Public Health and Public Discourse: Contesting the London Bills of Mortality, *c*. 1603-1836

by

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Dedication

À mon père.

Et toi
tu es loin
loin comme l'enfance
Loin
comme la rivière
au nom de clapotis :
l'Okliokma
est loin de toi aujourd'hui...

Yvon Michaud (1949-2006)

TABLE OF CONTENTS

List of Figures

Abstract

The London Bills of Mortality are the longest-running continuous source regarding mortality and cause of death in any early modern city. Published weekly from 1603 until the 1830s, the Bills endured beyond their initial purpose as a plague tracking device to become the most important documents mined by English political arithmeticians and environmental physicians in the seventeenth and eighteenth centuries. These writers frequently criticized the accuracy of the data contained in the Bills, yet repeatedly failed in their attempts at reform. Using a broadly chronological approach, this thesis assesses why the Bills of Mortality endured largely unaltered for over 200 years. It argues that the success of the Bills was due to the pragmatic nature of their administration, which was based on local parish structures, while suspicion of the arbitrary powers of the state in matters of public health prevented substantial reform for the duration of the eighteenth century.

List of Abbreviations Used

GRO	General Record Office
JP	Justice of the Peace
MP	Member of Parliament
OBP	Old Bailey Proceedings
PC	Privy Council
SP	State Papers Domestic
SPCK	Society for Promoting Christian Knowledge

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The onset of COVID-19 made many aspects of writing this thesis more challenging than they otherwise might have been, and the sheen of writing about epidemics and public health during a near complete public health-mandated societal shut down wore off quickly. Still, it pushed me to think more deeply about the extent to which public health outcomes are determined by political climate, the relationship of individual liberty to state authority, as well as how the poor or otherwise marginalised are always the most vulnerable to the ravages of epidemic disease. Death may be the great equalizer, but epidemics do not affect everyone equally.

The reasons why are profoundly social.

Chapter 1: Introduction

No disease in early modern England provoked greater fear and anxiety than plague. An apothecary who lived in the London parish of St Giles in the Fields during the plague of 1665 expressed a common sentiment when he wrote that "no disease in the great army of diseases which assault our life is more dreadful and deadly than that of the pestilence."[1]** In the plague pamphlet *London Looke Back* (1630), Thomas Dekker similarly wrote that plague "hath a pre-eminence above all others: and none being able to match it, for violence, strength, uncertainty, subtlety, catching, universality, and desolation, it is called the *sickness*. As if it were the only *sickness*, or the *sickness* of *sicknesses*, as it is indeed."[2]

Numerous early modern diaries also attest the unique psychological terror of plague. Ralph Josselin, a seventeenth-century vicar of Earls Colne in Essex, recorded his and his family's various ailments and illnesses in the diary he kept between 1616 and 1683. It is striking that Josselin did not tend to fear the diseases from which his family was most susceptible to suffer.[3] After his daughter Mary died from worms, he even expressed relief that her disease had not been infectious.[4] Though plague was an infrequent visitor to Earls Colne, during the London outbreak of 1665-66 Josselin

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[1] William Boghurst, *An Account of the Great Plague of London* (London: Shaw and Sons, 1894), 5.
*Spelling has been modernized throughout the thesis.
*All Old Style dates have been converted to New Style dates.
[2] Thomas Dekker, *London Looke Back* (1604), in *The Plague Pamphlets of Thomas Dekker*, edited by F.P. Wilson (Oxford: Clarendon Press, 1925), 181.
[3] Lucinda McCray Beier, "In Sickness and in Health: A Seventeenth Century Family's Experience," in *Patients and Practitioners: Lay Perception of Medicine in Pre-Industrial Society*, edited by Roy Porter (Cambridge: Cambridge University Press, 1985), 125.
[4] Ralph Josselin, *The Diary of Ralph Josselin 1616*-1683, edited by Alan Macfarlane (London: Oxford University Press for the British Academy, 1976), 204.

dutifully recorded the numbers of plague dead printed weekly in the London Bills of Mortality, a common practice among diary writers in the late seventeenth century.[5]

Several historians have recently argued that text and print were central to the experience of plague in early modern England.[6] Among the most important and influential print sources from the early modern English plague era were the London Bills of Mortality. Described as England's first public health documents, these sheets offered regular quantification of the progress of otherwise unintelligible and disorienting plague epidemics.[7] They presented up-to-date information about death and disease in the city, using orderly tables and numbers in an official, authoritative manner. This was especially significant during the period before the ready availability of printed news. The weekly Bills encompassed the collection of data on burials in hundreds of parishes and were printed with regularity from 1603 until the 1830s. By presenting a snapshot of the City of London and its rapidly growing suburbs as a cohesive whole, however, they also obscure a complex story—one that masks the tenuous relationship between the City and the Crown regarding plague

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[5] For example, Josselin, *Diary*, 520-21; Anne Clifford, *The Diary of Lady Anne Clifford*, edited by D.J.H. Clifford (Phoenix Mill, Glouc.: Allan Sutton Publishing, 1990), 177; Margaret Hoby, *The Private Life of an Elizabethan Lady: The Diary of Lady Margaret Hoby 1599-1605*, edited by Joanna Moody (Phoenix Mill, UK: Sutton Publishing, 1998), 191-197; John Evelyn, *The Diary of John Evelyn*, vol. III, 1650-1672, edited by E.S. De Beer (Oxford: Clarendon Press, 1955), 412-446; Samuel Pepys, *The Diary of Samuel Pepys,* volume 6, edited by Robert Latham and William Matthews (Berkeley: University of California Press, 1970).

[6] Vanessa Harding, "Reading Plague in Seventeenth-Century London," *Social History of Medicine* 32, no. 2 (2017): 286; Mark S.R. Jenner, "Plague on a Page: Lord Have Mercy Upon Us in Early Modern London," *The Seventeenth Century* 27, no. 3 (2012): 255-286; Stephen Greenberg, "Plague, the Printing Press, and Public Health in Seventeenth-Century London," *Huntington Library Quarterly* 67, no. 4 (2004): 508-527; Joseph Monteyne, *The Printed Image in Early Modern London* (Aldershot: Ashgate, 2007); Erin Sullivan, "Physical and Spiritual Illness: Narrative Appropriations of the Bills of Mortality," in *Representing the Plague in Early Modern England*, edited by Rebecca Totaro and Ernest B. Gilman (New York and London: Routledge, 2010), 76-94.

[7] Greenberg, "Plague, the Printing Press, and Public Health," 510.

management in the suburbs, while also facilitating the erasure of how the data was collected and interpreted. Searchers of the dead, typically older women recipient of parish poor relief, had the important task of viewing the dead and pronouncing the cause of death. The data they collected ended up as the Bills of Mortality.

The Bills of Mortality sit at the intersection of several historical fields, namely the history of medicine and public health, urban history, early social science, as well as historical demography. Until recent decades, the Bills were mainly used by historical demographers and historians of early social science. The Bills had endured beyond their original purpose as a plague monitoring system to become "the only continuous, contemporary, numerical documents concerning population."[8] As such, they were the most important documents mined by English political arithmeticians and environmental physicians in the seventeenth and eighteenth centuries. One of the most persistent criticisms of the Bills presented in these works had to do with the searchers' diagnostic abilities, on which all the cause of death data depended. The searchers were on the front lines of public health in London for 250 years, which also coincided with a period of tremendous change in the professionalization of medicine and the classification of disease. In the face of this tradition of criticism the longevity of the Bills of Mortality is striking.

While there has been a recent surge of excellent scholarly output about the Bills of Mortality and their cultural, social, and medical importance during the era of plague, these studies rarely extend beyond the years of the last visitation of the

[8] Andrea Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002), 215.

disease in London in 1665-66. Historians of plague have tended to assume that the Bills simply became less relevant as plague faded from view and as the ready availability of printed news from a variety of other sources crowded them out at the end of the seventeenth century.[9] Consequently, the Bills' public health purpose after the mid-to-late seventeenth century is puzzling and remains a matter of discussion. Why did the production of the Bills of Mortality endure largely unaltered for nearly two centuries beyond the era of plague and in spite of persistent criticism? This thesis will evaluate how and why the Bills managed to continue largely unaltered for 200 years. Using a broadly chronological approach, it will assess the long tradition of criticism of the Bills through an examination of repeated attempts at reform. What can these episodes reveal about the Bills' longevity and purpose in the post-plague era?

A central contention of this thesis is that while physicians were the group most likely to criticize the Bills of Mortality, especially in later years, and though historians tend to give their opinions the most weight when examining the history of public health, physicians in actuality appear to have had the least amount of power to effect changes in the overall structure of the Bills of Mortality. The Bills endured for several centuries in large part because they did not depend on the whims of physicians—they operated in tandem with the poor law administration at a fraction of the cost of hiring physicians to pronounce the cause of death. In addition, the City of London was often hostile to the physicians because they, unlike

[9] Sullivan, "Narrative Appropriations of the Bills of Mortality," 89; Will Slauter, "WRITE UP YOUR DEAD: The Bills of Mortality and the London Plague of 1665," *Media History* 17, no. 1 (2011): 8.

the guilds of surgeons and apothecaries, did not participate in civic life, routinely alienated other medical practitioners through adversarial practices, and had a reputation for shunning their duties and fleeing the city during visitations of plague. This flight from duty, according to one historian, was a "major factor in lowering contemporary estimates of this class of practitioner."[10] It is often forgotten that although physicians emphatically denigrated the searchers' diagnostic abilities in later centuries, they had actively resisted calls from the Privy Council to view dead bodies and pronounce causes of death during plague epidemics in the first half of the seventeenth century.[11] This lack of involvement, however, does not imply that a conception of public health did not exist or was not a concern. The main drivers of these measures were the City of London and the Crown.

Urban historians have emphasised a strong connection between the operation of the Bills of Mortality and the preservation of public order in the City and suburbs during the era of plague.[12] The relationship of disorderly suburban growth to the City of London was of crucial importance throughout the Bills' history in terms of their administration and attempts at their reform. This thesis will demonstrate that the City of London and the Crown engaged in a continuous push and pull as they attempted to manage the economic and public health challenges posed by London's rapidly growing suburbs, which were under no clear jurisdiction.

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[10] Margaret Pelling, *Medical Conflict in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003), 40-49.
[11] Pelling, *Medical Conflict*, 53-54.
[12] Monteyne, *The Printed Image in Early Modern London*, 82; Steve Hindle, *The State and Social Change in Early Modern England, c. 1550-1640* (New York: St Martin's Press, 2000), 171; Paul Slack, "Metropolitan Government in Crisis: The Response to Plague," in *London 1500-1700: The Making of the Metropolis*, edited by A.L. Beier and Roger Finlay (London and New York: Longman, 1986), 60-81

While the City and the Crown differed on how the suburbs should be administered and who should take responsibility for them, they could agree on the usefulness of a system which allowed them both to monitor outbreaks of plague in the greater London area. This thesis argues that in order to understand the Bills' longevity, it is necessary to understand the administrative framework that made them endure. The establishment of this framework required cooperation among different levels of government across several jurisdictions over a common goal—plague management.

The administrative structure of the Bills appears to have been successful in large part because it was based on experimental grassroots measures developed in individual urban parishes that were then centrally encoded in plague *Books of Orders* issued during each major outbreak of plague between 1578 and 1665. The early Stuart monarchs seem to have taken a particular interest in the Bills of Mortality and, in the period prior to the Civil War, used the royal prerogative to extend the measures to those suburban parishes that laid beyond the Lord Mayor's jurisdiction.[13] In spite of these overlapping jurisdictions and competing interests, the Bills endured for several centuries because they were rooted in the parish as a unit of local administration and operated in tandem with the poor law.[14] Once this framework was in place, the Bills only came to an end after the traditional parishes

[13] J.C. Robertson, "Reckoning with London: Interpreting the Bills of Mortality Before John Graunt," *Urban History* 23, no. 3 (1996): 333.

[14] The parish was the most basic level of Church of England administration, covering a defined territorial entity under the clerical jurisdiction of a priest who operated out of the parish church. Church of England parishes not only played a role in ecclesiastical administration for the territory under their jurisdiction but also had civil responsibilities, most notably in the administration of the poor law.

became unworkable as units of local administration due to massive and unprecedented population growth in the early decades of the nineteenth century.[15]

This jurisdictional complexity made the Bills difficult to reform in the eighteenth century, however, as reformers had to contend with popular opposition to schemes that would result in the further intrusion of state power in people's everyday lives. In addition, the marginality of the searchers as aged, poor members of their communities worked in their favour in the eyes of those who viewed the direct involvement of the state in the gathering of population data with suspicion. The thesis will demonstrate that there were clashes between what physicians and political arithmeticians advocated in their treatises and what was legally possible to enforce, especially as the crown prerogative became a less effective tool of state power after the Restoration of the monarchy in 1660. In assessing the longevity of the Bills of Mortality, I will foreground these legal and administrative barriers, as well as the political context in which they operated.

1.1: Historiographical Discussion

1.1.1: John Graunt

John Graunt's *Observations Upon the Bills of Mortality* (1662), a foundational text in the fields of political arithmetic and statistical demography, was the first systematic analysis of the data contained in the Bills, marking the beginning of the tradition of criticism that is under consideration in this thesis.[16] Graunt had used the

[15] It is not a coincidence that the 1836 Civil Registration Act and the founding of the General Record Office (GRO) happened only two years after the reform of the Poor Law in 1834. The GRO used the redesigned poor law districts and their administrative infrastructure as the basis for their own registration districts.

[16] Robert Kargon, "John Graunt, Francis Bacon, and the Royal Society: The Reception of Statistics," *Journal of the History of Medicine and Allied Sciences* 18, no. 4 (1963): 340.

"shop arithmetic" he employed as a haberdasher and draper to discover regularities in the data contained in the Bills.[17] Political arithmeticians typically concerned themselves with the application of scientific methodology to discover order in the natural world, using their findings to achieve utilitarian goals.[18] One of the main points of contention among eighteenth-century political arithmeticians, for example, was the determination of the exact size of the population in order to better harness the nation's resources for purposes of trade and war.[19] These population debates were built upon the work of physicians who had collected a wide range of statistical information on mortality, disease, climate, and the environment in the aftermath of Graunt's publication.[20]

Graunt was the first commentator to assess the searchers' capabilities in discerning causes of death. His assessment has proved enduring and is often repeated by modern historians, although he was much more nuanced than later commentators have allowed. Graunt wrote that, in his assessment of the "perhaps ignorant and careless searchers' reports," he "considered first of what authority [the searchers] were of themselves." Graunt found that many of the causes of death they would have described "were but a matter of sense" and that in many cases, "it

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[17] Philip Kreager, "New Light on Graunt," *Population Studies* 42, no. 1 (1988): 130.
[18] Peter Buck, "Seventeenth-Century Political Arithmetic: Civil Strife and Vital Statistics," *Isis* 68, no. 1 (1977): 77; Charles Webster, *The Great Instauration: Science, Medicine, and Reform, 1626-1660* (London: Duckworth, 1975), 446 and 515.
[19] Andrea A. Rusnock, "Biopolitics: Political Arithmetic in the Enlightenment," in *The Sciences in Enlightened Europe*, edited by William Clark, Jan Golinski, and Simon Schaffer (Chicago: The University of Chicago Press, 1999), 50-54; Paul Slack, "Government and Information in Seventeenth-century England," *Past & Present*, no. 184 (2004): 65.
[20] J.C. Robertson, "Reckoning with London," 335; Mary J. Dobson, *Contours of Death and Disease in Early Modern England* (New York: Cambridge University Press, 1997), 37; James C. Riley, *The Eighteenth-Century Campaign to Avoid Disease* (New York: St. Martin's Press, 1987), 54.

matters not to many of our purposes, whether the disease were exactly the same, as physicians define it in their books."[21] He described how the searchers would have had the opportunity to discuss with family and friends, as well as with any attending physicians, the likely cause of death, which "the generality of the world are pretty well able to distinguish."[22] Graunt appeared willing to recognise the adequacy of lay medical knowledge for the purposes of the Bills, possibly because he was a layman himself.

However, Graunt deduced, by looking at baseline mortality levels in non-plague years, that plague deaths were being grossly underreported. In his most damning statement, he wrote that "[t]he old-women searchers, after the mist of a cup of ale and the bribe of a two-groat fee" would have been likely to return plague deaths as spotted fever.[23] Numerous commentators, writing long after plague had abated, have taken this as evidence that the searchers were not only ignorant but also essentially drunk and corrupt. They rarely mention that the searcher's verdict in plague cases would have resulted in the imposition of quarantine for the entire household, with healthy and sick members confined together for over a month. When one considers the well-documented economic dislocation caused by quarantine, especially for those of lower and middling status, one can imagine that the searchers would have been under a great deal of pressure to underreport.[24]

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[21] John Graunt, *Natural and Political Observations…upon the Bills of Mortality* (1662), in *The Economic Writings of Sir William Petty: Together with the Observations upon the Bills of Mortality More Probably by John Graunt*, edited by C.H. Hull (Fairfield, N.J.: A.M. Kelley, 1986), 347-348.
[22] Graunt, *Observations*, 349.
[23] Graunt, *Observations*, 356.
[24] Newman, "Shutt Up: Bubonic Plague and Quarantine in Early Modern England," *Journal of Social* History 45, no. 3 (2012): 823; Thomas Dekker writes about the practice of concealing plague deaths in *A Rod for Run-awaies* (1625), describing the bills as manifestations of God's arithmetic: "As his

Graunt found that deliberate underreporting would have also been common for causes of death that carried social stigma, such as syphilis and lunacy.[25]

Compiling precise and exact diagnoses had never been the purpose of the Bills of Mortality—they were primarily intended to chart the progress of plague epidemics. After Graunt's publication, however, they began to be held to higher standards. J.C. Robertson maintains that "generations of statisticians who wished to continue Graunt's work have heaped their frustrations at the unevenness of their database on the incompetence and negligence of the individual women searchers."[26] The searchers' distance from 'true' knowledge, as several seventeenth and eighteenth-century treatises argued, was problematic. The prominence of these learned treatises has done much to influence assumptions held by modern historians in relation to the searchers and data collection for the Bills of Mortality. From the mid-seventeenth century until very recently, the searchers have been denigrated as ignorant or careless, their knowledge deemed valueless, or have simply been erased from debates about the usefulness of the Bills of Mortality as a source.

Many of these writers also expressed regret that physicians had not been compiling data for the weekly Bills from the start. A common assessment was that since searchers had "no medical experience whatsoever," the reliability as to the

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mercy will be exalted in our weekly Bills (when the total sums fall) so will he have his justice and indignation exemplified, in the increasing of those Bills: and therefore let no man go about to abate the number: His Arithmetic brooks no crossing." Quoted in Wilson, ed., *Dekker's Plague Pamphlets*, 151-152.

[25] Graunt, *Observations*, 355; See also Jeremy Boulton and John Black, "'Those, That Die by Reason of Their Madness': Dying Insane in London, 1629–1830," *History of Psychiatry* 23, no. 1 (2012): 28-29.

[26] Robertson, "Reckoning with London," 347.

cause of death was "highly questionable."[27] Underlying this assessment was the assumption that the searchers were unqualified insofar as they were lay people and that, consequently, physicians would have returned more reliable data. Yet it is not entirely clear how basing the Bills on physicians' reports would have improved their objective accuracy. The interpretation of bodily signs was fraught with difficulty, even for physicians, and the vocabulary of medical diagnosis changed considerably from the seventeenth to the nineteenth century. Despite the popular perception that plague was easy to discern due to the outward manifestation of 'tokens' or buboes, numerous seventeenth-century treatises addressed the difficulty of plague diagnosis.[28] Richelle Munkhoff argues that "when the searchers are considered ignorant by observers in the later seventeenth or eighteenth century, the condemnation emanated from evolving epistemologies, as medicine moved toward the revolution in nosology around 1800."[29]

1.1.2: Early Commentary

Nineteenth and twentieth-century commenters were especially scathing in their assessment of the searchers, often taking Graunt's words out of context to dismiss them as ignorant "old hags."[30] In 1892, physician William Ogle admitted that

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[27] Julian Litten, "The English Funeral 1700-1850," in *Grave Concerns: Death and Burial in England 1700 to 1850*, edited by Margaret Cox (Walmgate, York: Council for British Archaeology, 1998), 3.
[28] See for example Stephen Bradwell's *A Watch-man for Pest* (1625), G. Donne's *The Signes that Doe Declare a Person to be Infected with the PESTILENCE* (1625), and William Kemp's *A Brief Treatise of the nature, cause, signes, preservation from, and cure of the pestilence* (1665).
[29] Richelle Munkhoff, "Reckoning Death: Women Searchers and the Bills of Mortality in Early Modern London," in *Rhetorics of Bodily Disease and Health in Medieval and Early Modern England*, edited by Jennifer C. Vaught (Surrey: Ashgate, 2010), 122.
[30] F.P. Wilson, *The Plague in Shakespeare's London* (London: Oxford University Press, 1927), 66; Margaret Pelling points out that Graunt did not dismiss the searchers simply because they were women, but that certain excerpts, when removed from the larger context of his discussion, certainly give that impression. These are the excerpts that are most often used by other commentators. See

even though he had no way of ascertaining whether Graunt's charges regarding the searchers' negligence were true, he still insisted that because the women were fundamentally "unskilled," causes of death collected by them were "of very little, if of any, value." Ogle wrote that the weekly returns, "insofar as they depended on the reports of the searchers, *must have been* excessively untrustworthy" (emphasis mine).[31]

Writing in the nineteen-twenties, F.P. Wilson cited Graunt as his source after asserting that the searchers' inability to discern true causes of death "was the result of bribery as well as stupidity."[32] Before quoting a caustic description published in the 1835 edition of the *Penny Cyclopaedia*, which had characterised the searchers as old women who were "notorious for their drinking" and who "frequently defrauded" grieving families, Wilson wrote, without offering any evidence, that it applied "*mutatis mutandis* to the searchers of Shakespeare's London."[33] Nevertheless, Wilson used the Bills of Mortality throughout his book as an authoritative measure of the progress of plague epidemics in London. He relied on their figures to demonstrate the typical increase and decrease of plague deaths in relation to the seasons, used them as a measure of the relative healthiness and unhealthiness of the city, and even used them to calculate which proportion of the city perished in the 1603 and 1625 epidemics.[34]

Margaret Pelling, "Far Too Many Women? John Graunt, the Sex Ratio, and the Cultural Determination of Number," *The Historical Journal* 59, no. 3 (2016): 701.
[31] William Ogle, "An Inquiry into the Trustworthiness of the Old Bills of Mortality," *Journal of the Royal Statistical Society* 55, no. 3 (1892): 440-441.
[32] Wilson, *Plague in Shakespeare's London*, 66.
[33] Wilson, *Plague in Shakespeare's London*, 66.
[34] Wilson, *Plague in Shakespeare's London,* 93-175.

