick first posited this idea as a smaller part of his wider claim that the 'good' aspects of imperialism (medicine, infrastructure, etc.) were always about domination and extraction. His ideas are now viewed as mechanistic and the role of medical prophylactics such as quinine overemphasized. But the school of ideas that followed his assertion became an entire branch of imperial study as historians tried to understand the relationship between the state and colonial society. For a more nuanced exploration of the theme see MacLeod and Lewis (Eds.), *Disease, Medicine, and Empire*. Mark Harrison. *Climates and Constitutions: Health, Race, Environment and British Imperialism in India* (Oxford: Oxford University Press, 1999). Harrison, *Public Health in British India*. Arnold, *Colonizing the Body*.

smallpox illness the sufferer had immunity for much of their life. In high density areas, particularly Bengal, most people availed themselves of inoculation, and the British promoted inoculation in areas of India where it was uncommon. Much of what we know about inoculation in India comes from a few English sources which offer a distorted picture of inoculation in India.[222] Like many imperial sources, their value lies not only in what they say about Indian medicine, but in what they tell us about the British in India. Medical reports show the changing priorities of the state and the British medical community as vaccination slowly supplanted inoculation in the 19th century.

Cooperation characterized the 18th century relationship between British doctors and their Indian counterparts. One of the earliest and most cited sources on Indian inoculation is a 1767 pamphlet written by J.Z. Holwell, a surgeon for the East India Company. In this period, the British medical presence was limited and their aims were to care for the British population particularly military personnel. Indian healers were colleagues, not rivals, as British and Indian medics practiced on distinct populations. Holwell's account of indigenous inoculation is laudatory. Holwell praised Indian inoculation and even recommended medical practices the British should adopt for their care of smallpox patients particularly access to fresh air and cold water showers.[223] He also tried to convince some recalcitrant Britons of the value of inoculation and allay fears of the procedure. He pointed to its antiquity and wide use in India as proof of its safety and efficacy. In his description of inoculation practices, Holwell wrote the operation was performed by Brahmin who marked out a particular territory to make sure they covered

[222] For a full discussion of this issue see Arnold, *Colonizing the Body,* 127-133.
[223] J.Z. Holwell, *An Account of the Manner of Inoculating for the Smallpox in the East Indies* (1767) 21. Gutenberg.org. (Accessed October 2019).

the widest ground possible. Inoculation was performed seasonally, as some times of the year it was either ineffective or dangerous. Patients followed a restricted diet prior to inoculation. After inoculation, the inoculators recommended therapeutics and visited until the patient came through safely. There was also a religious component which involved performing certain *pujas* to a female divinity. The inoculator said a prayer while he conducted the rite and also gave instructions for later *pujas* the family, usually the women, would perform. The Brahmin inoculator was paid for his services and went on to the next house. That a religious service accompanied a medical rite excited little comment from Holwell, who was himself a writer of religious tracts.[224]

For Holwell, and presumably his readers, the commingling of religion and medicine did not mark Indian medicine as backward, prejudiced, or superstitious. Nor did Holwell find it odd that religious leaders were also providing medical services. As in England, religious elites were well-educated members of society and often had the greatest medical knowledge. In fact, Holwell praised the religious aspects of the practice. As part of the procedure, Ganges water was sprinkled over the virus material to both dilute the virus and make it sacred. Holwell wrote, "The Ganges water, I doubt not, may have as much efficacy as any other *holy water* whatsoever. This last circumstance, however, keeps up the piety and solemnity with which the operation is conducted from the beginning to the end of it; it tends also to give confidence to the patient, and so far is very laudable."[225] The separation between the medical and religious communities which

[224] J.Z. Holwell, *Dissertation on the Origin, Nature, and Pursuits of Intelligent Beings and on Divine Providence, Religion, and Religious Worship* (1786). hathitrust.org. (Accessed October 2019).
[225] Holwell, *Account* (1767), 30.

would come to characterize the Western medical profession was not yet in evidence and there was little to differentiate British and Indian medicine in the 18th century.

Families had agency within the medical encounter and tasks they were responsible for performing for the patient. The inoculator asked the parents how many marks they wanted made on the child for the operation and then would defer to the parent's desire. Holwell noted that neither Indian nor English practitioners knew how many marks produced a productive version of the disease so this was mere "vanity" on the part of the inoculator.[226] But for the parents, the questions, the pujas, and the therapeutic regimen all gave them a measure of control over the operation and sense of partnership in the convalescence. In fact, Hasan Naraindas argued that the reason Indians continued to choose inoculation over vaccination throughout the nineteenth century was because of the whole practice of therapeutics accompanying it.[227] This gave parents and family a feeling of power by having specific things they could do for their child. Deference to parental preference gave them agency and created a partnership. The return of the inoculator to check the patient's progress and provide new advice or medicines gave them a sense of connection. If the illness did not run its usual course or if complications arose, the inoculator was there for advice and to offer care. The religious aspects provided comfort and relief during a dangerous operation. Inoculation, then, was a medical operation that expanded naturally with a dense collection of meanings—cultural, religious, social, and medical—attached to it. It was this dense network the British hoped to supplant with vaccination.

[226] Holwell, *Account* (1767), 15.
[227] Harish Naraindas, "Care Welfare and Treason: The Advent of Vaccination in the Nineteenth Century," *Contributions to Indian Sociology* 32/1 (1998), 71-72.

John Shoolbred's 1805 treatise on vaccination and inoculation in Bengal shows interesting changes in the colonial mind and the role of vaccination in the colonial endeavor. Shoolbred was a Scottish naval surgeon who rose to prominence as Assistant Surgeon in the Presidency National Hospital in Bengal. In 1804, he advocated the extension of vaccination across India becoming the Superintendent General of Vaccine Inoculation in 1807.[228] From a narrow focus on the European population, vaccination efforts expanded to larger sections of the population mainly in the cities and most extensively in Bengal. British doctors expected the Indian population to take up vaccination with alacrity as they thought it clearly superior to the practice of inoculation. That most Indians chose inoculation over vaccination surprised British doctors.

By the early nineteenth century, British doctors were coming to see themselves as a distinct and superior group to other types of healers. In India, this meant Indian doctors—Hindu vaids, Muslim hakims, Brahmin practitioners, and other learned healers—were no longer viewed as a separate group performing medicine on their own populations.[229] British doctors in India began to see native doctors as rivals, inferior rivals, but rivals nonetheless, to their profession. The entire tone of Shoolbred's treatise is hostile and dismissive of local healers, a marked difference from Holwell's tract which depicted indigenous healers as legitimate and knowledgeable. Battles over vaccination highlighted the growing condescension of British doctors toward their Indian counterparts.

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[228] "Biographical Index of Former Fellows of the Royal Society of Edinburgh 1783–2002, Part 2," *The Royal Society of Edinburgh* (July 2006), 841.
[229] John Shoolbred, *Report on the State and Progress of Vaccine Inoculation in Bengal* (1805), 58. books.google.com. (Accessed October 2019).

One measure doctors used to prove their superiority over Indian healers was how quickly British doctors, at home and abroad, adopted vaccination over inoculation. Doctors argued that their quick adoption of vaccination over inoculation, showed that they were more rational than Indian healers. They claimed the continued preference for inoculation by local healers showed that they were irrational, clinging to the past, and unable to adopt new, better methods. However, doctors themselves were responsible for the slow progress of vaccination because they alienated indigenous healers. Some Brahmin medics showed an interest in vaccination and asked British vaccinators for vaccine matter to make their own experiments. The British gave them the vaccine but only with demands for oversight of the procedure and results. When they offered the lymph they sought to give demonstrations and minute instructions. As the procedure was nearly identical to inoculation—mainly requiring some form of insertion into open skin—Brahmin medics no doubt felt this demonstration was unnecessary. British doctors also wanted to inspect the work done by Indian healers to verify that it was properly performed.[230] Such an intrusion into the work of a professional class prompted many high-caste inoculators to reject the practice. Vaccination placed Indian medical men in an inferior status to British doctors. When local healers refused to accept this inferior status or acknowledge the right of British doctors to inspect their work, this was taken as proof of their backwardness. Shoolbred wrote that Brahmin failure to switch immediately to vaccination was an example of Brahmin medical unfitness and narrow prejudice.[231]

[230] Shoolbred, *Report*, 66-69.
[231] Shoolbred, *Report*, 66.

Adopting vaccination was a mark of British rationality and disinterestedness, two aspects that doctors claimed were key differences between British and Indian medicine. Shoolbred, who wrote most disparagingly of Bengali Brahmin healers, claimed that in contrast to British doctors, Brahmin were motivated by greed rather than science or public service. In Britain, Shoolbred argued, "No sensible and conscientious man ever thought of continuing the practice of small-pox inoculation…No remuneration was ever looked for by them." He claimed doctors in Britain, "Cheerfully gave up a very profitable branch of business in the contemplation of the benefit accruing to the public from the extension of this happy discovery." Of Indian healers he claimed, "No such laudable and disinterested conduct can, however, be expected from ignorant Bengalese inoculators; to whose selfish and sordid perceptions, as to those of most of his countrymen, the idea of a *public* is, I believe, totally unintelligible."[232] Shoolbred's analysis obscures the different reasons doctors in England adopted vaccination and ignores the extent to which inoculation was still practiced there.

The context in which vaccination expanded in Britain was historically contingent, and Shoolbred's dismissal of Indian healers as 'greedy' ignored the context in which inoculation and vaccination spread. Inoculation continued in England in the first half of the nineteenth century and was not outlawed until 1840. It was more intensively practiced in rural areas which had little access to vaccine lymph and trained physicians. The shift from inoculation to vaccination was a slow, piecemeal process in Britain occurring over decades. Doctors also stood little chance of losing their income. If they had once inoculated, they could now charge for vaccination. Or, if inoculation had been done by a

[232] Shoolbred, *Report*, 67.

non-medical person, vaccination could actually give doctors a new income source and a way to tout their superiority over 'unorthodox' practitioners. Vaccination also enhanced the role of medical men who were trying to raise their status. Vaccination offered numerous professional benefits for British doctors. For Indian healers, there was little social, economic, or medical incentive to alter their practices. Without the support of the traditional healing class, vaccination remained a foreign operation without wide adoption.

The first experience Indians had with vaccination was through a system designed to use their children to house disease for the benefit of Europeans. The British first brought vaccination to India to protect the European population, and doctors experienced numerous failures in the effort. It took several tries to bring the lymph from England to India as the harsh conditions of travel killed the active property of the lymph. Finally in 1802, vaccine lymph was kept live from England to India by successive vaccinations of children on board ship, arriving in Madras in November of that year. Dr. Anderson, Physician-General at Madras, performed several vaccinations that he deemed wholly successful. Eventually the lymph made its way to Calcutta, and doctors vaccinated all of the European children in the city and nearby medical stations. However, "when the European children at those stations had all been inoculated, the disease was in most instances lost."[233] Doctors needed native children to incubate the disease. Vaccinators were established at eight different stations to vaccinate Indian children on a strictly voluntary basis. In his 1805 Report, Shoolbred wrote that they could have vaccinated more children but, "as the principal object with them has hitherto been to establish a secure and permanent system of keeping up the disease, it was more advisable to

[233] Shoolbred, *Report*, 8, 4.

inoculate a few only at each time."[234] This alone may have doomed vaccination from being accepted by the bulk of the Indian population, but the greatest distrust arose from the number of vaccination failures and the British response to those failures.

Vaccination failed more often in India than it did in Britain, leaving children in danger of contracting smallpox. Shoolbred's treatise remarks on numerous times the lymph failed due to poor source vaccine, weather, and other factors.[235] Doctors did not understand why lymph was unsuccessful at some times and productive at other times. Weather appeared to be a factor and vaccination in India became seasonal, performed in roughly the same months as inoculation. Since doctors themselves could not explain vaccination failures, for Indians the failures appeared random and further instilled the idea that vaccination was less effective than inoculation. To choose a proven measure, inoculation, over something new that had shown itself time and time again to fail was hardly irrational. While British doctors were concerned over the prestige of vaccination, they ignored the human cost of unsuccessful vaccination. Smallpox was a deadly and disfiguring disease that was endemic to India and rose to epidemic proportions every few years. Bad or unsuccessful vaccination meant more deaths for children and a larger proportion of blindness and disfigurement.

British doctor were callous in their review of vaccination failures, more concerned with establishing vaccination and furthering their professional interests than with acknowledging the costs of their failures. In Shoolbred's *Report*, he wrote of a day in which "my Bramin (sic) came to me with marks of great disappointment and concern in

[234] Shoolbred, *Report*, 10.
[235] Shoolbred, *Report*, 33-44.

his countenance." The man told Shoolbred of a child that had been vaccinated who had now apparently taken smallpox. Shoolbred wrote, "I immediately turned to my register, and found that even if the alleged fact were true it could not affect the character of vaccine inoculation, because opposite to the name of the boy was the mark of doubtful success." While this cheered Shoolbred, it hardly comforted the child's family. Shoolbred investigated the case and claimed the eruption was chicken-pox, not smallpox. Here we have only Shoolbred's diagnosis, and it is a biased one. Medical professionals often misdiagnosed chicken-pox and smallpox of the milder sort. As late as the 1860s, doctors in England still mistook the two diseases.[236] In his desire to promote vaccination, there is at least the possibility that Shoolbred himself was mistaken in his diagnosis. Whatever the truth, Shoolbred took this as further proof of British superiority over Indian medics. He wondered "how the Bramin (sic) could have been mistaken." He claimed, "I have been particular in stating this circumstance, in the first place, to shew that there would be no backwardness in bringing forward any fact to the discredit of vaccine inoculation if any such existed; and in the next, to prove how little these people really know about the diseases they pretend to treat."[237] This anecdote further proved to Shoolbred that vaccination was too important to be left in the hands of any but a British medical officer.

4.2 From Enclavism to Expansion, 1805-1850

By the 1830s, vaccination in India was still a mostly enclavist operation and the needs of the European population drove public health policy. However, the inability of vaccination to completely protect Europeans, the growing intensity of smallpox

[236] Difficulties deciphering between chicken pox and smallpox occurred in the 1840s as shown by Stewart's 1844 Report discussed below. The Medical Officer of Health Reports for London also contain instances of faulty or unsure diagnosis.
[237] Shoolbred, *Report*, 64-65.

epidemics, and lobbying from doctors began to push the state towards more robust vaccination attempts. From 1827 to 1844, India suffered a number of smallpox epidemics and their size and frequency worried British officials. Bengal suffered a particularly virulent epidemic in 1844, its most severe since 1796. As the European community "increased in wealth and number," they grew concerned over the intensity of the disease, and it caused "panic" among the local people.[238] Vaccinating Europeans, a small minority of the population, was insufficient to protect the European population and to ensure revenue accumulation continued. Tax revenue was, after all, the *raison d'etre* of the East Indian Company's presence. It was during this crisis that Duncan Stewart, a doctor in the employ of the EIC, submitted a new report on smallpox in India. Despite its prevalence, the average British medical man saw relatively few cases of smallpox because the bulk of his work lay with Europeans and elite classes of 'East Indians' and a handful of Calcutta Indian families.[239] Stewart's Report attempted to provide an overview of smallpox and vaccination in Bengal, explain the growing virulence of smallpox, and offer recommendations to the government for future action.

To curb the epidemic, particularly among the poor, the government established a series of smallpox hospitals that show the difficulty of trying to enforce British medicine from above. The hospitals were under the authority of British doctors but they were not responsible for the daily running of them nor for patient care. This was done by Indian men who had some medical training, but not to the level of a British doctor. These men were not drawn from the traditional medical castes of Bengal so their status did not

[238] Duncan Stewart, *Report on Smallpox in Calcutta, 1833-34, 1837-38, 1843-44 and Vaccination in Bengal from 1827-1844* (1844), 17, 19, 4. wellcomecollection.org. (Accessed November 2019).
[239] Stewart, *Report*, 1.

inspire confidence in the Indian people for whom the hospitals were meant. Stewart's Report described the native "youths" overseeing the hospital as "anxious to be useful" to the British, but "unused to management." As a consequence, the hospitals managed to be "nearly tenantless" yet still with a "considerable" mortality.[240]

British medicine in India, as evidenced by the smallpox hospitals, greatly relied on Indian intermediaries for its diffusion, but the goal of the medical community to keep British medicine under their authority hamstrung efforts to extend it to the Indian masses. Doctors limited the natural diffusion of British medical ideas and practices by refusing to allow positions of authority to go to traditional power holders such as the Brahmin or other medical practitioners. The limited spatial reach of British medicine also meant there were few opportunities for new ideas to trickle down to non-elite practitioners who could then incorporate them into traditional, trusted practices. This is not to say that transmission and syncretism did not occur. But it is to note that British doctors themselves inhibited the natural diffusion of new practices and ideas. British medicine in India was to remain in the hands of British doctors.

From the time of Shoolbred's 1805 report to Stewart's investigation in 1844, British ideas about their superiority and Indian inferiority had hardened. This meant that vaccination, as a British prophylactic, carried layers of meaning along with it. Vaccination was a symbol of British superiority. The world, particularly the colonized world, was "indebted" to Britain for their great prophylactic.[241] And it was a sign of Indian "enlightenment" to choose vaccination and British medicine.[242] Vaccination was

[240] Stewart, *Report*, 6, 9.
[241] Stewart, *Report*, 132.
[242] Steward, *Report*, 167.

so obviously a preferable operation that British doctors expected Indian elites to be the first to choose vaccination. From there they assumed it would trickle down to the masses. Yet this was not the case. Indeed, Stewart was shocked to note, "The rich and higher classes, unless when enlightened by European education and habits, invariably prefer the prescriptions of their own Hukeems and Byds to those of our Physicians."[243] This confirmed British biases that Indians could not be trusted to make rational decisions. Rationality was a British trait. The need for enlightenment was for the Indians. Rejection of vaccination was proof Indian people could only hold a subordinate status and needed the guidance of British leaders.[244] This left Indians with only two roles in the British imagination: they could be prejudiced and superstitious or they could be enlightened through experience with British culture.

By 1850, doctors had still shown themselves unable to check the spread of smallpox and blamed inoculation, still practiced by traditional healers, for the repeated outbreaks of the disease. The continued epidemics worried the British, and they launched a commission on smallpox with the primary goal of finding out if inoculation was indeed the cause of outbreaks as many doctors claimed. Following the Commission report, the EIC decided to provide vaccination in the more populated areas. But the Court of Directors stopped short of outlawing inoculation or making vaccination compulsory, two recommendations from the British medical community. However, it made vaccination a government priority in all three presidencies. This mandate grew to encompass all of the populated areas of India, though vaccination would never reach into India's rural areas.

[243] Stewart, *Report*, 167, 132, 209.
[244] Stewart, *Report*, 9, 49. British doctors in India routinely stated in later vaccination reports that European supervision was necessary for vaccination to succeed. The idea that Indian people could not be trusted in matters of vaccination became an accepted fact among British doctors.

The 1850 Commission and subsequent state action marked a new point in the public health history of India. It was an acknowledgement by the government, first the East India directors and later the Crown, that the health of Europeans was intertwined with the health of the native people and established the people's health as a government priority. However, the competing goals of the state, doctors, and Indians resulted in uneven growth across the sub-continent.

4.3 Vaccination Departments: Presidencies and Provinces

The government established multiple vaccination departments and each one followed a different course as doctors tried various organizational methods. Vaccination was not made compulsory until 1877 in the Bombay Presidency and from there it became compulsory in many more areas. In 1880, the British outlawed inoculation but was most likely still practiced in the hinterlands. Vaccination never made incursions outside of the densely populated areas which housed the European population and industries. Densely settled, high revenue extraction farming areas, particularly in Bengal, were targets of British vaccination efforts. But there was never an all-India vaccination push that reached even a majority of Indians. In the areas where the British pursued it, however, vaccination became a significant intrusion into Indian people's lives.

Ending inoculation was an uphill battle as it had cultural, religious, and economic ties. In 1880, inoculation was declared illegal in Bombay and Sind with other parts of India following suit over the next decade. The outcome was to create a thriving black market for inoculation involving all classes of people. Inoculation was more than a medical procedure. Inoculation was tied into local economies in numerous ways and loss of revenue affected more than inoculators. Local zemindars were part of the inoculation

economy. They would farm out the right to inoculate a certain area to an inoculator, and he would receive rent free lands to work during the down season. In exchange, the zemindar got a portion of the inoculator's fees. Inoculation was also a religious rite, so local Brahmin priests received money before and after the inoculation for services and pujas even if they did not perform the inoculation.[245] All of these incomes were lost as the British cracked down on inoculation. But new opportunities for profit arose. Local Patels and headmen were paid "hush money" to ignore the activities of inoculators even before it became a penal offense.[246] In Rungpore, in 1871, the British discovered that inoculation was being "carefully concealed by police" possibly for a small remuneration.[247] It is hard to know exactly how widespread this shadow economy was. What we do know is that these instances are not isolated. They appear often in official reports and were a concern for the Vaccination Department. Inoculation carried a dense collection of meanings that built up over time. British efforts to replace inoculation with vaccination, without allowing the practice to diffuse naturally, created the very resistance that hampered their public health efforts.

As the center of British power, the Bengal Presidency had the longest history of offering some form of vaccination. The vaccination reports and pamphlets of the first half of the nineteenth century dealt almost entirely with Bengal. Despite, or possibly because of, the strong presence of vaccination, doctors in the Presidency faced significant resistance. A vaccination department was first established in Bengal in 1828 but had to be

[245] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1882-83* (1883), 22.
[246] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1864* (1865), 10.
[247] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal, for the Year Ending 31st March, 1871* (1871), 21.

reorganized in 1830 due to defalcations and fraud. In 1837, vaccine stations were attached to dispensaries which increased the numbers of those vaccinated. These dispensaries were largely run by Indians with medical training, but serving in subordinate positions under civil surgeons—British doctors who were granted an allowance for managing them. Educated native sub-assistant surgeons were placed in immediate medical charge, and two or three subordinate assistants capable of performing vaccination were also attached to the establishment. This became known as the "dispensary system of vaccination" or the "Calcutta system."[248] In 1853, when Bengal officially launched the "Calcutta system" the city was:

> …divided into three districts, to each of which a Superintendent and staff of vaccinators were appointed. It was the duty of the Superintendent to go from house to house trying to overcome the objections of the people by persuasion and explanation, and by bringing vaccinators to their doors. Every vaccinated person was personally inspected by the Superintendent and the soundness and purity of the operation ascertained beyond doubt. The whole was superintended by the Superintendent-General.[249]

Despite this new level of supervision vaccination in Bengal struggled. Over 34 years, the government spent 3.5 million rupees trying to promote vaccination. Despite the expenditure and the long history of vaccination in Bengal the "popularity and progress of vaccination" in Madras and Bombay stood in "marked contrast" to its "unpopularity and decline" in Bengal.[250]

In part, Bengal's failures were due to reliance on former inoculators to keep down costs. In 1874, Bengal began a system of licenses granted to former inoculators and funds granted for supervision of their work. By 1878/79 there were 975 ex-inoculators and only

[248] Stewart, *Report*, 22-23.
[249] S.P. James, *Smallpox and Vaccination in British India* (1909), 22-24. wellcomecollection.org. (Accessed November 2019).
[250] James, *Smallpox and Vaccination*, 24.

455 vaccinators.[251] Turning inoculators into vaccinators was more difficult than doctors initially assumed. While the operations were nearly identical, the quality of the men and their performance was not always high. Doctors complained their department struggled to the get the 'best men.' Some physicians argued that Hakeems refused such work because manual labor was "below their dignity as physicians."[252] While there may have been some truth to the claim, it is more likely that, as one doctor observed, "These (intelligent hakeems) are not likely to be enticed into the drudgery of public vaccination."[253] The work was long and required the vaccinator to travel around a municipal district for low pay. In the early years they were given no travel *batta* (remuneration for food/lodging). The British assumed their 'fellow countrymen' would be glad to house and feed native vaccinators for the great service they performed. But many of the vaccinators came from other areas and some did not speak the language of the people they vaccinated. The British belief that these men would be received as native countrymen was at fault, and they did not adequately account for the importance of regional identities.

Vaccination did not progress smoothly through Bengal. Many villagers resisted vaccination by making the work of the vaccinator more difficult. The native vaccinator would sometimes be forced to skip meals or pay exorbitant prices and sleep outside along their route. The pay was low (though this improved somewhat over time) and in the early years there was no pension. Once a vaccinator became too ill or old to work, they were

[251] James, *Smallpox and Vaccination*, 30.
[252] IP/30/VA.3. *Annual Report on Vaccination in the North-West Provinces for the Season 1869-70* (1870), 3.
[253] IP/30/VA.3. *Annual Report on Vaccination in the North-West Provinces for the Season 1872-73* (1873), 40.

cut off from the vaccination department.[254] The pension problem was rectified fairly quickly which allowed for greater retention of vaccinators, but physicians felt that low pay kept out the better sorts. This led to the hiring of inoculators of "bad character" with an "intolerance of discipline" that tended to cause trouble in the ranks of the native vaccinators.[255] There was also a concern (not unfounded) that former inoculators were performing inoculation under the auspices of vaccination. By the 1880s it was rare for the vaccination department to hire former inoculators. But despite the efforts to stamp out inoculation, it flourished and, by some calculations, grew stronger under British efforts.[256]

Bombay began its own system of vaccination in 1827 under the leadership of Governor-General Lord Elphinstone. The Governor-General organized four 'circles' or divisions, to each of which he appointed a European Superintendent of Vaccination with native vaccinators under him. In an overview of Indian vaccination written in 1909, S.P. James wrote, "In Bombay, the European Superintendent spent his time touring through all the towns and villages where his establishment of vaccinators worked. On his arrival at a town or village he had all the vaccinated children brought to him and assured himself of the soundness of the operation."[257] This sort of close examination was considered the key to Bombay's success and its absence the "great fault" of other systems. The British Superintendents reported only to the Medical Board of Bombay, not to any local controls or civil or military government. They were furnished with medical supplies to positively

[254] IP/30/VA.3. *Annual Report on Vaccination in the North-West Provinces for the Season 1872-73* (1873), 40.
[255] IP/6/VA.3. *Report on the Vaccination Proceedings throughout the Government of Bengal 1868* (1868), 18.
[256] Naraindas, "Care, Welfare, and Treason," 70-72.
[257] James, *Smallpox and Vaccination*, 21.

associate vaccination and medicine in the minds of Indian subjects. Vaccinators were also provided with six or eight peons who would collect the people, though the use of peons was a source of conflict and eventually ended. Native vaccinators, those doing the bulk of the actual vaccination work, received between Rs.10 and 18 a month, and brought vaccination "to the doors of people—too lazy, too poor, or too ignorant to seek for it," as one commentator put it.[258] As vaccination spread into other Presidencies and territories, departments included Bombay's system of surveillance.

In 1854, doctors introduced the Bombay system into the North-West Provinces. The process of vaccination was as follows:

> To every tehseel in the North-West Provinces one vaccinator is attached; and in every city where there is a municipality, composed of enlightened commissioners, one, two or three municipal vaccinators are employed. To about every twelve vaccinators there is a native Superintendent or head vaccinator, and to every 50 or 60 vaccinators a European Superintendent (a medical officer).

The daily routine of the European Superintendent was described in detail by Dr. Pearson, the Superintendent of Vaccination in Rohilekund and Kumaon Districts:

> The European Superintendent proceeds to the village where the vaccinator had operated the previous seventh or eighth day; he then calls for the village record from the putwaree, zemindar, or chowkidar, and summons all the children whose names have been entered therein as vaccinated seven or eight days previously; the results are inspected and verified; faults pointed out; instruments examined; the vaccinator's capacities and character ascertained; and the people addressed. This round of duties goes on from day to day throughout the whole vaccine season. The native Superintendent is also perpetually on the move, employed on the same duties, and in this manner every vaccinator gets visited several times during the season. The check against falsification of returns, by repeated inspection of the vaccinator's diary and the return left in the village (which should correspond) is as complete as any check can be; and I have no

[258] James, *Smallpox and Vaccination*, 21.

> hesitation in declaring that the system works well and honestly; and I make this declaration after an experience of twelve years.[259]

In 1856, the system was extended through Agra. In 1864 it spread through the Punjab and Central Provinces and in 1869 to Oudh.[260]

Madras had its own vaccination department and experimented with different methods. Like Bombay, it had had vaccination efforts since the 1820s, and these efforts were more successful than those of Bengal. However, one of the most consistent problems over the nineteenth century was fraud. Reports repeatedly accused Native Vaccinators of falsifying their records in order appear more successful. Doctors and government officials assumed a lack of British supervision over their subordinates was the problem. In 1865, Madras adopted the Bombay system of surveillance, but allegations of fraud and distrust between European Superintendents and Native Vaccinators grew over the next half century.[261]

By 1869, systematic reports for all divisions were sent to the central Vaccination Department and vaccination, in essence, covered all of British India.[262] In 1877, after years of demand from doctors, vaccination became compulsory in Bombay and in 1880, Act XII of the Government of India gave regional governing bodies the power to prohibit inoculation and make vaccination of children compulsory in certain municipalities and cantonments.[263] It is important to stress that the compulsory aspect of vaccination in India

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[259] IP/30/VA.3. *Annual Report on Vaccination in the North-West Provinces for the Season 1870-71* (1871), 8.
[260] James, *Smallpox and Vaccination*, 28, 29.
[261] James, *Smallpox and Vaccination*, 28.
[262] James, *Smallpox and Vaccination*, 30.
It is beyond the scope of this project to also consider the Princely States and some of the territories with large 'Tribal' populations. For some information on these areas see Biswamoy Pati, "Siting the Body: Perspectives on Health and Medicine in Colonial Orissa," *Social Scientist* 11/12 (1998), 3-26.
[263] James, *Smallpox and Vaccination*, 30-32.

affected a relatively small portion of the population. A 1909 vaccination report pointed out that over 214 million people still lived in areas in which vaccination was optional.[264] It is also important to note the weak machinery for compulsion. The punishment part of compulsion relied on local and municipal governments to mete out punish to vaccination defaulters. This they often failed to do. For example, in Assam in the 1890s there were 600 notices for defaulting sent out to parents. Of these only twenty-five were prosecuted and only two of these prosecutions resulted in punishments.[265] The British vaccination efforts depended heavily upon local intermediaries for success. British doctors distrusted these intermediaries even as they relied upon them.

4.4 Native Intermediaries

British imperial medicine, like other areas, functioned through a system of native intermediaries. In fields such as law and taxation, historians have shown the myriad ways Indians transformed the British system into something unique and not always what British rulers intended.[266] In medical historiography, significant focus has been on the battles between elite Indian healers—Hakims and Vaids—and British doctors.[267] There has been less attention paid to how Indians functioned within the Anglo-Indian medical

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[264] James, *Smallpox and Vaccination*, v, 34.
[265] James, *Smallpox and Vaccination*, 36.
[266] C.A. Bayly, *Indian Society and the Making of the British Empire* (Cambridge: Cambridge University Press, 1988). Irfan Habib, *The Agrarian System of the Mughal Empire, 1556-1707* (New Delhi: Oxford University Press, 1999, 1963). Peter Marshall, *East India Fortunes: The British in Bengal in the 18th Century* (Oxford: Oxford University Press, 1976). Burton Stein (Ed.). *The Making of Agrarian Policy in India* (Oxford: Oxford University Press, 1992). Christopher Baker, *An Indian Rural Economy, 1880-1955: The Tamilnad Countryside* (Oxford: Oxford University Press, 1984). J.D.M. Derrett, *Religion, Law and the State in India* (Oxford: Oxford University Press, 1999). Robert Frykenberg, *Land Control and Social Structure in India* (Madison: University of Wisconsin Press, 1969).
Prasannan Parthsarathi, *The Transition to a Colonial Economy* (Cambridge: Cambridge University Press, 2001).
[267] Chittabrata Palit and Achintya Kumar Dutta, *History of Medicine in India* (Kolkata: Corpus Research Institute, 2005). Poonam Bala (Ed.), *Contesting Colonial Authority* (Plymouth, UK: Lexington Books, 2012).

system.[268] Low and medium skilled Indian people were vital to the workings of British medicine. Low caste people and so-called 'untouchables' dealt with cadavers and medical waste. Dispensaries and Civil Hospitals were staffed by Indians with moderate training who occupied an inferior status to British doctors.[269] Native Vaccinators rarely had formal medical training and neither did their Native Supervisors. Vaccination was treated like a trade; the only training on how to perform the operation and how to keep a register. But the people who did the actual work were rarely drawn from professional classes due to the poor pay and hardship of travel. British doctors both relied on and distrusted their staff including the Native Supervisors tasked with overseeing the Vaccinators. Distrust characterized the workings of the entire Vaccination Department hindering relationships between doctors, Native Superintendents, vaccinators, and ultimately the public.

There were two tiers of Indian workers in the Vaccination Department: Native Vaccinators (NV) and Native Superintendents (NS). Not originally part of the 'Bombay System,' the North-West Provinces established Native Superintendents in their jurisdiction and other areas swiftly adopted the practice. Ideally, Native Vaccinators would go out through their assigned districts and vaccinate. Eight days later they would return to these areas and verify the number of successful vaccinations. The Native Superintendents would visit some of these cases and compare the success rate with that of the records submitted by the NV. The British Superintendents would act as a backup to the NS and help them verify the numbers and also operate as a check on the NS to ensure that they were also honestly reporting on and keeping their vaccinators in line. This was

[268] Ryan Johnson and Amna Khalid, *Public Health in the British Empire: Intermediaries, Subordinates, and the Practice of Public Health, 1850-1960* (New York: Routledge, 2012).
[269] Hayes, *Fit to Practice.* Roger Jeffery, "Recognizing India's Doctors: The Institutionalization of Medical Dependency, 1918-39," *Modern Asian Studies* 13/2 (1979), 301-326.

how the system was supposed to operate. In reality, the system rarely worked along these lines.

And Native Vaccinators and their Supervisors were made to shoulder the weight of the failure of the vaccination department. One doctor wrote that "good NS are the backbone of the system...to their influence we have to look for the removal of prejudices on the part of the people."[270] In the Central Provinces, another doctor wrote that "ill-feeling and opposition usually arise from the unpalatable manner in which vaccination is conducted."[271] When people attacked vaccinators, doctors assumed a "lack of tact" on the part of the vaccinator.[272] Vaccinators were seldom from the areas they serviced and some vaccinators did not speak the vernacular of the people they served, though this became a later requirement of service. No doubt the differences in language, caste, and culture created difficulties for vaccinators, and even well-meaning vaccinators could easily offend the populations they operated on. As much as doctors claimed that they did not want vaccinators to offend the feelings of the people by forcing vaccination, they accused vaccinators of being too lax if their numbers were low. Native Vaccinators could face fines or demotion for low numbers. In Bengal, one doctor claimed a vaccinator "succumbed more readily than he should have done, to the opposition made."[273] In Bombay and Sind, doctors did not believe that the "hindrances" to vaccination were "so great as they are stated to be."[274]

[270] IP/30/VA.3. *Annual Report…N.W. Provinces, 1866-67* (1870), 4.
[271] IP/30/VA.3. *Season of 1873-74, Returns of Vaccination for the North-Western Provinces* (1874), 2.
[272] IP/19/VA.3. *Report on Vaccination in the Central Provinces during the season 1881-82* (1882), 17.
[273] IP/6/VA.3. *Report…Bengal* (1868), 11.
[274] IP/13/VA.3. *Bombay Presidency and Sind, 1870-71* (1871), 10.

Native Vaccinators and Supervisors occupied a difficult space. British physicians distrusted their honesty and their work ethic. The system was punitive in the way it deducted fines and this already arbitrary system was almost entirely in the hands of one or two British doctors. On the other end, they experienced assault as they tried to work in populations who distrusted vaccination. No doubt some of the vaccinators were callous and cruel. Some of them attacked women in their homes and injured their children. But many of them, even in good conscience, faced a monumental task trying to be a bridge between the vaccination department and the population.

By the 1890s, physicians in the Vaccination Department were forced to concede that they were not making the progress they had predicted despite compulsory laws in many areas. They blamed Native Vaccinators and their Native Supervisors. In 1879, one doctor argued that ignorance was the primary reason that people rejected vaccination and that "it will be to a great extent overcome by the appointment of permanent vaccinators in each district."[275] In the Central Provinces, one doctor argued, "When a vaccinator is unable to induce villagers to vaccinate their children, the fault lies with the vaccinator."[276] NV and NS were advised to be amenable to the people being vaccinated. Doctors urged them to avoid giving unnecessary inconvenience to the mothers. And departments created new handbooks and protocols were for the NV. While doctors were willing to find fault with the NV and NS, there was little structural change to the department, nor did doctors acknowledge that their methods or their prejudices had created the opposition they were seeing across India. They devolved greater

[275] IP/32/VA.3. *Report on Vaccination Operations in the Punjab during the Year 1879-80* (1880), 3.
[276] IP/19/VA.3. *Notes on Vaccination in the Central Provinces for the Season, 1908-09* (1908-11): 3.

responsibility for vaccination on local governments and moved on to more scientific pursuits such as making the vaccine lymph in stations popping up across the country. After nearly a century of failure, the Indian people were left with inadequate, untrustworthy public health institutions, but India offered excellent prospects for medical men interested in the burgeoning field of 'tropical medicine.'

Conclusion

British medicine in India began with the conservative aim of protecting the health of the European population and military personnel. Though vaccination was brought to India early, it was with the express purpose of protecting white bodies, going so far as incubating the disease in Indian children for the good of the British population. As smallpox continued to be a problem, affecting the British and threatening revenue collection, the mandate extended outward toward more of the Indian population. Doctors were determined to use vaccination to prove their superiority over local healers and to show their value to the state which refused to legislate public health as stringently as doctors requested. By mid-century, roughly at the same time as England, vaccination became a priority and eventually reached across all of India. In this process, doctors created resistance to the prophylactic by alienating trusted healers and relying on poorly paid and poorly trained vaccinators. Doctors refused to allow vaccination to diffuse naturally through society because it was too important to their efforts to professionalize. They would only partner with Indians who remained subordinate, people who had neither medical nor caste standing in the communities they worked in. As resistance grew across the sub-continent, Indian vaccinators and superintendents became scapegoats for British

medical failures while British medical men expanded their profession through the new field of tropical medicine.

5.0 'Some People Hid Their Children':

Group Identity, Resistance, and Accommodation

Introduction

In 1864, in the village of Parool, in the Dhunniakhally Thannah, a woman declared herself possessed by the goddess Sitala. On behalf of the goddess she opposed the operation of vaccination. One British report claimed that "amid incoherent ravings [she] denounced the vaccinators and prophecied (sic) that every one they operated on would die." In Parool that year only three people received vaccinated. However, in the following year nearly the entire village of Parool was vaccinated without issue. The woman "possessed" of "Sittolah" even assisted the vaccinators after saying that "Sittolah" had given her permission to do so.

In 1869, in Bengal another story of possession by Sitala reached the British Superintendent of Vaccination for the district. He recorded it in his yearly register. In the Shampore Thannah the wife of a local priest of "Sittolah…believed herself to have been possessed or inspired by the goddess and to have been of considerable assistance to the vaccinators." She claimed "with violent gesticulations and fervor" to know the will of the goddess and made these declarations in "a state bordering on ecstasy." She made it known that the vaccinators were "commissioned by the goddess to stay small-pox and ordered that food should be given to them, and that the people should accept their services."

In Shampore Thannah, the site of the cooperative 'Sittolah' we receive the narrative from the Native Superintendent of Vaccination, Baboo Jadub Chunder Ghose, a

rare time when a Native Superintendent was quoted at length in a vaccination report. Chunder Ghose summed up the 'Sittolah' as follows:

> A Brahmin woman in the village Nowleah, the wife of a priest of the goddess Sittolah, finding that it was too late to make any opposition and that the surrounding villages had all been vaccinated, and that she could not any longer keep her stand against vaccination, and also with a view to keep up her earnings, gave out that she had been inspired by the goddess on the usual Poojah days.

The original eye witness, Hurrish Chunder, a vaccinator under Chunder Ghose's supervision "found her suddenly falling to the ground insensible, rising up again and saying that she had sent word to *Maharanee* (Queen Victoria) to send vaccinators to Shampore Thannah and to vaccinate the children, and that the vaccinators had accordingly come and were vaccinating." She claimed that a Government vaccinator was already there waiting. The priest, the husband of the woman, asked if there was a government vaccinator present. "Hurrish Chunder who stood by to witness this inspiration, was pointed out as having been deputed to the spot." Presumably a few vaccinations happened that very moment. Yet the British Superintendent was quick to note, "The influence exerted by the woman was restricted to very narrow limits. Otherwise, the ravings of such a fanatic would have exercised a salutary effect on making the population willing to receive the vaccinators."[277]

The Superintendent recounting the event compared the possessed woman at Shampore Thannah to the "descriptions of the orgasms of the Pythia at the Delphian temple" thus relegating ecstatic religious displays to the ancient past. Such actions were irrational and unmodern and fit easily into the British narrative of superiority over

[277] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal…for the Year Ending 31st March 1869* (1869), xxi.

‘superstitious natives.’ The Superintendent questioned how much effect these women had on the process of vaccination. He dismissed the possessed woman in Parool as simply following her neighbors after the fact once public opinion was in favor of vaccination. But this begs the question, did people refuse vaccination at Parool because of the warnings of ‘Sittolah,’ or were her warnings indicative of the feelings of the people toward vaccination? Was spiritual ‘possession’ a way to capture some autonomy in the vaccination process? Did these ‘Sittolahs’ speak for the community?

The British assumed Indian people blindly followed religious elites and that indigenous prejudices were the guiding force behind resistance to vaccination. So deeply was the myth embedded in their minds that they routinely rejected evidence against this narrative. The British attachment to myths of Indian superstition caused them to ignore the many reasons why Indians rejected vaccination. In these two stories of ‘Sittolah’ there is evidence that it was the people, not religious elites, who guided public opinion about vaccination. Religion, in many contexts, was a reflection not a cause of the beliefs and desires of the people. For the most part, people followed religious leaders because their message reflected their own way of understanding the world. In looking at religious objections to vaccination we must examine the wider context of resistance without a narrow focus on one aspect. Failure to do so causes historians to reinvent and give credence to the idea that Indians were more gullible and malleable than other groups. In this chapter, I argue that layers of identity—class, caste, gender, ethnicity, etc.—informed how and why different groups resisted or accepted vaccination and why using a religious idiom and specific cultural tropes was often a preferred way of expressing dissent.

The assumption of this chapter is that Indians were no more religiously or culturally motivated than their British counterparts and that their use of religion was a rational response to a powerful, at times coercive, vaccination system. This is not to claim that religion was instrumentally wielded for personal or material gain as the British often insinuated. Religion took on a central role in so many Indian debates because the British denied Indian people other outlets of expression and because the British were looking for evidence of primordial native superstition. There is little evidence that people made decisions about vaccination for purely cultural or religious reasons. Resistance to vaccination arose out of concerns over its safety, a desire for autonomy, and distrust of British motives. There was no one 'Indian response' to vaccination. What emerges from narratives across India are numerous approaches to the operation that were guided by rational decision-making and informed by the role each person held in society. What was common in these accounts were fears of displacement and replacement and an expression of these fears in religious and culturally specific language.

5.1 Indians and British Medicine

Doctors and British officials assumed Indians rejected vaccination from irrational prejudice and distrust of anything new, but this accusation does not bear up under scrutiny. As noted by historian Deepak Kumar, Indian science and medicine were never xenophobic.[278] India was part of a vibrant culture that experienced flows of information and goods throughout the country and the medical systems reflected this diversity. Indian people, more than their English counterparts, were exposed to a range of medical ideas

[278] Deepak Kumar, "Probing History of Medicine and Public Health in India," *Indian Historical Review* 37/2 (2010), 260.

and practices brought from outside the subcontinent. This was especially the case along the coasts and in provincial trading centers. Medicine in eighteenth century India was vibrant and eclectic. Indians pursued a variety of options in making health decisions. This included elite Brahmin Hakeems and Muslim Vaids, but it also included lower caste members that might perform a simple task (such as inoculation), herbalists, *dais* (midwives), 'wise women,' and unlicensed practitioners of allopathic medicine. The British brought changes to the medical landscape. Elite medical practitioners lost patronage as British doctors took most of the government positions and funds. This was a slow process though, and the Hindu and Muslim elite responded to British medical incursions with a vigorous professionalization process of their own. They blended allopathic and traditional practices and eventually received state licensure and founded professional colleges.[279]

Vaccination reports often accused Indians of being 'prejudiced,' prone to 'fatalism,' and unduly attached to tradition, but these same reports show that Indians gladly took advantage of Western medicine when they could do so on their own terms. In fact, British medicine was so popular that doctors tried to leverage its popularity to promote vaccination. We saw in the last chapter that the British sought to associate the idea of vaccination with medicine. They assumed that Indians would be so impressed with vaccination that it would make them more likely to convert to British medicine. By the mid-nineteenth century the failures of vaccination caused the British to reverse course. They hoped a judicious offering of medical aid would convince people to adopt

[279] Kavita Sivaramakrishnan, *Old Potions, New Bottles: Recasting Indigenous Medicine in Colonial Punjab, 1850-1945* (Hyderabad: Orient Longman, 2006). Partha Pradip Adhikari, "History of Indian Traditional Medicine: A Medical Inheritance," *Asian Journal of Pharmaceutical and Clinical Research* 11/1 (2018): 421-426. Jeffery, "Recognizing India's Doctors," 301-326.

vaccination. In Bombay in 1856, one British vaccination official offered medical aid to the sick in order to "associate the idea of Medical aid with vaccination."[280] In the Punjab in 1869, one doctor noted that the people were "very eager for medical aid."[281] Two years later in the same locale the British Vaccination Superintendent Isaac Newton claimed he "won their hearts" by giving them the advantage of European medical aid.[282] Similar statements came from vaccination reports in Bengal and the Central Provinces.[283] Clearly Indian people were open to allopathic medicine. Yet twenty years after Indians in the Punjab were 'very eager' for Western medicine, officials still talked about "the tendency of the natives to view any new movement with distrust" as "part of their nature."[284]

Indian people did not reject Western medical treatment outright, rather, they wanted to be participants in their health decisions, not docile subjects. Rejecting vaccination was a repudiation of a specific operation, not the entire medical system. Resistance was based on a number of factors including gender, caste/class, and political affiliation. Whether people lived in rural or urban areas, their relationships to landlords, pecuniary considerations, and the type of work they did, all factored into who adopted and resisted vaccination. In the following section I will examine specific instances of vaccination accommodation and resistance and show how group identities shaped responses to vaccination.