1.1.3: Historical Demography

Distinguished modern historical demographers and historians of medicine alike have tended to follow Wilson's lead, asserting that the searchers were ignorant or unskilled by citing Graunt, if mentioning them at all, as a quick caveat before proceeding with their use of the Bills as a useful source. Paul Slack's seminal *The Impact of Plague in Tudor and Stuart England* (1985), which is still widely considered to be *the* authoritative work on the subject of plague in early modern England, selectively quoted Graunt to describe the searchers as "ancient matrons" who were notorious for being "ignorant and careless."[35] In a frequently cited investigation of the relationship between dearth and disease, which relied on data contained in the Bills, Andrew Appleby characterized the searcher as "an old woman whose only qualification was her willingness to undertake an unpleasant task for a few pennies in pay."[36] John Landers' landmark book on the historical demography of early modern London, meanwhile, made barely any mention of the searchers even though his work draws upon the Bills of Mortality throughout.[37]

Demographic historians have tended to focus on establishing the value and reliability of the numerical data contained in the Bills of Mortality due to their use of these numbers as the basis of calculations regarding historical mortality and disease patterns. As such, in many works of historical demography there is a concern with establishing what the diseases listed in the Bills of Mortality 'really were,' and a

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[35] Paul Slack, *The Impact of Plague in Tudor and Stuart England* (Oxford: Oxford University Press, 1990), 149.
[36] Andrew B. Appleby, "Nutrition and Disease: The Case of London, 1550-1750," *The Journal of Interdisciplinary History* 6, no. 1 (1975): 7.
[37] John Landers, *Death and the Metropolis: Studies in the Demographic History of London, 1670-1830* (Cambridge: Cambridge University Press, 1993).

tendency to judge the value of the data on the basis of retrospective diagnosis.[38] These studies typically emphasize that the searchers had the tendency to diagnose visible symptoms, such as fever, as distinct diseases.

Andrew Wear argues that while modern medical knowledge is essential for historical demographers who seek to produce the most 'objective' picture of the diseases prevalent in previous centuries, "the use of modern classifications of disease can hinder an understanding of how diseases were perceived in the past."[39] Prior to recent research in the social history of medicine, which has reassessed the importance of lay knowledge of medicine during the plague era, the prevalent view of data collection for the Bills of Mortality was the one advanced by medical historian Thomas R. Forbes in a 1974 article on the searchers. In this article, Forbes argued that:

> Even when a searcher conscientiously did her best, her understanding and description of a fatal disease could seldom be anything but that of a layman. Hence the 'causes' of death that appear in the Bills of Mortality and, exceptionally, in parish records, are recorded in lay terms and indeed are, far too often, not diseases but symptoms.[40]

For several decades the only available secondary source relating to the searchers, Forbes' article was frequently cited alongside Graunt in more general works relating to the plague or demographic history, resulting in the widespread yet unexamined assumption that data collection for the London

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[38] Landers writes that "only in a few special cases, such as smallpox, can we be reasonably certain of the disease responsible. See *Death and the Metropolis,* 94-97.
[39] Andrew Wear, *Knowledge & Practice in English Medicine, 1550-1680* (Cambridge: Cambridge University Press, 2000), 14 and 108.
[40] Thomas R. Forbes, "The Searchers," *Bulletin of the New York Academy of Medicine* 50, no. 9 (1974): 1036; More recently, demographic historians have moved beyond this perspective and conceded that the Bills of Mortality have not been examined on their own terms. See Jeremy Boulton and Leonard Schwarz, "Yet Another Inquiry into the Trustworthiness of Eighteenth-Century London's Bills of Mortality," *Local Population Studies* 85 (2010): 34.

Bills of Mortality was a consistently ramshackle affair. Forbes perpetuated stereotypes of searchers as ignorant and ineffectual, writing that they "generally failed in their duties," and noting their "frequent incompetence and unreliability."[41]

1.1.4: Early Historiography of Medicine

An anatomist-turned-medical historian, Forbes is representative of an older tradition within the history of medicine which analysed medical history from the standpoint of medical advance. The field of medical history has its roots in the nineteenth century, and a large part of this early historiography was written by physicians seeking to understand their own history. This tradition has tended to emphasize important milestones in the inevitable forward march of modern medicine. Within this positivist tradition, what was not considered progressive was not considered to be of importance, and there was the corresponding tendency to define present knowledge by past ignorance. Accordingly, Forbes was tempted to dismiss the searchers as a "sad footnote in the history of social economics."[42]

The stereotypes of searchers that Forbes perpetuated used language very similar to stereotypes of early modern nurses and midwives which were also prominent in the early historiography of medicine. More recently, social historians of medicine have argued that the stereotyping of non-elite female practitioners was a deliberate choice on the part of early modern physicians in order to elevate their

[41] Forbes, "The Searchers," 1035-1036.
[42] Thomas R. Forbes, "Crowner's Quest," *Transactions of the American Philosophical Society* 68, no. 1 (1978): 8.

own knowledge and status.[43] Margaret Pelling has warned that these women have consequently been "constructed for us through the spectacle of the humanist male intellectual."[44] Indeed, a major trend in the early historiography of the history of medicine has been the tendency to focus almost exclusively on a narrow group of elite male medical practitioners, in large part because learned medical texts form the evidence that is considered most valuable, while also being easiest to access.

The emphasis given to the learned tradition, however, has distorted views regarding a widely shared lay knowledge base of medicine during the sixteenth, seventeenth, and eighteenth century. As such, it is important for historians to distinguish distortions in the data in the Bills of Mortality caused by the inherent difficulty of interpreting bodily signs as well as the societal pressures involving quarantine and disease stigma (which would have existed no matter who held the office), from the assumption that the searchers were necessarily incompetent by virtue of being older, poor women. In the first article to reassess the searchers after Forbes, which was published in 1999, Richelle Munkhoff rightly stressed the need for historians to be more attentive to their sources', as well as their own, cultural assumptions relating to gender, status and old age when repeating such claims.[45]

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[43] Deborah E. Harkness, "A View from the Streets: Women and Medical Work in Elizabethan London," *Bulletin of the History of Medicine* 82, no.1 (2008): 52-55.
[44] Margaret Pelling, "Thoroughly Resented? Older Women and the Medical Role in Early Modern London," in *Women, Science and Medicine 1500-1700*, edited by Lynette Hunter and Sarah Hutton (Thrupp, UK: Sutton Publishing, 1997), 82.
[45] Richelle Munkhoff, "Searchers of the Dead: Authority, Marginality, and the Interpretation of Plague in England, 1574-1665," *Gender & History* 11, no. 1 (1999): 3.

1.1.5: Social History of Medicine

In the last thirty years, social historians of medicine have responded to what they consider to be too narrow a focus on the medical elite, with the goal of establishing the role of medicine within its social context.[46] This is no easy task. Social historians of medicine tend to favour a variety of sources and methods (institutional, legal, prosopographical), as so much material related to the social history of medicine is anecdotal and scattered throughout administrative records. One of the main barriers to studying the searchers, as well as women and lay people more generally, is the scarcity of mentions of them in the records.

Not only are lay views more difficult to retrieve than those of the medical elite, but Margaret Pelling contends that "social historians of medicine still have to face the fact that even the academic audiences they wish to reach are imbued with preconceptions about health and medicine in the past in a way that is scarcely true of other historical subjects."[47] Social historians of medicine have cautioned that even though popular cures are now seen as fringe, educated and lay people shared in a common medical culture until at least the late eighteenth century; consequently, searchers' descriptions of symptoms as distinct diseases did not exist in a vacuum separating them from the terms that physicians used.[48] As Chapter 2 will

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[46] In a 1985 article, Roy Porter was the first to argue that physician-centered accounts of the rise of medicine may involve a major historical distortion. See Roy Porter, "The Patient's View: Doing Medical History from Below," *Theory and Society* 14, (1985): 174; Margaret Pelling, *The Common Lot: Sickness, Medical Occupation and the Urban Poor in Early Modern England* (London and New York: Longman, 1998), 6.

[47] Pelling, *Common Lot*, 7; Roy Porter, "Lay Medical Knowledge in the Eighteenth Century: The Evidence of the Gentleman's Magazine," *Medical History* 29, no. 2 (1985): 139.

[48] Wear, *Knowledge & Practice,* 11; Anne Hardy, "'Death Is the Cure of All Diseases': Using the General Register Office Cause of Death Statistics for 1837-1920," *Social History of Medicine* 7, no. 3 (1994): 491-492;

demonstrate in more detail, there was a great deal of shared knowledge among physicians and lay people, and in some instances, lay knowledge of medicine as evidenced in the disease categories of the Bills of Mortality influenced learned medical knowledge production. The diagnosis and vocabulary of illness was not the exclusive purview of physicians, nor was there the expectation that it should be.[49]

One of the main historical distortions created by physician-centered accounts of medicine has involved overlooking (and in some cases deliberately minimizing) the role of women within healthcare systems. The reassessment of women's role in medical labour is part of a larger trend of reversal of the underestimation of the importance of women's labour more generally within early modern historiography.[50] Deborah Harkness has maintained that by shifting our vantage point away from the view of educated physicians, who had a vested interest in the elevation of their own knowledge and skills, to those of ordinary people—using parish records, probate records, hospital records, and manuscript sources—it becomes evident that within their communities these women were generally valued, upheld traditional norms of female respectability, and often occupied the office of searcher for decades, which is suggestive that it held some status. According to

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Doreen G. Nagy, *Popular Medicine in Seventeenth Century England* (Bowling Green, OH: Bowling Green State University Popular Press, 1988) 54; Mary Fissell, "Introduction: Women, Health, and Healing in Early Modern Europe," *Bulletin of the History of Medicine* 82, no. 1 (2008): 1-8.

[49] There was, for instance, extensive use of lay people in an official capacity, such as the use of juries of matrons to search women's bodies for hidden signs of pregnancy, as well as the use of lay men as coroners and on inquest juries to determine causes of death.

[50] Diane Willen, "Women in the Public Sphere in Early Modern England: The Case of the Urban Working Poor," *The Sixteenth Century Journal* 19, no. 4 (1988): 559-75; More recently, Alexandra Shepard has argued that, in probate records, "women's productive abilities become visible, confirming their extensive underestimation by contemporaries as well as historians." See Alexandra Shepard, *Accounting for Oneself: Worth, Status, & the Social Order in Early Modern England* (Oxford: Oxford University Press, 2015), 149.

Harkness, women were not marginal but rather pivotal figures crucial to community health.[51] Her research builds upon the work of Andrew Wear, whose study of late-sixteenth and seventeenth-century vestry and account books of the London parish of St Bartholomew in the Exchange revealed that drawing on women's experience in household medicine was crucial to the development of a system of parish-based healthcare in the 1570s and 1580s in the aftermath of the devastation wrought by the dissolution of care institutions during the Reformation.

This system was codified at precisely the same time that the office of searcher became codified as part of plague management measures. Wear argues that the system evolved out of women's traditional duties of care for their own families, finding a common pattern of parish nurses appointed to perform searching duties and vice versa.[52] Wives and widows in particular would have had extensive experience in caring for the sick while also being traditionally responsible for laying out the dead.[53] In a recent article, Richelle Munkhoff stressed the experimental nature of early institutional management of poverty and plague in the sixteenth century and claimed that historians have not paid sufficient attention to how the two systems overlapped and evolved together. According to Munkhoff, connections between poor relief and plague have profound implications for our understanding of

[51] Harkness, "A View from the Streets," 52-55; Margaret Pelling contends that while women are least visible in the records, they are most ubiquitous. See Pelling, "Thoroughly Resented?" 70.
[52] Andrew Wear, "Caring for Sick Poor in St Bartholomew's Exchange: 1580-1676," *Medical History Supplement*, no. 11 (1991): 49-53.
[53] Paul Slack, *The English Poor Law, 1531-1782* (Cambridge: Cambridge University Press, 1995), 19; Ruth Richardson, "Popular Beliefs about the Dead Body," in *A Cultural History of the Human Body in the Enlightenment*, edited by Carole Reeves (London: Bloomsbury Academic, 2014), 98; David Cressy, *Birth, Marriage and Death: Ritual, Religion, and the Life-Cycle in Tudor and Stuart England* (Oxford: Oxford University Press, 1997), 425-426.

early modern women as "medical agents" as well as for "recognizing more fully a system of public health operating in London before the nineteenth century."[54] The relationship of women as medical agents to a system of public health is just starting to emerge as a field of study and is in response to a gap in the social history of medicine regarding public health, which will be described in more detail below.

As such, the Bills of Mortality have been recently reassessed as evidence of household medicine deployed in a formalized manner, as well as a manifestation of the importance of domestic medicine within society at large. Social historians of medicine have established that searchers operated within official systems of parish administration and were not on the fringes of legitimacy in the way that contemporary physicians suggested. They have demonstrated the embeddedness of lay knowledge of medicine within society, as well as the fluidity between the lay and learned traditions. Whereas older publications tended to brush off the searchers as ignorant lay people, a recent general interest publication stated that, "the use of older women for this role means that medical practitioners and the authorities must have trusted these women's powers of medical diagnosis."[55] This is reflective of a massive change in the understanding of the relationship between lay and learned medicine as a result of the scholarship undertaken by social historians of medicine. Their research has gone a long way towards establishing the importance of the Bills of Mortality within its social context, at least during the era of plague.

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[54] Richelle Munkhoff, "Poor Women and Parish Public Health in Sixteenth-Century London," *Renaissance Studies* 28, no. 4 (2014): 580-81.
[55] Jennifer Evans and Sara Read, *Maladies & Medicine: Exploring Health & Healing 1540-1740* (Barnsley: Pen & Sword History, 2017), 101.

1.1.6: Print Culture

Recent research establishing the role of the Bills of Mortality in its social context has not been limited to the field of the social history of medicine. Historians of print culture have demonstrated that figures from the Bills appear in all sorts of popular print, most notably in broadsides known as *Lord Have Mercies* (after the "Lord Have Mercy Upon Us" printed at their head), which were visually engaging and contained prayers and remedies as well as plague death totals. These appear as early as 1603 and survive in great numbers. The later versions typically presented weekly totals of plague deaths from previous epidemics, thus allowing their readers to chart the rising and falling of deaths in a comparative manner. Many were printed with blank spaces so that readers could fill them with additional data from the official Bills as an epidemic progressed.[56] These broadsides were so ubiquitous that they were often mistaken for official Bills and appear to have travelled just as widely.[57]

Many scholars have suggested that the official Bills, as well as the more interactive forms of print such as the *Lord Have Mercies*, were deeply influential in shaping people's understanding of plague.[58] Most importantly, they helped the population form coherent narratives about the natural cycles of disease, with the comparative tables presented in the *Lord Have Mercies* especially useful for this

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[56] Jenner, "Plague on a Page," 255-258.
[57] Thomas Dekker describes how "a Bill printed, called, *The Red Crosse,* or, England's *Lord Have Mercy Upon Us*" had been read to a farmer's son in Essex in a *Rod for Run-awaies* (1625). See Wilson, ed., *The Plague Pamphlets of Thomas Dekker,* 154; Munkhoff describes the *Lord Have Mercies* as bills of mortality in "Reckoning Death," 124.
[58] Jenner, "Plague on a Page," 266-67; Robertson, "Reckoning with London," 339; Slack, *Impact of Plague*, 242.

purpose. Londoners could now anticipate rises and falls in mortality based on natural cycles of plague, with deaths typically rising in the spring and peaking in late summer. The Bills made the unintelligible, terrifying experience of the epidemic more tangible: plague's progress was now traceable parish by parish, week by week. Erin Sullivan maintains that plague writings often depicted London itself as a diseased body and that the Bills were "not dissimilar to a dissected body up for public examination."[59] It is not surprising, then, that they also directly contributed to a growing interest in disease quantification among men such as John Graunt and other political arithmeticians.[60] Social historians of medicine as well as historians of print culture have greatly enriched our understanding of the Bills' importance to early modern Londoners; however, these studies rarely extend their examination of the Bills of Mortality beyond the last plague epidemic in 1665-66.

1.1.7: Scholarship on the Post-Plague Bills

Work discussing the Bills of Mortality in the post-plague era is rare, and, aside from works of demographic history that incorporate figures from the Bills in their calculations, tends to be limited to the scholarship of historians of vital statistics, political arithmetic, and early social science.[61] These researchers have demonstrated that physicians such as William Petty and Thomas Sydenham embraced a spirit of "exactness and exhaustiveness" in their observations on causes

[59] Erin Sullivan, "Physical and Spiritual Illness: Narrative Appropriations of the Bills of Mortality," 84.
[60] Jenner, "Plague on a Page," 264.
[61] Gérard Jorland and George Weisz, "Introduction: Who Counts?" in *Body Counts: Medical Quantification in Historical and Sociological Perspective*, edited by Gérard Jorland *et al*. (Montreal and Kingston: McGill-Queen's University Press, 2005), 4; Andrea Rusnock is one of the few historians of early social science to incorporate medical history into her work; Paul Slack's *The Impact of Plague in Tudor and Stuart England* (1990) is one of the few studies on plague in England that discusses the Marseille plague scare episode.

of death and their relation to environmental causes.[62] By presenting causes of death as distinct entities that could be counted and classified, the Bills directly influenced the development of a notion that diseases formed distinct taxonomies. In the eighteenth century, there was a marked shift towards an analysis of diseases in their aggregate rather than in their individual manifestation in specific bodies. This diverged from the traditional Galenic view, which maintained that diseases might manifest differently based on each individual's constitution.[63] The Galenic approach, with its focus on the interpretation of external bodily signs, would have been one that was familiar to the searchers in their act of post-mortem interpretation.

There are only two published works on the searchers in the post-plague era, a 2011 book chapter by Kevin Siena and a 2016 article by Wanda Henry. Henry's study of seven hundred women who served as either searchers or sextonesses in the period after 1700 uncovered that only seven of the women had a known health care association.[64] Henry does not focus on why this change occurred. It is unclear whether it was due to the changing nature of poor law administration and parish health care provisions more generally, such as with the implementation of workhouses in the early eighteenth century, or whether it was tied to the push for professionalization among physicians, which resulted in the marginalization of other health care roles traditionally performed by women, such as midwifery. It is

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[62] Andrew Wear, "Making Sense of Health and the Environment in Early Modern England," in *Medicine in Society: Historical Essays*, edited by Andrew Wear (Cambridge: Cambridge University Press, 1992), 129-130.
[63] Kevin Siena, "Pliable Bodies: The Moral Biology of Health and Disease," in *A Cultural History of the Human Body in the Enlightenment*, edited by Carole Reeves (London: Bloomsbury Academic, 2014), 38.
[64] Wanda S. Henry, "Women Searchers of the Dead in Eighteenth- and Nineteenth-century London," *Social History of Medicine* 29, no. 3 (2016): 458.

also unclear the extent to which these shifts affected the searchers' perceived authority in medical matters within society at large.

Henry asserts that post-1700, searchers would have received their knowledge about the dead from family tradition, as they usually were chosen from long lines of families with experience in searching and burials.[65] She also maintains that, much like in the sixteenth and seventeenth century, knowledge of medical matters would still have been common among all women. Eighteenth and nineteenth-century searchers also tended to serve long tenures, during which they would have gained considerable knowledge through experience. While the searchers no longer appeared to work in other health-related roles, Henry finds continued emphasis placed upon the trustworthiness and respectability of the women appointed. Beginning in the late seventeenth century, searchers tended to serve concurrently as sextonesses, a highly respected position, rendering them responsible for granting access to the church and to individual pews, attending all parish events, supervising the ringing of church bells and the digging of graves, among other duties.[66] Henry argues that searchers retained their status as pillars of their communities until the abolition of the office in the 1850s.

Kevin Siena's preliminary study of searchers' testimonies in eighteenth-century Old Bailey proceedings presents inconclusive findings. He contrasts the familiar condemnation of women searchers by physicians with instances where they are a source of national pride— a first line of defence, unknown in other parts of

[65] Henry, "Women Searchers of the Dead," 459.
[66] Henry, "Women Searchers of the Dead," 445.

Europe, against all kinds of epidemic diseases.[67] Siena reveals multiple instances where the opinions of searchers settled cases of suspicious deaths, and how a body buried hastily without a searcher's report could arouse enough suspicion that it would lead to the body being exhumed.[68] He argues that while "cases could turn on searchers' abilities to read a body," there are also several instances where the searcher's testimony is ignored or supplanted by that of other medical practitioners.[69] Siena traces similarities between characterizations of searchers and midwives as old, ignorant and impoverished, and concludes that self-conscious professional fashioning on the part of physicians during the eighteenth century, which resulted in the marginalization of midwives, was the reason behind the eventual supplantation of women searchers and parish clerks by the undertakers and registrars of the General Register Office in the nineteenth century.[70]

Henry, however, maintains that contrary to the assumption that the instauration of the General Register Office was related to the perceived inadequacy of the searchers, it was in fact due to the "parish's loss of monopoly on the death business."[71] The searchers' authority only extended to burials ministered by the Church of England, which left out a growing proportion of London's diverse population. In addition, the city churchyards had been overflowing, which resulted in an increasing proportion of bodies sent beyond the city limits for burial. According to

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[67] Kevin Siena, "Searchers of the Dead in Long Eighteenth-Century London," in *Worth and Repute: Valuing Gender in Late Medieval and Early Modern Europe*, edited by Kim Kippen and Lori Woods (Toronto: Centre for Reformation and Renaissance Studies, 2011), 138.
[68] Siena, "Searchers of the Dead in Long Eighteenth-Century London," 142.
[69] Siena, "Searchers of the Dead in Long Eighteenth-Century London," 144-146.
[70] Siena, "Searchers of the Dead in Long Eighteenth-Century London," 135.
[71] Henry, "Women Searchers of the Dead," 445.