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[280] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind for the Year 1856-57* (1858), 17.
[281] IP/32/VA.3. *Proceedings of the Hon'ble the Lieutenant Governor, Punjab* (1869), 11.
[282] IP/32/VA.3. *Report on Vaccination Operations in the Punjab during the Season 1870-71* (1871), 4.
[283] IP/19/VA.3. *Report on Vaccination in the Central Provinces for the Year 1873-74* (1874), 26. IP/6/VA.3. T.E. Charles, *Report on the Vaccination Proceedings under the Government of Bengal for the Year Ending 31st March 1870* (1870), 3. K.P. Gupta *Report on Vaccination in the Province of Bengal for the Year Ending 31st March 1874* (1874), 21.
[284] IP/32/VA.3. *Report on Vaccination in the Punjab for the Year 1890-91* (1891), 3.

5.2 Elite Responses: A Failed Partnership

In the last chapter I discussed the importance of Native Vaccinators and Native Superintendents in actually delivering the vaccination technology. But there were a host of intermediaries the British relied on to further the prophylactic. These included municipal authorities, police, and other rural and city elites. Some of these occupied positions of power bestowed by the British and for this reason doctors and the state expected them to aid vaccinators as part of their duties. Others were traditional power holders who occupied positions as brokers of British power such as rural *tahsildars*, *zemindars*, etc. They worked as intermediaries in collecting taxes and ensuring revenue streams, but British doctors expected them to be partners in the work of vaccination. There is no one way to characterize the response of these intermediaries. There were a range of responses across India, but British vaccinators often complained local intermediaries were not doing enough to ensure the success of vaccination. The often passive resistance of intermediaries and local power holders shows that vaccination did not spread easily or naturally through the country, and it was a contested technology through the nineteenth century. The British erroneously assumed that peasants and lower caste people would follow the direction of 'natural leaders.' They invested in campaigns to sway or pressure elites to adopt vaccination assuming this would trickle down to the 'lower orders.' However, these campaigns often failed to gain allies among local elites, and there was no coherent, consistent drive to aid in the vaccination effort from India's 'natural leaders.' Intermediate power brokers resisted vaccination for a host of reasons that went beyond the operation itself.

An important point to understand about inoculation, the greatest competitor to vaccination, is that it was part of a wider economic system. The British recognized that Brahmin inoculators lost income as inoculation was pushed out. They tried to minimize the personal economic damage to some Brahmin inoculators by training them as vaccinators, but they failed to understand the wider economic system in which inoculation functioned. In Bengal, inoculators gave a portion of their inoculation fees to the local *zemindar*, meaning British attacks on inoculation disrupted an economic as well as a spiritual/medical system. Inoculators would also contract with certain *zemindars* in order to access their *ryots* (peasants). An agreed upon portion of the inoculation revenue went to the local *zemindari*. As vaccinators supplanted inoculators in Bengal, local power holders expected to receive remuneration as a part of the process. One British official claimed *zemindars* wanted 25 percent of the fees. However, vaccination in that part of Bengal was done *gratis* by the government so there were no fees for the *zemindar* to collect. In retaliation, *zemindars* sometimes punished *ryots* who received vaccination creating a new barrier to vaccination acceptance among the 'lower orders'.[285] Failing to understand the social and political economy in which inoculation functioned meant the British lost valuable opportunities to partner with local power holders.

The British assumed educated Indians, 'enlightened' by their contact with Western medicine and values, would naturally choose vaccination over inoculation. In this they greatly miscalculated. Elites were likely not only to oppose vaccination, they were more likely to actively resist it and encourage others to flout the recommendation and even the law. In Bombay, as late as 1895, nearly a decade after the compulsory

[285] IP/6/VA.3. Dr. Lidderdale (Darjeeling), *Report on Vaccination in the Province of Bengal for 1878-79* (1879), 1.

vaccination law, the British Superintendent of Vaccination lamented the "antagonism of the well to do." He noted it was the sub-officials in government employ who refused to vaccinate their children. He found this baffling and illogical as they agreed when asked "that they believed in the benefits of vaccination."[286] Middling government officials knew what their British superiors wanted to hear, and government employees were adept at balancing British expectations with their own inclinations. Accepting Western norms—from dress to medicine to food—were important ways to curry favor among British power holders. These sub-officials knew how to give the 'right' answer, but their actions show they distrusted the operation. This meant that such intermediaries resisted when part of their job was to enforce vaccination. In Bombay, one official noted the "great difficulty…in obtaining the aid of Peons, in collecting children for vaccination."[287] Also in Bombay, officials learned that local *Patels* were taking "hush money" in exchange for allowing people to inoculate.[288] There was so little cooperation from bureaucrats in the North West Provinces that doctors there recommended all government employees be forced to have a certificate of vaccination for employment.[289] In Hyderbadad, village authorities were "compelled to assist the vaccinators in the performance of their duties." But this had little effect as higher caste members and men of position continued to use their power to block vaccinators.[290]

[286] IP/13/VA.3. *Notes on Vaccination in the Bombay Presidency for the Year 1894-95* (1895), 2.
[287] IP/3/VA/3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1863* (1864), iv.
[288] IP/3/VA/3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1867* (1868), 10.
[289] IP/30.VA.3. *Annual Report upon Vaccination in the N.W. Provinces for the Season 1866-67* (1867), 5.
[290] IP/20/VA.3. *Report on Vaccination in the Hyderabad Assigned District for the Official Year 1879-80* (1880), 12. *Report on Vaccination…Hyderabad…1880-81* (1881), 1.

Municipal authorities often hindered vaccination. A Punjab report detailed how municipal authorities failed to support the work of vaccination. It was in Majíthah and Jandiallah, towns of "considerable size and importance," that Dr. John Bennett claimed, "Like all Municipal Committees composed of natives only (as far as I have had experience of them), they gave every promise of assistance, and asserted that vaccination under their auspices would undoubtedly prove a success." But when the time came for their assistance, "They spent the time in vague conversation regarding the immense benefits derived from vaccination, the great benevolence of the Government in making it so accessible to the people." But they failed to use their influence "in the least to remove the groundless fears and erroneous notions of the ignorant; hardly anything, comparatively speaking, was done."[291] This was not an isolated problem. Municipal leaders offered significant and sustained opposition to vaccinators. This took several forms. In the North West Provinces, Superintendent Dr. Watson suspected some recalcitrance from the municipality but could not point to specific actions.[292] In Punjab, the local superintendent claimed, "I have every reason to believe…he (*tahsildar*) instigated the members of the Sonepat Municipality to make a complaint against the vaccinators."[293] Overt resistance was rare, but the passive resistance of intermediaries disrupted the steady spread of vaccination. Overt resistance would have been detrimental to these middling elites, but as long as vaccination remained optional there was little doctors could do to force the cooperation of town leaders. Once vaccination became

[291] IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 31.
[292] IP/30/VA.3. Dr. Watson (Allahabad and Jhansi), *Season of 1872-73 Returns of Vaccination* (1873), 19.
[293] IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 11.

compulsory Municipal leaders found other ways to obstruct the work including withholding funds in the budget, thereby crippling the work.

Why many municipal leaders rejected vaccination is unclear. They may have been under political pressure from other indigenous elites in their areas. They may have known it was unpopular among their constituents and been working in their favor. There is a possibility municipal leaders disliked British incursions into areas they saw as their own sphere. Municipal leaders were restricted in the power they could exert. They were allowed to make decisions in a restricted, local way and they were barred by the British from moving upward into higher levels of government. There is a possibility that it was not vaccination alone they rejected, but another level of British intrusion on their local domain.[294] As more control was handed over to municipal leaders at the turn of the century, some officials took to the challenge with alacrity and vaccination thrived under the new leadership. However, a century of mismanagement had created patterns of resistance across India and these patterns continued into the next century even as the British placed more public health matters in Indian hands.

The resistance and accommodation of elites did not follow a set pattern over India. Some British reports said city people were more likely to oppose vaccination. Others claimed it was rural folk who were intransigent.[295] In the same way, elites could be valuable partners or could create obstacles to the work. The government offered

[294] See the following works for a discussion of municipal governments and public health. Harrison, *Public Health in British India*. Sanjoy Bhattacharya, Mark Harrison, and Michael Worboys, *Fractured States: Smallpox, Public Health, and Vaccination Policy in British India, 1800-1947* (Hyderabad: Orient Longman, 2005). Khalid and Johnson (Eds.), *Public Health in the British Empire*. There is still a need for local and regional research on the role of municipal governments and other intermediaries in Indian public health.

[295] IP/30/VA.3. *Annual Report on Vaccination in the North-West Provinces and Oudh, for the Year 1893-94* (1894), 10. IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 20.

commendations and letters of praise to some leaders who supported vaccination. In later vaccination reports, doctors printed the names of helpful Indian elites. But doctors often assumed the only reason elites aided their work was for the commendation.[296] This was a consistent problem for Indian elites trying to partner with the British in health objectives. The British questioned their motives and commitment.[297] This attitude undermined the partnerships Indian elites tried to build, and further drove home that Britons would only accept Indians as subordinate, passive recipients, never equal partners, in British rule.

Some elites actively resisted vaccination, usually by outright banning the vaccinators from coming near their holdings. This could make accessing vaccination difficult for subordinates who wanted the prophylactic. In Punjab, one 'notable' refused vaccination for his household. This included the son of another man living with him. The father had signaled to vaccinators that he wanted his son vaccinated, but the notable would not allow the vaccinators near his house.[298] This put vaccinators in a difficult position as they had permission from the parent, but not the householder, to perform vaccination. In Bengal, a local *zemindar* refused vaccination for his family and all of his *ryots*. The British superintendent claimed the *zemindari* told him his *ryots* were "perfectly free not to receive vaccination in their own families."[299] In a neighboring circle, a *tekait* ordered their *bunniahs* to hide from the vaccinator and threatened to evict Native Vaccinators with homes on his estate.[300] This placed both subordinate caste

[296] IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 21.
[297] IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 22.
[298] IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 1.
[299] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal...for the Year Ending 31st March 1869* (1869), xxi.
[300] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal...for the Year Ending 31st March 1869* (1869), xlv-xlvi.

members and Native Vaccinators in the difficult position of trying to please both a local power holder and the British. It also made it difficult for the peasants, who faced the most risk of epidemic disease, to access vaccination. However, the intrusion of elites could also offer protection to lower caste people who wanted to reject the prophylactic. In Madras, "enlightened people" not only stopped vaccinators from removing the lymph from their children's arms after vaccination but extended this protection "to their servants and friends."[301] But neither the British nor lower caste/class people could count on elites to further their aims. Elites for the most part followed their own self-interest. So while some offered protection to subordinates, others offered access to their peasantry as a way to avoid vaccination in their own families while placating the British.

While the resistance of elites to vaccination took many forms, the pattern of resistance shows that Indian elites and power brokers were more likely to hamper the spread of vaccination than promote it. Overt resistance occurred most amongst people who had access to education and contact with the British but were not government employees. Active resistance, then, came mostly from landed elites. It was neither ignorance nor "fear of a new thing" that drove elites to reject vaccination. Avoidance of the British, distrust of the prophylactic, and an unwillingness to share power were all factors in elite resistance. This, however, placed subordinate groups in a difficult position as they were not allowed to make their own decision about vaccination but had to navigate the expectations and demands of British and Indian elites. Indians in government employ also show a similar range of responses. That it was not universally

[301] IP/25/VA.3. *Report on Vaccination throughout the Presidency and Provinces for the Year 1877-78* (1878), 10.

practiced amongst this class is clear in the fact that doctors tried to make the prophylactic compulsory for government officials and in schools. In this they were unsuccessful.

The idea that people rejected vaccination due to a wholesale rejection of all things British or all things new does not bear up under scrutiny at the municipal level either. At the Municipal level, officials and elites became considerable obstacles to the smooth functioning of the vaccination department. Their cooperation was vital to public health efforts, and they shared responsibility with the central government for promoting health. Yet by and large Municipal officials were at best passive in their response to vaccination and in many cases actively thwarted the vaccination department. To a certain extent, doctors are responsible for this lack of cooperation. The overbearing and distrustful attitude of British doctors created resistance among this class. Doctors distrusted even their allies and imputed the worst motives to their native officials. Doctors paid lip-service to the idea that they needed the cooperation of Indian elites, but their assumptions about native character and defects meant they sabotaged any chance of a partnership. Doctors preferred the government to enforce cooperation by law, rather than the slower process of gaining the trust of Indian power brokers. By the end of the century, vaccination was slowly turned over to municipalities. But decades of competition and resistance meant this was not a smooth transfer and while some municipalities tackled vaccination with enthusiasm others allowed it to languish. Vaccination access became more difficult for some and there was not a consistent, coherent drive for all-India vaccination until independence. By that time, patterns of resistance, a century of confusion, and memories of injury and violence made many suspicious of the technology as a whole.

5.3 Identity, Resistance, and Accommodation

Vaccination in India is usually discussed through the paradigm of resistance and accommodation, but these two poles do little to encompass the wide variety of Indian responses. Resistance and accommodation are more appropriately looked at as a spectrum along which different actions took place and the same individual could both resist and accept different parts of the vaccination. Indians had numerous responses to vaccination, from outright refusal to enthusiastic acceptance, and vaccination took on new cultural meanings despite the laden baggage the prophylactic carried. This section explores the range of responses to vaccination by people who were not power holders or traditional elites. Within this section I make two points. First, people wanted autonomy within the vaccination operation. Resistance was not always about rejecting vaccination as a whole, but rather was a way to have agency in a system trying to enforce conformity and docility in the subject population. Second, group interests and identity structured how people resisted and accepted vaccination. India was a subcontinent loosely covered but tightly held by the British. To discuss an all-India response to vaccination is difficult and regional studies are more capable of exploring the details of these issues. What I offer here is an overview of the range of responses and how they related to group identity.

Urban workers and artisans were most likely to overtly and successfully resist vaccination. Bengal brass workers proved a deep source of anxiety for vaccination officials. Brass workers were a well-established group of artisans with respect and position in their community. The brass workers were “ultra-Orthodox Hindus” and British vaccination officials considered them bigoted and “tenacious of their old customs.” The British assumed it was their Hindu beliefs that made them so staunchly

anti-vaccination, but it was their strong economic and social position and the fact that they could offer strong, united resistance that allowed them to reject vaccination. The Superintendent-General of Vaccination for the Presidency, T. Edmondson Charles, took it as a personal challenge to vaccinate members of this group. When they saw his carriage in the street "every door was at once barricaded." As Charles persisted, the brass workers consulted a lawyer on how best to "protect themselves against the persistent efforts" of the vaccination department. Such resistance was invariably put down by the British as bigotry. But the resistance of the Brass workers was caused by Charles himself. He admitted as much in his vaccination report. He wrote that he had "vaccinated some children of those who gave unwilling consent" which had "rather impeded our progress."[302] Over-zealous performance of vaccination and enforcing it upon unwilling parents was part of a repeated pattern across India. Yet invariably, despite doctors admitting their mistakes, they blamed Indian prejudices for the resistance. Physicians were praised for their courage, zeal, and untiring efforts when a new group was conquered by the vaccination department. Eventually many of the brass workers did allow their children to be vaccinated. But this capitulation did not raise them in the esteem of the vaccination department. Failures of vaccination were put on Indians. Successes were always British.

While the brass workers resorted to legal appeals, and eventually accommodation, another group, "a turbulent class of butchers" resorted to violence. Again, as with the brass workers, group identity played a powerful role in structuring how people resisted. T. Edmundson Charles, who apparently inspired significant resistance amongst Calcutta's

[302] IP/6/VA.3. T. Edmondson Charles, *Report on Vaccination in the Province of Bengal for the Year ending 31st March 1873* (1873), 2-3.

working-classes, wrote of the butchers, "They have been openly and actively hostile to the vaccinators, so that a single vaccinator cannot shew himself alone among them, and a strong party has to be made up to work among them to prevent blood-shed. Each year they have required the most delicate management to prevent coming to open collision."[303] Violence against vaccinators was rare, but it was often a group reaction rather than an isolated event. This was because of the protection offered by group identity. Individual resistance was rare and individual violent resistance virtually unheard of.

Unvaccinated groups undermined the authority of British doctors who went to great pains to vaccinate groups that resisted them. It was not only the artisans of Calcutta who avoided vaccination. There were a handful of influential Calcutta families who had evaded the process because the vaccinators did not know the location of their homes. Charles was clearly frustrated by the department's inability to make incursions into this mixed caste group. Finally in 1873, a "friend" of one of the families received vaccination and the supervisor chose this opportunity to grill the friend on information about the families evading him. This information eventually allowed vaccinators to conduct a handful of vaccinations though the number was in the double digits. Charles admitted, "Our manner of working is rather inquisitorial, but without discovering the weak points of each individual…it is impossible to assail him directly."[304] It is unclear what sort of information they obtained, but the doctor mentioned the importance of economic ties for finding the proper way to leverage an individual. The small number of this group and

[303] IP/6/VA.3. T. Edmondson Charles, *Report on Vaccination in the Province of Bengal for the Year ending 31st March 1873* (1873), 3.
[304] IP/6/VA.3. T. Edmondson Charles, *Report on Vaccination in the Province of Bengal for the Year ending 31st March 1873* (1873), 4

Charles' immense pleasure in vaccinating them shows there was more than simple public health motivating doctors in their work. Making incursions into new groups and forcing recalcitrant Indians to submit to the lancet was a source of pride for these doctors. As Shoolbred described it in his 1805 *Report*, mentioned above, vaccination greatly resembled colonization itself, in that sometimes, the goal was not merely to vaccinate, but to enforce British superiority and power.[305]

As the capital, Bengal was unique in its relationship with British power, but resistance was a factor across India's large cities. Bombay's mill hands resisted vaccination as well as the right of British doctors to inspect their bodies. A Bombay city report noted in 1861 that large towns and communities were most likely to be "prejudiced" against the prophylactic.[306] Over twenty years later, Bombay's mills, a considerable source of employment in the city, were also a source of anxiety. Mill owners wanted their workers to be vaccinated as epidemic disease could cripple the industry. However, the mill hands, who possessed a powerful group identity and bargaining power through their combined labor, opposed the prophylactic.[307] The Superintendent-General of Vaccination for Bombay wrote, "In twenty-three of the mills no inspection took place on account of the perverse attitude of the operatives and inability or refusal of the managers to assist." The resistance of Bombay mill women was given special attention. Only 162 of the female hands and young operatives were inspected. Most refused.[308]

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[305] Shoolbred, *Report*, 18.
[306] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1861* (1862), 2.
[307] Aditya Sarkar, *Trouble at the Mill: Factory Law and the Emergence of the Labour Question in Late Nineteenth Century Bombay* (New Delhi: Oxford University Press, 2018). Nile Green, *Bombay Islam: The Religious Economy of the West Indian Ocean* (Cambridge: Cambridge University Press, 2011).
[308] IP/13/VA.3. *Report on Vaccination in the Bombay Presidency for the Year 1889-90* (1890), 21.

These workers may not have been rejecting vaccination. Bombay City had been under compulsory vaccination for twelve years. There is a possibility these young people had already been vaccinated. What they rejected was the right of British health officers to inspect them. It is also noteworthy that female workers in Bombay were able to form a group identity and successfully resist inspection. In this, their identity as workers offered protection against medical meddling.

For other women, their identity as workers placed them under greater surveillance and control. Unlike factory labor, migrant laborers, many of whom were women, were under strict surveillance because of their worker status. The Emigration Rules Act of 1873 required vaccination of all persons passing through contractor's depots. These people were drawn from poor areas of India to work on the Assam tea gardens and a high number of these workers were women.[309] Tea garden planters acknowledged the protection vaccination offered and advocated for it, particularly when the government vaccinated migrants for free. The law covered the women as well as any children they traveled with. Vaccination, as explained before, came with a number of risks and one of the greatest was infection through the open sores. This danger was magnified when children were vaccinated while traveling to the tea gardens. One superintendent noted this issue writing, "It would be better to omit vaccination en route; it is hard that coolie mothers and their babies should have this distress added to the discomforts of travel."[310] The superintendent was not only concerned with the mothers and children. He worried

[309] Jayeeta Sharma, *Empire's Garden: Assam and the Making of India* (Durham: Duke University Press, 2011).
[310] IP/3/VA.3. *Annual Vaccination Report of the Province of Assam for the Year 1883-84* (1884), 12.

that since they were not at the depot over 48 hours, there was no way to inspect the results.

The tea garden planters did not have an easy relationship with the vaccination department. The Assam annual vaccination report for 1881-82 stated, "Planters are already fully alive to the advantages of thoroughly carrying out vaccination on their gardens."[311] The following year, the report noted vaccination in the tea gardens "had made a considerable advance."[312] But by the late 1880s British vaccinators were lamenting the state of vaccination in the gardens. This was largely because tea garden owners wanted the benefits of vaccination, but they balked at paying for it. The government felt that the owners were getting an important boon in the prophylactic and expected them to shoulder some of the cost. Owners were loath to do so and refused to hire a vaccinator for their plantations. These skirmishes over whose responsibility it was to ensure migrant workers were vaccinated slowed the progress of the prophylactic. But more importantly, they show how little agency migrant women had in their encounters with British medicine. Migrant women on the tea plantations, whether from India or Nepal, had some of the least ability to protest against vaccination. Locked into contracts, isolated, and with little protection offered by their group identity, these women could only use passive tactics such as avoidance. If that failed, they and their children were vaccinated regardless of their wishes.

There was no single experience of vaccination for women in India. Migrant women were often at the mercy of structures and laws they had little ability to resist. Mill

[311] IP/3/VA.3. *Annual Vaccination Report of the Province of Assam for the Year 1881-82* (1882), 2.
[312] IP/3/VA.3. *Annual Vaccination Report of the Province of Assam for the Year 1883-84* (1884), 2.

women in Bombay were able to rebuff the importunities of the vaccination department. High caste women could often count on their family's status to shield them from unwanted vaccinators. Though this could also mean that high caste husbands could block their wives and children from accessing vaccination, British vaccination reports show women often made these decisions for the family. Doctors regularly complained that the men were too often "swayed by the women of the family."[313] One doctor claimed that their greatest work was to convince the women "who are far more suspicious and ignorant than their husbands."[314] Far from being the result of ignorance, female opposition to vaccination was rooted in their experiences. It was women who had to look after the children in their convalescence. It was women who saw and heard through gossip networks the stories of erysipelas and blood poisoning. And it was women who nursed children who contracted smallpox when vaccination failed. As late as 1907 in the Punjab, doctors were still claiming that "to overcome the opposition of the women is the problem."[315]

Status alone was not enough to protect high class women completely, but it did keep them from suffering the same impositions as poor women. Wealthy children were not used as vaccinifers as "no woman of the well-to-do classes will allow her child to be used as a vaccinifer."[316] Further, many well-off women could count on *purdah* to keep them from the reach of vaccinators. This effectively barred access to the male vaccinators. Some districts tried to circumvent this by training a few female vaccinators. It was effective in Punjab in the 1870s, but it never became a regular feature, partly

[313] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind 1874-75* (1875), 21.
[314] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind 1872-73* (1873), 30.
[315] IP/32/VA.3. *Notes on Vaccination in the Punjab for the Year 1907-08* (1908), 1.
[316] IP/6/VA.3. *Triennial Report of Vaccination in Bengal during the Year 1893-96* (1896), 24.

because the department did not know what to do with female vaccinators.[317] Superintendents attempted to contract female vaccinators in Madras, but again, this never became a regular practice.[318] It never occurred to the all-male vaccination officials that female vaccinators could function as something more than vaccinators to *purdah* families and that they could take on similar duties to male vaccinators. They therefore struggled to determine their pay and what to do with them outside of their limited vaccination role. There are a few references to female vaccinators, but in no district did they become the norm, therefore pleading *purdah* remained a valuable way for well-off women to avoid the vaccinator.

Poor women, on the other hand, suffered greatly under the ministrations of the vaccination department and women showed their dislike of the agency in myriad ways. Evasion was a powerful tool of resistance. However, the women were not always resisting vaccination. In Delhi Division in 1872-73, the vaccination report records complaints to the Lieutenant-Governor "of the manner in which vaccination was performed," not vaccination itself. This included using police to aid the vaccinators which created so much distrust that "when the visit of a vaccinator to a village was anticipated the women left it with their children."[319] In other words, vaccinators were using coercion and state power to force vaccination on an unwilling population without a compulsory vaccination law in place. Further inquiry proved this to be true and the vaccinators were censured for 'excessive zeal' but there was no substantial change to the department and abuses and annoyances continued. Women here were not rejecting

[317] IP/32/VA.3. *Report on Vaccine Operations in the Panjab (sic) during the Season 1871-72* (1872), 18, 1.
[318] IP/25/VA.3. *Report on Vaccination throughout the Presidency and Provinces of Madras for the year 1877-78* (1878), 30.
[319] IP/32/VA.3. *Report on Vaccine Operations in the Panjab during the Season 1872-73* (1873), 1.

vaccination, but rather the authoritarian way it was done and abuse to their children from an untrustworthy vaccinator.

Women found a number of ways to protect their children from the vaccinator with evasion as a consistent and effective tactic. In the Central Provinces, physicians learned that there was a "signal for all the women to disappear...with their children to hide them in heaps of straw in the threshing floors outside the village."[320] At other times, women hid their children from the inspector after vaccination to keep them from being used as vaccinifers. Physicians noticed this phenomenon repeatedly. During outbreaks of smallpox "the people become extremely anxious to get their children vaccinated, but after they were done the mothers refused to allow lymph to be taken." They "ran away when it was required."[321] In this, mothers exhibited a rational approach to risk. Smallpox was a dangerous illness, and when it was epidemic the risk of vaccination lessened compared to the risk of contracting the illness. But women also wanted control over their children's medical experience and did not want them used as vaccinifers. Removal during inspections was a valuable way to gain the protection from vaccination without the risks associated with lymph removal. The women's reasoning and their actions were logical, but doctors continued to believe that women were more prone to "ignorant prejudices" than their menfolk while lamenting that "there must be some reason for this powerful prejudice."[322] It was not until the end of the century that the vaccination department tried to accommodate the needs and concerns of village women.

[320] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1870* (1871), 6.
[321] IP/32/VA.3. *Report on Vaccination in the Punjab for the Year 1885-86* (1886), 7.
[322] IP/32/VA.3. *Report on Vaccination in the Punjab for the Year 1885-86* (1886), 7.

It was not just the children's bodies that women sought to protect but also their own. Women faced other threats to their bodies from vaccinators beyond penetration from the lancet. In Bengal, a group of vaccinators were discharged due to "interference of the vaccinators with the women among whom they were working."[323] Doctors were concerned that that the "interference" experienced by the women would damage the reputation of the vaccination department. It is unclear how many women were "interfered with," a deliberately bland phrase that obscures a number of traumatic possibilities. Nor is there evidence these men faced legal charges. Doctors were not concerned about the women but about the reputation of the vaccination department. The bulk of the report dealing with the abuse allegations was devoted to ways to educate the people better about vaccination, not protect future women from abuse. This was not an isolated case. A vaccinator in a Native State (not under the vaccination department) was accused of "abusing and ill-treating people and taking a child and assaulting the mother."[324] Again, the department was concerned that the vaccinator's actions would damage the cause of vaccination. We will never know the full scope of female vaccination experiences. But such vignettes offer powerful reasons for why Indian women resisted vaccination more fiercely than men. Beyond trying to protect their children from the attendant medical risks, they also ran risks to their own bodies from the vaccinator.

Protecting their children was the primary reason parents resisted vaccination. In their reports, doctors made no distinction between parents resisting vaccination and parents who did not want their children to be used as vaccinifers. Doctors believed that

[323] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal (Proper), 1868* (1868), v.
[324] IP/3/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1868* (1869), 39.

the lymph stored within vaccinated children belonged to them. They cultivated lymph in children with the same scientific detachment they used when growing the pox on a cow or in a laboratory. They noted with frustration how often the "stock has been allowed to die out...in consequence of no children being procurable."[325] Dr. Blanc in Bombay wrote of the "mortification" of the harried physician "seeing some of his best lymph lost to him without the least hope of recovering it."[326] In the early decades of vaccination these assumptions of ownership led to violations of children's bodies and parental authority that even that state found shocking and dangerous to its position.

In the early decades of vaccination, native vaccinators and doctors took children without their parents' permission to be used as vaccinifers in neighboring villages. This may or may not have been accompanied by a small *batta* or gratuity in lieu of that child's wages (provided the child was of working age). This led to complaints against the vaccination office and the state. In 1868, the vaccination report noted, "His Honor desires that in future no children be so taken without the consent of their parents. The practice may appear to the Superintendent General to involve no hardship, but it is certainly unlawful and if continued will do much to render vaccination unpopular."[327] Physicians pushed back against the state. They demanded that not only vaccination but use of vaccinifers be made compulsory. Only in this way, one doctor argued, could the "unwillingness of the people to allow the removal of lymph...from the arms of their

[325] IP/13/VA.3. *Report on Vaccination…Bombay Presidency 1856-57* (1857), 44.
[326] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Years 1871-72* (1872), 19.
[327] IP/32/VA.3. *Proceedings of the Hon'ble Lieutenant Governor, Punjab…Dated 11th April 1868* (1868), 10.

vaccinated children" be overcome.[328] While doctors refused to acknowledge it, their reports show that arm-to-arm vaccination and using children as vaccinifers was a primary reason Indian people resisted vaccination.

Having insufficient numbers of children to use as vaccinifers meant that doctors and vaccinators used the children to vaccinate more than was recommended. The department claimed one child could vaccinate ten to fifteen other children, but in Bombay in 1861, the Report claimed vaccinators were continuing past this number.[329] This meant more discomfort for the vaccinifer and more danger of the wound becoming infected. It also meant the operation was less effective. The backlash was at times severe. In 1863, also in Bombay, a doctor noted the locals were "concealing their children [and] deserting their dwellings. If that did not work they resorted to "measures of intimidation by reminding him (native vaccinator) of the beatings which other vaccinators suffered."[330] Despite such reactions, doctors remained baffled at the resistance their vaccinators encountered. Dr. Colston in Dhoolia Circle, stated in his report, "All appreciate it (vaccination), but some object to lymph being taken from the arms of their children." He added, "This, I believe, is more for the sake of making some show of opposition than anything else."[331] It was not just using their children as vaccinifers, but taking them away

[328] IP/3/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1867* (8168), xix.
[329] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1861* (1862), 18.
[330] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1863* (1864), 8.
[331] IP/13/VA.3. Dr. Colston (Dhoolia), *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1864* (1865), 20.

from the village that worried parents.[332] While doctors thought this no great burden, it produced apprehension for parents and increased the danger to the child.

In order to access vaccination yet avoid having their children used as vaccinifers parents used a number of tactics. The simplest was avoidance. When the supervisor returned for the inspection, the children were carried away.[333] In some areas the doctors noted the parents were "careless of the pustules" allowing them to open prior to inspection.[334] Doctors lamented the pain of seeing their "best lymph" lost.[335] This was probably deliberate. If the pustules were broken prior to inspection the children could not be used as vaccinifers. One doctor described the resistance to having the lymph removed as "insurmountable" and recommended ivory points and tubes be used instead of arm-to-arm.[336] These methods often failed due to the climate and became an added expense the government did not want to bear. By the end of the century, after nearly 100 years in practice, vaccination encountered the same struggles it had in its infancy. In his 1895 report, Dr. Street noted that obtaining sufficient numbers of children to be vaccinifers was still difficult. He largely "had to rely on children under one year."[337] These problems were not isolated to Bombay and doctors did not solve the issue until the vaccination department switched to preserved lymph from local vaccination stations at the turn of the century.

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[332] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1865* (1866), xii.
[333] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1865* (1866), 16.
[334] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1864* (1865), 19.
[335] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1870-71* (1871), 19.
[336] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Year 1867* (1868), xxi.
[337] IP/13/VA.3. *Report on Vaccination in the Bombay Presidency for the Year 1895-96* (1896), 3.

The evidence that parents rejected British inspection and removal of their children, not vaccination itself, is overwhelming. In Central Provinces one doctor noted vaccinators were "threatened and assaulted" when *returning* to the village for inspection.[338] In the Bengal triennial report of 1890-93 Dr. Dyson argued, "The sufferings of the human vaccinifers are obvious." Another doctor strongly advocated using preserved lymph as this "obviates the sufferings to which arm to arm vaccination exposes the human vaccinifer."[339] Dr. Gregg, Sanitary Commissioner of the Bengal Presidency and in charge of vaccination throughout, pushed back against his colleagues. He claimed he did not "have the same objections to arm to arm as Dr. Dyson."[340] Yet the problem of procuring children remained. Many doctors throughout the period argued that compulsory vaccination, with a clause that demanded inspection, was the only way to keep vaccination afloat in India. In this they were disappointed. Despite several Compulsory Vaccination laws that eventually applied to the bulk of municipal (though not provincial) India, the mandatory use of vaccinifers was never codified into law. This did not stop vaccinators from using other methods of coercion to extract their lymph from the arms of children.

5.4 Religion

British doctors assumed people's religious beliefs guided their acceptance or rejection of vaccination. The British based their actions on erroneous assumptions of Indian society and the role of religion. These assumptions left doctors baffled over

[338] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1872-73* (1873), 13.
[339] IP/6/VA.3. *Second Triennial Report of the Sanitary Commissioner for Bengal, 1890-93* (1893), 15.
[340] IP/6/VA.3. *Annual Statistical Returns and Short Notes on Vaccination in Bengal for the Year 1893-94* (1894), 14.

vaccine resistance. Their reports show that resistance to vaccination was not consistent within religious communities, yet doctors held fast to their beliefs about Indians regardless of the numerous narratives that showed resistance and accommodation could seldom be put down to religion alone. This section will examine the range of religious responses to vaccination. Vaccination reports show that religious affiliation did not determine who would and would not vaccinate. It is true that some religious communities rejected vaccination and members faced backlash if they accepted the operation. But this had more to do with the dynamics of group identity and the importance of local relationships than a sign that religious beliefs influenced vaccination resistance. Historians have not always known how to discuss the religious aspects of smallpox without falling back upon tropes that depict Indians as overly religious.[341] As we saw from the English sources, religion offered a powerful way for groups to coalesce around an issue. The state preferred not to interfere with religious beliefs as long as such beliefs did not hinder revenue accumulation. With the state unwilling to enforce vaccination the way doctors would have liked, doctors were left to promote vaccination without stirring up too much backlash and incurring the censure of the state. An easy way to do this would have been to work through native elites, but as we have seen, doctors alienated

[341] One of the most influential monographs that is regularly referenced is Arnold, *Colonizing the Body.* Arnold's ideas were rejected by Rajnarayan Chandavarkar, "Plague Panic and Epidemic Politics in India, 1896-1914," in Terence Ranger and Paul Slack (Eds.), *Epidemics and Ideas: Essays on the Historical Perception of Pestilence* (Cambridge: Cambridge University Press, 1992), 203-240. This debate will be explored below.
George Basalla, "The Spread of Western Science," *Science* 156 (1967), 611-622. Headrick, *Tools of Empire*. The 'tool of empire' school has often focused on state needs and ignored the productive role of intermediaries and how colonized people actually viewed medicine. See Kumar, *Medicine and the Raj* for a more recent example. Aside from specific examples, the idea that resistance to vaccination, or allopathic medicine in general, is rooted in culture and religion has diffused throughout society influencing local and global medical schemes. Resistance to vaccination did become a cultural issue in the 20th century as agitation for independence increased. But this was only after more than a century of failed public health policy and a thwarted diffusion of the prophylactic.

both political and medical elites. They were left navigating a medico-religious world that they did not understand and could not penetrate. The result was to further entrench the idea that Indians were irrational among the British medical community and deepen the divide of mistrust created by failed vaccinations and poor policy.

Believing Indians made their decision out of irrational attachment to religious dogma, the British sought to leverage religion to promote vaccination. This approach almost universally failed. British vaccination reports focused mostly on members of the dominant Hindu religion, but some sources mention difficulties in coercing Muslims to vaccinate. The response of Muslims baffled the British because it was not consistent across a region, nor were doctors able to leverage Islam to enforce vaccination. In Bombay one doctor complained that Muslims were "just as bigoted fatalists as the more ignorant classes."[342] In the 1870s, one Bombay doctor accused Muslims of being "careless of life" in their refusal to vaccinate. Bombay has a unique place in the history of India. Lured there by promises of work and improving their station, Bombay had a vibrant, eclectic population of Muslims. While their identity as Muslims was strong, they were less likely to make decision as a corporate body or be under the control of a religious leader. Other factors such as class and their status as workers were equally if not more likely to structure their attitudes. Looking for one Muslim response in Bombay, doctors failed to find a way to leverage Islam or Muslim identity to encourage vaccination.

Similarly, doctors made few inroads in using religion to encourage vaccination among Hindus. Doctors' beliefs about the Hindu religion were based on prejudice and

[342] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, 1858-1859* (1860), 14.

misinformation. Doctors made assumptions about acceptable vaccination practices based on erroneous views of Hindu belief and tradition. This meant doctors were often surprised when a particular group accepted or rejected vaccination. This was the case surrounding calf lymph vaccination. When vaccination first came to India, doctors assumed Hindus would appreciate its relationship to the cow. When some Hindus objected to vaccination, doctors assumed it was because of its association with the cow. British prejudices were deeply baked into the vaccination department and many doctors assumed calf lymph vaccination, in which vaccine matter was cultivated in cows rather than children, would be unpopular for religious reasons. The actual result was that some people rejected calf lymph vaccination and others preferred it, the same as in England as the process also expanded there. Doctors searched for ways to understand the acceptance and rejection of different versions of vaccination through the religious beliefs Indians held. They failed to find a consistent religious response, but this did not cause British doctors to reassess their biases. In 1896, nearly 100 years after vaccination began in India, a doctor in Punjab wrote that vaccination was difficult "in a country like India, where religious prejudices are wide spread and difficult to combat."[343]

There were some religious groups who definitely opposed vaccination, but it is unclear if it was a true religious belief against the prophylactic or a response to British attacks on their authority. One such group was the Goshains of Assam. 'Goshain' is an unstable category with different meanings across India. It can be a title of an individual or it could refer to a caste group. In their report, the British used it to refer to a group of Hindu religious adherents, but the people within the group may not have referred to

[343] IP/32/VA.3. *Report on the Vaccination in the Punjab for the Year 1895-96* (1896), 7.

themselves as 'Goshains.' There may have been religious leaders that were 'Goshains' or 'Gossains,' In the British report, 'Goshains' were a collection of religious leaders whose followers were directed to evade vaccination. There were material costs for members of this group who disobeyed the vaccination ban. According to one report, Goshain leaders beat a disciple who allowed his child to be vaccinated and levied a 40 rupee fine against him. British reports are loaded with inconsistent and false information, so we cannot always accept the facts presented. What we do know is that the British saw these 'Goshains' as a key to vaccination success in Assam and tried to leverage their power over local people. However, British zeal once again led them to erode any trust they may have been able to establish. The vaccination department circulated a letter that claimed the Goshains had reversed their claims and were encouraging vaccination. This letter was a forgery and British superintendents stopped promoting it, but its use created distrust, and the 'Goshains' continued to resist vaccination.[344] This is only one example of how British doctors tried and failed to leverage religion in their quest to vaccinate. Bigoted beliefs and separation from the subject population meant that many British actions were based on faulty information or on prejudice alone. British attempts to utilize religion in their service served to reinforce the idea that vaccination was not a public health or medical issue, but that it was a cultural and religious issue as well.

The most consistent religious aspect that fascinated doctors was the Goddess Sitala. Known by different names such as Besanta, Debi, or Mata (Mother) Devi she remained an enduring and baffling figure to the British. As we saw in the last chapter, she appears in numerous reports, but she was not part of the elite Hindu canon and her

[344] IP/3/VA.3. *Annual Vaccination Report of the Province of Assam for the Year 1883-84* (1884), 6. *Annual Vaccination Report of the Province of Assam for the Year 1884-85* (1885), 14.

worship was locally prescribed and variable. Unlike other goddesses like Sarasvati or Kali, she was not represented in the written religious works that the British considered heathen but legitimate. Rather, she was a household deity and her worship was often linked to women and household duties. Historians and researchers too have been fascinated by the goddess Sitala, and this work has often failed to grasp the nature of this goddess and her worship.

Worshipping Sitala was a way to express power in the context of vaccination. The work of two modern anthropologists guides my analysis of Sitala. In Fabrizio Ferrari's exploration of Sitala, he shows that the British described Sitala as a punitive goddess and believed worship was based in a superstitious fear of angering the goddess. Sitala devotion was more complex than a simple dynamic of fear and worship. Far from being an angry deity, Sitala was, and still is, a mother. She is associated with the mother role and her worship, as Ferrari described it, is a site "where power is openly critiqued, negotiated, affirmed, and demonstrated." Ferrari highlighted the culturally fluid role of Sitala. Her worship has continued past the eradication of smallpox because Sitala is, and has been, associated with a wide range of female causes and concerns including household illness.[345] A similar narrative comes from David Hardiman's *The Coming of the Devi*. His work explored the important role of worship in shaping and invigorating

[345] Fabrizio Ferrari has written one of the best explorations of Sitala. *Religion, Devotion, and Medicine in North India: The Healing Power of Śītalā* (London: Bloomsbury, 2015), 104. This anthropological work sheds significant light the goddess and highlights the continued misrepresentation of the goddess by modern researchers.

political activity. In Hardiman's analysis, worship was a site of power as well as a way to create cohesion amongst people with a shared cultural background.[346]

Drawing on this scholarly work, it seems clear that British doctors tried to leverage willing religious elites to promote vaccination, but because Sitala was a folk deity her worship could not serve British interests in a consistent way. British doctors recruited religious leaders sympathetic to vaccination to issue statements that explained that vaccination was not outside the bounds of religion to their adherents. The British argued that this was the only way to convince 'ignorant' and 'prejudiced' people to subject themselves to vaccination. But the beliefs about Sitala struck the British as particularly bigoted, possibly because Sitala devotion served no British interests. Worship of the goddess was variable and individual and there were rarely elites that the British could utilize. Ideas about the goddess were folk beliefs shaped by common people with wide variations across India. There was nothing in these beliefs that the British could use to help them convert the masses. The occasional figure might use the goddess to promote vaccination, as we saw in the earlier anecdotes, but these were isolated and spontaneous occurrences. Beliefs about Sitala were also linked to women. The care of smallpox victims was generally a female activity, and pujas to the goddess, before, during and after an epidemic, were often feminine activities.

British doctors were unsure how much they should meddle in the religious and cultural practices surrounding inoculation, vaccination, and smallpox. The British disdained worship of Sitala as backward and prejudicial but as a part of the practice of

[346] David Hardiman, *The Coming of the Devi: Adivasi Assertion in Western India* (Delhi: Oxford University Press, 1987). Hardiman's work, like Ferrari's, is anthropological rather than historical but it offers insight into the way worship functions within Indian subaltern communities.

inoculation it served a therapeutic purpose. It regimented the diet of the inoculated person and the care they received before and during the illness. It also demanded a sort of quarantine that protected other members of the village. Only family who had had smallpox were permitted near the recently inoculated person and there were other rules restricting movement. This kept the disease from running through the portion of the village that had not had the illness.[347] Under vaccination these actions were no longer necessary, but British doctors were divided over whether or not to encourage devotion to the goddess. In the Central Provinces, one doctor was concerned that the expense associated with Sitala puja would cause some parents to forego vaccination for their children. Dr. Neill wrote, "They (vaccinators) should impress upon all, especially the mothers of children, that puja involving an expense was quite unnecessary after successful vaccination." But in the same report Dr. Barter suggested that it would be desirable to tell the people that vaccination was a form of smallpox so as to better fit with their religious sensibilities. [348] The Chief Commissioner in the same report wrote it was best to "leave them to their own devices whether to perform puja or not." [349] This highlights a thorny problem for British doctors and state officials. Was it enough to have people vaccinated or must they also take on the cultural trappings of the prophylactic?

The medical community was divided on how to enforce cultural conformity or if this was even important as long as people adopted vaccination. Some doctors took a laissez-faire approach pleased as long as the people vaccinated their children. These

[347] IP/30/VA.3. *Season of 1872-73, Returns of Vaccination for the North-Western Provinces and Native States of Bundelcund (sic)* (1873), 31. *Report on Vaccination Proceedings throughout the Government of Bengal…for the Year ending 31st March, 1869* (1869), 8-9.
[348] IP/19/VA.3. *Report on Vaccine Operation in the Central Provinces for the Year 1871* (1872), 6.
[349] IP/19/VA.3. *Report on Vaccine Operation in the Central Provinces for the Year 1871* (1872), 3.

doctors admitted that the superiority of British medicine and methods was not as great as other members of their profession liked to claim.[350] But other doctors saw their incursion into the populace as something more than a medical operation. It was a symbol of British superiority and any sort of syncretism, which was common as vaccination slowly replaced inoculation, was abhorrent to these doctors. They demanded cultural conformity trying to stamp out not just illness, but religious and cultural practices that they deemed bigoted or superstitious. For these doctors, medicine was a method of promoting 'civilization,' and allowing people to keep their old traditions and practices represented failure.