Henry, it was the 1850 Metropolitan Internment Act, which closed all churchyards and burial grounds within the city limits, that rendered the office of searcher and the Bills of Mortality obsolete.[72] Although the assumption prevalent among historians has been that the intention was to replace searchers with medical men, the registrars and undertakers that replaced them were laymen. They had, furthermore, been instructed by William Farr, the compiler of medical data for the Office, to report "the popular or common name of the disease, in preference to such as is known only to medical men."[73]

While Siena emphasizes the effect of medical professionalization in the marginalization of the searchers, Henry emphasizes changes in parish administrative structures due to the effects of explosive population growth in the early nineteenth century.[74] This thesis will strike a balance between the two perspectives, relating medical professionalization directly to changes in burial practices, particularly in the city's large suburban parishes. Major discrepancies between the numbers reported in the weekly Bills and those kept in the parish records appear to begin in the 1770s, which coincides with a period representing a major shift in lay-professional relations in medicine.[75] Two of the major causes of the increasing use of large burial grounds had to do with fear of bodysnatchers 'harvesting' recently deceased bodies for use by anatomical schools, as well as concerns with overcrowding and sanitary conditions in

[72] Henry, "Women Searchers of the Dead," 463.
[73] Quoted in Henry, "Women Searchers of the Dead," 460.
[74] Henry, "Women Searchers of the Dead," 446.
[75] Boulton and Schwarz, "Yet Another Inquiry," 35-40; Porter, "Lay Medical Knowledge in the Eighteenth Century," 165; Mary Fissell, "The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine," in *British Medicine in an Age of Reform*, edited by Roger French and Andrew Wear (London: Royal Institution Centre for the History of Science and Technology, 1991), 99-102.

churchyards as a potential source of epidemic disease. In order to understand the public health purpose of the Bills of Mortality in the post-plague era, as well as placing the contemporary criticism of the Bills in context, it will be important to consider changes in burial practices and in the practice of medicine together.

1.1.8: Public Health History

The Bills' significance in relation to eighteenth-century public health is not well understood. This is partly explained by the fact that in the years between 1700 and 1800, London did not experience major epidemics (aside from endemic outbreaks of fevers, smallpox, and sexually transmitted diseases), but it is mostly explained by the fact that most studies discussing the Bills of Mortality end at the era of plague, while public health histories tend to begin in the 1790s.[76] The few studies discussing public health in London in the eighteenth century have tended to focus on environmental medicine—that is, the study of environmental conditions as they applied to bodies, alongside efforts to modify environmental conditions that made bodies more prone to disease. J.C Riley's *The Eighteenth-Century Campaign to Avoid Disease* (1987), with its focus on environmental medicine, is still one of the only works to discuss efforts at disease prevention in eighteenth-century England. Environmental historians working within this tradition frequently mention how scholars often measure achievements by searching for precursors to modern epidemiology and public health. In the words of one such historian, "the continuing

[76] Anne Hardy, "The Medical Response to Epidemic Disease during the Long Eighteenth Century," in *Epidemic Disease in London*, edited by J.A.I. Champion (London: Centre for Metropolitan History, 1993), n.p. https://archives.history.ac.uk/history-in-focus/Medical/epihardy.html

tyranny of ameliorist views" ends up completely misrepresenting environmental conditions and public health in medieval and early modern cities.[77]

These views relate to another legacy of the positivist tradition in the history of medicine, which is the assumption that conceptions of public health, as well as public health systems, did not exist until the reforms of the nineteenth century. Roy Porter argues that "if we take our norms for public health from the High Victorian Age—as has too often been done—we instantly turn what the Georgians actually did to improve the health of their metropolis into a self-defeating mystery."[78] Writing nearly twenty-five years after Porter, Richelle Munkhoff maintains that there is still strong resistance to acknowledging a system of public health in England before the 1830s, which is in part due to progressive bias.[79] When historians operate under the assumption that physicians should be the obvious experts in terms of public health management, then if the establishment of centralized measures on the basis of such expertise cannot be demonstrated, they conclude that a pre-modern concept of public health did not exist. This is perhaps one of the reasons why the significance of the Bills of Mortality during the eighteenth century has been overlooked.

Another reason might be that, as Margaret DeLacy has recently argued, medical historians have shied away from working on the first half of the eighteenth

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[77] Guy Geltner, "Public Health and Pre-Modern City: A Research Agenda," *History Compass* 10, no. 3 (2012): 232.
[78] Roy Porter, "Cleaning up the Great Wen: Public Health in Eighteenth-century London," *Medical History Supplement* no. 11 (1991): 81.
[79] Munkhoff, "Poor Women and Parish Public Health," 582. In her landmark work on communal health in late medieval English towns, Carole Rawcliffe argues that this conception, which has existed since the era of Victorian sanitation reform, is just as widely entrenched in academic circles as it is in the popular imagination. See Carole Rawcliffe, *Urban Bodies: Communal Health in Late Medieval English Town and Cities* (Woodbridge, UK: Boydell Press, 2013), 5.

century in particular because it is a period of complex transition where diseases and contagion were simultaneously understood according to multiple different models.[80] This period has been variously caricatured as tedious, unapproachable, and dull.[81] It has been described as "the most neglected period in English medicine after 1600," representing as a "vast lacuna between two heroic ages," and as "tedium between two great eras."[82] This view is reflected in the widespread assumption that the Bills of Mortality simply diminished in relevance in the eighteenth century and that the 1836 Vital Registration Act, which centralized vital statistics, had been an inevitable and long-overdue corrective.[83]

In *Rotten Bodies* (2019), Kevin Siena challenged the tendency to treat the plague and post-plague eras in isolation. Unlike most studies on plague in England, it is oriented forward from the last outbreak in 1665-66 and argues that plague continued to exert an enormous influence on British culture in the eighteenth century.[84] Siena stresses important continuities in how physicians viewed poverty,

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[80] Margaret DeLacy, *The Germ of an Idea: Contagionism, Religion, and Society in Britain, 1660-1730* (New York: Palgrave Macmillan, 2016), ix-xvi.
[81] William R. Le Fanu, "The Lost Half-century in English Medicine, 1700-1750," *Bulletin of the History of Medicine* 46, no.4 (1972): 319-48.
[82] Adrian Wilson, "The Politics of Medical Improvement in Early Hanoverian London," in *The Medical Enlightenment of the Eighteenth Century*, edited by Andrew Cunningham and Roger French (Cambridge: Cambridge University Press, 1990) 9-10; Roy Porter, "Laymen, Doctors and Medical Knowledge in the Eighteenth Century: The Evidence of the Gentleman's Magazine," in *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Industrial Society*, edited by Roy Porter (Cambridge: Cambridge University Press, 1985), 285.
[83] T.R. Forbes writes that, "relief from the situation finally came in 1836 when the Registration Act was passed." In Forbes, "The Searchers," 1036. Edward Higgs criticizes this approach and argues that administrative leadership, which assumed priority over scientific functions, needs to be foregrounded in histories of the founding of the General Record Office. See Edward Higgs, *Life, Death and Statistics: Civil Registration, Censuses and the Work of the General Register Office, 1836-1952* (Hatfield, UK: Local Population Studies, 2004), 43-49; Wanda Henry asserts that a teleological approach to vital statistics common among historians. In Henry, "Women Searchers of the Dead," 448.
[84] Kevin Siena, *Rotten Bodies: Class & Contagion in 18th-Century Britain* (New Haven: Yale University Press, 2019), 19.

specifically poor bodies, in relation to the generation of epidemic disease. He connects the plague and post-plague eras in terms of physicians' physiological claims about the bodies of the poor and their relationship to contagious diseases.[85] *Rotten Bodies* examines several episodes of contagion anxiety, such as the 1720 Marseille plague scare and outbreaks of fever in London courtrooms in 1750 and 1772. Siena's study, however, does not delve into the relationship between contagion anxiety and the London Bills of Mortality.

This thesis will build on Siena's approach of bridging the plague and post-plague eras in its examination of the Bills—themselves a legacy of plague culture that endured well beyond the seventeenth century. It is not enough for historians of modern public health to point out the obvious flaws in the Bills of Mortality in order to explain the necessity for reform in the nineteenth century. The fact that the Bills of Mortality continued largely unaltered beyond their original scope as an urban plague tracking measure itself requires an explanation, one that bridges the plague and post-plague eras and considers the Bills on their own terms.

1.2: Thesis Outline

Chapter 2 will examine the foundation and administrative structure of the Bills during the era of plague. It will contend that there were barriers to the appointment of physicians as searchers of the dead, while arguing that interest in public health and population management in the City and suburbs was not driven by the College of Physicians but by the City and Crown. It will argue that plague management in the London suburbs was the real impetus for the codification of

[85] Siena, *Rotten Bodies*, 226.

plague *Books of Orders* and the regular printing of the London Bills of Mortality. Using Privy Council records, it will examine a failed proposal to reform the Bills and establish a centralized board of health along continental models in the early 1630s. It will demonstrate that this attempt, which was driven by the Privy Council during Charles I's period of personal rule, was closely tied to efforts to incorporate the suburbs and extend the Bills of Mortality.[86] It will conclude that for their intended purpose as a plague monitoring device, the seventeenth-century Bills were largely satisfactory.

Chapter 3 will examine English reactions to the 1720-23 plague epidemic at Marseille—the last major outbreak of the disease in Europe—as a case study for understanding the public health purpose of the Bills of Mortality fifty-five years after the last epidemic of the disease in London in 1665-66. This chapter will assess Dr Richard Mead's plan to reform the Bills of Mortality and establish a board of health along the lines of the model initially proposed in the 1630s, as well as the implementation of the controversial Quarantine Act of 1721. It will argue that the Marseille plague episode revealed a deep suspicion of the arbitrary powers of the Crown in matters of public health, which would prevent reforms of the Bills of Mortality towards centralized continental models of 'medical police' for the duration of the eighteenth century.[87] It will conclude that the Marseille plague episode had a lasting effect, not only in terms of suspicion of centralized efforts at public health

[86] Paul Slack, "Books of Orders: The Making of English Social Policy, 1577-1631," *Transactions of the Royal Historical Society* 30 (1980): 11-22; Norman G. Brett-James, *The Growth of Stuart London* (London: George Allen & Unwin, 1935), 115.
[87] Paul Slack, *From Reformation to Improvement: Public Welfare in Early Modern England* (Oxford: Clarendon Press, 1999), 145-147.

management, but also in terms of anxiety about burial practices and the fear that overflowing parish churchyards might engender epidemic disease.

Chapter 4 will examine eighteenth-century criticism of the Bills of Mortality from physicians and political arithmeticians and consider it within the context of two large changes which are interrelated yet do not tend to be considered together. The first is a shift in lay-professional relations in medicine that occurred during the period between 1770 and 1815, and the second is the weakening of parish administration that accelerated during these same decades, both of which are reflected in the discourse about the inadequacy of the Bills.[88] This chapter will argue that criticism of the Bills' inability to reflect the changing character of London in terms of its size, religious diversity, and burial practices were as much of a topic of contention as the searchers' presumed lack of diagnostic abilities. It will demonstrate that opposition to schemes which would result in the intrusion of the state in private lives made reforming the Bills most challenging at precisely the time when their deficiencies were becoming more apparent.

The Conclusion will briefly consider the passing of legislation in 1836 that reformed the collection of vital statistics in Britain. The Conclusion will demonstrate that, out of all the deficiencies in the Bills that were supposedly remedied by the 1836 Vital Registration Act, the cause of death issue was the slowest and most

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[88] Roy Porter, "Lay Medical Knowledge in the Eighteenth Century," 165; Mary Fissell, "The Disappearance of the Patient's Narrative," 92-109; N.D. Jewson, "The Disappearance of the Sick-man from Medical Cosmology, 1770–1870 * †," *International Journal of Epidemiology* 38, no. 3 (2009): 622-33; Stephan Landsman argues that this change is also reflected in the growing inclination to hear only the medical opinions of expert witnesses in the latter part of the eighteenth century. See Stephan Landsman, "One Hundred Years of Rectitude: Medical Witnesses at the Old Bailey, 1717-1817," *Law and History Review* 16, no. 3 (1998): 455.

difficult to resolve, with lay categories of causes of death kept well into the early decades of the twentieth century.[89] Consequently, historians cannot take for granted that the 1836 Vital Registration Act was passed in direct response to the criticisms of physicians regarding cause of death data in the Bills, and should proceed carefully when foregrounding physicians' concerns in their own assessments of the Bills of Mortality.

[89] George C. Alter and Ann G. Carmichael, "Classifying the Dead: Toward a History of the Registration of Causes of Death," *Journal of the History of Medicine and Allied Sciences* 54, no. 2 (1999): 126; Edward Higgs, *Life, Death and Statistics,* 50; John M. Eyler, *Victorian Social Medicine: The Ideas and Methods of William Farr* (Baltimore: Johns Hopkins University Press, 1979), 44; John M. Eyler, "Mortality Statistics and Victorian Health Policy: Program and Criticism," *Bulletin of the History of Medicine* 50, no. 3 (1976): 352.

Chapter 2: Urban Growth and Public Health: The Bills of Mortality in the Era of Plague

The Bills of Mortality recast London's identity as the well-defined and compact City located within the ancient Roman walls to one of a large, growing metropolis. Though London 'within the Bills' became shorthand for the greater London area between the seventeenth and nineteenth centuries, this topographical unity represented a complex jurisdictional framework which included City parishes under the control of the Lord Mayor of London, various Liberties and royal precincts, as well as the large and increasingly populous suburban parishes administered by parish vestries and justices of the peace who answered to the Crown rather than the City authorities. Managing unprecedented levels of migration was a source of constant concern, and the City and the Crown frequently disagreed about who should take responsibility for public order in the suburban parishes. While the City authorities may have been reluctant to take on responsibility for the outer parishes, plague's refusal to recognize walls and legal boundaries meant that they could not ignore them entirely. Consequently, plague management necessitated the delicate reconciling of competing interests between the City of London and the Crown as they both grappled with the social, political, and environmental consequences of urban growth. The system that developed from these contests proved distinctive when compared with plague measures elsewhere and remarkably resilient.

It is often assumed that it was the Privy Council, inspired by Continental responses to plague, that acted as the main driver of the establishment of plague

management measures in London.[1] This chapter will argue that although the Privy Council had an undeniable interest and role in plague management, including the expansion of the Bills of Mortality into the suburbs, the City played a decisive part in shaping the unique form that these measures ultimately took. This will be demonstrated in an examination of the codification of the national plague *Book of Orders* in the late 1570s as well as a failed attempt to institute a centralized Board of Health along Continental models in the early 1630s. In comparison to measures taken on the Continent, the London Bills of Mortality were distinctive in two important respects: they were printed and distributed widely, and they made use of women searchers of the dead rather than medical professionals to gather data on cause of death. As this chapter will demonstrate, the impetus for the first unusual element—the printing and widespread publication of mortality data—lie in the conflicts between City and Crown over the suburban parishes. Ensuring compliance in the suburbs was in turn central to reforms of the Bills undertaken over the course of the seventeenth century.

For the second unusual element—the reliance upon women searchers rather than medical professionals—we need to look to a third party alongside City and

[1] Harold J. Cook, "Policing the Health of London: The College of Physicians and the Early Stuart Monarchy," *Social History of Medicine* 2, no. 1 (1989): 22; Paul Slack, "Metropolitan Government in Crisis: The Response to Plague," in *London 1500-1700: The Making of the Metropolis* (London and New York: Longman, 1986), 66-68; Paul Slack, "Books of Orders: The Making of English Social Policy, 1577-1631," *Transactions of the Royal Historical Society* 30 (1980): 7; Steve Hindle, *The State and Social Change in Early Modern England, 1550-1640* (New York: St. Martin's Press, 2000), 170. More recent publications addressing the importance of experimental plague measures in the City parishes do not tend to emphasize the City of London's role in ensuring that it would be these measures that would ultimately be codified in the plague *Orders* as opposed to the Continental measures preferred by the Privy Council. See, for example, Richelle Munkhoff, "Poor Women and Parish Public Health in Sixteenth-Century London, " *Renaissance Studies* 28, no. 4 (2014): 588-593.

Crown, the College of Physicians, if only to explain its relative irrelevance. As State Papers, Privy Council records and Company of Parish Clerks records reveal, it was the relationship between the City and the Crown that was central to plague management, with the College of Physicians largely indifferent to the administration of the new system. A central contention of this chapter is that although the physicians became vocal in their criticism of the Bills of Mortality in later centuries, barriers existed to the College of Physicians' involvement that need to be more clearly emphasized—namely, the College's own reluctance to take on plague work and its contentious relationship with the City of London.

This chapter will demonstrate that the administrative structure of the Bills of Mortality was pragmatic. It was shaped in large part by experimental plague management measures which made extensive use of the labour of lay people in early modern health care systems, while utilising existing parish structures—common among all the differing jurisdictions—as the basis of local administration. The administrative structure of the Bills of Mortality developed as it did, and persisted as it did, precisely because it was practical and cost-effective; it is unlikely that the Bills could have been implemented as effectively if they had depended on the involvement of the College of Physicians. Though the administrative structure of the Bills became subject to criticism after the publication of John Graunt's *Observations Upon the Bills of Mortality* (1662), this chapter concludes that it was largely adequate in its intended purpose of informing authorities and citizens of the progress of epidemics during the era of plague.

2.1 Plague in the London Suburbs

The early history of the Bills of Mortality is obscure. The first mention of a Bill dates from late August 1519, when Henry VIII's chief advisor Cardinal Wolsey first attempted to impose quarantine measures.[2] The Bills appear to have circulated intermittently and privately at first, keeping the authorities informed about the progress of epidemics, their numbers based on burial information taken from the parish clerks' registers. A 1553 Mayoral Ordinance required the Company of Parish Clerks to provide continuous weekly returns, "in such manner, and form, as heretofore hath been accustomed," outlining all causes of death in every parish within their jurisdiction.[3]

As a form of ephemeral print, only a handful of copies of the Bills remain; there are currently six weekly plague Bills and one annual plague Bill known to have survived prior to 1603, all of which are in manuscript format. These early Bills date from the 1530s with the exception of the annual plague Bill, which dates from 1563, and two weekly Bills from 1591 and 1592.[4] Present knowledge of the Bills is mainly derived from compilations such as *London's Dreadful Visitation* (1665) and the *Collection of Yearly Bills of Mortality, from 1657 to 1758 Inclusive* (1758). The

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[2] Paul Slack, "The Response to Plague in Early Modern England: Public Policies and Their Consequences," in *Famine, Disease and the Social Order in Early Modern Society*, edited by John Walter and Roger Schofield (Cambridge: Cambridge University Press, 1989), 168; F.P. Wilson, *The Plague in Shakespeare's London* (London: Oxford University Press, 1927), 189.

[3] James Christie, *Some Account of Parish Clerks* (London: J. Vincent, 1893), 133.

[4] The bill from 1591 lists all the parishes outlined in the 1553 Ordinance. This copy, along with the sole surviving annual bill, were intended for Queen Elizabeth I, and are both held by the Folger Shakespeare Library. See Kristin Heitman, "Of Counts and Causes: The Emergence of the London Bills of Mortality," March 13, 2018, https://collation.folger.edu/2018/03/counts-causes-london-bills-mortality/. The existence of the 1592 bill was unknown until 1992. It was found almost four hundred years to the day in the walls of a house undergoing renovations. See Herbert Berry, "A London Plague Bill for 1592, Crich, and Goodwyffe Hurde," *English Literary Renaissance* 25, no. 1 (1995): 3.

compiler of *London's Dreadful Visitation* had not been aware of the existence of any plague Bills prior to 1592. He or she mentioned that even collecting Bills from the current year had been difficult, and that they had "not been able to recover all the particular weekly bills thereof."[5] These compilers appear to have been in large part dependent upon a central registry of Bills kept at the Hall of the Company of Parish Clerks.

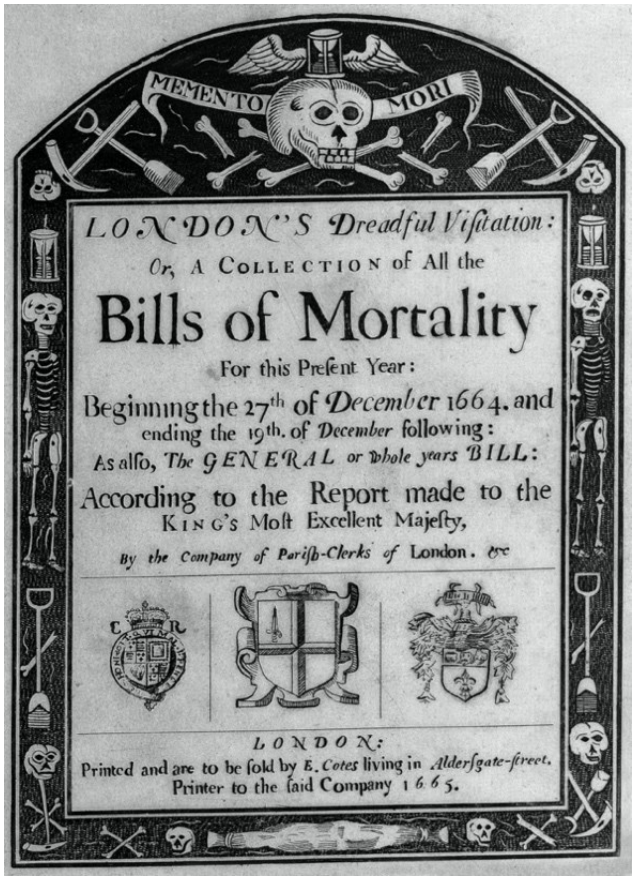

Figure 2.1: Title page to *London's Dreadful Visitation* (1665).
Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

[5] John Graunt and the Worshipful Company Of Parish Clerks, *London's Dreadful Visitation* (London: Printed and Are to Be Sold by E. Cotes, 1665), sig. A2. Early English Books Online. This compilation has been attributed to John Graunt but there is no evidence of his authorship in the text itself. Craig Spence attributes it to Eleanor Coates, printer to the Company of Parish Clerks. See Craig Spence, *Accidents and Violent Death in Early Modern London, 1650-1750* (Woodbridge: The Boydell Press, 2016), 13.

Bills of Mortality may have been made available to the public as early as 1594. There is some speculation among historians regarding why the authorities decided to take the unusual step of making this information public, but the consensus seems to be that they did so in order to discourage people from settling in London and exacerbating unsanitary living conditions in the city's unruly suburbs.[6] The rapid growth of London had amplified the visibility of vagrancy and poverty, and the city was in these decades never entirely free from plague.