Vaccination came loaded not only with general meanings of British superiority, but became definitely linked to Christianity in some areas. Arnold argued that Indians opposed the "raw secularity" of vaccination.[351] However what some Indians rejected was vaccination's ties to Christianity. Physicians in the vaccination department knew that their reach was limited by the funds and human labor the government was willing to supply. To increase the reach of vaccination, physicians on many occasions armed missionaries with lymph and some basic training that they might share the good news of Jenner along with the good news of Christ. Missionaries were sent out to vaccinate in Punjab, Bengal, and Assam and possibly in other areas. Since the missionaries were not vaccination department employees it is difficult to know how successful they were, but their reach in areas that physicians could not go made them a tantalizing group for physicians. In the early decades doctors toyed with the idea of co-opting missionaries as

[350] IP/19/VA.3. Dr. Watson. *Report on Vaccine Operations in the Central Provinces for the Year 1882-83* (1883), 22. Dr. Watson is not mentioned in later vaccine reports and either left or was re-assigned from the Vaccination Department.
[351] Arnold, *Colonizing the Body*, 143.

regulars for the department and offering them a small fee in exchange for filling out the registers and sending them back in. But using missionaries as vaccinators increased suspicions that vaccination was a Christian rite and that vaccinators were trying to "make them Christians."[352] Even before missionaries were linked to vaccination, Indians worried that vaccination "was a form or ceremony of the Christian religion."[353] Indian people did not always resist vaccination as secular but resisted it because of Western medicine's links with Western Christianity. Doctors tried numerous methods to use Indian religious affiliation for their benefit. That they failed was often due to their own prejudices and assumptions.

5.5 A Plague of Rumors

Indians recognized that the British expended a great deal of time, effort, and money to vaccinate their children. Many felt that such philanthropy could not be trusted and feared an ulterior motive. One Bombay official noted this suspicion at the outset of the Bombay system of vaccination in 1858. He reported a father asking him if he was "quite sure that the Government do (sic) all this, and spend so much kindness to us only and that they derive no benefit from it." The doctor put this down as "the natural suspicious character of the native mind" and as a reason to celebrate such disinterested governance.[354] But few Indians believed in the disinterested kindness of the British government and questioned the real goal behind vaccination.

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[352] IP/6/VA.3. *Report on Vaccination in the Province of Bengal for the Year Ending 31st March, 1872* (1872), 17. IP/32/VA.3. *No. 1053 A.* (1868): 5. IP/3/VA.3. *Annual Vaccination Report of the Province of Assam for the Year 1884-85* (1885), 16.
[353] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Years 1858-59* (1859), 21.
[354] IP/13/VA.3. *Report on Vaccination throughout the Bombay Presidency and Sind, for the Years 1858-59* (1859), 23.

While the British often focused on religion ideas, there were a range of beliefs surrounding vaccination that limited the effectiveness of the department. British doctors generally discussed these under the heading of "superstitions." These 'superstitions' encompassed a range of fears and assumptions about the British, vaccination, and the role Indian bodies played in the imperial structure. Indian fears highlight the distrust many Indians felt toward the British state. But it was not a general fear of the new and the alien as British doctors assumed. Indian people expressed specific fears beliefs related to replacement, exile, and loss of control.

British doctors assumed Indians rejected vaccination because it was 'new,' but vaccination was similar to inoculation. It was not the procedures alone Indians rejected. This is shown in the case of vaccination scabs. One of the consistent problems for vaccinators, particularly before arm-to-arm vaccination took hold, was gaining access to the scabs of vaccinated children. These scabs could be stored and used to start vaccination elsewhere or in the following vaccination season. This was a method also employed by inoculators and would have been familiar to Indians. Yet within the context of inoculation, the crusts were part of a practice and therapeutic that was familiar. When the British tried to do the same thing their actions ignited suspicions.[355] Season after season parents resisted giving vaccinators access to the children's crusts, going so far as to break them open or damage them before inspection. Numerous vague fears arose that the children lost "something special" to their life.[356]

[355] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1872-73* (1873), 3, 12, 14.
[356] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1872-73* (1873), 3, 12, 14.

In the Central Provinces these vague fears formed into a coherent speculation that children's crusts were being offered to the 'Railway God.' A chant or song was created about vaccination and the 'Railway God' and it was translated in the vaccination report: "Run, run the vaccinator has come/He will cut the children/He'll take the flesh and put it on the rail/And when the train whistles the children will die."[357] The fear that the British sacrificed children to the 'Railway God' appeared across the Central Provinces. Indian people distrusted British doctors, associating their advent with death and dislocation. That these fears were linked to the railway is not surprising. It was the railways that directly contributed to massive death tolls by creating new disease environments.[358] It was also the railways that took food surpluses away from the country for consumption in cities and around the world. Railways, a sign of industrial progress and British power, despoiled and decimated India. By linking vaccination with railways, Indian protests against vaccination became a concrete way to oppose the death and dislocation they experienced but could not fight.

There were other suspicions about being 'marked' through vaccination that spoke of underlying fears of dislocation and death. In Bengal, people feared that the vaccinators "wanted to steal the children for some purposes of witchcraft, or to send them away as coolies to some other British possession, and that to this end they were vaccinated by way of setting the Government mark upon them."[359] This arose in part because vaccination was practiced so vigorously upon 'coolie' bodies in their progress toward tea plantations.

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[357] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1872-73* (1873), 14.
[358] Ira Klein, "Death in India," *Journal of Asian Studies* 32 (1973), 639-59.
[359] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal (Proper), 1868* (1868), 2.

People in Bengal saw the vaccination mark upon 'coolies' and associated vaccination with exile and hard labor. They feared marking their children would lead to their own forced exile as they grew older. Indian vaccination fears were an expression of the negative changes they experienced as the British tightened control on the sub-continent. British actions directly related to increased disease and child mortality as well as economic decline that forced Indians to seek work throughout the British Empire. These 'superstitions' were not baseless and expressed fears sparked by the realities of life as British imperial subjects.

The idea that Indian lives were being traded for British lives occurred throughout India and speaks to the instability underlying life in British India. One doctor wrote that "the most general idea" was that a drop of blood from a child's arm "would be given to a ship proceeding to England, and that in the event of a shipwreck the sailors drowned would return to life at the expense of an equal number of the native children vaccinated in India." This story, remarked one British official, bore a "similarity to fables recorded as being current in other parts of India."[360] One pervasive idea in Indian popular culture was that the British sought their replacement. This was a logical response to British imperialism. Though the precise mechanism was not vaccination, the result of British imperialism was replacement, not just physically, but also politically and economically. While the invisible forces of the market could not be easily fought, vaccination offered a tangible arena for Indians to resist their fate.

[360] IP/6/VA.3. *Report on Vaccination Proceedings throughout the Government of Bengal (Proper), 1868* (1868), 2. *Report on Vaccination Proceedings throughout the Government of Bengal…for the Year ending 31st March, 1869* (1869), iv.

Other fears were more specific to a group but still showed fears of replacement. One sect of 'slaves of the rajah' believed a new ruler would be born into their lineage. This cultural/religious group believed that a child would come from them and rise up to become rajah, or ruler. He would be identified by the white blood that flowed through his veins. "They suspected that vaccination covered some design for discovering by means of his blood the person who was to prove the new rajah." Once identified, the British would kidnap or kill this future rajah to protect their empire. Attempts to vaccinate within the group were met with extreme force. When approached by the Deputy Commissioner, "They tore up the proclamation (of compulsory vaccination) and beat the police."[361] Again, vaccination was the symbol of British imperialism and placed intense pressure on such groups to survive and thrive in a political and economic system that was out of their control.

Some beliefs that led to vaccination resistance related directly to taxation and revenue. Control of tax revenue was the primary reason the East India Company and later the British Crown took over large swaths of India and the tax burden increased throughout the nineteenth century. One doctor wrote that parents feared "to show a too ready belief in vaccination" as it "may only be another excuse for an extra turn of the screw."[362] Many Indian parents, even when believing vaccination beneficial, refused to adopt it too readily as they feared they would be asked to pay for it (as they were in Bengal, a system plagued with problems). Still other parents believed that vaccination

[361] IP/6/VA.3. *Report on the Vaccination Proceedings under the Government of Bengal for the Year Ending 31st March, 1871* (1871), 6.
[362] IP/19/VA.3. *Report on the Vaccine Operations in the Central Provinces for the Year 1872-73* (1873), 2.

was a way of taking a census or marking the children for a new round of taxes yet to come.

British imperialism was a disaster for millions of Indian people during its tenure. It was associated with growing death, disease, and dislocation. These vague terrors found concrete form in vaccination and the prophylactic became a site in which real but amorphous fear was given an outlet for expression. We must be careful not to assume, as the British did, that rejection of vaccination was based on faulty information or a lack of understanding. Rather, the fears created by British imperialism were transferred to a specific British intrusion in the bodies of their children. Vaccination was a site that offered the opportunity to resist British incursion. Given the context in which vaccination occurred, the rumors show deep concerns over death, disease, and dislocation linked to the British. It is hard to fight taxation, imperialism, or 'progress.' Vaccination offered a concrete site by which people could assert their autonomy and their resistance to a growing, and rapacious, imperial power.

5.6 Rumors of Plague

In 1896, bubonic plague came to India. Part of the third plague pandemic since recorded history, the disease most likely came to Bombay from Hong Kong; but it performed its deadliest work in India. Plague lasted in India for the next twenty years, becoming endemic in some areas. In those two decades over 8 million Indians died of plague. The disease was first identified in September of 1896 but it was not until October that British officials admitted that plague had come to India. During the uncertain month leading up to their announcement, medical officials referred to the characteristic fever and 'buboes' (glandular swelling) as 'plague like.' The British response was draconian,

spurred in part by international threats to ban Indian ships from ports which would severely upset Britain's international commerce. The British also feared the disease would travel to Bengal, the locus of British power. And of course, the British feared for the security of British lives as this new disease struck. Plague quickly turned from a medical to a political crisis as British officials sought to control the disease and the bodies it inhabited. For their part, Indians resisted the violations launched against their homes, their possessions, and their bodies.

Historians have classified the plague scare as a new moment in Britain's goal to spread Western medicine and entrench their own authority. They have argued that the powers given to doctors and the invasion of privacy and upending of religious norms was unprecedented and marked a new era in British public health.[363] However, the long history of public health in India shows that plague responses, British and Indian, followed the pattern set during the smallpox vaccination campaigns. Responses were heightened due to panic on both sides and the harsh way British officials enacted medical legislation. There was more violence on both sides than was the norm for vaccination efforts, but the responses show remarkable continuity with the 19th century smallpox campaigns.

The 1896 plague crisis came at a pivotal moment in Indian history and many credit the stresses of plague with giving certain nationalist a new platform to stoke unrest against the British.[364] There was certainly a lot to resist. British anti-plague measures

[363] Chandavarkar, "Plague Panic and Epidemic Politics. Arnold, *Colonizing the Body*, 200-230. David Arnold, "Touching the Body: Perspectives on the Indian Plague, 1896-1900," in Ranajit Guha (Ed.) *Subaltern Studies V* (Delhi: Oxford University Press, 1987), 391-426. Ira Klein, "Plague, Policy and Popular Unrest in British India," *Modern Asian Studies* 22 (1988), 723-755. Anna Clark, "Humanitarianism, Human Rights, and Biopolitics in the British Empire, 1890-1902," *Britain and the World* 9/1 (2016), 96-115.

[364] I.J. Catanach, "Poona Politicians and the Plague," in Jim Masselos (Ed.), *Struggling and Ruling: The Indian National Congress, 1885-1985* (London: Oriental University Press, 1987), 198-216.

were martial in their nature and were even performed by soldiers. The purpose was, in Rajnarayan Chandavarkar's words, "To identify and isolate the sick, remove them to hospital" and segregate their well but tainted family in "health camps."[365] Their possessions were taken and disinfected, sometimes burned. The mortality in the hospitals which people were forced into was high and friends and family were barred from visiting the sick. Death offered no protection from British meddling. Still searching for the mechanism of contagion to plague, vivisection of the dead became a regular aspect unless the families were prestigious enough or turned out in force to physically take their dead.[366] Before being given to families for burial or cremation, bodies were cleaned with lime and wrapped with lime sheets to limit contagion. In many areas, word of the British anti-plague measures reached towns before the plague, prompting people to hide their sick.

Historians agree that the response of the British was intrusive and utterly new in Indian public health. Arnold pointed to the plague policy as the first shift toward a wider public health policy. Chandavarkar described the British response as "novel and unprecedented" and "unique in the history of colonial India."[367] In a way they are correct. The intensity and directness of the anti-plague measures were new. British willingness to enforce measures that they knew would aggravate caste issues and their complete disregard of local elites were new in British public health. But the British followed the pattern that had been laid down through the smallpox eradication campaign, campaigns that after one hundred years had failed not only to stamp out smallpox, but to establish

[365] Rajnarayan Chandavarkar, "Plague Panic and Epidemic Politics," 207.
[366] Arnold, *Colonizing the Body*, 4-5.
[367] Arnold, *Colonizing the Body*, 202. Chandavarkar, "Plague Panic and Epidemic Politics," 207.

trust in British doctors. Both the actions of the British and the responses of the Indian people reflect the patterns of distrust, rumor, and suspicion that plagued smallpox vaccination.

The most vigorous action against plague occurred in a relatively small portion of the subcontinent, yet distrust and suspicion rippled across India. Bombay and Pune (Poona) experienced the most restrictions and the most incursions into people's homes and bodies. Most areas experienced some aspects of the plague measures, but as the plague spread it was clear the anti-plague measures were failing to control the disease and were creating fierce and sometimes violent backlash among Indians. Anti-plague measures show the deep distrust of the British towards the Indian people. In the beginning, their first impulse was to militarily attack the disease without thought of allies or partnerships. Doctors distrusted native involvement and sought to keep medicine and medical power in the hands of British medical professionals. It was neither accident nor panic that the British impulse was to respond in this way. One hundred years had convinced the British that 'natives' could not be trusted with Western medicine without rigorous oversight and British management. It was only after the utter failures of plague policy, and the assassination of two British plague officials, that British leaders recognized the need for Indian assistance in their plague battles. However, their initial response to plague had already exacerbated the distrust of people to public health measures.

The rumors associated with plague were similar to the rumors that surrounded smallpox vaccination. Many rumors involved fears that the British were deliberately giving Indian people plague either through wells, inoculation, or mystical means. Another

'rumor' was that the British were cutting up the bodies of Indians in order to steal the special essence from Indian bodies or make balms from their oils or skins. Another more millenarian view was that a catastrophe had come to India and this was only one part of an apocalyptic scenario. Each of these rumors reflected the same fears of replacement, exile, and loss which dogged smallpox vaccination. That the rumors grew more frenzied was a result of the plague as well as the chaotic, irrational response of the government in India.

Arnold argued that rumor is a form of "popular discourse" giving insight into subaltern perspectives.[368] Chandavarkar pushed back against Arnold's characterization of rumor as a 'popular discourse' arguing instead that rumor was "a means of mediating the unremitting horrors" of the plague and the British response.[369] But in these rumors which express fears of loss, exile, and separation, we find something more than a response to plague alone. These rumors had been circulating for decades and merely took new form under the anti-plague measures. People were not responding to anti-plague measures alone, but were finding new avenues to express the distrust of public health and British medicine which was making greater demands on their bodies and lives.

It is important here to separate public health from Western medicine. This is a distinction not made by the British and seldom made by historians. Chandavarkar noted that rejection of anti-plague measures and even British hospitals did not imply rejection of Western medicine and that Indian responses were too complex to characterize as either accommodation or resistance. Caste hospitals and charity hospitals became more

[368] Chandavarkar, "Plague Panic and Epidemic Politics," 223.
[369] Chandavarkar, "Plague Panic and Epidemic Politics," 223, 224-226.

common and were preferred over the British run hospitals. Medical professionals were in limited supply in Bombay City, but dispensaries, more widely available, had long been a popular in India and continued to be throughout the plague epidemic.[370] In using dispensaries, people were able to exercise autonomy. They were also able to consult native practitioners as well as conduct spiritual ceremonies without interference. In the case of plague, each of these methods was as likely to be successful as any other. Western medicine, despite its claims to scientific superiority, was virtually powerless in the face of plague. Nearly 80% of the patients admitted to the mandatory hospitals died.[371] This shows once again that it was not cultural bigotry that caused Indians to reject anti-plague measures but their own experiences of medical failures.

Plague fears affected the vaccination department, but not in the ways one would expect. There was no simple correlation between anti-plague measures and increased resistance to vaccination. In fact, the area which had the most stringent anti-plague measures, Bombay Presidency, reported little overt resistance to vaccination. Plague was barely mentioned in Bombay vaccination reports. In 1896, the year the outbreak started, the reports noted a decrease due to the instability of the plague and the loss of personnel to plague duties. They also advised that arm-to-arm vaccination be halted and switched entirely to calf lymph to limit the possible transmission of plague, but since most of the vaccination in Bombay province was done via calf lymph this was only a minor problem for the Presidency. From 1897-99, vaccination was halted in some areas due to plague, but there was nothing in the reports to indicate this was due to violence or protest, but

[370] Chandavarkar, "Plague Panic and Epidemic Politics," 226-227.
[371] Chandavarkar, "Plague Panic and Epidemic Politics," 229.

rather due to migration and contagion. By 1900, there was more mention of the famine affecting vaccination than there was of plague.

Areas outside of Bombay province did not experience the harsh plague measures that were enacted there, yet it was in areas that experienced little plague and fewer anti-plague measures that vaccinators encountered the most overt resistance. The 1900 report for the North West Provinces and Oudh noted "hostility" in the region. It also advised "abstaining from active persuasion at a time when men's minds were disturbed by wild rumors concerning plague preventative measures."[372] The Report for Punjab in 1901-02 noted vaccination operations were suspended in "certain badly infected tracts" due to "people being in a disturbed frame of mind. It was thought the presence of vaccinators might lead to trouble."[373] In Punjab in 1902-03 the report noted that in the areas in which no plague existed "the people feared that they would be subjected not to vaccination, but to anti-plague inoculation."[374] During the crisis, scientist Waldemar Haffkine developed an experimental plague vaccine that was tried on Indian people, often without consent. In order to conduct adequate trials, it was also denied to some people in order to test the efficacy. In 1902, a laboratory accident compromised the vaccine and nineteen people inoculated in a village died of tetanus.[375] People feared that they were being used for experiments and that they might contract plague or other illnesses. These fears persisted into 1905 with people still fearing that attempts to revaccinate were actually plague

[372] IP/30/VA.3. *Notes on Vaccination in the North-Western Provinces and Oudh for the Year 1900-01* (1901), 1.
[373] IP/32/VA.3. *Report on Vaccination in the Punjab for the Year 1901-02* (1902), 2.
[374] IP/32/VA.3. *Report on Vaccination in the Punjab for the Year 1902-03* (1903), 1.
[375] Barbara J. Hawgood, "Waldemar Mordecai Haffkine, CIE (1860-1930): Prophylactic Vaccination against Cholera and Bubonic Plague in British India," *Journal of Medical Biography* 15/1 (2007), 9-19.

inoculation in disguise."[376] Central Provinces experienced the same rumors of plague inoculation disguised as smallpox revaccination that developed in Punjab. These persisted from 1898 to 1905.[377] Bengal made the unfortunate decision of introducing the six puncture system (as opposed to the four puncture) at the same time as the plague outbreak. That report noted, "The extra two points were looked upon by the ignorant masses as in some way connected with plague inoculation."[378] This depressed vaccination efforts until the following year, but they appeared to rebound after that. Even Madras which had a low incident of plague experienced upheaval due to plague concerns. In 1898, the report noted the need to explain the difference between vaccination and plague inoculation.[379] The following year the report noted, "The people seem disposed to believe that the plague inoculation was being performed under the guise of vaccination."[380]

Bubonic plague was a new and deadly disease in India and both common people and the British government at times responded irrationally and out of panic. However, the government's response was not a complete contradiction to how they had previously conducted public health as historians have claimed. Nearly a century of vaccination mismanagement, combined with growing dearth, disease, and displacement, had created an ideal environment for wild rumor and fear to develop. Anti-plague measures were built atop a shaky foundation of failed public health endeavors. The plague is a high-

[376] IP/32/VA.3. *Report on Vaccination in the Punjab for the Year 1904-05* (1905), 2.
[377] IP/19/VA.3. *Triennial Report on Vaccination in the Central Provinces for the Year 1898-99* (1899), 4. *Notes on Vaccination in the Central Provinces for the Year 1902-03* (1903), 2. *Triennial Report on Vaccination in the Central Provinces for the Years1902-03—1904-05* (1905), 1.
[378] IP/6/VA.3. *Fourth Triennial Report of Vaccination in Bengal during the Years 1896-99* (1899), 4.
[379] IP/25/VA.3. *Report on Vaccination in the Madras Presidency for the Year 1898-99* (1899), 3, 20.
[380] IP/25/VA.3. *Report on Vaccination in the Madras Presidency for the Year 1899-1900* (1900), 3.

water mark in British public health mismanagement, but it was not just a bad response to a crisis, nor was it a contradiction to public health up until that point. The crisis exacerbated, but did not create, the distrust between British doctors and the people they served.

5.7 Smallpox and Public Health at the End of the Century

By the turn of the century laboratory medicine which focused on isolating and targeting specific diseases with specific cures was becoming the new wave of modern medicine. Following decades of work by 'great men' such as Pasteur and Koch, disease became focused on vectors and hosts and less interested in individual human beings. The divergence between public health for developed nations and 'tropical medicine' for the colonial space is particularly apparent in India. In England, people were beginning to make strides toward autonomy in matters of public health as we saw at the end of Chapter Three. This negotiation between the state, the medical profession, and citizens resulted in a robust public health system that was sympathetic to the needs of common people. In India, this consensus was never reached, not because Indians were more culturally or religiously inclined, but because neither the British state nor medical professionals credited the resistance to vaccination as a rational response to poor public health. Racist and derogatory views meant that Indian resistance was dismissed and the burden of public health failures was placed on the Indian people. At the same time, the British government of India showed its waning interest in public health by passing along the responsibility for public health matters, including vaccination, to local and municipal boards. Simultaneously, the British government at home and abroad invested in schools of tropical medicine and put funds toward laboratories and universities that would study

tropical illnesses. India was an ideal place for an ambitious young doctor to conduct experiments adding to what Chandavarkar called the "superstitions of science."[381] Vaccination reports at the end of the century show the new direction away from public health and toward 'tropical medicine.'

Failed vaccination in India was placed upon the Indian people particularly women. In the same Punjab report that noted the inconvenience of vaccination, the Lieutenant-Governor blamed persistent decline in vaccination numbers on local women. He wrote, "In vaccination as in other matters the women of the country are the conservative and indeed reactionary opposition, and in many places they still regard a visit to Mata Devi as far more efficacious than vaccination." He wrote, "To overcome the opposition of the women is the problem."[382] Yet reports showed that overcoming opposition was no longer a priority. Vaccination along with other public health issues was being placed more and more on Municipal governments and local boards. After one hundred years of mismanagement, British doctors shifted the responsibility over to boards ill-equipped to handle the new load with the expectation that local governments would also shoulder more of the cost of vaccination.[383] Medical professionals were despondent over the failed result of so much effort and exhibited the fatalism they often accused the Indian people of showing. One Bengal supervisor wrote, "Children remain unvaccinated. So it has always been, so it is, so it probably always will be."[384] Yet

[381] Chandavarkar, "Plague Panic and Epidemic Politics," 218.
[382] IP/32/VA.3. *Notes on the Vaccination in the Punjab for the Year 1907-08* (1908), 1.
[383] Bhattacharya et. al. *Fractured States*. See the chapters by Harrison and Worboys for an overview of vaccination from 1900-1947.
[384] IP/6/VA.3. *Fifth Triennial Report of Vaccination in Bengal during the Years 1899-1900, 1900-1901, 1901-1902* (1902), 3.

despite the malaise, doctors were optimistic about India as a place for professional growth particularly in areas that did not rely on Indian cooperation.

Bacteriological research was the new frontier of the medical profession and vaccination reports were filled with possible avenues for researchers. In Bombay, the Belgaum Calf Depot added a new bacteriological laboratory.[385] In Madras, despite persistent calls for reorganization in the department and significant failures of the system, the report noted with enthusiasm the many research opportunities available to young doctors.[386] This paradox of failure and opportunity is interesting. British belief in the power of science and medicine to transform health were unrelated to the realities on the ground. To reconcile their belief in their own science and their superior managerial abilities, doctors created a narrative that placed the blame for public health failures on the Indian people. The medical advances of the twentieth century, which were revolutionary and based in more rigorous science than those of the nineteenth, were overlaid across the rickety scaffolding of nineteenth century public health. British public health officials cultivated distrust and denied Indians autonomy yet still blamed them for its failures. While science can be true without considering people, public health cannot. Public health is the intersection of scientific knowledge and socially embedded human beings. Doctors tried to do public health without the public and failed. Doing better science, which medical scientists did in the twentieth century, was not enough to counteract the racist, culturally-biased narrative of Indian fatalism and bigotry created by nineteenth century British doctors. This narrative, and the faulty and incomplete public health of the

[385] IP/13/VA.3. *Notes on Vaccination in the Bombay Presidency for the Year 1906-07* (1907), 3. *Triennial Report on Vaccination in the Bombay Presidency for the Years 1905-06, 1906-07, 1907-08* (1908), 4.
[386] IP/25/VA.3. *Report on Vaccination in the Madras Presidency and the Work of the King Institute of Preventative Medicine, Madras for the Year 1904-05* (1905), 4, 6.

nineteenth century, continued to affect the types of health care people received even as medical science and the medical profession progressed on the sub-continent.

Conclusion

The British medical community in India failed to cultivate trust in vaccination throughout the nineteenth century. Doctors blamed innate Indian 'fatalism' and 'religious prejudices' and refused to acknowledge the rational reasons Indians resisted parts of the vaccination encounter. The vaccination department tried to establish partnerships with 'natural leaders' among the Indian people, but ignored Indian healers and kept the prophylactic under British supervision. As vaccination failed to take hold, doctors blamed the Indian people, not the many failures of their department. This distrust characterized British public health initiatives. The plague epidemic at the end of the nineteenth century showed a remarkable continuity with the vaccination campaigns. Distrust characterized the British response as they tried to legislate public health without public cooperation. By the end of the century, the British government and British doctors blamed the failures of public health on Indian people, cementing ideas about Indian incompetence and irrationality that have affected public health into the present. Doctors, with state funding, shifted to 'tropical medicine' to isolate and control disease with less human interaction and cooperation, extending medical authority at the expense of robust, responsive public health.

6.0 'Vicious Habits Thus Engendered':

The Legacy of Slavery in Anglo-Jamaican Public Health

Introduction

In 1851, in the wake of a cholera pandemic, smallpox became epidemic in Jamaica for the first time in nearly twenty years. After nearly two decades of neglecting vaccination, local doctors tried to vaccinate thousands of unprotected Jamaicans. The loss of life was tremendous and the British government launched an investigation into the sanitary state of the island. Some of the results of this investigation were sent on to Edward Cator Seaton, M.D., and his fellows at the Epidemiological Society in London. At this time Seaton, a leading proponent and researcher of smallpox vaccination, was the Honorable Secretary to the Small-pox and Vaccination Committee. He prepared an address on vaccination in Jamaica which he read before the society in July of 1855, four years after the epidemic and two years after the report.

In his address, Seaton explored the vaccination operation, its effects in a hot climate, its use among different races, and the practice of inoculation. What Seaton did not explore, yet still crops up in his address, was the uneven expansion of health care in post-emancipation Jamaica. When smallpox struck in 1851, "It found everything in the island favorable for its reception and propagation."[387] Vaccination had not been regularly performed among most of the population since the last epidemic. Seaton blamed the poor state of vaccination on the lack of a compulsory law and the "habitual neglect" of (mostly poor) people who had remained unvaccinated when smallpox was not epidemic.

[387] Edward Cator Seaton, MD. "Account of an Epidemic of Small-Pox in Jamaica in 1851-52, *Transactions of the Epidemiological Society of London: Papers and Communications* (1855), 4.

However, an exploration of Seaton's address shows another reason for vaccination neglect that had little to do with the "apathy" of common people. After abolition neither the colonial state, local officials, nor planters made arrangement for a system of public health that included emancipated Black Jamaicans. Seaton noted that the few vaccinations that had taken place on the island had been amongst the White population and most of the deaths from smallpox had happened amongst Black Jamaicans who were unprotected by vaccination. Nor was this group protected by inoculation. Inoculation had been common during slavery and had been promoted by planters as a cheaper alternative to vaccination as the island had limited supplies of vaccine lymph. But the Jamaica medical community discouraged smallpox inoculation without extending the practice of vaccination to the population. This was not an oversight. Health care after emancipation was used as a bargaining chip to force Black Jamaicans into wage labor. Across the Caribbean planters tried to leverage access to health care as a way to enforce labor discipline.[388] In Jamaica, this resulted in a public health system that served the needs of a small White elite while the majority Black population created their own alternative health system.

Medicine under slavery has received significant historical attention, yet medicine post-emancipation has been inadequately explored. A pioneer in the field of Jamaican medical history is Richard Sheridan with his monograph *Doctors and Slaves*. Sheridan explored demography, health, and disease in Jamaica from 1680-1834.[389] Numerous studies have since examined the role medicine played in underpinning the social order in

[388] Rita Pemberton, "Dirt, Disease and Death: Control, Resistance, and Change in the Post-Emancipation Caribbean," *História, Ciências, Saúde* 19/10 (2012), 47-58.
[389] Richard Sheridan, *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680-1834* (Cambridge University Press, 1985).

Jamaica, the Caribbean, and the Atlantic slave world.[390] However, outside of the work of Margaret Jones and Aaron Graham, few of these works focus on the process of medical professionalization.[391] And nearly all historical work on medicine in Jamaica ends or begins with emancipation creating a false separation between the periods of slavery and emancipation.[392] While ending slavery was revolutionary, it failed to fundamentally alter social relationships in areas like medicine. White planters held the political and economic power of the island despite being a minority in the country. Brown Jamaicans, who were often artisans, professionals, and members of the middle-class, lived mostly in the cities and provided a buffer between White Jamaicans and the majority Black population. Many Brown Jamaicans supported the racial status quo of the island because it protected their own middling role in society.[393] The bulk of Jamaica's population was Black and rural. At the time of emancipation, Black Jamaicans outnumbered Whites ten to one, yet they had the least political or social power.[394] Medicine before and after slavery existed to meet the needs of White elites. This limited the ability of the medical community to

[390] The historiography of medicine and slavery is too abundant to provide even a comprehensive list. I have included here some of the more recent and most important texts. Londa Schiebinger, *Secret Cures of Slaves: People, Plants, and Medicine in the Eighteenth Century* (Stanford: Stanford University Press, 2017). Karol K. Weaver, *Medical Revolutionaries: The Enslaved Healers of Saint Domingue* (Urbana and Chicago: University of Illinois Press, 2006). Vincent Brown, *The Reaper's Garden: Death and Power in the World of Atlantic Slavery* (Cambridge: Harvard University Press, 2008). These works emphasize the role of the enslaved in providing medical care and the syncretic medical traditions they created.
[391] Margaret Jones, *Public Health in Jamaica, 1850-1940: Neglect, Philanthropy, and Development* (Kingston: University of the West Indies Press, 2013). Margaret Jones, "Surviving the Colonial Institution: Workers and Patients in the Government Hospitals of Mid-Nineteenth Century Jamaica," in Khalid and Johnson (Eds.) *Public Health in the British Empire*, 82-99. Aaron Graham, "Politics, Persuasion, and Public Health in Jamaica, 1800-1850." *Journal of the Historical Association* 105/359 (2019), 63-82. Aaron Graham, "The Global Politics of Medical Reform in Britain and Jamaica in the Early Nineteenth Century," *Social History of Medicine* 0/0 (2020), 1-22.
[392] Aaron Graham's work (see footnote above) is an important exception to this statement.
[393] Belinda Edmondson, "'Most Intensely Jamaican': The Rise of Brown Identity in Jamaica," in Tim Barringer and Wayne Modest (Eds.) *Victorian Jamaica* (Durham: Duke University Press, 2018), 553.
[394] Tom Zollner, *Island on Fire: The Revolt that Ended Slavery in the British Empire* (Cambridge: Cambridge University Press, 2020), 3.

transform into an independent professional body and kept doctors from becoming responsive to the needs of the majority of society.

In this chapter, I argue that the practice of medicine was not fundamentally altered by emancipation. That is because the relationship between doctors and White elites and doctors and Black patients remained unchanged. Doctors primarily existed to serve the needs, medical and economic, of the White population, and this was still their purpose after emancipation. When slavery ended, doctors left the island in droves, no longer paid for their services by planters. In 1833, a year before emancipation, there were roughly 300 doctors on the island serving a population of around 350,000. By 1851, there were less than one hundred doctors on the island. By 1900, the colony boasted only 121 licensed physicians on the Jamaican Medical Register.[395] Doctors at the time believed emancipation fundamentally and negatively altered the practice of medicine on the island, and historians have inadvertently echoed this argument by ignoring the continuities of medical history before and after slavery. A rare exception comes from Dawn P. Harris in her monograph *Punishing the Black Body*. Harris argued that the racial order continued to be upheld and created by the medical profession during and after slavery.[396] My work builds on her thesis. However, Harris took the 'medical profession' as an obvious group of power holders whereas I am examining attempts to create a medical profession in the period.

[395] Sheridan, *Doctors and Slaves* (1985), 46. Phillip D. Curtin, *The Jamaicans: The Role of Ideas in a Tropical Colony, 1830-1865* (New York: Atheneum, 1970), 48. Seaton, *Account of an Epidemic* (1855), 1. Jones, "'The Most Cruel and Revolting Crimes': The Treatment of the Mentally Ill in Mid-Nineteenth Century Jamaica," *Jamaican Caribbean History* 42/2 (2008), 293.
[396] Dawn P. Harris, *Punishing the Black Body: Marking Social and Racial Structures in Barbados and Jamaica* (Atlanta: University of Georgia Press, 2017).

Doctors were a part of the highly stratified class/race system of Jamaica and their prosperity depended upon local and British power holders. Doctors were plentiful in the largest cities, where they were locked in competition with each other, and there were few doctors available in rural areas where many Black Jamaicans lived. Black Jamaicans who wanted to utilize the services of White doctors often did not have the option. Under the Jamaican Assembly, from 1838 to 1867, little in the way of public health was accomplished. Once Jamaica became a Crown colony, officials began to expand public health in an effort to stabilize the labor force, inculcate discipline, and show the benefits of 'enlightened' governance. But as the economic power of the colony decreased, local elites and Crown governors showed little political will to invest in a robust system of public health. This meant that doctors in Jamaica were reliant upon White elites for their private practice as well as their public sinecures.

This chapter will show that medicine in Jamaica never outgrew its foundation in slavery and attempts at reform failed for two reasons. One, the medical community failed to become an independent group who could pressure the government toward greater public health efforts as public doctors did in England and India. Two, White doctors did not create trust with Black patients who were the bulk of society. This was because the medical community remained more committed to upholding racial hierarchy and an abusive labor system than caring for the medical needs of poor, Black Jamaicans. The lack of trust in official public health meant two systems of medicine existed in Jamaica: a 'Western' medicine which served White, imperial interests and a hidden, often illegal, alternative medicine for the poor and Black which included African spirituality, herbalism, homeopathy, and aspects of British allopathic and folk medicine. This is not to

say that Black Jamaicans did not avail themselves of White doctors and 'Western' medicine. But the ties of British doctors to elite interests kept them from being responsive to the needs of the majority and ultimately hindered them from becoming a trusted professional body.

6.1 Anglo-Jamaican Medicine during Slavery

Planters claimed that a positive aspect of slavery was the health care they provided to the enslaved people on the island. Yet that care was often poor and doctors shared with planters the goal of getting people back into the fields rather than caring for sick. Black healers who used syncretic practices and created trust networks among Black Jamaicans were vital to the health care of enslaved people. Black healers performed vital health care services, yet their role was ignored and devalued in official treatises on medicine. Much of the actual work of healthcare was performed by these healers, including inoculating against smallpox. Enslaved and free Black healers were a source of competition to White doctors who failed to provide culturally appropriate care and were aligned with the planters. Rather than adopting methods and practices that would make them more popular and inspire trust in enslaved patients, doctors continued to gain their authority by aligning themselves with the minority White elites and competing for the patronage of White patients in cities. This pattern, established under slavery, would show remarkable continuity during the post-emancipation period.

One of the most abiding myths of slavery among contemporary Britons was that it provided quality medical care to enslaved people and that emancipation damaged medical care on the island for decades. Slave holders, their apologists, and even some abolitionists claimed medical care under the slave system was one of the positive aspects of the

system and that ending slavery decimated health care across the island. This analysis was rooted in the erroneous idea that planters had provided sufficient medical care for enslaved people. When slavery ended, there was a purge of medical men from the due to a collapse in remunerative plantation work. However, the care that enslaved people received during slavery often bad. Even making allowances for the poor state of medical theory, enslaved people received poor care as the purpose of doctors was to keep the labor force working. Whatever real health benefits they received came from enslaved people themselves who created their own networks of health and healing, but the mortality among this group remained high throughout the slave period.[397]

Despite the claim that enslaved people received medical care because it was in the economic interest of slave owners, in reality medicine was a neglected field in the slave economies of the Caribbean. One doctor, named only as Dr. Collins, wrote in his medical guide for planters, "No part of negro management has been more neglected, or erroneously performed, than that which regards the treatment of the sick."[398] He also encouraged planters to hire doctors on retainer rather than for individual cases. Slave apologists claimed this was a common practice, but numerous pamphlets urged planters to keep a doctors on retainer, showing that the practice was not common. Medical care was a low priority, and it was often left to enslaved people to care for one another.[399] However, Richard Sheridan argued that official neglect may have actually improved the care of some enslaved people. Medicine in this period was known for its 'heroic'

[397] For a discussion of mortality see Sheridan, *Doctors and Slaves*, 1-41.
[398] Dr. Collins, *Practical Rules for the Management and Medical Treatment of Negro Slaves in the Sugar Colonies* (1803), 236. wellcomecollection.org. (Accessed February 2020).
[399] James Thomson, M.D., *A Treatise on the Diseases of Negroes as They Occur in the Island of Jamaica* (1820), 10. collections.nlm.nih.gov. (Accessed February 2020).

practices in which emetics, diuretics, purging, and bleeding were all common. There was the added difficulty that some of the illnesses of Jamaica were unknown in Britain and methods of treatment were insufficient. This was particularly the case with illnesses such as yaws and dirt-eating which African doctors and herbalists were familiar with due to their occurrence in West African regions. Sheridan went so far as to argue that the only area of medicine that was at all efficacious was inoculation against smallpox. [400]

British doctors encouraged smallpox inoculation but the work was often performed by enslaved healers. Smallpox was not endemic to Jamaica, and outbreaks of the disease usually came to the island from the outside. This meant whole generations of Jamaicans were unexposed to smallpox. Smallpox among a previously unexposed population could lead to massive deaths and prior to vaccination inoculation was the preferred method to mitigate such a disaster among White and Black populations.[401] Doctors and planters rarely discussed African practices or traditions, but it is likely enslaved people brought knowledge of inoculation with them.[402] Smallpox inoculation among enslaved people either kept some of its cultural trappings from Africa or new meanings were given to the practice in Jamaica. Patients undergoing inoculation were prohibited from eating meat and "other stimulating foods" and prescribed measures to keep the body cool though White doctors claimed these practices were unnecessary.[403] Anthropologists Arvilla Payne and Mervyn Alleyne queried whether the dearth of medical care and the reliance on enslaved healers meant medicine was an area in which

[400] Sheridan, *Doctors and Slaves*, 249-267.
[401] Dr. Thomson, *A Treatise*, 69.
[402] Rebekah Lee, *Health, Healing, and Illness in African History* (London: Bloomsbury, 2021): 38.
[403] Thomas Dancer, *The Medical Assistant* (1801): 152, 154. wellcomecollection.org. (Accessed February 2020). Dr. Collins, *Practical Rules*, 318. The recommendations given by Black inoculators to patients shared several similarities with those given by Indian inoculators.

cultural practices were maintained more easily than other arenas. They do not provide an answer for this question, but smallpox inoculation shows that some medical practices survived, though we do not know if they kept the same relevance in slave societies. White elites depended upon Black healers for the health of the enslaved population. This included inoculation against smallpox even after vaccination became the norm for the White population on the island.

Due to inadequate lymph supplies and regular failures, vaccination did not become common on the island during slavery, though doctors supported the practice. Dr. Collins wrote in 1803 that vaccination was "the most valuable acquisition; the most complete and decisive, ever gained to medicine." However, at the time of his writing, it was difficult to obtain the vaccine matter in Jamaica. The National Vaccine Establishment which produced vaccine matter in Britain was not created until 1808 and vaccination was still largely a fad of the upper classes. However, by 1820, when Dr. Thomson wrote his treatise, vaccination had made no further progress. Thomson was obviously familiar with the practice. He wrote vaccination "disarmed [smallpox] of all its terrors." Yet it made few inroads into Jamaica. Planters made no effort to receive regular supplies of vaccine lymph leaving inoculation the only option for enslaved people.

Of the few vaccinations performed, there is evidence doctors made the procedure more painful for enslaved people. Thomson recommended six punctures for vaccinating the enslaved rather than the four used for White Jamaicans.[404] He argued that while some doctors would make only a light scratch that did not bleed, he found it necessary, "from the thickened state of the cuticle in some Negroes," to make incisions and "allow the

[404] In both India and Jamaica six punctures became the norm for non-White people even as four was the standard for White Britons in Britain and abroad.

blood to coagulate." This ran counter to the methods recommended for White and Indian patients where vaccinators were encouraged to avoid drawing blood. Thomson also claimed that if non-medical men performed vaccination they should use what he called a *double test*. "Thus on the fourth day…inoculate a second time."[405] This second inoculation was not recommended by the medical community in Britain or India.

Not only did vaccination fail to take hold, inoculation also declined amongst enslaved people leaving them vulnerable to an epidemic. In 1823, Roughley, a planter, described smallpox as an ailment children had to pass through. He mentioned neither inoculation nor vaccination as methods to ameliorate the disease.[406] Either inoculation as a practice had declined or Roughley was not aware of its practice. Through both circumstances we see that the medical community was unable or unwilling to actively promote the new method of vaccination. The medical community was also out of touch with enslaved healers who provided the bulk of the care leaving them unable to solve health care problems on the island.

Distrust characterized the relationship between enslaved people and White physicians because doctors were agents of the planters and overseers. The role of doctors was to support the plantation slave system. Medical pamphlets claimed it was "the serious duty of every planter to provide a proper person to superintend the management of the sick."[407] But these encouragements were ignored by planters. Unwilling to lose valuable field labor, planters staffed plantation hospitals, when they existed, with old or infirm slaves who could no longer work in the field. Even after the government

[405] Thomson, *A Treatise*, 17.
[406] Thomas Roughley, *The Jamaican Planter's Guide* (1823), 126. Archive.org. (Accessed February 2020).
[407] Thomson, *A Treatise*, 10. See also, Dr. Collins, *Practical Rules*, 296, 253.

established the so-called 'ameliorating laws' to try to force planters to care for enslaved bodies, medical care remained a low priority.[408] And any gains made under the ameliorating laws were quickly rolled back during the apprenticeship period. Planters tried to squeeze every bit of labor out of 'apprentices' and engaged in pointless acts of cruelty.[409] Even when medical care was assiduously attended to, the primary goal of the physician was to get sick people back into the fields. Dr. Collins claimed, "Nothing attaches a negro so much to his master, as his care of him when ill.[410] He offered this as a reason planters and overseers should attend to ill slaves. Yet in the same pamphlet he gave advice on how to identify "malingering" slaves. He discussed which complaints were most likely to be used by slaves feigning illness. [411] And he offered recommendations for discovering 'malingerers' amongst the really ill.[412] Medicine during slavery existed to increase productivity, not cure disease or care for the sick.

Racist assumptions of biological difference along with the drive for productivity meant that medical treatment for Black Jamaicans was different than that for White Jamaicans. Sometimes this was due to perceived differences between White and Black Bodies. Dr. Collins wrote that "Negroes do not prepare [make] so much nor so good blood as the whites," and offered alternative, harsh treatments that were not given to White people.[413] The drive to increase labor also meant enslaved people received inferior treatment. Dr. Thomson wrote of cholera, "White people who have suffered will find it

[408] Thomas Roughley, *The Jamaican Planter's Guide*, 76-77, 91-92.
[409] Joseph Sturge and Thomas Harvey, *The West Indies in 1837, Being the Journal of a Visit…* (1838), 158, 160. books.google.com. (Accessed February 2020).
[410] Dr. Collins, *Practical Rules*, 264.
[411] Dr. Collins, *Practical Rules*, 266.
[412] Dr. Collins, *Practical Rules*, 259.
[413] Dr. Collins, *Practical Rules*, 449.

necessary to visit a cold climate, in order to restore their wanted vigor."[414] No planter was going to send a slave away to a cold climate to convalesce. Slave medicine was different from White medicine, not only because of racist assumptions of difference, but because it had conform to what planters were willing to do to ensure a slave's health. Because slavery was a totalizing system, enslaved people were denied autonomy, and often humanity, within the health system. Frantz Fanon, writing about French colonial medicine in the 20th century, described it as something more akin to veterinary work than medicine because of the power imbalance.[415] This was even more the case in slave societies.[416] In England and India, the purpose of public health was to promote a healthy enough labor force and protect elites from illness. Yet within these systems, to varying degrees, the English working-class and Indians of all classes were able to create autonomy and effect some change upon both the state and the medical profession. Enslaved people were denied this opportunity. After slavery little changed in the relationship between the medical community and Black Jamaicans. This is not to say Black Jamaicans did not have an impact upon medicine and health in the island. They certainly did. But their impact came through the creation of a separate health culture that grew up alongside and partially hidden from official British medicine.

Called by different names—folk, alternative, Obeah—Black Jamaicans had their most profound influence on public health and medicine by creating their own health culture. White Jamaicans publicly scorned Black health culture yet privately utilized the unorthodox practitioners they denounced. Unorthodox practitioners borrowed from

[414] Thomson, *A Treatise*, 42.
[415] Frantz Fanon, "Medicine and Colonialism," in John Ehrenreich (Ed.), *The Cultural Crisis in Modern Medicine* (New York: Monthly Review Press, 1978), 234.
[416] Dr. Collins, *Practical Rules*, 302.