The city comprised the 97 parishes within the Roman walls, 16 parishes immediately adjacent to the walls known as the inner suburbs, as well as outer suburbs including Southwark and Westminster. Vanessa Harding estimates that between 1500 and 1700, the population within the walls increased from approximately 40-45,000 to 70,000; that of the inner suburbs from 26-30,000 to 170,000; while that of the outer suburbs increased from 13-15,000 to over 300,000.[7] At the turn of the eighteenth century, greater London had almost twenty times the population of Norwich, the second largest city in England, yet it was only the 97 parishes within the walls as well as the 16 parishes of the inner suburbs that were within the jurisdiction of the Lord Mayor.[8] This meant that, as the seventeenth

[6] Early Bills of Mortality in manuscript format closely resemble plague death tracking measures implemented in medieval Italian towns after the Black Death; however, the figures in these Italian 'Bills' were never publicly disseminated. Cornelius Walford, "Early Bills of Mortality," *Transactions of the Royal Historical Society* 7 (1878): 217; Paul Slack, "Books of Orders," 6; Stephen Greenberg, "Plague, the Printing Press, and Public Health in Seventeenth-Century London," *Huntington Library Quarterly* 67, no.4 (2004): 526.
[7] Vanessa Harding, "Housing and Health in Early Modern London," in *Environment, Health and History*, edited by Virginia Berridge and Martin Gorsky (Basingstoke: Palgrave Macmillan, 2012), 28.
[8] London had over 500,000 inhabitants compared to Norwich's 30,000. See William Cavert, *The Smoke of London: Energy and Environment in the Early Modern City* (Cambridge: Cambridge University Press, 2016), 11.

century drew to a close, approximately three quarters of the population of the metropolitan area fell outside the jurisdiction of the City of London proper.[9]

The outer suburbs mainly consisted of large and sprawling parishes whose original boundaries were not intended to hold large populations equal to sizable towns. As the outer suburbs crowded with newcomers, housing quality deteriorated, and mortality rates became exceptionally high compared to the city within the walls.[10] Evoking the poor building quality of the outer suburbs, Thomas Dekker warned the citizens of London that "Death (like a Spanish Leager, or rather like stalking *Tamberlaine*) hath pitched his tents (being nothing but a heap of winding sheets tacked together) in the sinfully-polluted suburbs: the Plague is Muster-master and Marshall of the field."[11] It was commonly believed that plague epidemics were typically imported from the Low Countries, spreading from the London docks to the suburbs, whose densely populated tenements provided the ideal environment for plague to breed.[12] Citizens anxiously watched the Bills of Mortality whenever the numbers of the plague dead rose in the outer parishes, with those early numbers described as "the first arrow of warning that was shot from Heaven amongst us."[13]

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[9] Vanessa Harding, *The Dead and The Living in Paris and London, 1500-1670* (Cambridge: Cambridge University Press, 2002), 26.
[10] Harding, "Housing and Health," 29; A.L. Beier, *Masterless Men: The Vagrancy Problem in England 1560-1640* (London and New York: Methien, 1985), 42; Joseph P. Ward, "Imagining the Metropolis in Elizabethan and Stuart London," in *The Country and City Revisited: England and the Politics of Culture, 1550-1850*, edited by Gerald MacLean, Donna Landry, and Joseph P. Ward (Cambridge: Cambridge University Press, 1999), 24.
[11] Thomas Dekker, *The Wonderfull Yeare* (1603), in *The Plague Pamphlets of Thomas Dekker*, edited by F.P. Wilson (Oxford: Clarendon Press, 1925), 31.
[12] Norman G. Brett-James, *The Growth of Stuart London* (London: George Allen & Unwin, 1935), 205; Paul Slack, "Metropolitan Government in Crisis," 64; Kira Newman, "Shutt Up: Bubonic Plague and Quarantine in Early Modern England," *Journal of Social History* 45, no. 3 (2012): 815.
[13] Thomas Vincent, *God's Terrible Voice in the City* (London?: 1667), 29. Early English Books Online.

The ever-present threat of plague from the outer suburbs heightened fears of potential breakdown of the social order, especially as authority in times of crisis was vague and uncertain. The outer suburbs were under the control of parish vestries and justices of the peace, and, consequently, the greatest potential source of infection was the most difficult to police.[14] The outer-parishes' lack of effective government stood in contrast to the well-organized City of London, with its Lord Mayor, 26 Aldermen, 212 Common Councillors, various sub-officials, and powerful City Companies and Corporations.[15] The City of London was extremely reluctant to take responsibility for the outer suburbs, despite repeated attempts by the Crown to get them to do so.[16]

Aside from the obvious difficulties posed by managing a much larger area without a well-established, wealthy landowning class from which funds could be levied, the City's guilds and trading companies—holding exclusive rights to manufacturing and trade—conferred citizenship privileges to its members as freemen. Harold Cook maintains that the government of the City considered any threat to the internal power of the guilds as a threat to itself.[17] The non-regulated trading and manufacturing in the suburbs had long been a point of contention as they diminished the value of apprenticeship and City citizenship. It would have been

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[14] Joseph Monteyne, *The Printed Image in Early Modern London* (Aldershot: Ashgate, 2007), 78; Harding, *The Dead and the Living,* 33.
[15] Brett-James, *Growth of Stuart London*, 68, 223; Ian W. Archer*, The Pursuit of Stability: Social Relations in Elizabethan London* (Cambridge: Cambridge University Press, 1991), 18-19.
[16] Roger Finlay and Beatrice Shearer, "Population Growth and Suburban Expansion," in *London 1500-1700: The Making of the Metropolis,* edited by A.L Beier and Roger Finlay (London and New York: Longman, 1986), 41. Historians tend to stress that the City government was both unwilling and unable to assume responsibility for the suburbs, but the finer points of why this was the case remain unclear.
[17] Cook, "Policing the Health of London," 14.

difficult to incorporate these workers within the existing administrative structure without further encroaching upon the rights of the City's freemen.[18]

The Crown was the only source of authority that could direct uniform plague management measures across the greater London area. The City had a long tradition of independence when it came to its own governance, but relied on the Crown in several key areas: securing the food supply in times of dearth, remedying tax evasion from the Liberties on their territory, and, crucially, in getting the suburban authorities to comply with key plague management policies.[19] It was the Lord Mayor and Aldermen who first alerted the Privy Council of the dangers posed by the deteriorating conditions in the suburbs, which was the impetus for the first of many Royal Proclamations banning new building and the subdivision of houses within three miles of the city in an attempt to curb London's suburban growth.[20] Paul Slack has argued that the endemic status of the disease in the city's suburbs was the catalyst for the codification of the first national plague *Book of Orders* in 1578.[21] Developed by the Elizabethan Privy Council, these measures were formulated at the

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[18] D.W. Jones, "London Merchants and the Crisis of the 1690s,"in *Crisis and Order in English Towns 1500-1700: Essays in Urban History*, edited by Peter Clark and Paul Slack (London: Routledge, 1972), 311.

[19] Archer, *The Pursuit of Stability*, 38-39. The City was active in plague management within its jurisdiction. Senior City authorities always stayed behind during epidemics, and the City routinely appointed Aldermen as Commissioners of Health over a defined territory, who kept register books with the names of all appointed plague officials in their division. Every Friday the examiners and parish constables were required to give an account to their appointed Alderman. The City also published its own plague orders, which better reflected the chain of authority in the City. See Wilson, *Plague in Shakespeare's London,* 177 and Slack, "Books of Orders," 4.

[20] Paul Slack, *From Reformation to Improvement: Public Welfare in Early Modern England* (Oxford: Clarendon Press, 1999), 55; Brett-James, *Growth of Stuart London*, 80. James I would issue eight proclamations attempting to limit suburban expansion.

[21] Paul Slack, *The Impact of Plague in Tudor and Stuart England* (Oxford: Oxford University Press, 1990), 206; Paul Slack, *The English Poor Law, 1531-1782* (Cambridge: Cambridge University Press, 1995), 8; Slack, "Books of Orders," 6.

same time as other *Books of Orders* aimed at managing vagrancy, dearth, and the overcrowding of tenements at the edge of the city. All these measures emphasized the link between the lived environment, poverty, and disease.[22]

2.2: The Plague *Orders*

Although the City resisted calls to extend its authority to the outer suburbs, both the City and the Crown could agree on the necessity for uniform plague management directives that would extend beyond the area under the City's jurisdiction. The 1578 *Orders*, founded on the royal prerogative and addressed to justices of the peace in all counties of the nation, codified national plague management measures that would be reissued, largely unaltered, with each subsequent visitation of plague until the last in 1665-66.[23] The *Orders* describe the appointment of plague officials with the authority to impose quarantine, manage burials, coordinate the burning of infected goods, regulate public assembly, clean streets, expel vagrants, and ensure the maintenance of public order at the parish level. Within the bounds of the City, the parishes were required to report to constables and Aldermen, whereas outside the bounds, they were required to cooperate with their local JPs.[24] This is when the office of searcher became officialised, though the first written evidence of the existence of searchers predates the codification of the *Orders*. Richelle Munkhoff and others have recently

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[22] Steve Hindle, *The State and Social Change,* 128; J. A. I. Champion, *London's Dreaded Visitation: The Social Geography of the Great Plague in 1665* (London: Centre for Metropolitan History, 1995), 2.
[23] Slack, *The Impact of Plague*, 206; Slack, "Metropolitan Government in Crisis," 66; Slack, "Books of Orders," 3-4, 19.
[24] Queen Elizabeth I, *Orders Thought Meete* (1578), in *The Plague in Print: Essential Elizabethan Sources, 1558-1603*, transcribed and edited by Rebecca Totaro (Pittsburgh: Duquesne University Press, 2009), 183-187.

demonstrated that many of the directions were first inspired by experimental plague management measures taken up piecemeal in some London parishes during the 1560s and 1570s.[25]

The earliest record to date of someone being paid by a parish to search a body for plague dates from 1568-69 in the London parish of St Mathew Friday Street, where a poor man was appointed by the constable to search another man.[26] Another early record documents the appointment of two husband-and-wife teams. The men were charged with being "[corpse] bearers and searchers for men" while the women were to perform searching duties for women's deaths.[27] The next mention dates from 1574 in the parish of St Margaret Lothbury, where the vestrymen agreed that "mother Benson & mother Sewen shall view all the sick persons suspected to have the plague."[28] The 1578 *Orders* do not specify the gender of the searchers, writing only that the local authorities:

> [S]hall cause to be appointed in every Parish, as well infected as not infected certain persons to view the bodies of all such as shall die before they suffered to be buried […] And those persons to be sworn to make true reports according to their knowledge, and the choice of them to make by direction of the Curate of the Church with three or four substantial men of the parish.[29]

Subsequent *Orders*, whether issued by the monarch or the City of London, mention the appointment of women searchers specifically. Traditional burial customs, which included women's duty of laying out the dead, likely explain why the office of

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[25] Richelle Munkhoff, "Poor Women and Parish Public Health," 588-592.
[26] Munkhoff, "Poor Women and Parish Public Health," 591.
[27] *St Martin-in-The-Fields: the Accounts of the Churchwardens, 1525-1603*, edited by J V Kitto (London: 1901). British History Online.
[28] Edwin Freshfield, ed., *The Vestry Minute Book of the Parish of St. Margaret, Lothbury: in the City of London, 1571-1677* (London: Rixon and Arnold, 1887), 5. Google Books.
[29] Queen Elizabeth I, *Orders Thought Meete* (1578), 183.

searcher became gender-specific as the parishes experimented with these measures.[30] Women searchers appear to have been commonly recognized figures during the next visitation of plague in 1592: one of the first popular representations of searchers is found in Shakespeare's *Romeo and Juliet* (1597), written between 1591 and 1595, when the friar is quarantined by two women searchers, thus preventing the crucial letter from reaching Romeo on time.[31]

2.3: Consolidating the Bills of Mortality

Beginning with the post-mortem investigation performed by the searchers, the cause of death information then passed through a chain of authorities before ending up in printed form as the weekly Bill of Mortality. The monarch, Lord Mayor and the Aldermen were the first to receive copies of the weekly Bill at 8a.m. on Thursday mornings. Copies were then made available to the general public at 10a.m. at the cost of a penny.[32] An annual Bill was also published the Thursday before Christmas.[33] The Company of Parish Clerks was closely affiliated with the Corporation of the City of London, which oversaw the activities of all City Companies. The Clerks received regular municipal subventions and were answerable to the Lord Mayor and Court of Aldermen if found wanting in their

[30] David Cressy, *Birth, Marriage and Death: Ritual, Religion, and the Life-Cycle in Tudor and Stuart England* (Oxford: Oxford University Press, 1997), 428; Ruth Richardson, "Popular Beliefs about the Dead Body," in *A Cultural History of the Human Body in the Enlightenment*, edited by Carole Reeves (London: Bloomsbury Academic, 2014), 98; Ian Mortimer, *The Dying and the Doctors: The Medical Revolution in Seventeenth-Century England* (Woodbridge: The Boydell Press, 2009), 181.
[31] Wilson, *Plague in Shakespeare's London*, 65.
[32] J.C. Robertson, "Reckoning with London: Interpreting the Bills of Mortality Before John Graunt," *Urban History* 23, no. 3 (1996): 336.
[33] Reginald H. Adams, *The Parish Clerks of London: A History of the Worshipful Company of Parish Clerks of London* (London: Phillimore, 1971), 51. The annual Bill corresponded to the City's year, which began with the election of wardmotes on the feast of St Thomas on December 21.

duties.[34] In 1582, the Lord Mayor advised the Privy Council that the Parish Clerks had been recruited "to see the shutting up of infected houses and putting papers on doors," and their charter of 1612 further stipulated that they were now officially responsible for drawing up and publishing the Bills of Mortality.[35] The Company needed to ensure that any newly appointed clerks were sufficiently qualified to write a weekly return, which became their largest responsibility.

While the Company of Parish Clerks was well embedded within the structure of City life, it depended on the Crown for the granting of its charters. Their royal charters stipulated the extent of their duties as well as the parishes for which they were expected to give weekly returns. It was through charters granted by James I and Charles I that the Bills expanded to areas beyond the Lord Mayor's jurisdiction.[36] James I took particular interest in the Bills of Mortality, formalizing their publication when he ascended the throne in 1603. It is after this point that the Bills of Mortality began to be published weekly to the general public, whether plague was reported or not. James began his expansion of the Bills in 1604 and granted a new royal charter in 1612 to remedy the issue of compliance in the newly added parishes. Although the clerks in the suburban parishes were expected to make weekly returns to the Parish Clerks' Hall, the Company had very little power to compel them to do so. The Parish Clerks only had recourse for punishment in those

[34] Adams, *The Parish Clerks of London,* 19; Christie, *Some Account of Parish Clerks*, 72-77.
[35] Christie, *Some Account of Parish Clerks*, 135; Great Britain, *Calendar of State Papers, Domestic Series, of the reign of James I, 1611-1618, preserved in the State Paper Department of her Majesty's Public Record Office*, edited by Mary Anne Everett Green, vol. 2: 1611-1618 (London: Longman, Brown, Green, Longmans and Roberts, 1858), 104.
[36] Early Bills of Mortality only included the 97 parishes within the walls as well as those outside the walls that were under the Lord Mayor's control.

initial areas that were under the Lord Mayor's control.[37] The royal prerogative had the power to extend the membership of the Company of Parish Clerks and to override the objections of particular royal precincts and Liberties, such as when James I forced the royal precincts of St Katherine by the Tower and St John Savoy to be included in the charter of 1612 in spite of their refusal.[38] Most of these extensions closely followed outbreaks of plague.

The data in the Bills was potent information. Shortly after his coronation, which had been postponed due to a major plague epidemic, James I reproached the Lord Mayor for not making the weekly Bill available to him as soon as it was published.[39] Special care had even been taken to prevent the weekly figures reaching the general public before it reached the Lord Mayor and the King. The Company warned its members that:

> What brother of this Company soever shall by any cunning device, practice, or means, give away, disperse, utter, or declare, or by any sinister device, cast forth at any window, hole, or crevice of a wall in this house, any bills or notes, whereby the reports of these returns for that week may be known or uttered abroad, before the book is given to the Lord Mayor, shall pay a 10s fine.[40]

This level of oversight was necessary because the data influenced numerous decisions, such as the search and quarantine of ships, the issuing of health passes for travel outside the city, as well as the closure of gathering places such as playhouses.[41] For the civilian population, the Bills' status as official documents,

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[37] Brett James, *Growth of Stuart London*, 252; Christie, *Some Account of Parish Clerks*, 72-77; Adams, *The Parish Clerks of London*, 19.
[38] Christie, *Some Account of Parish Clerks*, 137; Adams, *The Parish Clerks of London*, 44-45.
[39] Robertson, "Reckoning with London," 326.
[40] Christie, *Some Account of Parish Clerks*, 136-137.
[41] Richelle Munkhoff, "Searchers of the Dead: Authority, Marginality, and the Interpretation of Plague in England, 1574–1665," *Gender & History* 11, no. 1 (1999): 4.

which contained both the royal and the Lord Mayor's seals at their head, magnified their authority.[42] Alexandra Bamji claims that printed public health texts issued from a central authority "communicated textual and material messages of authenticity" and that issuing authorities were well aware of the "significance of print's persuasive powers."[43] The opening scene of the Thomas Middleton play *Your Five Gallants* (1608), for instance, depicts a London pawnbroker who would only accept items tendered for pawn from people whose parishes recorded no plague deaths in the latest weekly Bill.[44] The Bills were eventually used to disseminate another form of official information: the cost of a loaf of bread as determined by the Assize of Bread, which is suggestive of the extent to which the Bills had become a vehicle for public knowledge.[45]

Stephen Greenberg has demonstrated that it is highly likely that the Parish Clerks used two printing presses, with perhaps as many as 5,000 to 6,000 Bills printed each week after 1603.[46] Although the Company of Parish Clerks had kept information returned by the searchers on all causes of death since at least the first decade of the seventeenth century, these had not been published. In 1625 the Parish Clerks were granted license to operate their own printing press, an unusual privilege at a time when the Crown was highly suspicious of print as a vehicle for

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[42] Alexandra Bamji, "Health Passes, Print and Public Health in Early Modern Europe," *Social History of Medicine, hkx104* (2017): 17; Mark S.R. Jenner, "Plague on a Page: Lord Have Mercy Upon Us in Early Modern London," *The Seventeenth Century* 27, no. 3 (2012): 265.
[43] Bamji, "Health Passes," 23.
[44] Thomas Middleton, *Your fiue gallants As it hath beene often in action at the Black-friers* (London: 1608), sigs. A2-A3. Early English Books Online.
[45] Monteyne, *The Printed Image in Early Modern London*, 82.
[46] Greenberg, "Plague, the Printing Press, and Public Health," 517-518.

sedition.[47] Access to their own printing press allowed the Company to publish more elaborate Bills.

In 1629, the Company issued two sets of Bills: one with information about causes of death other than plague, which was slightly more expensive, and one in the usual style, which listed only plague deaths in relation to other deaths. The more detailed Bill was an instant hit and immediately replaced the sparser version.[48] In 1644, the author of a Civil War newsbook had even complained that an account of a recent battle had failed to distinguish which proportion of casualties had been shot, as opposed to those who had merely drowned or starved to death, "which is no fair account for the citizenry of London, who ought to have it according to their weekly Bills of Mortality."[49] It was, however, only City parishes that returned the more detailed cause of death data. The outer suburbs and Westminster continued to report only plague deaths in relation to total deaths until further reforms in the 1660s, perhaps reflecting a continued difficulty of the Parish Clerks in enforcing the quality of the returns from the suburban parishes.[50]

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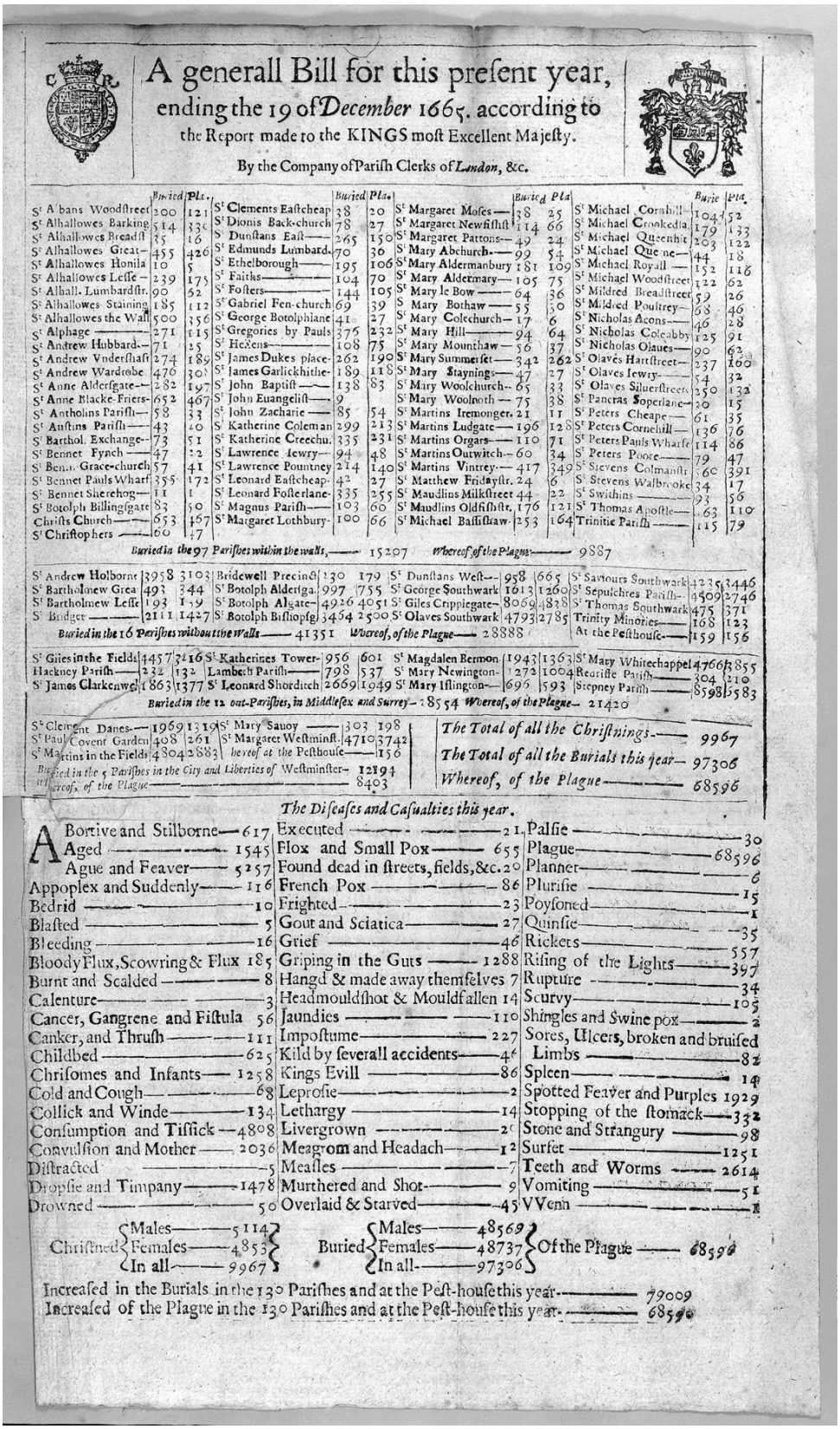
[47] Adams, *The Parish Clerks of London*, 55. Their royal charter of February 1636 stated that, "their press for printing their weekly bills of burials and christenings, allowed them by the late Archbishop of Canterbury and Bishop of London in 1625, is granted and confirmed to them, to remain in their hall as now it is, but the Archbishop of Canterbury and the Bishop of London are to appoint them a printer, according to the decree of the Star Chamber." See Great Britain, *Calendar of State Papers, Domestic Series, of the reign of Charles I, 1635-June 1636, preserved in the State Paper Department of Her Majesty's Public Record Office*, edited by John Bruce, vol. 9: 1635-June 1636 (London: Longman, Green, Reader and Dyer, 1866), 252.
[48] Walford, "Early Bills of Mortality," 223; Will Slauter, "WRITE UP YOUR DEAD: The Bills of Mortality and the London Plague of 1665," *Media History* 17, no. 1 (2011): 7.
[49] Quoted in Slauter, "WRITE UP YOUR DEAD," 1.
[50] Christie, *Some Account of Parish Clerks,* 139.