African cultures, religious traditions, English folk, allopathic medicine, and herbalism to create an alternative medicine that was unique to Jamaica. Though it shared similarities with other slave societies, the specific context of Jamaica created a unique popular medical style. Doctors dismissed 'slave medicine' in their writings and pamphlets as inferior to their own medicine, but it rivaled British medicine in its popularity. Dr. Thomson wrote of the "intimate union of medicine and magic in the mind of the African" and claimed it "is worth the consideration" of interested parties "as it exerts the most serious influence in our successes in relieving their disorders."[417] Thomson acknowledged that for medicine to be effective, its practitioners must be aware, and to some extent engage with, the cultural expectations of their patients. He argued that the abundance of "obeahmen" had put physicians on "unequal footing." Many people, enslaved and free, often preferred the 'obeahman' over the medical practitioner. Enslaved people, free Blacks and Browns, and Whites would all, at different times, call in alternative practitioners. While Thomson noted that doctors should be aware of the cosmologies of their patients, he opposed conforming to patient expectations of medical treatment. Rather, he believed the medical community should held to end 'superstitious' practices. He claimed that planters should find a superintendent of the sick who was "above all prejudices and superstitions."[418] Thomas Roughley took this even further in his pamphlet. He claimed the goal of planters should be to "lessen the propensity to vice, cabalistic, or obea, induce them to receive Christianity" and "when really sick that they be taken into the hospital, under the care of the attending doctor."[419] The purpose of

[417] Thomson, *A Treatise*, 8.
[418] Thomson, *A Treatise*, 10.
[419] Roughley, *The Jamaican Planter's Guide*, 77.

medicine in Jamaican slave society was not just amelioration of illness or promotion of labor. It was tied to the larger goal of maintaining the racial order which included ridding people of anything "African." This goal of eradicating African tradition and promoting White culture would continue long after slavery ended and, in many ways, became more important after abolition. Medicine was an important part of the endeavor to sustain White hegemony in post-emancipation society.

6.2 Anglo-Jamaican Medicine after Slavery

Before and after emancipation, doctors made sporadic attempts to organize their community, influenced by the reforms in Britain. Emancipation caused many doctors to flee the island for more remunerative work elsewhere. Others stayed in Jamaica but stopped practicing medicine. Public health was not a priority of either the British colonial government or local White power holders and public health languished. Cholera and smallpox epidemics struck the colony in the 1850s, leading to loss of life and economic upheaval. The British government launched an investigation into the health of the island and a cadre of local doctors created a snapshot of public health in 1852. They recommended sweeping changes and public investment in health care, but their recommendations were ignored. Unlike their British counterparts, their weak position and divisions in their community kept the community from becoming an independent group that could pressure the government for more public health investment. Doctors also routinely failed in their public duties exacerbating distrust already present against White, British doctors. For their part, the doctors who put together the report believed health care was a way to inculcate 'civilization' among the Black population and possibly create stronger relationships between the rich and poor, and the White and the Black. However,

most efforts, along with being underfunded and poorly controlled, were ill-suited to the specific context of Jamaica. For several decades after emancipation, public health saw little to no investment or attention.

From the 1820s through the 40s, doctors made attempts to organize along the lines of their British counterparts. Without local medical schools, Jamaica's doctors trained in Britain and imbibed certain ideas of professionalization and comradery. However, replicating these traits within the context of a planter colonial society proved nearly impossible. Internally, the profession was split along multiple axes. It was difficult to maintain a middle-class lifestyle solely through the practice of medicine, so doctors were also planters and tradesmen dividing their allegiance. There was also enmity between town and rural practitioners. According to Aaron Graham, the town/rural split kept doctors from forming a College of Physicians and Surgeons on the island. Graham claimed the medical profession was divided between those who saw themselves as part of an "imagined community" of medical brethren which included their British counterparts and those who did not. Jamaica was a site at which these larger British struggles played out. But Jamaican society was different than British society. British doctors, especially the new class of GPs, were trying to reform an "entrenched hierarchy" organized by class.[420] The hierarchy in Jamaica, unlike Britain, was predicated primarily along racial lines with Whites at the apex and every other shade beneath. While professional squabbles resembled those in Britain, Jamaican doctors were united in their commitment to upholding the racial hierarchy on which their status and wealth depended. Even as

[420] Aaron Graham, "The Global Politics of Medical Reform," 2. See also Michael Brown, *Performing Medicine: Medical Culture and Identity in Provincial England, c. 1760-1850* (Manchester: Manchester University Press, 2011).

these factions fought over issues of reform and professional status, emancipation created new pressures to the profession. Doctors responded by linking themselves more firmly to planter elites. This kept the medical community from becoming an independent profession that could promote public health.

In 1838, enslaved people gained their freedom radically changing their lives but doing little to alter the social and political structure of the island. White planters and their Brown allies, both minority populations, kept political power in their hands and Britain, concerned with abolition but not equality, left the Jamaican Assembly with considerable local power. The British colonial government and the Jamaican Assembly wanted to keep Jamaica a productive, wealthy sugar colony. Emancipation did not change the goals of White Jamaicans. They wanted to make a pile of money and return "home" to Britain.[421] For the British government, particularly the abolitionists, it was a point of pride that Jamaica be a productive colony to prove that abolition was not only moral but economically viable. As an example of the superiority of the free market over forced labor, abolition was a failure in Jamaica. The sugar economy faltered. Planters and pro-slavery allies back home blamed Black Jamaicans for this failure. Abolitionists worried that Jamaica's Black population was not induced into wage labor. They preferred subsistence to the paltry wages offered by planters.[422] Within this context, there was little inducement on the part of any of Jamaica's power holders to invest in public health.

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[421] Curtin, *The Jamaicans*, 15.

[422] The historiography of Jamaican social and cultural life is too great to list. A few representative texts are presented here. Curtin, *The Jamaicans*. Kamau Brathwaite, *The Development of Creole Society in Jamaica, 1770-1820* (Oxford: Clarendon Press, 1971). Abigail S. Bakan, *Ideology and Class Conflict in Jamaica: the Politics of Rebellion* (Montreal: McGill-Queen's University Press, 1990). Lucille Mahurin Mair, *A Historical Study of Women in Jamaica, 1655-1844*, Hilary McDaniels Beckles and Verene A Shepherd (Eds.) (Jamaica: University of the West Indies Press, 2006). Brian L. Moore and Michele A. Johnson, *Neither Led nor Driven: Contesting British Cultural Imperialism in Jamaica, 1865-1920* (Kingston: University of the West Indies Press, 2004). Brian L. Moore and Michele A. Johnson, *They Do as They*

Public health was a low priority for Jamaica's White planters and the small medical community had insufficient power and resolve to push for reform. Phillip Curtin argued that the reflexive desire for "home" or "return" to Britain undermined public responsibility and civic engagement. He pointed to the dearth of great buildings, schools, and institutions, but public health is an area that does much to prove his point. Upon emancipation, Jamaica went from having 300 practicing medical men to less than 100, and not all of them still practiced. Elite, wealthy Jamaicans mostly lived in or near the large cities and had access to British trained doctors whom they paid for their services. It was the rural areas who lost the most doctors as medical men were no longer supported by plantation overseers. Doctor's relationships with Black Jamaicans were tenuous at best and they assumed, probably rightly, that Black Jamaicans would not pay for their services or call them in regularly. Jamaican elites were unwilling to fund public health to ensure doctors were available across the island.

In the decades following emancipation, Jamaicans made little to no public effort to entice more doctors to the island or to invest in public health. Modeled along the British system, Jamaica was divided into parishes and taxation fees or "rates" were used for funding a basic social safety net which resulted in a handful of prisons, workhouses, and hospitals. The larger cities had such structures and rural areas, mostly Black, were left to create their own forms of reciprocity and sick care. What facilities did exist were underfunded and badly in need of reform.[423] But there was little incentive, economic or moral, for elites to provide better options. The most significant laws related to public

Please: The Jamaican Struggle for Cultural Freedom after Morant Bay (Kingston: University of the West Indies Press, 2011).

[423] Jones, "Surviving the Colonial Institution." Jones, "'The Most Cruel and Revolting Crimes.'"

health up until the 1850s had to do with quarantine. There were few legislative attempts to control endemic disease, and almost no preparation against epidemics. At mid-century, the poor state of Jamaican health would be painfully revealed.

As noted above, in 1851, Jamaica was hit by twin epidemics of cholera and smallpox which decimated the Black population and greatly affected the White and Brown populations as well.[424] The epidemics were disastrous enough to prompt the British government to commission an investigation into the state of Jamaica's public health. The British colonial government implemented an Act to create a Central Board of Health to investigate and report on Jamaican public health. The group was comprised mostly of doctors and a few engineers. Their mission was to investigate the faults of the island's health systems, including structural issues, and report back. The report was spearheaded by Dr. Milroy an M.D. who used the *Report* as a pulpit to promote his view of public health and sanitation. As a part of the report, a questionnaire was sent to all of the practicing physicians on the island, seventy-nine in number. Sixteen were returned along with a few general statements from doctors who did not fill out the questionnaire. The final account was strongly influenced by Gavin Milroy so we must be cautious in ascribing these ideas to the whole medical community. Few doctors bothered to respond to the Questionnaire and few changes came from the investigation. The *Report* and its Appendices provide a snapshot of public health, the burgeoning medical profession, and the alternative health care of Black Jamaicans. It shows that while there was a small cohort of doctors trying to use public health as a vehicle to promote their profession, their weak role in society and their small numbers limited their reform efforts.

[424] Gavin Milroy et. al. *Central Board of Health Report* (1852), 171, 243.

In 1845 an attempt was made to supply the poor and the destitute with basic healthcare through a dispensary system, similar to England or India. Through this system, people could pay a monthly fee for tickets that would enable them to obtain free or cheap healthcare from a local public practitioner. Doctors almost uniformly agreed the Act was a failure and blamed Black Jamaicans claiming, "The negro population generally will not subscribe to it."[425] This was due, according to Dr. Chamberlain, a respondent, to the "mercenary, covetous, venal and parsimonious disposition, peculiar to the race."[426] Dr. Chamberlain was not alone in believing there was a racial component in the failure of the Dispensary Act. Dr. Richard Burke, another respondent, wrote, "Negroes wished to secure all the benefits of the club system…when sick, without its incurring obligations while in health."[427] Still another wrote that the 'negro' population was "not willing to submit to (hospital) discipline" and have only "imperfect acquaintance with civilization."[428] Each of these doctors placed the blame for the failure of the Dispensary Act on the poor it was designed to help. It was not that civilization was failing the people of Jamaica, the people of Jamaica were failing to take advantage of the benefits of civilization. However, a few doctors offered a different picture of medicine in Jamaica.

Several medical men blamed their fellow practitioners for the failure of the Dispensary Act. Dr. Rapkey of St. George claimed, "The Dispensary Act of the ninth Victoria…worked very well in this parish…because I was long known as a successful practitioner. The cause of its failure may be attributed generally to a want of knowledge

[425] Dr. Chamberlain. "Appendix H," *Central Board of Health Report* (1852), 153.
[426] Dr. Chamberlain. "Appendix H," *Central Board of Health Report*, 153.
[427] Honorable Dr. Alexander Brave, "Appendix H," *Central Board of Health Report*, 211.
[428] Dr. Musson, "Appendix H," *Central Board of Health Report*, 200.

of, and confidence in, the practitioner."[429] Another doctor, while also blaming "black quacks," argued that the act failed because it was "poorly understood" and "not given adequate time to work."[430] Dr. (Honorable) Alexander Brave claimed the Dispensary Act failed because there were too few medical practitioners and they were often too far to give proper aid. He went on to add, when asked about the possibility of a new medical act to provide for the poor, "The success of this measure would entirely depend on the character and ability of the medical practitioner to secure the confidence and good opinion of the inhabitants."[431] We see in all these examples a problem of trust that existed between doctors and the people they served.

Public doctors exacerbated distrust that was inherited from the slave past by poorly performing their duties. Jamaica had a unique health care system due to the lack of medical personnel and the intense parsimony of the landowning elite. Unwilling to support medical men from the public weal, doctors in Jamaica were paid a certain sum to perform agreed upon public duties, but they were also allowed and encouraged to have a private practice to supplement the meager income offered by the parish. There was little oversight for public medical men and no repercussions for doctors who failed to perform their public duties. Doctors placed their private clients ahead of their public duties to the detriment of the poor. Families or individuals could pay into the public system and still have to pay out of pocket for health care during illness. The Dispensary Act only worked as well as the doctor in the parish. Conscientious medical men performed their duties and created a certain degree of trust in British medicine and White doctors. However, doctors

[429] Dr. Rapkey, "Appendix H," *Central Board of Health Report*, 230.
[430] Reverend S.H. Cooke, "Appendix H," *Central Board of Health Report*, 234.
[431] Honorable Dr. Alexander Brave, "Appendix H," *Central Board of Health Report*, 202, 205.

who performed their work poorly deepened the distrust against the entire medical system. Doctors almost universally agreed that there was a dearth of medical men and that some of them failed in their duties, but few blamed their fellow medical men for the failure of the Act.

The Dispensary Act was loosely based on British Sick Clubs or Friendly Societies, but rather than being organic outgrowths of society, it was forced upon an unwilling population. Sick Clubs and other forms of self-help had been successful in Britain helping to ameliorate some problems of poverty and the risk associated with disease and ill-health.[432] Legislators hoped the Dispensary Act would achieve similar aims: to spread the cost and risk of ill-health across society, to encourage the working poor to take responsibility for their health care, and to foster British ideas of social responsibility. There were two problems. First, legislators attempted to force a specific, cultural type of mutuality on the populace while ignoring indigenous forms of reciprocity and risk-sharing. Second, poor Jamaicans had no control over the type of care they received nor were they guaranteed doctors would actually perform their public duties.

Black Jamaicans were not without their own forms of mutuality in the 1850s. From caring for the aged and infirm to paying for medical care, poor Jamaicans had loose systems in place. While we find these mainly through the distorted lens of White writers, the sources showed numerous ways the poor cared for each other. As in most societies at the time, elder women acted as midwives in birth.[433] The elderly lived with their kin doing small household chores such as guarding property or minding children. The Black

[432] Ismay, *Trust among Strangers*. Riley, *Sick, Not Dead*.
[433] Milroy et. al., *Central Board of Health Report*, 114.

population had their own doctors as well, though White elites refused to designate them as such.[434]

The main fault of the Dispensary Act was its attempt to mandate systems in Jamaica that had grown organically in Britain. Sick Clubs and Friendly Societies, while sometimes fulfilling aims of the state, were natural outgrowths of working-class agency in Britain. Working people saw them as a way to ameliorate problems in their own lives, and they sometimes clashed with the state. The British hoped that by bringing the machinery of Sick Clubs, healthcare could do some of the social work of binding the lower classes to elites through loose forms of reciprocity. It proved impossible to successfully import such systems of mutuality.

White elites tried to create a culture based on British Victorian norms, but the bulk of the people were denied participation in the cultural and social life of the island. The hope behind the Dispensary Act was that it would help create a cultural consensus not just around medicine but around 'British Civilization.' While historians have not generally included medicine in their discussion of culture formation, we see many of the same forces at work in medicine as we do in dress, music, and language. While the state and White elites were trying, with limited success, to be the cultural force in society, they found it impossible to enforce cultural standards from above when the bulk of the population had alternative cultural practices. White Jamaicans financially and socially supported British medicine, but the bulk of Jamaicans had different medical practices either from financial need or because 'quack' doctors allowed them more agency. Viewed as competition for both medical professionals and White British culture,

[434] Milroy et. al., *Central Board of Health Report*, 266.

alternative practitioners faced legislation designed to limit their ability to provide health care.

There were numerous reasons Jamaicans of all colors chose alternative practitioners. While doctors tried to argue that a preference for 'quack' practitioners could be put down to superstition, Dr. Chamberlain noted, "The black population appear to prefer their own people. They seem always to entertain a marked sympathy for their own color in most things, and they in turn pander to their wants and desires, and particularly so, in the exercise of the 'healing art.'"[435] While Chamberlain was pointing out what he saw as an incomprehensible and deplorable aspect of medical preference in Jamaica, popular acceptance of practitioners is an important aspect of medical authority. Black Jamaican's choice of alternative practitioners was not evidence of superstition or a primordial draw to traditional medicine, nor even was it only a racial preference. Jamaicans often preferred the 'quack' over the White 'buckra' doctors because unlike the licensed physicians, 'quacks' often gave patients autonomy in the encounter and conformed to popular ideas of diagnosis and treatment. Medicine as practiced by 'obeah' doctors catered to the physical, emotional, and spiritual well-being of the patients. When a patient came for care, they were allowed to be an active participant, not merely a passive recipient of the doctor's actions.

6.3 Disciplining Bodies through Public Health

White elites tried to recreate organic British systems in the different cultural, economic, and political space of Jamaica. Reforming doctors argued that public health

[435] Dr. Chamberlain, "Appendix H2," *Central Board of Health Report*, 158. The preference for a medical practitioner of the same color was noted by Dr. Richard Burke, Appendix H2," *Central Board of Health Report*, 213.

efforts could discipline Black Jamaicans and help create an industrious working-class as they believed it had in Britain. But in Britain, the working-classes were gaining political and economic power and were able to influence public health. The rigid racial system of Jamaica did not allow for this syncretic action. Public health was created and implemented from above and it failed to meet the needs of the bulk of Jamaica's population. The rhetoric of doctors toward the lower classes is similar in Britain and Jamaica, but the political, economic, and social contexts were starkly different. By barring Black Jamaicans from access to political, social, and economic power, reformers doomed their own public health efforts.

The problem of Jamaica for White elites was labor. Following full emancipation in 1838, the sugar economy suffered a series of blows. The British government removed protective sugar tariffs which put Jamaican planters in competition with Brazilian and Cuban sugar still produced with slave labor. A new boom of beet sugar in Europe further depressed prices. Planters could not acquire the labor they needed to do the time-sensitive work that sugar required, yet they also refused to pay decent wages. Instead, they lobbied the colonial government to subsidize the cost of bringing indentured labor to the colony. The bulk of the indentured workers came from India and China. But some White Jamaicans resisted importing labor, arguing they needed to find new ways to induce Black Jamaicans to take up remunerative work. A few doctors, particularly Dr. Milroy who shaped the Central Board of Health Report claimed the poor state of public health was robbing the colony of its workforce. They tried, and failed, to use the health crisis of the 1850s to lobby for increased attention and expenditure on public health and a greater role for medical men in guiding the colony.

The authors of the *Central Board of Health Report* argued that poor public health was at the root of the labor issue. They wrote, "While thousands of pounds are being expended in the laudable desire of increasing population, through the means of emigration, the lives of those already settled here are hourly in peril."[436] They further added, "It is useless to cry out for more labourers, or for immigration" when tens of thousands of Jamaicans had only recently died due to epidemic disease. They went on to state that it was the responsibility of the government to flex its "paternal authority" to ensure that an adequate amount of medical practitioners be placed on the island and guaranteed an income through taxes. "Till this is done," they wrote, "any further attempt to induce strangers to embark their fortunes here, can be but to disregard the laws of God and man."[437] Investing in public health, they argued, was an investment in the fortunes of Jamaica. This ran counter to the desire of many planters who wanted to use health care to bring Jamaicans into remunerative labor.[438]

Public health in Jamaica, even more so than in England, was about disciplining workers as well as improving their health for productive labor. Planters as well as doctors viewed Black Jamaicans as productive units that were failing in their primary task of supplying labor to the plantations. Many doctors blamed the poor for their 'laziness' and 'shiftlessness.' The writers of the *Report* claimed, "The vast majority of the lower classes…squat down in sullen laziness, or lead an idle migratory life…subsisting, in a great measure, upon the fatness and abundance of nature."[439] Work on sugar plantations, the only work deemed legitimate by White Jamaicans, was highly unpopular. It was not

[436] Milroy et. al., *Central Board of Health Report*, 10.
[437] Milroy et. al., *Central Board of Health Report*, 117.
[438] Pemberton, "Dirt, Disease and Death," 51.
[439] Milroy et. al., *Central Board of Health Report*, 8.

only dangerous and poorly remunerated; it was as reminder of the slave past. Black Jamaicans did plantation work to subsidize a mostly subsistence income and provide the cash for taxes and a few items that could not be grown or bartered, such as tobacco and spirits.

Some thought that adding a health tax would not only force Black Jamaicans to care for themselves, it would be an added 'incentive' toward remunerative labor.[440] Plantation work paid around 1 shilling a day. Workers were usually paid to do a specific job or a set of tasks which took between 5-6 hours.[441] Most workers were offered more money to take on more tasks, but often refused to work in the fields though some would take additional tasks in the mill or boiling house. On top of their plantation work, Jamaicans had small plots on which they kept livestock and grew food such as fruits, beans, and squash for subsistence and possibly some coffee or cocoa to augment their cash flow.[442] Since subsistence activities did not add to the wealth of the island, according to White Jamaicans, these tasks were devalued. The fact that most laborers refused to work more hours on plantations was considered a sign of their laziness and barbarity. The 'ease' of life in Jamaica had made them 'lazy,' 'shiftless,' and 'reckless,' and Jamaican peasants were negatively compared to the working classes of Britain.[443] Doctors believed improving the health of the island would be relatively easy.[444] But it was not enough to improve the health. They also wanted to improve the morals of the

[440] "Appendix H2," *Central Board of Health Report*, 173-174.
[441] Dr. Richard C. Burke. "Appendix H2," *Central Board of Health Report*, 210.
[442] Dr. Brebner, "Appendix H2," *Central Board of Health Report*, 263.
[443] Dr. Chamberlain, "Appendix H2," *Central Board of Health Report*, 148.
[444] Milroy et. al., *Central Board of Health Report*, 7.

Jamaican people and health care recommendations were made with an eye toward reforming and disciplining the Black population as well.

The authors of the *Report* and their medical allies wanted to find a way to inculcate discipline amongst Black Jamaicans. A frustrating problem, according to the doctors polled, was distinguishing the real destitute from the '*independent pauper*,' people whose poverty was their own fault through laziness. According to the authors, "The Board are of the opinion that it is a great mistake to do so much for the poor as to render it unnecessary for them to exert and help themselves." The independent pauper was "invariably the most troublesome patient to attend."[445] 'Independent paupers,' a term used throughout the *Report*, remained ill-defined. Dr. Chamberlain described them as "daily laborers, washerwomen, house cleaners, coalers, fishermen, etc," who only followed such occupations "when they chose to exercise them."[446] Discussing various health problems, the Board argued that a majority of the lower classes "not impelled by circumstances to be field laborers are too lazy to move." Dr. Chamberlain claimed the best form of relief would be that they be "made to labour." [447] Doctors and planters, who were sometimes the same, viewed labor discipline as the primary issue plaguing Jamaica. The economic independence of the peasantry, an independence that allowed them to live outside of White control, needed to be impeded. Doctors claimed this 'independence' was responsible for both ill health and the ills of the Island leaving physicians singularly suited to reform the lower classes.

[445] Milroy et. al., *Central Board of Health Report*, 268.
[446] Dr. Chamberlain, "Appendix H2," *Central Board of Health Report*, 141.
[447] Milroy et. al., *Central Board of Health Report*, 110. Dr. Chamberlain, "Appendix H2," *Central Board of Health Report*, 149.

Doctors linked hygiene, morality, and civilization together then argued sanitary measures were the solution to the social and physical ills of Jamaica. The authors of the *Report* noted that some thinkers argued, "The labouring classes…must first be educated and trained in paths of virtue and morality." But the authors claimed, "Immorality…is most unquestionably the offspring of the neglect of sanitary measures."[448] Cleanliness truly was next to Godliness. Jamaican doctors pointed back to Britain. The *Report* included a long quote from the Bishops of London who extolled the moral purposes of sanitation in raising the British lower classes out of the morass of iniquity. Using sanitation to effect social and cultural changes was a feature of British life as much as Jamaican life. But in Jamaica White elites were attempting to overlay imported ideas and methods onto a population that had its own competing identities and ideas. White society also barred Black Jamaicans from participating fully in society and even wealthy Brown folks were disallowed entrance into the upper reaches of White society. Doctors in Jamaica were trying to import a set of standards and assumptions into society, while ignoring the differing social, political, and economic realities of Jamaica.

White Jamaican society was not a reflection of British social norms but a creation of a specific cultural context in which cruelty and vice were more common than civic pride or social reform. Reformers wanted Jamaican laborers to adopt working-class norms similar to those of the British lower orders. But the class structure of Jamaica was highly stratified and nearly immobile creating a social order incomparable to that of England. As working-class Britons were gaining access to the vote and creating and adapting methods of mutuality, Black Jamaicans were barred from elite society and their

[448] Milroy et. al, *Central Board of Health Report*, 5.

culture was ignored and devalued. Efforts by Blacks and Browns to adopt British norms, particularly through dress, were derided as imitation and attacks on their 'superiors' and further example of their debased state.[449] Planters wanted Black Jamaicans to adopt norms of conspicuous consumption to force them to work for wages, but they also had to keep them from attaining social or political status over or alongside the White ruling class. Many doctors believed sanitation and public health offered an opportunity to discipline and instruct the majority of the population as it had done in Britain. But this ignored the part played by the working-classes in modulating public health into something acceptable and responsive to working-class needs. In Jamaica, even more than in India, state medicine failed to make the leap to public health. Doctors remained tied to the needs of White elites, limiting their effectiveness in society and exacerbating pre-existing distrust in the medical community.

Similarly, looking to Britain did little to give Jamaican public health reformers a roadmap for effecting change. Not unlike their British counterparts, Jamaican doctors blamed the lower classes for disease. However, in England the lower and upper classes worked within the same space, discursive and physical. They had a shared culture from which to create new norms and they shared the physical space of cities and rural areas. This was not the case in Jamaica. Not only did White and Black Jamaicans have different cultural backgrounds, Black Jamaicans had built much of their society out of sight of White people. Society was divided into separate cultural and social factions. Historians have discussed this phenomenon extensively, yet few have included public health in this

[449] "Appendix H2," *Central Board of Health Report*, 151.

exploration.[450] Public health in Jamaica failed because it remained unresponsive to the needs of the public. Black Jamaicans were targets of health initiatives and lacked both formal and informal sources of power to effect change within the system.

6.4 Epidemic Smallpox

The year 1866 should have been a turning point in Jamaican history. Following the disastrous tenure of Governor Eyre, Jamaica became a Crown Colony and the Colonial Government set about modernizing and reforming across the island. Public health, largely neglected since 1852, occupied some official government attention. In 1867, a new law established local boards of health across the island's parishes and made provisions to recruit more trained physicians for the island. The purpose was to create a public medical establishment along the lines of those in Britain that would offer medical care free to paupers and at decreased rates for the poor. Doctors received a set salary for their public work but were also expected to ply their trade privately to augment their income. What the law and subsequent amendments created bore little resemblance to the public health structure of Great Britain. Nor did it resemble the Indian Medical Service nor other British Caribbean public health services which offered better remuneration, pensions, and leave. What the government created in Jamaica was unique and an utter failure. This became apparent in the 1870s when a deadly smallpox epidemic tore through Jamaica creating a public health fiasco.

In the absence of strong public health initiatives, vaccination remained a low priority even after the epidemic of the 1850s. Throughout the 1860s the government

[450] Moore and Johnson, *Neither Led nor Driven*. Moore and Johnson. *They Do As They Please*. Barringer and Modest, *Victorian Jamaica*.

failed to procure adequate supplies of lymph and doctors did not make vaccination a priority. It was not until 1865 that Jamaica, under the 28th of Victoria Cap. 41, finally made vaccination compulsory, more than fifteen years after the first Central Board made the recommendation.[451] One of the chief problems of vaccination on the island was still the dearth of qualified medical practitioners. One option the new legislation allowed was to train non-medical men as vaccinators. If two medical practitioners signed a certificate claiming a non-medical man competent to perform and judge the operation he could be installed as public vaccinator. The new parish vaccinator should then "immediately after his appointment arrange with such ministers of religion of all denominations and schoolmasters" to organize the children for vaccination.[452] While some legislation followed the British model, such as a penalty not to exceed 20s. and a penalty for inoculation, the legislation was also more stringent. For instance, it denied children entry to school unless they were vaccinated, a measure doctors had been asking for in England, but was never considered by Parliament. However, there was no machinery in place, nor public funds earmarked, for a functioning vaccination program. Vaccination remained sporadic and health structures ill-prepared for an epidemic. Black Jamaicans formed their own health networks, but they were constrained by laws designed to eradicate Black health culture even as the dominant health systems failed them.

Doctors and the state were united in their efforts to limit access to alternative practitioners, a deviation from both British and Indian public health. The poor in Britain had access to a range of alternative practitioners—from herbalists, to hydropaths, to

[451] *Governor to Secretary of State*, 1861. *Act No. 6 of 1867*. *Governor to Secretary of State*, 1867.
[452] *A Digest of the Laws of Jamaica: From 33 Charles II [1681] to 28 Victoria [1864-65]* (1868), 72. books.google.com. (Accessed March 2020).

'wise' women. Similarly Indians could consult a British doctor, an elite practitioner of Unani or Ayurveda, or a knowledgeable member of their own class. Doctors and the state trusted that education would curb impulses toward unlicensed practitioners and that as people gained more knowledge they would naturally choose licensed British medical practitioners. Even if they did not, and even when doctors argued for legislation against alternative practitioners, the state was often unwilling to interfere in the medical marketplace. Laws were put in place to limit fraud and promote safety, but there were no laws in Britain or India that so harshly regulated the medical marketplace and limited patients' health options as those created in Jamaica. In Britain and India, doctors had to build trust with the population. In Jamaica, medical authority flowed from the state.

Between 1870 and 1874 smallpox reached pandemic proportions and Jamaica was unready for the crisis. Vaccination had been compulsory since 1867, but little attention was given to the practice until the threat of an epidemic. In 1871, Governor William Grey, through his mouthpiece Colonial Secretary William Young, requested updates on vaccination in the districts. The reports were grim. Dr. Cargill of St. Andrews wrote that he had not been enforcing vaccination because he was "under the impression that I could not do so without special authority from the governor." He had subsequently received instructions from the Superintending Medical Officer and declared his intention of vaccinating without delay.[453] Dr. Chevars in Manchester Parish was happy to report he had vaccinated all of the children in his district, but this level of efficiency was rare. Dr. Adolphous of St. Elizabeth claimed he had not "thoroughly done" vaccination since 1867. He asked that the government send out circulars to ministers that they might

[453] CO 137/472/174, "Dr. Cargill to the Colonial Secretary, 1st May, 1871," *Papers Relating to the Carrying Out of Public Vaccination in the Several Districts of the Island of Jamaica* (1873).

encourage vaccination from the pulpit. In many other parishes the answers were the same.[454] The people were too spread out. Lymph was failing. There were too few doctors to do the work, and the doctors in practice did not have good relationships with the people who needed vaccination.

After decades of neglect, efforts to respond to the smallpox epidemic did more to create distrust in British medicine. Abuse was widespread and eventually created enough local outcry that the Colonial government grudgingly launched an investigation into some particularly egregious events at Halfway Tree and Stirling Castle in the parish of St. Andrews. Halfway Tree was a collection of hospital tents under the care of Dr. Cargill, the same Dr. Cargill who had neglected vaccination in his district well into the epidemic. The purpose of the tents was to provide care for people whose housing or home medical care was insufficient and provide a place they could quarantine away from the general population. There were only nine people housed at Halfway Tree. Five of them died, and the experiences of all nine kept people from utilizing the tent hospital. Patients in the tents were not given bed linens or fresh clothes. They were occasionally soaked with cold water, but not regularly bathed. This allowed their smallpox sores to fester. Some patients did not receive food and had to rely on friends. However, friends of the sick were often barred access under the guise of limiting the spread of smallpox even though it was rampant in the area. The police, working in concert with public health officers, kept spiritual leaders from visiting their ill congregants, a practice at variance with Jamaican and British norms. To gain access to the patients, friends and family routinely burned the

[454] CO 137/472/174, "Dr. Chevars to the Colonial Secretary,"; "Dr. Adolphus to the Colonial Secretary,"; Dr. Major to the Colonial Secretary,"; Dr. Wegg to the Colonial Secretary,"; Dr. Stamers to the Colonial Secretary," *Papers Relating to….*

"brambles" Constables used to block holes onto the grounds. Yet during all of this, the friends of the staff and constables were given full access to the tents. The "isolation" appeared to be more about discipline and punishment than limiting the spread of disease.

Events at Stirling Castle were also investigated and showed that inadequate care was certainly provided, but inspectors refused to hold the doctors in charge responsible. Alexander and Paul Henry Denny, brothers, both came down with smallpox. Their mother alleged she went to the hospital at Stirling Castle, run by Acting Superintendent Ross, and asked for medicine but was denied. Another doctor, Dr. Rogers, had told her she could get medicines, but Dr. Ross refused to give them and told her the boys would need to be hospitalized "in the Queen's name."[455] This terminology was used to convince people that hospitalization was compulsory. Two constables came to pick up her boys and take them four miles away to the hospital. They put one on a donkey and the other on a litter. They were given no food or drink for the trip. These facts all parties agreed upon. What happened once the boys were in the hospital was subject to dispute.

The boys entered the hospital March 11th. By March 19th both boys were dead. Their clothes were not changed at all, and there is no record that they were cleaned. Cleaning was important to keep the smallpox pustules from becoming infected. Both boys became 'flyblown.' This meant their smallpox sores were so neglected flies laid eggs in them and maggots were growing. Dr. Ross marked that Alexander died Friday the 15th and Paul Henry died Monday the 18th but witnesses claimed Alexander died on Sunday. A woman from the neighborhood, Elizabeth Allen, "Swore positively that neither Dr. Rogers nor any other medical man visited the Hospital" until after both boys

[455] CO 137/472/174: "Report of the Superintending Inspectors, 28th February, 1873," 7.

were dead. The inspectors believed this to be "a deliberate falsehood" by the witness as Dr. Ross was in the hospital the day after the boys arrived. But the records for what happened to the boys are conflicting. Dr. Ross, claimed he saw both boys and "read prayers over the body."[456] But Dr. Ross did not explain why, if he was in regular attendance, he allowed the boys to be so neglected. On the absence of Dr. Rogers, inspectors declared it was "unsatisfactory" that there were no records of his attendance. Despite evidence that he had not been regularly overseeing the hospital, inspectors wrote, "He cannot be fairly accused of neglecting to attend the hospital."[457] Sworn testimony, the neglected state of the boys, and the complete lack of records were not enough to convince the inspectors that Dr. Rogers was at fault.

These were not the only accusations of neglect made about Government Medical Staff and the problems were island-wide. It was alleged "but not proved" that medical officers sent out to vaccinate refused to see smallpox patients. "It was also alleged that some medical officers stated that they would not attend smallpox patients among the poor of their districts, unless they were sent to the smallpox hospital or Tents." But despite overwhelming testimony, inspectors also considered this unproved.[458] Nor did they believe the accusations against Dr. Cargill, the doctor charged with running the Halfway Tree tents that he refused "to see any person suffering from smallpox within his district." The inspectors admitted, "He seems to have avoided coming into immediate contact with his patients."[459] This was to protect his private practice as his paying patients would not call a physician that could be carrying smallpox. Refusing to go near smallpox patients

[456] CO 137/472/174: "Report of the Superintending Inspectors, 28th February, 1873," 8.
[457] CO 137/472/174: "Report of the Superintending Inspectors, 28th February, 1873," 8.
[458] CO 137/472/174: "Report of the Superintending Inspectors, 28th February, 1873," 9.
[459] CO 137/472/174: "Report of the Superintending Inspectors, 28th February, 1873," 9-10.

was medical practice in either Britain or Jamaica and Cargill's action was in clear violation of his public duties. The inspectors contented themselves with noting that in future temporary hospitals should have a dedicated medical officer. None of the doctors accused of neglect and abuse faced any official sanction and went on to have brilliant public and private careers.

6.5 After 1872

Well into the twentieth century, the problems of distrust that were rooted in slavery and exacerbated by imperialism continued to plague public health. By the 1880s, vaccination still languished. The service was poorly performed compared to England or even other colonies such as India. Despite the repeated failures of the medical establishment, reports blamed Black Jamaicans for the poor state of public health. Doctors claimed Jamaicans possessed an innate "fatalism" and that Black Jamaicans spoke of smallpox as "God's sickness."[460] However, Black Jamaican attitudes were not indicative of fatalism but of a healthcare system that failed to mitigate disease for decades despite claiming it had the technology to do just that. Jamaican fatalism, when it did exist, was not innate, it was learned. Jamaican distrust was an indictment of the decades of failure of the medical system and vaccination. Accusations of native 'apathy' also ignored the many ways Black Jamaicans combated illness. Black Jamaicans did not accept disease. They used a range of therapies and practitioners in illness. 'Fatalism' and 'apathy' became codes for blaming Black and poor Jamaicans for the failures of public health.

[460] *The Governor's Report on the Blue Book and Department Reports, 1885-86* (1887), 162.

By the late 1880s, Jamaica had finally established a Medical Department that was producing yearly reports, but their purpose was as much to shift the blame of public health to the poor as it was to report on public health. This was over thirty years after such a system was recommended by the Central Board of Health and decades after such reporting was common in India. The 1887 report noted that vaccination was not "systematically pursued for the past ten to twelve years," but blamed the poor rather than the medical system for the lack of enthusiasm. This report also noted that lay vaccinators were "deprived of their functions" because they were "unreliable in their work and were quite outside the control of the department."[461] This meant that vaccination was still irregular more than a decade after the smallpox crisis. In 1890, doctors relied on the authority of ministers to preach the effectiveness of vaccination. After forty years of vaccination in the country, vaccination was in such a rudimentary state that the profession had to rely on outside trust networks and compulsion.[462]

The system showed little improvement through the beginning of the 1900s. Parents were put to great inconvenience to bring their children, especially in the rural areas. Again, this was put down to the apathy of the parents rather than the decades' long apathy of the state and medical community. The rural police were called on to "assist" the vaccinators but did not "give sufficient attention to the vaccination work."[463] From 1899-1900 vaccination was not efficient. From 1900-1901, lymph failed. Doctors blamed the "unwillingness and indifference of parents to protect the arms of children" as the reason

[461] *The Governor's Report on the Blue Book and Department Reports*, *1888-89* (1889), 127-129.
[462] *The Governor's Report on the Blue Book and Department Reports*, *1889-1890* (1890), 130.
[463] *Jamaica Department Reports, 1898-99* (1899), 56, 59.

for "many of the unsuccessful cases."[464] This points to the continued inability of medical officers to communicate to the people and a lack of the secondary care after the operation that was becoming common in England and India.

The late 1890's finally saw attempts to update the vaccination system from arm-to-arm to the glycerinated calf lymph method, but lymph procurement remained a problem. The 1900 Report noted the bad lymph was delaying vaccination. However, that same report blamed the poor for the failure of the vaccination system. The author wrote that the peasantry "attach so little value to this highly protective measure."[465] But it was not the peasantry that attached so little value to vaccination, it was the White Jamaican establishment that attached so little value to the lives of Black Jamaicans. Race and class worked together to disproportionately injure the health of poor, Black Jamaicans at a time when health overall was improving in Jamaica. Dr. Mullen, quoted in the 1887 report, accounted for the improving health by the "increasing prosperity of the people leading to their being better fed, better clad, and in many cases better housed." These gains were not shared by all. Dr. MacPhail noted, "The pure black seemed to suffer more severely than mulattoes." [466] Accounting for possible racist bias, there was likely a true statement. 'Mulattoes' or Brown Jamaicans were more likely to achieve some social mobility in this period than were Black Jamaicans.

The medical community, supposedly now in the early stage of modern, scientific medicine, was happy to resort to moral arguments for disease in the Jamaican population. When British medicine succeeded it was due to science, reason, and skill. When it failed

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[464] *Jamaica Department Report*, *1900-01* (1901), 165. *Jamaica Department Reports, 1899-1900* (1900): 285.
[465] *Jamaica Department Reports*, *1898-99* (1899), 49, 56.
[466] *The Governor's Report on the Blue Book and Department Reports, 1887-1888* (1889), 125.

it was due to the ignorance, apathy, and moral failings of the poor and Black of Jamaica. Yet public health had been routinely sabotaged by White Jamaicans throughout the century. The Dispensary ticket system, the primary method of care for the poor, was still riven with problems. Local boards discouraged the use of tickets in efforts to keep expenditures low.[467] Sanitary issues continued to be neglected. Doctors blamed this on the poor, claiming there was no improvement in their sanitary education. But sources indicate it was a parsimonious government that had failed to address sanitary problems for over half a century. This is because there was no significant agitation neither from the elite and middle-classes nor from the medical community. It was the Black poor who suffered from sanitary and medical neglect. Barred from accessing or influencing official public health, poor Black Jamaicans continued to use alternative practitioners.

By the late 1880s, the groundwork was in place for what would be known as tropical medicine. Doctors were becoming more interested in the effect of 'climatic diseases' and finding that these diseases were seldom a threat to Europeans in colonial spaces. The 1898 report happily noted, "European residents in this country, when ordinarily prudent, experience almost complete immunity from climatic disease. The beneficial results secured and the favorable comments by health seekers have placed our Island in the foremost rank of health resorts."[468] There was, despite theories to the contrary, nothing distinctly unhealthy about the Jamaican environment. People had been coming since mid-century to Jamaica for the health benefits. By this time, Tropical diseases were not only believed to be confined to a specific region, but to threaten

[467] *The Governor's Report on the Blue Book and the Department Reports, 1885-1886* (1887), 159.
[468] *Jamaica Department Reports, 1896-97* (1898), 46.

primarily the 'people of the Tropics.' This should be "a comforting assurance and security for the tourist and visitor to Kingston."[469] While doctors blamed Black Jamaicans for sanitary and moral failings, doctors were already beginning to regard the people themselves as disease sites before the discoveries of hosts and vectors.

Conclusion

The patterns of health care established during slavery carried over past emancipation. Under slavery, doctors provided care at the expense and behest of plantation owners. Their role was to ensure an adequate labor supply. Black healers were vital to the functioning of health care on the island and free people of color, White, and Brown people utilized Black healers. Yet their contribution was ignored and devalued by White elites and doctors. This pattern continued after emancipation as the local Jamaican government refused to adequately fund public health. Doctors attempted to modernize their community along the lines of their British counterparts, but the context of these attempts at reform doomed them nearly from the beginning. Unlike the dynamic and mobile class structure being created in Britain, Jamaica was a rigid racial hierarchy that kept Black Jamaicans firmly down. Though Black Jamaican culture, including health culture, was the popular culture, it was devalued, attacked, and delegitimized. Though the dominant public health systems routinely failed the public, alternative forms of healthcare, associated with the religious practice of 'Obeah,' were outlawed. This meant that Black Jamaicans had to hide their health care from the dominant White minority. Little changed once Jamaican became a Crown Colony. While more funds were allocated to public health the distrust of Black Jamaicans, the repeated failures of doctors to care

[469] *Jamaica Department Reports, 1900-01* (1902), 167.

for their patients, and the stark ignorance of White elites about Black methods of health care and reciprocity meant that public health failed across the island. As Jamaica became a tourism destination for the wealthy, it became a site of study by the new class of doctors interested in the 'diseases of the Tropics.' Public health in Jamaica failed due to a distinct pattern of distrust and secrecy that was replicated generation after generation by a state and medical community committed to sustaining White racial power in the colony.

Conclusion

I started this dissertation by asking two questions. How did doctors become trusted medical authorities in England despite significant agitation against their profession? And why did doctors fail to develop the same level of authority in India and Jamaica? To answer this question, I examined vaccination efforts in England, India, and Jamaica in order to understand the creation and function of medical authority. New technology and changing health cultures created distrust in all three societies. How doctors responded to that distrust shaped the medical profession and public health for more than a century. Medical professionalization was not an internal process, but a relational process between doctors and patients. In order to professionalize, doctors needed to create trust among the people they served.

At mid-nineteenth century England had a trust problem. New vaccine technology, changing health cultures, and public health legislation created distrust toward the medical community. Doctors were trying to enhance their professional status and put their profession on the same footing as the law or the church. Changing therapies such as vaccination required trust in the medical profession as a corporate body. At mid-century, when vaccination became compulsory, the medical profession had not earned that trust. Reformers and ordinary parents formed a cross-class alliance that agitated to repeal compulsory vaccination. These efforts were ultimately successful, but the repeal of compulsion did not bring about the disease and death doctors claimed it would. People across class lines chose to vaccinate their children in large enough numbers to protect public health. The agitation against vaccination allowed working-class people to effect

changes in vaccination that made it safer for their children. This led to greater trust in vaccination which enhanced the authority of doctors. In the process of agitating, doctors, reformers and ordinary people learned to speak the same language to discuss vaccination leading to a broad consensus on matters of health and science. Paradoxically, agitation helped shape the medical community into a trusted authority.

Doctors denied Indians and Jamaicans robust participation in public health. Indians had many of the same concerns that English parents did about vaccination. They engaged in overt and covert methods to protest, but British doctors and the state failed to respond to their concerns. Doctors refused to partner with trusted medical elites and vaccination was not allowed to naturally diffuse throughout society. In their efforts to prove their superiority over Indian healers, British doctors undercut their own public health efforts. In Jamaica, doctors' commitment to upholding the White racial order kept public health from flourishing. Dependent upon White patronage, doctors failed to consistently advocate for robust public health. Black and poor Jamaicans had to create their own health networks without state support resulting in two different health systems on the island. In both cases, doctors failed to establish medical authority as a trusted, legitimate power. At the turn of the century, doctors shifted their focus away from public health to 'tropical medicine.' Indians and Jamaicans took the blame and burden of a century of failed public health as doctors turned to a new field for professional advancement.

As I write this dissertation, the world is in the throes of a pandemic that has taxed our health systems to the limit. In the United States, the fragility of our public health has been on global display. Despite having access to three safe, effective vaccines, the United

States has failed to overcome the pandemic because of distrust toward the vaccines and a refusal to follow the most basic public health recommendations. It is easy to be frustrated with people who refuse to vaccinate, but anti-vaccination movements are about more than science alone. They are socio-political movements that express detachment and distrust toward medical authority. The US has a trust problem. Decades of divestment in public services have created the perfect environment for distrust to flourish leading to a dismal response to our public health crisis. We can try to legislate and mandate public health, but the examples of England, India, and Jamaica show that public health does not work without public engagement. We must find a way to cultivate the social trust necessary for robust public health. What we do going forward will shape our public health for decades to come.

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