A generall Bill for this preſent year,

ending the 19 of *December* 1665. according to the Report made to the KINGS moſt Excellent Majeſty.

By the Company of Pariſh Clerks of *London*, &c.

	Buried	Pla.
S[t] Alban's Woodſtreet	300	121
S[t] Alhallowes Barking	514	336
S[t] Alhallowes Breadſt	35	16
S[t] Alhallowes Great	455	426
S[t] Alhallowes Honila	10	5
S[t] Alhallowes Leſſe	239	175
S[t] Alhall. Lumbardſtr.	90	62
S[t] Alhallowes Staining	185	112
S[t] Alhallowes the Wall	500	356
S[t] Alphage	271	115
S[t] Andrew Hubbard	71	25
S[t] Andrew Vnderſhaft	274	189
S[t] Andrew Wardrobe	476	301
S[t] Anne Aldersgate	282	197
S[t] Anne Blacke-Friers	652	467
S[t] Antholins Pariſh	58	33
S[t] Auſtins Pariſh	43	40
S[t] Barthol. Exchange	73	51
S[t] Bennet Fynch	47	32
S[t] Bennet Grace-church	57	41
S[t] Bennet Pauls Wharf	355	172
S[t] Bennet Sherehog	11	1
S[t] Botolph Billingſgate	83	50
Chriſts Church	653	467
S[t] Chriſtophers	60	17
S[t] Clements Eaſtcheap	38	20
S[t] Dionis Back-church	78	27
S[t] Dunſtans Eaſt	265	150
S[t] Edmunds Lumbard	70	36
S[t] Ethelborough	195	106
S[t] Faiths	104	70
S[t] Foſters	144	105
S[t] Gabriel Fen-church	69	39
S[t] George Botolphlane	41	27
S[t] Gregories by Pauls	375	232
S[t] Hellens	108	75
S[t] James Dukes place	262	190
S[t] James Garlickhithe	189	118
S[t] John Baptiſt	138	83
S[t] John Euangeliſt	9	
S[t] John Zacharie	85	54
S[t] Katherine Coleman	299	213
S[t] Katherine Creechu.	335	231
S[t] Lawrence Iewry	94	48
S[t] Lawrence Pountney	214	140
S[t] Leonard Eaſtcheap	42	27
S[t] Leonard Foſterlane	335	255
S[t] Magnus Pariſh	103	60
S[t] Margaret Lothbury	100	66
S[t] Margaret Moſes	38	25
S[t] Margaret Newfiſhſt	114	66
S[t] Margaret Pattons	49	24
S[t] Mary Abchurch	99	54
S[t] Mary Aldermanbury	181	109
S[t] Mary Aldermary	105	75
S[t] Mary le Bow	64	36
S[t] Mary Bothaw	55	30
S[t] Mary Colechurch	17	6
S[t] Mary Hill	94	64
S[t] Mary Mounthaw	56	37
S[t] Mary Summerſet	342	262
S[t] Mary Staynings	47	27
S[t] Mary Woolchurch	65	33
S[t] Mary Woolnoth	75	38
S[t] Martins Iremonger	21	11
S[t] Martins Ludgate	196	128
S[t] Martins Orgars	110	71
S[t] Martins Outwitch	60	34
S[t] Martins Vintrey	417	349
S[t] Matthew Fridayſtr.	24	6
S[t] Maudlins Milkſtreet	44	22
S[t] Maudlins Oldfiſhſtr.	176	121
S[t] Michael Baſſiſhaw	253	164
S[t] Michael Cornhill	1044	752
S[t] Michael Crookedla.	179	133
S[t] Michael Queenhit	203	122
S[t] Michael Quern	44	18
S[t] Michael Royall	152	116
S[t] Michael Woodſtreet	122	62
S[t] Mildred Breadſtreet	59	26
S[t] Mildred Poultrey	68	46
S[t] Nicholas Acons	46	28
S[t] Nicholas Coleabby	125	91
S[t] Nicholas Olaues	90	62
S[t] Olaves Hartſtreet	237	160
S[t] Olaves Iewry	54	32
S[t] Olaves Silverſtreet	250	133
S[t] Pancras Soperlane	30	15
S[t] Peters Cheape	61	35
S[t] Peters Cornehill	136	76
S[t] Peters Pauls Wharfe	114	86
S[t] Peters Poore	79	47
S[t] Stevens Colmanſtr.	560	391
S[t] Stevens Walbrooke	34	17
S[t] Swithins	93	56
S[t] Thomas Apoſtle	163	110
Trinitie Pariſh	115	79

Buried in the 97 Pariſhes within the walls, —— 15207 *Whereof, of the Plague* —— 9887

S[t] Andrew Holborne	3958	3103	Bridewell Precinct	130	179	S[t] Dunſtans Weſt	958	665	S[t] Saviours Southwark	1235	3446
S[t] Bartholmew Great	493	344	S[t] Botolph Aldersga.	997	755	S[t] George Southwark	1613	1260	S[t] Sepulchres Pariſh	4509	2746
S[t] Bartholmew Leſſe	193	139	S[t] Botolph Algate	4926	4051	S[t] Giles Cripplegate	8069	4838	S[t] Thomas Southwark	475	371
S[t] Bridget	2111	1427	S[t] Botolph Biſhopſg	3454	2500	S[t] Olaves Southwark	4793	2785	Trinity Minories	168	123
									At the Peſthouſe	159	156

Buried in the 16 Pariſhes without the Walls —— 41351 *Whereof, of the Plague* —— 28888

S[t] Giles in the Fields	1457	3216	S[t] Katherines Tower	956	601	S[t] Magdalen Bermon	1943	1363	S[t] Mary Whitechappel	4766	3855
Hackney Pariſh	232	132	Lambeth Pariſh	798	537	S[t] Mary Newington	1272	1004	Redriffe Pariſh	304	210
S[t] James Clarkenwel	1863	1377	S[t] Leonard Shordich	2669	1949	S[t] Mary Iſlington	696	593	Stepney Pariſh	8598	5583

Buried in the 12 out-Pariſhes, in Middleſex and Surrey —— 28554 *Whereof, of the Plague* —— 21420

S[t] Clement Danes	1969	1319	S[t] Mary Sauoy	303	198						
S[t] Paul Covent Garden	408	261	S[t] Margaret Weſtminſt.	4710	3742						
S[t] Martins in the Fields	4804	2883	*whereof at the Peſthouſe*		156						
Buried in the 5 Pariſhes in the City and Liberties of Weſtminſter				12194							
Whereof, of the Plague				8403							

The Total of all the Chriſtnings ——	9967
The Total of all the Burials this year —	97306
Whereof, of the Plague ——	68596

The Diſeaſes and Caſualties this year.

Abortive and Stilborne	617	Executed	21	Palſie	30
Aged	1545	Flox and Small Pox	655	Plague	68596
Ague and Feaver	5257	Found dead in ſtreets, fields, &c.	20	Planet	6
Appoplex and Suddenly	116	French Pox	86	Pluriſie	15
Bedrid	10	Frighted	23	Poyſoned	1
Blaſted	5	Gout and Sciatica	27	Quinſie	35
Bleeding	16	Grief	46	Rickets	557
Bloody Flux, Scowring & Flux	185	Griping in the Guts	1288	Riſing of the Lights	397
Burnt and Scalded	8	Hangd & made away themſelves	7	Rupture	34
Calenture	3	Headmouldſhot & Mouldfallen	14	Scurvy	105
Cancer, Gangrene and Fiſtula	56	Jaundies	110	Shingles and Swine pox	2
Canker, and Thruſh	111	Impoſtume	227	Sores, Ulcers, broken and bruiſed Limbs	82
Childbed	625	Kild by ſeverall accidents	46	Spleen	14
Chriſomes and Infants	1258	Kings Evill	86	Spotted Feaver and Purples	1929
Cold and Cough	68	Leproſie	2	Stopping of the ſtomack	332
Collick and Winde	134	Lethargy	14	Stone and Strangury	98
Conſumption and Tiſſick	4808	Livergrown	20	Surfet	1251
Convulſion and Mother	2036	Meagrom and Headach	12	Teeth and Worms	2614
Diſtracted	5	Meaſles	7	Vomiting	51
Dropſie and Timpany	1478	Murthered and Shot	9	VVenn	1
Drowned	50	Overlaid & Starved	45		

Chriſtned	Males 5114	Buried	Males 48569	Of the Plague —— 68596
	Females 4853		Females 48737	
	In all —— 9967		In all —— 97306	

Increaſed in the Burials in the 130 Pariſhes and at the Peſt-houſe this year —— 79009
Increaſed of the Plague in the 130 Pariſhes and at the Peſt-houſe this year —— 68590

Figure 2.2: Annual Bill of Mortality for the year 1665.
Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

2.4: The City of London and the College of Physicians

Although the initial practice of gathering plague death information in the early sixteenth century was at the initiative of the Crown and based on Continental plague management measures, the Bills of Mortality were unique in two important respects.[51] First, the regular publishing of cause of death data to the general public, whether in times of plague or not, was not undertaken elsewhere. In 1666, a French publication wrote that it appears to be "a thing particular to the English to make Bills of Mortality," (though after the success of John Graunt's *Observations Upon the Bills of Mortality*, first published in 1662, other European cities began keeping their own Bills).[52] Second, the English were unique in their reliance on women searchers to perform the data-gathering necessary to enforce household quarantine.[53]

The public nature of the Bills of Mortality was tied to the need to better manage the suburbs, while the use of women searchers reflected a process of negotiation undertaken between the City and Crown at the time of the codification of the plague *Orders.* The Privy Council had initially attempted to implement measures more in line with the Continental measures, albeit without success.[54] As mentioned above, the first evidence of Bills of Mortality dates from August 1519 when Cardinal Wolsey first attempted to impose quarantine measure like those implemented in Italian towns. Wolsey had sought advice from the newly incorporated College of Physicians, who had itself sought to emulate other elite

[51] Slack, "Books of Orders," 7.
[52] Académie des Inscriptions et Belles-Lettres, *Le Journal des sçavans* 31 (2 August 1666): 359. Bibliothèque Nationale de France. Translation mine.
[53] Munkhoff, "Poor Women and Parish Public Health," 593.
[54] Champion, *London's Dreaded Visitation*, 89.

Continental academic bodies in its request for formal incorporation by royal charter in 1518. Though the relationship between the College and the Crown would remain close, with the Crown frequently consulting the physicians regarding plague management, the plague *Orders* diverged from measures undertaken in the Italian cities in important ways, such as its stress on household quarantine in preference to the implementation of pest houses and plague hospitals. This was as much due to the College's reluctance to undertake plague work beyond the customary giving of advice as it was due to the City's resistance to the implementation of policies along the Continental model.

Evidence of the City's involvement in the development of the plague *Orders* is demonstrated in the pragmatic nature of the directions, which drew upon existing local administration and codified experimental plague and poverty management measures already being employed in several City parishes. The searchers performed their duties in exchange for additional alms, and the parishes, facing a large demand for medical services, found a cost-effective solution in the employment of women to perform various medical tasks.[55] The codification of the Poor Laws in 1598 and 1601 further solidified the parish's role in matters of social welfare for the common weal.[56] As with the appointment of searchers, in their appointment of the other plague officials the City preferred to employ those already performing duties in the

[55] Diane Willen, "Women in the Public Sphere in Early Modern England: The Case of the Urban Working Poor." *The Sixteenth Century Journal* 19, no. 4 (1988): 569; Munkhoff, "Poor Women and Parish Public Health," 596.
[56] Paul A. Fideler, *Social Welfare in Pre-Industrial England: The Old Poor Law Tradition* (Basingstoke: Palgrave Macmillan, 2006), 100-105; Hindle, *The State and Social Change*, ix; Richard Smith, "Charity Self Interest and Welfare: Reflections from Demographic and Family History," in *Charity, Self-Interest and Welfare in the English Past,* edited by Martin Daunton (New York: St Martin's Press, 1996), 33-34; Paul Slack, *Poverty and Policy in Tudor & Stuart England* (New York: Longman, 1988), 206.

City parishes and strongly resisted all Privy Council proposals for the appointment additional officials.[57] The Lord Mayor had actively resisted the call to implement a higher tax rate on the City as part of the first codification of the plague *Orders* in 1578. It was not in the City's custom to raise taxes during crises such as plague and dearth; it preferred to rely on voluntary donations from wealthy inhabitants.[58] In the period between 1578 and 1583, when the City began to publish its own plague *Orders* (these were tailored to the chain of authority already in place in the City), they rejected the Privy Council's proposal for the engagement of two physicians at a daily stipend of 13s 4d .[59] They continued to reject further calls to appoint expensive medical practitioners in the early seventeenth century, as well as calls to build an extensive network of pest houses, stating that they were short on funds and space.[60]

Another obstacle to the appointment of physicians in the City's plague management apparatus was that the City had indifferent (at best), if not outright hostile relations with the College of Physicians of London.[61] The College of Physicians was founded under royal patronage and was institutionally dependent on its relationship with the Crown, which granted it the authority to determine the boundary between legitimate and illegitimate medical practice. The College had virtually no ties to civic sources of authority. Its members were exempted from office-bearing duties expected of other professional bodies at the civic as well as the parish level, including service on the London Common Council and the Court of

[57] Wilson, *Plague in Shakespeare's London,* 16; Slack, "Metropolitan Government in Crisis," 66.
[58] Archer, *The Pursuit of Stability*, 198; Slack, "Metropolitan Government in Crisis," 68.
[59] Wilson, *Plague in Shakespeare's London*, 20-21.
[60] Wilson, *Plague in Shakespeare's London*, 21; Slack, "Metropolitan Government in Crisis," 67.
[61] Slack, "Metropolitan Government in Crisis," 67; Elizabeth Lane Furdell, *Publishing and Medicine in Early Modern England* (Woodbridge: Boydell & Brewer, 2002), 65.

Aldermen, and it had almost no educational or philanthropic functions.[62] The Barber-Surgeons and Apothecaries, meanwhile, were well integrated in civic life, fulfilled expectations of service common to other civic guilds, and resented the repeated attempts on the part of the College of Physicians to regulate their trade and bring them under its control.

An especially contentious episode in the relations between the College of Physicians and the City of London occurred with the creation of the Society of Apothecaries in 1617. The Apothecaries, who had previously been part of the Grocers' Company, were made subordinate to the College of Physicians in an attempt to bring the monopolistic sale of drugs in London under the physicians' control.[63] The creation of the Society had been strongly encouraged by James I's two favourite physicians, Huguenot émigrés Gideon DeLaune and Theodore Turquet de Mayerne. The City was vocal in its opposition to the scheme, refusing to enrol the new charter, which it considered an assault on the integrity of one of the twelve great City Companies. The King personally overrode the City's objections through a royal proclamation and forced the City to enrol the Apothecaries' charter in 1618.[64] The Parliaments of 1621 and 1624 in turn took the City's side and refused to pass acts in support of the Society of Apothecaries and also refused to ratify the College of Physicians' new charter.[65]

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[62] Margaret Pelling, *Medical Conflict in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003), 18-20; Furdell, *Publishing and Medicine*, 65.
[63] Margaret Pelling, *The Common Lot: Sickness, Medical Occupation and the Urban Poor in Early Modern England* (London and New York: Longman, 1998), 33.
[64] Cook, "Policing the Health of London," 12-15.
[65] Cook, "Policing the Health of London," 17.

Relations had deteriorated to such an extent that by the next plague outbreak in 1625, the City had completely fallen out with the physicians and was no longer regularly communicating with the Privy Council. The Lord Mayor was "called to the Board and received from their Lordships severe admonition" because he had ignored the letters sent to him enquiring about the measures the City was taking to prevent the spread of plague.[66] During the following outbreak in 1630, the College of Physicians complained that there was no use in selecting a team of practitioners to advise City officials because they had been entirely ignored during the outbreak of 1625.[67] The College's insistence in further subordinating the Apothecaries during the 1630s placed the Society of Apothecaries firmly in alliance with the City.[68] (In 1633, the City of London even cut off the water supply to the College of Physicians' building.)[69] The Apothecaries claimed that they should not only retain their monopolistic privileges over the making and sale of drugs, but that they should also be allowed to practice medicine *tout court*. In a pointed jab, they claimed that this was necessary because the College members' flight from the City during recent plague outbreaks had forced them to take on the responsibilities of the physicians in their absence.[70]

In addition to the perception that physicians did nothing to contribute to civic life, they indeed appear to have had a well-deserved reputation for fleeing

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[66] PC 2/33 f.8.
[67] *Annals of the College of Physicians 1518-1915*, vol. III (1608-1629), f.97a.
[68] Cook, "Policing the Health of London," 18; Christopher Hill, *Change and Continuity in Seventeenth Century England* (London: Weidenfeld and Nicolson, 1974), 159.
[69] Cook, "Policing the Health of London," 20.
[70] Jennifer Evans and Sara Read, *Maladies & Medicine: Exploring Health & Healing 1540-1740* (Barnsley: Pen & Sword History, 2017), 103.

London during epidemics of plague.[71] The few physicians that could write about plague from first-hand experience did not hesitate to point out that "the great Doctors and such as undertake to write about the disease are the first that run away from it [...] and therefore all their learning about it can only be opiniative and conjectural."[72] Although there is extensive evidence to suggest that most wealthy people fled London, physicians were of those groups who were least excused for doing so. Physicians were exhorted to "tarry and follow those Christian employments which they have undertaken, not for their own benefit only, but for the Commonwealth chiefly," and reminded that:

> Any man that undertakes to be of a profession or takes upon him any office must take all parts of it, the good and the evil, the pleasure and the pain, the profit and inconvenience together, and not pick and choose; for ministers must preach, Captains must fight, physicians attend upon the sick.[73]

Their avoidance of plague service did nothing to endear them to the City authorities, who always stayed behind to keep a semblance of order during plague outbreaks.[74]

While it is tempting to assume that it was solely the City who frustrated attempts at placing medical professionals front and centre in England's public health response to plague, the College of Physicians themselves typically avoided suggestions from the Privy Council that physicians should become more involved in epidemic management and treatment.[75] Margaret Pelling characterizes the College's

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[71] Furdell, *Publishing and Medicine*, 65; Pelling, *Medical Conflict in Early Modern London,* 48-49; Andrew Wear, *Knowledge & Practice in English Medicine, 1550-1680* (Cambridge: Cambridge University Press, 2000), 334.
[72] William Boghurst, *Loimographia: An Account of the Great Plague of London in the Year 1665,* edited by Joseph Frank Payne (London: Shaw and Sons, 1894), 9.
[73] Stephen Bradwell, *A Watch-Man for the Pest* (London: 1625), 9. Early English Books Online; Boghurst, *Loimographia*, 59-60.
[74] Slack, "Metropolitan Government in Crisis," 65.
[75] Pelling, *Medical Conflict in Early Modern London*, 21; Cook, "Policing the Health of London," 24.

response to epidemic crises as reactive and reluctant.[76] As such, it is likely that even if the College had been involved in the operation of the Bills of Mortality, it would not have proved lasting or dependable. This is illustrated in an episode in the spring of 1631, when the Privy Council attempted to institute a Continental-style Board of Health for London.

2.5: Board of Health and Incorporation of the Suburbs

The plague of the summer of 1630 came the year after Charles I dispensed with Parliament, beginning a decade-long period of Personal Rule which preceded the English Civil War. After plague died down in the late autumn, the Bills of Mortality showed a worrying increase in plague deaths in the suburbs the following spring. In response, the Privy Council sent letters on 18 March 1631 to the Lord Mayor and Aldermen as well as to the College of Physicians. The letter addressed to the Lord Mayor expressed concern that "some houses in Shoreditch, Whitechapel and St Giles in the Fields are infected with the plague" and required that the City should ensure the enforcement of quarantine and the removal of vagrants and other such persons that "must necessarily cause the greater danger of spreading the contagion."[77] The letter to the College of Physicians stated that the King:

> [O]ut of his gracious and princely care of the health and safety of his loving subjects, hath been pleased to command that you assemble your selves and confer upon some fit course to be taken and observed for the better preventing of the infection, whereof we will and require you to give us a particular account with all expedition.

During the epidemic of the previous summer, the Privy Council had also requested that the College revise the printed medical advice that was appended to the plague

[76] Pelling, *Medical Conflict in Early Modern London*, 54.
[77] PC 2/39 f.701.

Orders whenever these were issued. To the Council's disappointment, the College's advice had arrived late and contained no substantial revisions.[78]

This time, the College's response to the Privy Council's request arrived quickly (despite being thirty-eight pages) and proposed something much more in line with the absolutist ambitions of Charles I. If these plans had been implemented, they would have radically altered the structure of public health management in early modern London. The proposed measures resembled those of the Health Boards of Italy which had judicial powers to devise and enforce public health regulations, including by means of imprisonment and execution.[79] The main author of this proposal was Theodore Turquet de Mayerne, chief architect of the scheme to separate the Apothecaries from the Grocers' Company, who had been royal physician to Henri IV of France before becoming royal physician to both James I and Charles I.[80]

Many of the measures advocated in the report were already implemented: it described the importance of appointing various plague officials along the same line as those outlined in the plague *Orders*, cleansing the streets, removing vagrants, and various other environmental provisions. What was new was the proposal of a centralized, authoritarian Board or Chamber of Health whose magistrates would have "absolute power and authority" to control both the City and the suburbs, "from Bramford to Blackwell on one side, and from Richmond to Greenwich on the

[78] Cook, "Policing the Health of London," 23-24; Slack, "Books of Orders," 8.
[79] Wear, *Knowledge & Practice*, 315.
[80] Wear, *Knowledge & Practice*, 354.

other."[81] It proposed the establishment of a "a perpetual body" made up of twelve Board members, including the Lord Mayor, two Lords of the Privy Council, two bishops including the Bishop of London, two Aldermen chosen on the basis of seniority and experience, the Recorder of the City of London, the King's principal physician, the President of the College of Physicians, one other physician of the College, and "one ancient Chirurgeon received and incorporated in the College," all receiving the assistance of various other officials approved by the King.[82] It advocated the power to ordain "all such decrees and statutes as they shall judge necessary," to "examine and give order for the distribution of such monies as are collected for the poor and infected in every parish," as well as to "punish with fines and imprisonment."[83] It also recommended building several pest houses and a dedicated royal plague hospital similar to the one Mayerne oversaw during his time in Paris.

The plan did not advocate a restructuring of the Bills of Mortality aside from the need to report directly to the Chamber of Health. It reiterated that there should be appointed "two women visitors at least or more" per parish, who would need to report to the Chamber of Health "as soon as any epidemical disease shall be discovered," and who were expected to be "accompanied by a Chirurgeon of the Chamber of Health."[84] Intriguingly, the report states that "the women searchers shall wind and wrap up the body as is accustomed," adding further credence to the

[81] SP 16/533 f.29, f.33; Slack "Metropolitan Government in Crisis," 67; Slack, "Books of Orders," 8.
[82] SP 16/533 f.28.
[83] SP 16/533 f.29.
[84] SP 16/533 f.37.

assumption that the office of searcher had become gender-specific over the course of the 1570s and 1580s due to traditional burial customs.[85] The Chamber was also to set up a treasury that would fund a battery of physicians, surgeons, apothecaries and midwives "kept in store during times of health on smaller stipends and then larger wages in times of plague."[86] Upon its receipt, the Privy Council wrote that the Lords would immediately consider its recommendations, "in a matter of so great importance and necessity for the public good."[87] Yet no Board of Health was established, and no pest houses or royal hospitals founded.

As the report made clear, the establishment of a perpetual Board of Health would require a sizable treasury and would need to levy funds to support its activities. While the absolutist character of the Board of Health appealed to Charles I, he was determined to rule without Parliament, whose cooperation was necessary to appropriate the funds. In addition, in past epidemics of plague, whenever the Privy Council had tasked the College with finding medical practitioners to fill posts, these initiatives typically failed. The College had difficulties compelling physicians to perform plague work, who in turn expected large salaries for these services. In 1630, after the King requested that a doctor examine the bodies of two suspected plague deaths, the President of the College proposed that "members who would attend the pest cases should have £400 a year each, and after the expiration of the pest, £200 a year for life."[88] One physician complained that, "two or three of the

[85] SP 16/533 f.38.
[86] SP 16/533 f.33.
[87] Great Britain, *Acts of the Privy Council of England Volume 46, 1630-1631*, edited by P.A. Penfold (London: Her Majesty's Stationery Office, 1964), 274. British History Online.
[88] *Eighth Report of the Royal Commission on Historical Manuscripts. Report and Appendix* (London: Royal Commission on Historical Manuscripts, 1881), 229. Archive.org

youngest [physicians] are appointed in a plague time to look after 30 or 40 thousand sick people, when four or five thousand is too few."[89] Even with sufficient funds, it is unlikely that the Board would have been successful in recruiting the necessary medical personnel.

The plan would have also usurped the powers of the City of London, who refused to go along with the plan.[90] Charles I attempted to circumvent the City by using the prerogative powers of the Crown to implement certain recommendations regarding the suburbs. Mayerne's report had described in no uncertain terms how the "increase of habitations and new buildings in and near the City of London is most dangerous, as impoverishing and ruining the rest of the kingdom, the cause of scarcity and dearth of all things, by drawing hither a multitude and throngs of people."[91] The London suburbs, Mayerne warned, were "the very seminary and nursery of contagion and sickness."[92] In 1632, the Privy Council asked whether the City might "accept of part of the suburbs into their jurisdiction and liberty for better government."[93] When the City did not accept and refused to cooperate with further attempts, in 1636 Charles I went ahead with a plan to incorporate the tradesmen of the suburbs, instituting a corporate body rival to the Corporation of the City.[94]

The incorporation of the suburbs had been on shaky ground from its inception, however. 1636 had been a crisis year: another severe plague epidemic began in the spring and civil unrest against the King's absolutist policies was

[89] Boghurst, *Loimographia*, 59-60.
[90] Slack, *The Impact of Plague*, 217; Cook, "Policing the Health of London," 26.
[91] SP 16/533 f.31.
[92] SP 16/533 f.31.
[93] Quoted in Brett-James, *Growth of Stuart London*, 226.
[94] Brett-James, *Growth of Stuart London*, 228-229; Slack, *Reformation to Improvement*, 72.

beginning to manifest. The City refused to recognize the incorporation of the suburbs and impeded its implementation, which provoked a series of suits between the new incorporation and the City in the prerogative court of Star Chamber. When Star Chamber was abolished in 1641, the new incorporation lost the legal recourse it required to enforce its privileges. Parliament declined to help, perhaps in order to keep the City on its side, and so the incorporation of the suburbs did not survive beyond the period of Charles I's Personal Rule.[95]

The incorporation of the suburbs had been the culmination of attempts to improve London's environment. During his decade of Personal Rule, Charles I had taken numerous actions against nuisances, such as coal smoke, vagrancy, and the multiplication of buildings in the suburbs; he also initiated multiple schemes to beautify London, such as widening and raising streets to an even height, and increasing the provision of water pipes.[96] It is in this context that the King extended the Bills of Mortality much further into the suburbs, providing new charters for the Parish Clerks in 1636—the year of his contentious incorporation of the suburbs—and again in 1639. In their charter of 1639, under which the Company of Parish Clerks still operates today, their jurisdiction was extended over 129 parishes, including Southwark, Westminster, and 15 rural out-parishes. The Parish Clerks had further requested that their duties extend to any newly erected churches in these parishes, which accounts for most of the inclusions in the Bills in the period after 1639.[97] In 1603, the area included within the Bills of Mortality was 7.5 km^2, in 1626

[95] Brett-James, *Growth of Stuart London*, 237-238; Cook, "Policing the Health of London," 27.
[96] Cavert, *Smoke of London*, 60; Brett-James, *Growth of Stuart London*, 113.
[97] Adams, *The Parish Clerks of London*, 43.

it was 23.7 km^2, but after Charles's extensions, the area increased massively to 91.2 km^2, almost exactly twelve times the original area.[98]

Unlike the failed incorporation of the suburbs, the extension of the Bills endured well beyond the period of Charles I's Personal Rule. Due to the Bills' reliance on the parishes as units of administration, the extension allowed the City to keep better informed on plague in the suburbs without having to take on additional policing responsibilities. Extension of the Parish Clerks' jurisdiction beyond the City's traditional boundaries also did not threaten the privileges of other guilds or other aspects of the City's prerogative. This success, however, was not guaranteed. The Bills' extension depended upon the royal prerogative, and, according to several historians, Charles I's repeated use of the royal prerogative to implement policies without the input of Parliament tainted the prestige of royal executive power.[99] This is reflected in the Privy Council's struggle to maintain social order as Charles' decade of Personal Rule wore on. In addition, the College of Physicians' repeated attempts to place practitioners such as the apothecaries, barber-surgeons, and midwives under their control—using Charles I's period to Personal Rule to advance their own interests— interfered with the structure of the government of the City of London and formed an integral part of the City's grievances against the Crown at the outset of the Civil War.[100]

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[98] Brett-James, *Growth of Stuart London*, 253.
[99] Buchanan Sharp, *Famine and Scarcity in Late Medieval and Early Modern England* (Cambridge: Cambridge University Press, 2016), 232; Slack, *Poverty and Policy*, 141; Hindle, *The State and Social Change*, 175.
[100] Cook, "Policing the Health of London," 4, 20.

2.6: The Interregnum and Medical Publishing

During the Civil War, resentment that had festered for years found its voice in a free press, with a resulting outpouring of publications critical of the physicians. Unable to rely on royal support, the College was in turn no longer in a position to enforce its monopolistic privileges over medical practice in the city (a privilege they lost in a court case in 1656).[101] The image of the uncharitable physician, refusing to help the poor and to contribute to the wellbeing of London, especially in times of crisis, became a familiar trope during the Interregnum and beyond.[102] According to one medical reformer, the physicians of the College were plainly not concerned with the wellbeing of the people.[103] The College was characterized in these works as an enemy of medical reform, resistant to change, and reluctant to try experimental and chemical medicine based on the teachings of Paracelsus (1493-1541), which had become popular with radical reformers during the Revolutionary period.[104]

The medical profession was also characterized as a privileged monopoly who deliberately kept knowledge away from ordinary people. Nicolas Culpeper's translation of *Pharmacopeia Londinensis*, which had been produced in Latin in 1618 by the College of Physicians as an authoritative pharmaceutical guide for the newly

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[101] Hill, *Change and Continuity,* 159; Furdell, *Publishing and Medicine*, 89.
[102] Wear, Knowle*dge & Practice*, 355.
[103] Thomas O'Dowde, *The Poor Man's Physician: The True Art of Medicine as It Is Prepared and Administered for the Healing of All Diseases Incident to Mankind* (London: 1665), sig. A2. Early English Books Online. See also Lancelot Coelson, *The Poor Mans Physicians and Chyrurgion* (London: 1656), published in "an honest zeal to benefit my country," sig. A3.
[104] Wear, *Knowledge & Practice*, 120; Webster, *Great Instauration*, 273. Paracelsian or chemical medicine stressed that ill health was the result of dysfunctional chemical processes in the body. They believed that medicine was best learned through experimentation and direct experience with the body. More Paracelsian medical books were published in the 1650s that in the whole preceding century. See Hill, *Change and Continuity*, 169.

created Society of Apothecaries, was a direct challenge to the idea that medical knowledge belonged solely to licensed practitioners.[105] Culpeper framed his translation activities as being compelled by "the importunities of the public good."[106] Part of the information considered worthy of wider distribution for the public good during the Revolutionary period was the figures from the Bills of Mortality. Parliamentary propagandist Henry Walker considered that he was rendering a direct service to medicine and the wider population by regularly publishing figures from the Bills in his newspaper *Perfect Occurrences*, a practice soon imitated by rival newspapers.[107] The Bills of Mortality were published without interruption during the two decades of the Interregnum. Indeed, they remained essential information: in 1644, the Court of Aldermen ceased dispatching the Bills of Mortality to Charles I, but relented the following year in spite of the City's firm alliance with Parliament.[108]

In the 1650s, Parliamentary leader Oliver Cromwell was responsive to requests from the Parish Clerks regarding the difficulty of securing returns from certain suburban parishes. After Cromwell legislated the registration of births (distinct from baptisms) and marriages before justices of the peace, the Company sought advice on those aspects of their responsibilities which were now "inconsistent with the present Government" and rendered their production of the

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[105] Benjamin Woolley, *Heal Thyself: Nicolas Culpeper and the Seventeenth-Century Struggle to Bring Medicine to the People* (New York: Harper Collins, 2004), 351; Webster, *Great Instauration*, 268; Hill, *Change and Continuity*, 164.
[106] Nicolas Culpeper, *The English Physician,* edited and introduction by Michael A. Flannery (Tuscaloosa: University of Alabama Press, 2007), 33.
[107] Furdell, *Publishing and Medicine,* 59; Webster, *Great Instauration*, 268.
[108] Robertson, "Reckoning with London," 332.

Bills of Mortality "short and defective."[109] Cromwell accordingly granted the Company of Parish Clerks the right to publish births instead of christenings.[110]

2.7: The Restoration, Plague, and Fire

The Restoration of the monarchy in 1660 did not, however, result in a return to confidence in the prerogative powers of the Crown, and it consequently did nothing to lessen existing problems in legislating for the suburbs.[111] In September 1661 the Parish Clerks petitioned the Privy Council, stating that "through the distempers of the later times"—that is, during the Interregnum—irregularities had crept in which made them unable to "present to public view and satisfaction the weekly Bills of Mortality." [112] In their petition the Clerks stressed the importance of providing the Company with greater power to compel reluctant or unreliable clerks in the suburbs to make accurate returns, and had complained of ministers sending irregular reports, the existence of private burial grounds within the limits of the Bills, as well as a shortage of searchers required to keep track of every death in the populous suburban parishes.[113] Over the next three years, the Parish Clerks and the Council worked together to improve the accuracy of the Bills. Perhaps reflecting the influence of Graunt's *Observations* published two years earlier, in 1664 the Restoration government reformed the Bills to ensure that the practice of including all causes of death (not just plague deaths in relation to total deaths) was expanded

[109] SP 18/153 f.152.
[110] Christie, *Some Account of Parish* Clerks, 140.
[111] Slack, *Reformation to Improvement*, 88; Brett-James, *Growth of Stuart London*, 244-245.
[112] PC 2/55 f.1.
[113] Adams, *The Parish Clerks of London*, 56; Christie, *Some Account of Parish Clerks*, 141.

to include the suburban parishes.[114] Before more extensive reforms could be undertaken, however, disaster struck.

The double calamity of plague and fire in 1665-66 devastated London, yet those involved in the production of the Bills of Mortality demonstrated a tremendous amount of resilience. Just after the trials of the Great Plague of 1665, when London lost an estimated 100,000 inhabitants, the Hall of the Company of Parish Clerks along with their printing press were destroyed in the Great Fire of 2 to 6 September 1666. The fire also damaged or destroyed 86 out of the 97 churches within the walls. The Company still managed to issue a composite Bill of the previous three weeks on 20 September 1666. This return included twenty-six parishes within the walls "now standing," fourteen in the Liberties, as well as those of the outer suburbs which were unaffected by the fire. Despite the loss of their premises and lacking their usual resources, they would continue to issue these skeletal weekly returns until the week ending on 26 April 1667.[115] By 1668, Eleanor Coates, chief printer for the Bills of Mortality (widow of the official printer to the City of London), was head of a large operation at her new headquarters in the Barbican: in a survey that year she reported owning three printing presses and employing two apprentices and nine pressmen.[116]

The crisis years of 1665-66 led to less favourable outcomes for the physicians. The weakness of the royal prerogative resulted in the King having

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[114] SP 29/107 f.141.
[115] Adams, *The Parish Clerks of London*, 58-59; Christie, *Some Account of Parish Clerks*, 188; Brett-James, *Growth of Stuart London*, 263.
[116] Furdell, *Publishing and Medicine,* 108; The Bills were further extended in the east of the city on both sides of the Thames in the early 1670s, and further into Westminster in 1686. See Adams, *The Parish Clerks of London*, 61-62.

difficulty passing a new iteration of the plague *Orders* because of a dispute between the two Houses of Parliament on whether peers of the realm could be quarantined. The Privy Council had summoned members of the College of Physicians to recommend actions for plague management, which included the revival of the idea of establishing a Board of Health and the building of pest houses in every parish, but the peers also opposed the building of any pest houses in proximity to their residences.[117] The plague *Orders* were finally re-issued in May 1666, well after the peak of the epidemic the previous summer and fall.[118] Although the College had been summoned to draw up official advice, as was customary during plague outbreaks, the Restoration of the monarchy did not lead to a restoration of the College's power and strength.

The public blows to the authority of the College of Physicians dealt by an uncensored revolutionary press had done lasting damage.[119] In 1664, the House of Commons refused to ratify the College of Physicians' new charter, which would have further subordinated the apothecaries and barber-surgeons, and would have reasserted and extended the College's right to prosecute unlicensed medical practitioners.[120] The failure to ratify their new charter was a humiliating blow, but even worse, during the epidemic the following year, chemical physicians who were

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[117] Slack, *Reformation to Improvement*, 88-89; Slack, "Metropolitan Government in Crisis," 72; Monteyne, *The Printed Image in Early Modern London,* 84.
[118] Slack, "The Response to Plague in Early Modern England," 172.
[119] See, for example, Christopher Merret, *A Letter concerning the Present State of Physick, and the Regulation of the Practice of It in This Kingdom* (London: 1665), 62-63 and George Thomson, *Loimotomia, Or, The Pest Anatomized* (London: 1666), 173.
[120] Harold J. Cook, "Physicians and the New Philosophy: Henry Stubbe and the Virtuosi-Physicians," in *The Medical Revolution of the Seventeenth Century*, edited by Roger French and Andrew Wear (Cambridge: Cambridge University Press, 1989), 259.

not members of the College openly posted their own plague advice around the city, claiming that their expertise with pharmaceuticals made their knowledge more practical and useful than the official advice drawn up by the College.[121] With no charter, there was nothing the College could do to stop them, but even so, the physicians of the College were not present in the city to defend themselves. Just as the epidemic was beginning to ravage the City centre, the King issued a letter to the Lord Mayor on 28 June, 1665, reminding him of "the exemption of physicians, members of the College, from watch and ward, and bearing and providing arms within London and Westminster, or their suburbs."[122] The physicians on the committee appointed to devise plague management measures then fled London with the court.[123]

Unable to enforce their monopoly, subject to attacks from rival physicians, and poorly regarded within the general population for fleeing yet another plague epidemic, the College then lost their premises and part of their library in the Great Fire of London in September 1666.[124] A period which had brought so much hope of renewed royal patronage and protection instead saw their claims to professionalization and institutionalization reach their lowest ebb. The College would not succeed in receiving a new charter until 1687, when it began a slow period of recovery.[125] By that point, however, entry into the profession had been substantially loosened. Physicians holding foreign MDs could now practice freely in

[121] Cook, "Physicians and the New Philosophy," 259; Woolley, *Heal Thyself,* 344.
[122] *Eighth Report of the Royal Commission on Historical Manuscripts,* 230.
[123] Slack, *Reformation to Improvement,* 88-89; Slack, "Metropolitan Government in Crisis," 72.
[124] *Eighth Report of the Royal Commission on Historical Manuscripts,* 230.
[125] Pelling, *The Common Lot,* 205.

London, and the profession became more akin to a free market with a clientele drawn from a growing middle class.[126] The College also had to contend with the newly founded Royal Society and the gentlemen virtuosi who vied for royal patronage.[127]

2.8: John Graunt and the Birth of Political Arithmetic

During the 1660s, a common thread among thinkers affiliated with the Crown was the emphasis placed on the development of a capital city which reflected the prestige of the new regime.[128] London had been a great source of support for Parliament during the Civil War, and Charles II was eager to devise policies based on empirical knowledge that would allow him to govern it effectively.[129] The use of quantification to inform matters relating to the state became especially attractive because it appeared to provide a form of knowledge free from the conflict and controversy that had characterized the previous thirty-five years.[130] Known as political arithmetic, this approach used numerical data to detect rational order in social phenomena. John Graunt's *Observations Upon the Bills of Mortality* (1662)—the first systematic study of the data contained in the Bills of Mortality and a pioneering work of political arithmetic—was published in this Restoration context which encouraged the use of empirical methods for matters of public utility. There

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[126] Hill, *Change and Continuity*, 177.
[127] Eventually, a large proportion of the membership of the Royal Society would be physicians, some of whom also belonged to the College of Physicians.
[128] Cavert, *The Smoke of London*, 174-178.
[129] Cavert, *The Smoke of London*, 181; Zohreh Bayatrizi, "Counting the Dead and Regulating the Living: Early Modern Statistics and the Formation of the Sociological Imagination (1662–1897)," *British Journal of Sociology* 60, no. 3 (2009): 612.
[130] Peter Buck, "Seventeenth-Century Political Arithmetic: Civil Strife and Vital Statistics," *Isis* 68, no. 1 (1977): 80.

was a close identification between scientific pursuits and the requirements of state building during this period.

Graunt's publication was also the beginning of the endeavour to link types of deaths to environmental conditions, a defining characteristic of medical and numerical inquiry in the period between 1650 and 1750. His work sparked sustained interest in understanding fluctuations in the Bills of Mortality. After the next outbreak of plague in 1665, a stark pattern became evident: plague had been half as severe in the City as in the suburbs, and half as severe in the 97 parishes within the walls in 1665 than it had been in those same parishes in the 1590s. In 1665, for instance, there were more deaths in the two suburban parishes of Stepney and Whitechapel than in all the 97 parishes within the walls put together.[131] Suburban parishes had to dispose of a large volume of bodies with a fraction of the resources, which made accurate reporting for the Bills of Mortality difficult. During the height of the 1665 epidemic, after the Bills reported that the number of plague dead was above 6,000, the navy clerk Samuel Pepys wrote that "it is feared that the true number of the dead this week is near 10,000—partly from the poor that cannot be taken notice of through the greatness of the number, and partly from the Quakers and others that will not have any bell ring for them."[132]

[131] Slack, "Metropolitan Government in Crisis," 62-64.
[132] Samuel Pepys, *The Diary of Samuel Pepys,* volume 6, edited by Robert Latham and William Matthews (Berkeley: University of California Press, 1970), 206.

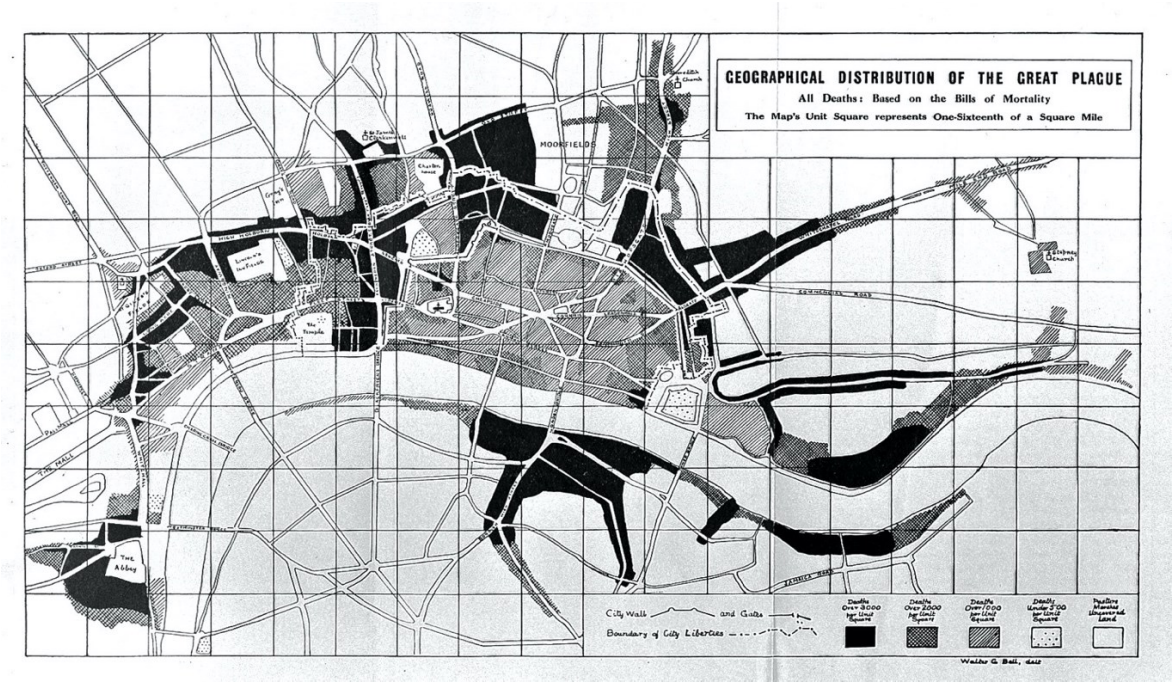

Figure 2.3: Geographical distribution of the plague, 1665.
Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

2.9: 'Hidden' Plague Deaths

Graunt and others were aware that the plague figures in the Bills were an underestimate of the real number, usually by about a quarter. In Graunt's discussion, there was a strong sense that the underestimation of the numbers was unavoidable due to fear of the imposition of quarantine for the remaining members of the household as well as a strong desire to be buried according to traditional custom.[133] In his diary for 30 August 1665, Pepys recounted a conversation with the clerk of his parish where the clerk admitted that though nine died of plague in the parish that week, he reported only six. Pepys reflected that this was "a very ill

[133] John Graunt, *Natural and Political Observations… upon the Bills of Mortality* (1662), in *The Economic Writings of Sir William Petty : Together with the Observations upon the Bills of Mortality More Probably by John Graunt,* edited by C.H. Hull (Fairfield, N.J.: A.M. Kelley, 1986), 347; Buck, "Seventeenth-Century Political Arithmetic," 70-71.

practice, and makes me think it is so in other places, and therefore the plague much greater than people take it to be."[134] The published Bill of Mortality for the next week reported nine burials but only six for plague in Pepys' parish. The parish register matched the information given in the Bills: the clerk had marked the six plague deaths with the letter P and noted their burial in the plague pits of the New Churchyard, while those unmarked with the letter P had the benefit of individual interment in the parish churchyard.[135] It is highly likely that those three 'hidden' plague deaths were those of influential citizens or their family members who had the means to put pressure on the searchers and the clerks and ensure a dignified burial.

The pattern of deaths in the Bills of Mortality thus reflects the class-based aspects of plague management. The proportion of deaths was much less in the City centre because wealthy people concentrated there and used knowledge garnered from the Bills to flee before the imposition of quarantine. One writer observed that "most of the rich are gone, [and] the middle sort will not stay behind; but the poor are forced through poverty to stay and abide the storm."[136] Of the rich that did stay behind, another observer wrote that, "the rich man, when he is dead, is followed by a troupe of neighbours: a troupe of neighbours, not a troupe of mourners. But the poor man is hurried to his grave by nasty and slovenly bearers, in the night, without followers, without friends, without rites of burial commonly used in our church."[137]

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[134] Pepys, *Diary,* 206.
[135] Slauter, "WRITE UP YOUR DEAD," 10.
[136] Vincent, *God's Terrible Voice in the City,* 33.
[137] Dekker, *A Rod for Run-awayes* (1625), in *The Plague Pamphlets of Thomas Dekker*, 144-145.

Vanessa Harding maintains that the manner in which parishes managed deaths was strongly influenced by people's attachment to traditional burial practices, such as individual burial and interment, but that this would have only remained possible in the small, wealthy parishes within the walls.[138] The wealthy continued to bury their dead locally even though "the church-yards now are stuffed so full with dead corpses, that they in many places swelled two or three foot higher than they were before."[139] The impoverished suburban parishes had no choice but to bury their plague dead in mass graves.

As such, the way searchers and clerks recorded plague deaths had consequences for the living members of the household due to the imposition of quarantine as well as for the dead in terms of their funeral rites and final resting place. The public nature of this knowledge in the publishing of the Bills of Mortality also had consequences regarding how the parish was viewed by the rest of London, and London by the rest of the nation.[140] Aside from the enormous pressure to hide plague deaths, searchers would also have been confronted with the difficulty of accurate plague diagnosis. Typhus, known as spotted or purple fever, was a type of pestilential fever frequently mistaken for plague due to the appearance of purple spots that resembled the characteristic plague 'tokens' or buboes. Stephen Bradwell's *A Watch-Man for the Pest* (1625) had been written so that "the Searchers may rightly inform themselves; and not mistake (as many have done) calling the

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[138] Vanessa Harding, "Burial of the Plague Dead in Early Modern London," in *Epidemic Disease in London*, edited by J.A.I. Champion (London: Centre for Metropolitan History, 1993), n.p. https://archives.history.ac.uk/history-in-focus/Medical/epiharding.html
[139] Vincent, *God's Terrible Voice in the City*, 39.
[140] Slauter, "WRITE UP YOUR DEAD," 12.

purple spots of the pestilential fever God's Tokens."[141] Several physicians observed that signs of plague were difficult for them to discern as well, with one writer noting that "because it hath divers symptoms attending it that are common to other diseases, and there is no one perfect, proper infallible, and inseparable sign to distinguish it, many excellent and learned Physicians have disputed and differed much about it."[142]

2.10: A Common Medical Culture

Beyond those instructional texts meant to help the searchers discern plague deaths, physicians appear to have been in large part indifferent to the medical value of the Bills of Mortality during the seventeenth century. The work of Dr Thomas Sydenham, who was a contemporary to Graunt, is typically taken to represent the first sustained interest in disease specificity; his study of acute diseases, however, takes no interest in the Bills.[143] It would not be until the mid-to-late eighteenth century that physicians would begin to take interest in the link between empirical symptoms of specific diseases and the resulting findings at autopsy.[144] Data gathering for the Bills of Mortality operated in a manner deeply connected to the 'medical marketplace' of early modern London, where knowledge of causes of death

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[141] Bradwell, *A Watch-Man for the Pest*, 52.
[142] W. Kemp, *A Brief Treatise of the Nature, Cause, Signes, Preservation From, and Cure of the Pestilence* (London: 1665), 29. Early English Books Online. See also Thomson, *Loimotomia*, 52; George Donne, *The Signes the Doe Declare a Person to be Infected with the Pestilence* (London: 1625). Early English Books Online. In *Loimographia,* Boghurst admits that he "mistook spotted fever—purple spots—for tokens at first, and indeed they differ so little that none but those that are used to both sorts can know them," 48-49.
[143] George C. Alter and Ann G. Carmichael, "Classifying the Dead: Toward a History of the Registration of Causes of Death," *Journal of the History of Medicine and Allied Sciences* 54, no. 2 (1999): 121.
[144] Sanjib Ghosh, "Giovanni Battista Morgagni (1682–1771): Father of Pathologic Anatomy and Pioneer of Modern Medicine," *Anatomical Science International* 92, no. 3 (2017): 305-309. The influence of these changes in the practice of medicine on the criticism of the Bills of Mortality will be described in more detail in Chapter 4.

was not perceived to belong solely to medical practitioners. Richelle Munkhoff maintains that the searchers took on the duties of naming causes of death precisely because that knowledge was common.[145] Several historians have stressed that lay people and licensed practitioners in many ways shared in a common medical culture, with women taking a prominent role in caring and healing duties.[146] Women's association with the traditional practices surrounding death and burial, the small sums required for their labour, and their removal from the infighting between the City and the College of Physicians made them ideally suited to the office of searcher and was crucial to the longevity of the Bills of Mortality.

The existence of a shared medical culture did not, however, imply that this knowledge was shared exclusively from the top down, with learned knowledge insulated from popular practice. Cambridge University-trained physician John Symcotts' casebook, for instance, contains recipes from Theodore de Mayerne alongside a successful cure suggested by a beggar woman. The same page of his prescription book shows that Symcotts prescribed a cure "for the poor woman of Fenton" as well as one "for the Right Hon. The Lord St John."[147] Andrew Wear maintains that two systems of community and expert care were intertwined "right

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[145] Richelle Munkhoff**,** "Reckoning Death: Women Searchers and the Bills of Mortality in Early Modern London," in Rhetorics of Bodily Disease and Health in Medieval and Early Modern England*,* edited by Jennifer C. Vaught (Surrey: Ashgate, 2010), 132.
[146] Wear, *Knowledge & Practice,* 11, 113-114; Doreen G. Nagy, *Popular Medicine in Seventeenth Century England* (Bowling Green, OH: Bowling Green State University Popular Press, 1988), 43-48; Roy Porter, "Introduction," in *Patients and Practitioners: Lay Perceptions of Medicine in Pre-Industrial Society*, edited by Roy Porter (Cambridge: Cambridge University Press, 1985), 2-3; Roy Porter, "The Patient's View: Doing Medical History from Below," *Theory and Society* 14 (1985): 175; Deborah E. Harkness, "A View from the Streets: Women and Medical Work in Elizabethan London," *Bulletin of the History of Medicine* 82, no. 1 (2008): 64.
[147] John Symcotts, *A Seventeenth Century Doctor and His Patients: John Symcotts, 1592-1662*, edited by F.N.L. Poynter and W.J. Bishop, vol. 31 (Luton: The Publications of the Bedfordshire Historical Society, 1951), 91. British Library.

across English society from the poor to the rich."[148] The Bills of Mortality themselves provide an intriguing glimpse into the process of seventeenth-century medical knowledge dissemination in the case of the children's disease rickets. Both contemporaries and historians generally agree that rickets, which causes bone deformities and stunted growth due to mineral and vitamin D deficiencies, was a new disease that had not been encountered before the seventeenth century.[149]

Francis Glisson's *De Rachitide* (1650), 'On Rickets,' was arguably the first scientific medical text on a specific disease and has been lauded by medical historians as an achievement of medical progress.[150] Glisson's work was the culmination of years of research and information exchange among the Fellows of the College of Physicians and represented their most notable contribution to medicine during the Revolutionary period. It enjoyed great success; so much so that rickets even became known on the Continent as 'Glisson's Disease' or the 'English Disease.'[151] The remedies outlined in the work, however, offered nothing that did not already exist under the umbrella of popular medicine. Layinka Swinburne discovered similar remedies in the Fairfax Family Receipt Books, which were compiled 15-20 years before Glisson's publication. [152] None of the Fairfax remedies are attributed to a physician, and their large number suggests that there was a system of treatment already in place at the time of their compilation in 1632.

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[148] Andrew Wear, "Caring for the Sick Poor in St Bartholomew's Exchange: 1580-1676," *Medical History. Supplement*, no. 11 (1991): 55.
[149] Lucinda McCray Beier, *The Experience of Illness in Seventeenth-Century England* (London & New York: Routledge, 1987), 136.
[150] Woolley, *Heal Thyself,* 247; Nagy, *Popular Medicine,* 46; Webster, *Great Instauration,* 317.
[151] Layinka M. Swinburne, "Rickets and the Fairfax Family Receipt Books," *Journal of the Royal Society of Medicine* 99, no. 8 (2006): 392.
[152] Swinburne, "Rickets and the Fairfax Family," 391-392.

Swinburne maintains that no manuscript remedies for rickets are attributed to medical authorities until after the publication of Glisson's treatise, and that after its publication, it is his work that became the main authority on the disease.[153]

In his English translation of *De Rachitide*, Nicholas Culpeper described it as "the disease in children which women call the Rickets."[154] This was clearly a disease that emerged by popular definition as a result of women's experience caring for children's illnesses.[155] Fittingly, the first printed mention of rickets occurred in 1634 in the Bills of Mortality, a full fifteen years before the publication of Glisson's work.[156] As most print sources relating to women's knowledge of medicine, such as family receipt books, usually come from the level of gentlewomen and above, the first printed mention of the word occurring in the Bills of Mortality is interesting because it suggests a widely shared base of medical knowledge that cut across class lines.[157] The disease terms used in the Bills of Mortality represent popular categories of disease, but this was evidently not a world that operated in isolation from official medicine. In the advice from the College of Physicians appended to the 1666 plague *Orders* there was even included a popular cure for the drawing out of plague buboes.[158]

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[153] Swinburne, "Rickets and the Fairfax Family," 394.
[154] Quoted in Margaret Pelling, "John Graunt, the Hartlib Circle and Child Mortality in Mid-Seventeenth-Century London." *Continuity and Change* 31, no. 3 (2016): 345.
[155] Pelling, "John Graunt, the Hartlib Circle and Child Mortality," 346.
[156] Margaret Pelling, "Defensive Tactics: Networking by Female Medical Practitioners in Early Modern London," in *Communities in Early Modern England: Networks, Place, Rhetoric*, edited by Alexandra Shepard and Phil Whittington (Manchester: Manchester University Press, 2000), 41.
[157] Pelling, "Defensive Tactics," 41.
[158] Nagy, *Popular Medicine*, 48.

2.11: Late-Seventeenth-Century Demographic Changes

As the era of plague drew to a close (the last mention of plague in the Bills dates from 1670, though it appears likely that small, localized outbreaks continued until the early decades of the eighteenth century), the Bills of Mortality seem to have largely fulfilled their purpose of keeping the authorities and citizens informed of the progress of plague epidemics.[159] In the later decades of the seventeenth century, however, population trends that would make the administration of the Bills of Mortality more challenging were becoming noticeable. The Quakers, who had long been excluded from the religious life of the nation, kept their own graveyard and did not allow searchers to view bodies.[160] French and Dutch-speaking Protestants also kept their own churches independent of the Bills. Immigrations of French Huguenots increased dramatically in the 1670s and 1680s, numbering roughly 40-45,000.[161] There was also a large Jewish community by the end of the seventeenth century after Jews were granted permission to resettle in 1650.[162] None of their burials were reported in the Bills of the Mortality.

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[159] Neil Cummins, Morgan Kelly, and Cormac Ó Gráda, "Living Standards and Plague in London, 1560–1665." *Economic History Review* 69, no. 1 (2016): 24, 30-31. Their data is based on statistical analysis of nearly a million parish vital registration records. Using a standardized epidemiological mathematical procedure meant to detect periods of crisis mortality, these researchers determined that the first outbreak of sustained crisis mortality during the plague of 1665 occurred in the parish of St Giles in the Fields, with the London Bills of Mortality reporting the first plague deaths in that parish one week before these were picked up using the standardized procedure. Plague has a characteristic epidemic curve that can be distinguished using burial data independent of cause of death data. Their research suggests that the searchers were successful in identifying plague deaths at the crucial early stages of the epidemic.

[160] Christie, *Some Account of Parish Clerks,* 141; Monteyne, *The Printed Image in Early Modern London*, 102.

[161] Vanessa Harding, "Burial on the Margin: Distance and Discrimination in Early Modern London," in *Grave Concerns: Death and Burial in England 1700 to 1850*, edited by Margaret Cox (Walmgate, York: Council for British Archaeology, 1998), 63.

[162] Harding, *The Dead and the Living,* 100; Harding, "Burial on the Margin," 63.

While the near totality of burials would have been managed by the Church of England at the time when the Bills of Mortality first became institutionalized, this was no longer the case. The Company of Parish Clerks was closely affiliated with the official Church and there were difficulties accommodating the growing religious diversity of London's population.[163] Vanessa Harding maintains that a weakening of parish identity was tied to this growing religious diversity.[164] The large plague burial grounds, such as the New Churchyard and Bunhill Fields, which were founded in a state of emergency, became burial places for Dissenters and people on the margins of society once plague was over.[165] There was also a proliferation of private burial grounds, which meant that even individuals who belonged to the Church of England now had other options than burial in their local parish churchyard.[166] The Parish Clerks were aware that they were underreporting deaths due to the growth of cross-parochial burials and attempted to rectify the problem by issuing standardized burial certificates from 1690 onward that could be used across parish lines.[167] These issues relating to the under-registration of deaths will be described in more detail in Chapter 4.

2.12: Conclusion

What is clear about the founding and operation of the Bills of Mortality during the era of plague is that even though there was a clear lack of involvement by the physicians, there was not a corresponding lack of concern about public health

[163] Robertson, "Reckoning with London," 346; Brett-James, *The Growth of Stuart London*, 259.
[164] Harding, "Burial on the Margin," 63.
[165] Harding, "Burial on the Margin," 61.
[166] Harding, *The Dead and the Living,* 279.
[167] Adams, *The Parish Clerks of London,* 59.

from the City and the Crown. The Bills worked in tandem with the system of parish-administered poor relief in a cost-effective manner that was largely adequate for its intended purpose. They functioned despite conflict between the City, the physicians, and the Crown, surviving the traumatic decades of Charles' Personal Rule, the Interregnum, and the Restoration with its back-to-back calamities of plague and fire. The Revolution of 1688, which saw Dutch Protestant William of Orange invited to rule England in place of Catholic James II, had been a direct rejection of Continental absolutist-style regimes.[168] This period of Protestant renewal saw a corresponding call to reform the manners of the nation so that England could become a godly nation. Much of the concern of the Reformation of Manners campaign manifested as anxiety about crime and disorderly conduct, with a particular concern for conditions in the suburbs and the moral character of the poor.[169] Anxieties about the unruliness of the suburbs and the belief that the next epidemic was likely to emerge there did not disappear with the plague. The Bills of Mortality continued to report heavy mortality in the suburbs due to various pestilential fevers, while physicians debated whether these fevers were simply lesser forms of plague that could turn into full-blown epidemics under the right conditions. There was still much to fear.

[168] After 1688, Parliament sat annually, and so it was necessary to obtain its cooperation for any further reforms of the Bills of Mortality.
[169] Stephen MacFarlane, "Social Policy and the Poor in the Later Seventeenth Century," in *London 1500-1700: The Making of the Metropolis*, edited by A.L. Beier and Roger Finlay (London and New York: Longman, 1986), 260.

Chapter 3: Plague in the Public Eye: English Reactions to the Plague at Marseille, 1720-1723

It is often assumed that the Bills of Mortality diminished in relevance in the later decades of the seventeenth century, an assumption which is typically used as justification for limiting studies relating to the Bills of Mortality solely to the era of plague. As the argument goes, just as plague appeared to become a less pressing threat, the Bills themselves soon became crowded out by a burgeoning number of periodicals devoted to current affairs.[1] Yet the public health purpose of the Bills of Mortality during the eighteenth century remains unclear. This chapter will examine English reactions to the 1720-1723 plague epidemic at Marseille—the last major outbreak of the disease in Europe—as a case study for understanding the public health purpose of the Bills of Mortality fifty-five years after the last epidemic of the disease in London in 1665-1666. While the possibility of a plague epidemic engendered a great deal of anxiety, with a resulting outpouring of public discourse regarding the nation's public health measures, the epidemic that never materialized rarely features in scholarly works on plague in England and has, to my knowledge, not yet been studied in relation to the role played by the Bills of Mortality in alerting the authorities to the presence of the disease.[2]

After assessing Dr Richard Mead's *Short Discourse on Pestilential Contagion* (1720)—the first book of epidemiological advice produced by a medical practitioner

[1] Will Slauer, "WRITE UP YOUR DEAD: The Bills of Mortality and the London Plague of 1665," *Media History* 17, no.1 (2011): 8.

[2] Paul Slack's *The Impact of Plague in Tudor and Stuart England* (Oxford: Oxford University Press, 1990) is one of the few works on plague in England that has examined the influence of the Marseille epidemic. Kevin Siena has recently studied the Marseille plague scare as an episode of contagion anxiety but makes no mention of the Bills of Mortality. See Kevin Siena, *Rotten Bodies: Class & Contagion in 18th-Century Britain* (New Haven: Yale University Press, 2019).

at the request of the English state—the chapter will demonstrate that the renewed threat of plague posed an opportunity to reform the Bills of Mortality and re-evaluate their purpose.[3] Mead's influence looms large in the English context of the Marseille plague. His treatise advocated measures that became encoded in the Quarantine Act of 1721, such as the controversial imposition of *cordons sanitaires*, which had been employed to contain the outbreak of plague in Provence. This provoked such a serious outcry that Mead modified a later edition of his treatise and the government even removed the offending clauses in an amendment of the Quarantine Act the following year.

Mead had also proposed a plan to reform the Bills of Mortality, reviving the idea of implementing a Board of Health along the lines of the model initially proposed by Theodore Turquet de Mayerne in the early 1630s. Unlike Mayerne, Mead advocated the replacement of women searchers with men, making him one of the first critics of the Bills to suggest this change. As the chapter will demonstrate, however, despite support from the Privy Council there was little appetite for these reforms due to mounting popular resentment against the Quarantine Act. Despite Mead's assertions of the women searchers' unreliability, other observers deemed them not just adequate to the task but also less threatening than professional state agents, a significant benefit in the midst of the turmoil that accompanied the Quarantine Act. The revival of a plan for a Board of Health nevertheless opened space for discussion about the reliability of print and the 'truth' of the Bills of

[3] Arnold Zuckerman, "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead," *Bulletin of the History of Medicine* 78, no. 2 (2004): 274.

Mortality. These themes are explored in Daniel Defoe's *Journal of the Plague Year* (1721), arguably the most enduring piece of English-language writing produced during the Marseille plague.

The chapter will also examine debates and legislation in Parliament regarding plague prevention measures, Privy Council records, medical treatises, pamphlets, and newspaper articles. It will demonstrate that during the Marseille plague scare, state-endorsed public health measures were publicly discussed in the press in a way that had not characterized prior epidemics of plague. A major argument of this chapter will be that the fragmentary nature of medical thought which characterized the first half of the eighteenth century had profound consequences on the public debate surrounding the contentious clauses of the Quarantine Act. Differences of opinion among physicians regarding whether plague was in fact contagious—that is, whether plague was transmissible from person to person, which related to the question of whether plague was endemic to England or could be imported—had political implications when opponents of the government's stringent maritime quarantine measures and proposed *cordons sanitaires* leveraged these differences of opinion to discredit government policies.

The response to the Marseille plague scare of 1720-1723 differed from Tudor and Stuart plague responses in its stress on prevention through maritime quarantine rather than mitigation through household confinement, its pursuit of more extreme containment measures such as *cordons sanitaires*, as well as in the important role played by public opinion in defining the relationship between individual liberty and state authority. The chapter will conclude that the Marseille

plague episode revealed a deep suspicion of the arbitrary powers of the Crown in matters of public health and population control, which would prevent reforms of the Bills of Mortality towards centralized continental models of 'medical police' for the duration of the eighteenth century.[4] It will also conclude that the Marseille plague episode had a lasting effect, not only in terms of suspicion of centralized efforts at public health management, but also in terms of anxiety about burial practices and the fear that overflowing parish churchyards might engender epidemic disease. Resulting changes in burial practices would eventually lead to serious underreporting of deaths in the Bills of Mortality.

3.1: The End of Plague?

The end of plague is typically where the discussion of the public health role of the Bills of Mortality leaves off. How plague left England, however, is a topic that puzzled contemporaries and one on which historians are still not in agreement.[5] A popular story, which is sometimes repeated in scholarly works on early modern England, is that the Great Fire of 1666 'cleansed' London of plague. One eighteenth-century writer noted that the conflagration was "more providential than fatal," since "its flames so purified the air."[6] It was not lost on other contemporary observers, however, that as the mortality had been highest in the suburban parishes untouched

[4] Paul Slack, *From Reformation to Improvement: Public Welfare in Early Modern England* (Oxford: Clarendon Press, 1999), 145-147.
[5] Paul Slack argues that the end of plague remains one of the greatest mysteries surrounding the disease. See Slack, *The Impact of Plague*, 311.
[6] Author of The Practical Scheme, *The Great Bill of Mortality Or, the Late Dreadful Plague at Marseilles, (of Which, 'tis Computed, above Eighty Thousand Persons Have Died,) Compared with That in London in 1665* (Bristol: 1721), 10. Eighteenth Century Collections Online.

by the fire, it could not have been the cause of the disappearance of the disease.[7] The last mention of plague in the Bills of Mortality occurred a few years after the fire, in 1670, and there is evidence to suggest that sporadic endemic outbreaks in the suburbs continued for another fifty years. A recent study by Neil Cummins, Morgan Kelly and Cormac Ó Gráda argues that plague remained endemic in the London suburbs until the early 1720s and suggests that these plague deaths were likely to have been registered as spotted fever.[8] Their study analysed nearly a million parish vital registration records using a standardized epidemiological mathematical procedure meant to detect periods of crisis mortality. Concluding that plague was endemic and therefore not imported from abroad, the authors revived a lesser-known debate among historians about the domestic origins of plague that was also a contentious topic among physicians at the time.[9]

The finer points of this debate are beyond the scope of this chapter, but it is important to note that because the etiology of plague is complex, many characteristics of the disease and its transmission could not be explained by any one

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[7] See, for example, Daniel Defoe, *A Journal of the Plague Year* (New York: The Modern Library, 2001), 230.

[8] Neil Cummins, Morgan Kelly, and Cormac Ó Gráda, "Living Standards and Plague in London, 1560–1665," *Economic History Review* 69, no. 1 (2016): 4. Plague has a characteristic seasonal epidemic curve which differs from spotted fever (typhus). This allowed the authors to distinguish plague deaths independently of cause of death data.

[9] Paul Slack is the most influential proponent of the theory that plague was always imported from abroad and that the absence of epidemics in England after 1666 can partly be explained by the success of maritime quarantine. See Slack, *The Impact of Plague*, 323 and Paul Slack, "The Response to Plague in Early Modern England: Public Policies and Their Consequences," in *Famine, Disease and the Social Order in Early Modern Society*, edited by John Walter and Roger Schofield (Cambridge: Cambridge University Press, 1989), 175 and 184. On this topic, see also Andrew B. Appleby, "The Disappearance of Plague: A Continuing Puzzle," *Economic History Review* 33, no. 2 (1980): 161-73 and Graham Twigg, "Plague in London: Spatial and Temporal Aspects of Mortality," in *Epidemic Disease in London*, edited by J.A.I Champion (London: Centre for Metropolitan History, 1993), 1-17. https://archives.history.ac.uk/history-in-focus/Medical/epitwig.html

model. This complexity favoured disagreements among physicians in the early eighteenth century. It is now generally agreed that there are three forms of plague: bubonic, septicemic, and pneumonic. The first two forms are not contagious and are transmitted through infected flea bites, whereas the pneumonic form can be spread from person to person through infected respiratory droplets.[10] The virulence of a particular epidemic depended on many variables touching rodent-rodent, rodent-human, and inter-human transmission. Through an examination of data collected in the Bills of Mortality, some contemporaries had been aware that plague had been endemic in the suburbs for most of the seventeenth century, and that periods of low but constant plague mortality did not necessarily develop into full-blown epidemics. A commonly held belief was that epidemics of high virulence were imported from abroad, typically in infected cloth and linens.[11]

Most seventeenth-century physicians shared the belief that plague was a contagious disease. They did not tend to draw a clear line between miasmatic theories of disease transmission (where plague spreads through the air) and contagionist theories (where plague spreads person to person); indeed, both reinforced and affected the other in the right environmental conditions. Margaret DeLacy has argued that physicians in the first half of the eighteenth century were comparatively more fragmented in their theories regarding epidemic disease

[10] Zuckerman, "Plague and Contagionism in Eighteenth-Century England," 286; Margaret DeLacy, *The Germ of an Idea: Contagionism, Religion, and Society in Britain, 1660-1730* (New York: Palgrave Macmillan, 2016), 147.
[11] John Booker, *Maritime Quarantine: The British Experience, c.1650-1900* (Aldershot: Ashgate Publishing, 2007), 16; E.N., *London's Plague-Sore Discovered*, (London: 1665), 4. Early English Books Online.

transmission than they had been in the seventeenth century.[12] As mentioned in the previous chapter, entry into the College of Physicians loosened in the later decades of the seventeenth century to allow those with foreign MDs to practice in London and become Fellows of the College. This expansion resulted in a diversification of medical opinion and a flourishing of a multiplicity of theories of disease etiology and transmission.[13]

Debates about whether plague was its own specific disease or merely the most severe degree of pestilential fever, for instance, assumed greater importance in the early eighteenth century. The Bills of Mortality continued to report high mortality in the suburbs, along with smallpox epidemics in 1710, 1714, 1719, 1721, 1722, and 1723, the last three of which coincided with the Marseille plague.[14] Kevin Siena maintains that many people feared that a plague epidemic could ignite at any moment and suggests that this concern may have been why searchers of the dead were kept constantly on hand.[15] This fear would have been made even more acute by the belief that pestilential fevers were lesser forms of plague and that in the right conditions, such as those associated with poverty—i.e., malnutrition, overcrowding,

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[12] Margaret DeLacy, "Nosology, Mortality, and Disease Theory in the Eighteenth Century," *Journal of the History of Medicine and Allied Sciences* 54, no. 2 (1999): 277.
[13] Previously, only those holding MDs granted by the University of Oxford or the University of Cambridge could become Fellows of the College. Political arithmetic experienced a similar fragmentation in these decades, practised as part of individual projects dependent upon large communication networks of volunteers, and no longer affiliated with the goals of the state. See Slack, *From Reformation to Improvement*, 145.
[14] Larry Stewart, "The Edge of Utility: Slaves and Smallpox in the Early Eighteenth Century," *Medical History* 29, no. 1 (1985): 57.
[15] Kevin Siena, "Searchers of the Dead in Long Eighteenth-Century London," in *Worth and Repute: Valuing Gender in Late Medieval and Early Modern Europe*, edited by Kim Kippen and Lori Woods (Toronto: Centre for Reformation and Renaissance Studies, 2011), 126.

and poor housing quality—pestilential fevers could transform into full plague.[16] Debates about the etiology of plague were consequential because they affected whether or not people believed that maritime quarantine, so disruptive to trade and livelihoods, was an effective means of preventing the introduction of the disease. If plague was an acute form of fever engendered by local environmental conditions, then there would be no need to fear the introduction of the disease through trade. In seeking to deny that plague was present in their jurisdiction, the Marseille authorities had even initially claimed, with devastating consequences, that the disease was not true plague but a lesser pestilential fever caused by malnutrition.[17]

Kevin Siena has more recently argued that medical theories which asserted that poverty bred plague, previously confined to medical treatises, had become mainstream opinions that circulated in the popular press by the turn of the eighteenth century.[18] During the last outbreak of plague in London, only three regularly printed sources of news existed aside the weekly figures printed in the Bills of Mortality: the *Intelligencer*, *The Newes*, and the *London Gazette*. The lapsing of the censorship laws in 1695 caused an explosion of print and Londoners soon became voracious consumers of printed news. In 1702, the first daily newspaper

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[16] This theory had been discussed during the plague epidemic of 1665, especially among those who questioned the effectiveness of household quarantine. See Anon., *The Shutting up Infected Houses As it is practiced in ENGLAND Soberly Debated* (London: 1665), 8. Early English Books Online; William Boghurst, *Loimographia: An Account of the Great Plague of London in the Year 1665*, edited by Joseph Frank Payne (London: Shaw and sons, 1894), xix. The most influential reiteration of this idea during the Marseille plague is found in Dr. George Pye's *A Discourse of the Plague Wherein Dr. Mead's Notions Are Consider'd and Refuted. By George Pye M.D.* (London: 1721). Eighteenth Century Collections Online.

[17] DeLacy, *The Germ of an Idea*, 148.

[18] Siena cites a 1699 epidemic of plague in northern France which was closely monitored in the London press, where it was posited that the outbreak had been caused by famine. Siena, *Rotten Bodies*, 51.

appeared. By 1712, 28 single-leaf newspapers were published in London each week, many of which reprinted figures from the Bills of Mortality.[19] Londoners would be gripped by reports of the worsening situation in Marseille, which they could read about in a variety of news outlets, such as *Applebee's Original Weekly Journal* and the *Weekly Journal or British Gazeteer*, among others. Readers were not only horrified by descriptions of the devastating effects of the epidemic, but also by the extreme measures employed to keep the epidemic from spreading beyond Provence.

3.2: News of the Plague at Marseille

The epidemic in Marseille broke out after the arrival on 25 May 1720 of the ship *Grand Saint-Antoine* from the Levant, where a serious outbreak of plague had been raging. Three crewmen had died en route, which the captain had reported to the authorities at Marseille. The official diagnosis had been of a pestilential fever rather than plague, and so the ship was cleared to land but ordered to be fumigated twice in the city lazaretto. It appears that some of the ship's cotton merchandise was then made available for sale despite regulations to the contrary.[20] The porters who handled the merchandise, the lazaretto surgeon, as well as most of those who purchased the cotton perished in late June.[21] By late July, clusters of cases began to appear in the poor districts of the old streets of the town. Some physicians who attended these first cases identified the disease as plague and its transmission as

[19] Paula McDowell, "Defoe and the Contagion of the Oral: Modeling Media Shift in "A Journal of the Plague Year"," *PMLA* 121, no. 1 (2006): 92. Incidentally, this reprinting of figures from the weekly Bills of Mortality caused a sharp decrease in sales for the Company of Parish Clerks.
[20] Signoli, Michel and Stéfan Tzortzis, "La peste à Marseille et dans le sud-est de la France en 1720-1722: les épidémies d'Orient de retour en Europe," *Cahiers de la Méditerranée* 96, (2018): 221.
[21] Booker, *Maritime Quarantine*, 87; Zuckerman, "Plague and Contagionism in Eighteenth Century England," 276; "The Plague Of Marseilles," *The British Medical Journal* 2, no. 1502 (1889): 827.

contagious. The city authorities, however, wanted a second opinion and sent for a commission from the Montpellier Medical School. The commission concluded that the disease was not contagious and had been caused by environmental factors such as poor diet.[22] It was not until 18 August, after the epidemic could no longer be concealed, that it was officially declared that the outbreak was one of true plague.[23]

News of the epidemic was first published in the London press on 10 August 1720.[24] There was immediate alarm at reports of high virulence and an unusually severe mortality rate. Newspapers described a plague whose fury "can't be described," such that "not one person [...] touched with it, had been able to recover."[25] Historians estimate that the epidemic killed at least a third if not half of Marseille's population—some 100,000 to 150,000 deaths—with up to 1,000 daily deaths at the height of the epidemic.[26] The mortality was exacerbated by the establishment of a military *cordon sanitaire* around the city (one quarter of the French army was dispatched to enforce it), which resulted in widespread famine.[27] *Applebee's Original Weekly Journal* reported that:

> Troops are placed on the frontiers of Gascogne, the Upper Languedoc, and as also on the Dauphinee, to prevent any person passing from the infected parts into those provinces. [...] In the mean time, no pen can write, or words express, the misery of the inhabitants of Marseilles, and of other infected places, all communication being cut from them, both by sea and land, and commerce at a stop [...] many perish of want as well as from the contagion, from which they cannot now fly.[28]

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[22] Zuckerman, "Plague and Contagionism in Eighteenth-Century England," 277.
[23] *The British Medical Journal*, 827.
[24] Booker, *Maritime Quarantine*, 88; The discrepancy in dates is due to the eleven calendar days separating the Julian and Gregorian calendars. 10 August in England corresponded to 21 August in France, meaning that news of the epidemic was published in England a mere three days after the news became official in France.
[25] *Applebee's Original Weekly Journal*, 10 September 1720.
[26] DeLacy, *The Germ of an Idea*, 148; Booker, *Maritime Quarantine*, 85.
[27] DeLacy, *The Germ of an Idea*, 148.
[28] *Applebee's Original Weekly Journal*, 3 September 1720.

By autumn, several newspapers were relating devastating reports emerging out of Provence. *The Weekly Journal or British Gazetteer* reported on the heaps of bodies lying unclaimed, estimating that there were "above 3000 dead in the streets, which yield an intolerable stench," while *Applebee's Original Weekly Journal* concluded that "upon the whole, it is the most dreadful pestilence that ever the world heard of."[29] It was indeed to be one of the deadliest epidemics of plague in post-medieval Europe.[30]

Figure 3.1: The port of Marseille during the plague in 1720. Coloured etching after Michel Serre. Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

After receiving news of the deteriorating situation at Marseille, the English authorities reacted quickly. With Parliament prorogued between August 1720 and December 1720, it was the Privy Council that took the initiative. On 23 August 1720,

[29] *The Weekly Journal, or, British Gazetteer*, 17 October 1720; *Applebee's Original Weekly Journal*, 5 November 1720. In their 29 October 1720 edition, *Applebee's* reported that out of a population of 100,000, there were "scarcely 4,000 left alive in Marseille."
[30] Booker, *Maritime Quarantine*, 85.

the Council assembled to discuss the best course of action. One of their first decisions was to direct Customs to prevent any landings from ships coming from anywhere in the Mediterranean until further notice. Two days later an Order-in-Council was issued that required all goods to be aired for a week before a ship left its place of discharge.[31] A Royal Proclamation to this effect was then published in full on the front page of the *London Gazette*, "to the intent that no person whosoever may pretend ignorance" of the command.[32] The Privy Council's early actions reflected the traditional belief that plague was usually imported and that it was likely to enter Britain via commerce, either through infected persons or susceptible goods, such as cloth. Fear of infected textiles had characterized earlier attempts at the imposition of quarantine since the early sixteenth century and was reflected in the plague *Orders* which stipulated the burning of bed linens and clothing of plague victims.[33] The Council's quick imposition of maritime quarantine and its emphasis on prevention rather than mitigation was, however, different than in past epidemics of plague under the Tudors and Stuarts.

3.3: Dr Richard Mead

Before passing more substantial orders, the Council immediately sought medical advice from the royal household's head physician, Dr Richard Mead, who was a distinguished member of the College of Physicians and the Royal Society.[34] The Council commissioned Mead to assemble his thoughts regarding the nature of

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[31] Booker, *Maritime Quarantine*, 88.
[32] *London Gazette*, 23 August 1720-27 August 1720.
[33] Queen Elizabeth I, *Orders Thought Meete* (1578), in *The Plague in Print: Essential Elizabethan Sources, 1558-1603*, transcribed and edited by Rebecca Totaro (Pittsburgh: Duquesne University Press, 2009), 186.
[34] DeLacy, *The Germ of an Idea*, 154-155.

plague and the best methods to ensure its prevention.[35] The result was one of the first original works regarding the Marseille plague to be published in England: the *Short Discourse Regarding Pestilential Contagion and the Methods to be Used to Prevent It*, promptly published in November 1720. Mead's treatise not only set the tone of the ensuing debate among physicians regarding the etiology of plague, but also attracted substantial attention from the general public as its recommendations formed the basis of the controversial Quarantine Act which passed in February 1721. The *Short Discourse* went through nine printings, seven of which were published in the year following its initial release.[36]

In order to remedy his lack of first-hand experience with plague, Mead consulted material from past epidemics. A defining feature of English responses to the Marseille plague scare was the tendency to look to the past for advice on how to manage the present situation. The last plague outbreak in 1665-1666 had occurred fifty-five years prior—almost but not entirely outside living memory. Mead conceived that the contagion was propagated by three causes: the air (such as "the stinks occasioned by carcasses lying unburied"), diseased persons, and goods transported from infected places. He concluded that epidemics of plague were not bred in England, writing that he did not think "that in this island particularly there is any one instance of a pestilential disease among us of great consequence; which we did not receive from other infected places."[37] His recommendations reflected a

[35] Richard Mead, *A Short Discourse Concerning Pestilential Contagion and the Methods to be Used to Prevent it* (London: 1720) sig. A2. Eighteenth Century Collections Online.
[36] Zuckerman, "Plague and Contagionism in Eighteenth-Century England," 273.
[37] Mead, *Short Discourse*, 2-5.

mixture of older beliefs about contagion alongside a new emphasis on prevention through strict maritime quarantine. He also sought the abandonment of the usual policy of mitigation through household quarantine. Should the epidemic reach England, Mead advocated the separation of sick and healthy members of a household in lazarettos, as well as the imposition of *cordons sanitaires* around infected towns.[38]

Ever since its inception in the sixteenth century, the English policy of household quarantine had been a contentious topic. By the last outbreak of plague in 1665-1666, the practice had become the subject of a pamphlet war, with consensus forming that not only was the practice cruel, uncharitable, and unchristian, but it also did not seem to be very effective at containing epidemics of plague, since at the first rumour of an outbreak people fled and found ways to evade quarantine.[39] The perception that the practice was cruel was also informed by the belief that quarantine disproportionately affected the poor, who did not have the means to flee.[40] Mead considered household quarantine a "dismal scene of misery," but his plan to replace it with the removal of both sick and healthy individuals of an infected household to lazarettos, with the instruction that "all the goods of the house in which they were, should be burnt; nay, the houses themselves," unsurprisingly proved no less controversial.[41]

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[38] Mead, *Short Discourse*, 21-23.
[39] Boghurst, *Loimographia*, x; Anon., *The Shutting up Infected Houses*, 4-5; Kira Newman, "Shutt Up: Bubonic Plague and Quarantine in Early Modern England," *Journal of Social History* 45, no. 3 (2012): 810-812.
[40] Newman, "Shutt Up," 827.
[41] Mead, *Short Discourse*, 33 and 40.

Another controversial measure was Mead's recommendation that infected towns should implement lines with guards to contain the disease, as had been done in France.[42] Even in this instance Mead found an English precedent. During the course of his research, Mead had spoken to the son of William Mompesson, who recounted how his father, the rector of Eyam in Derbyshire, had persuaded the villagers to quarantine their town in the hope that it would prevent plague spreading to the nearby villages.[43] Their voluntary quarantine appeared to work, but at tremendous cost to themselves. The death rate in Eyam for the fourteen months of the epidemic was a staggering 80 percent of the overall population, a higher proportion than anywhere else in England.[44] (The imposition of a *cordon sanitaire* likely partly explains the unusually high mortality rate in Marseille, too.) Mompesson related how plague had been initially imported in the village in September 1665 through a box of cloth from London whose contents were then hung inside to dry.[45] This was an episode which not only seemed to confirm the efficacy of *cordons sanitaires*, but also reaffirmed the belief that plague could be easily transmitted through cloth, hence the emphasis placed on prevention through maritime quarantine.[46]

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[42] Zuckerman, "Plague and Contagionism in Eighteenth-Century England," 289; Mead, *Short Discourse*, 53.
[43] Zuckerman, "Plague and Contagionism in Eighteenth-Century England," 284.
[44] Michel P. Coleman, "A Plague Epidemic in Voluntary Quarantine," *International Journal of Epidemiology* 15, no. 3 (1986): 379-82.
[45] Coleman, "A Plague Epidemic in Voluntary Quarantine," 380-381.
[46] Mead, *Short Discourse*, 20.

3.4: Maritime Quarantine

The stress on the importance of maritime quarantine was a new feature of the eighteenth-century response to plague. Tudor and Stuart interventions tended to come after plague had begun and sought to limit damages.[47] English quarantine of ships can be traced back to the mid-sixteenth century but was never implemented in a uniform manner; seventeenth-century quarantine measures tended to be short-lived, in response to emergencies, and within the bounds of the royal prerogative.[48] In 1629 and 1636, for instance, the Privy Council had ordered customs officials in all ports to prevent ships coming from infected places from landing.[49] In 1664, after receiving news that plague had reached The Hague, the Privy Council received an anonymous petition requesting the creation of an office for survey of all vessels coming in or going out of ports, "in order to avoid the introduction of the pestilence."[50] They also received a petition from courtier Thomas Chiffinch which stated that as plague had been imported in 1605, 1625, and 1636, precautions ought to be used in English ports.[51] The Council responded by imposing a 20-day quarantine on ships from the Netherlands.[52] In no instance did these measures involve Parliament or reach the status of statute law.

After 1670, the adoption of elaborate quarantine procedures in the Mediterranean ports of Italy and France usually kept plague at a greater distance

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[47] Charles F. Mullett, "The English Plague Scare of 1720-23," *Osiris* 2 (1936): 486.
[48] Booker, *Maritime Quarantine*, 1-12.
[49] Slack, "The Response to Plague in Early Modern England," 171; Charles F. Mullett, "A Century of English Quarantine (1709-1825)," *Bulletin of the History of Medicine* 23, no. 6 (1949): 527-528.
[50] SP 29/109 f.180.
[51] SP 29/109 f.191.
[52] Slack, "The Response to Plague in Early Modern England," 171.

from England.[53] Marseille in particular had a reputation for the efficacy of its quarantine measures and, with the exception of the plague of 1720, no infected ship had managed to spread the disease beyond the city lazaretto.[54] England adopted quarantine measures similar to those of its European neighbours in 1709 when a plague raged in the Baltic region.[55] The measures were given the support of statute law in 1710 and a quarantine station was erected on an island in the mouth of the Thames.[56] Shortly after receiving Mead's recommendations for strict maritime quarantine outlined in his *Short Discourse,* the House of Lords appointed a committee of sixty to inspect the laws in force against the plague. The committee found that only the maritime quarantine statute of 1710 had any practical validity, but it was deemed inadequate to deal with the seriousness of the present threat, and so in December 1720 the Commons were given leave to repeal it.[57]

Both the Privy Council and Parliament shared Mead's belief that plague was contagious and that they must prevent it ever reaching England. The reports from Provence were certainly alarming, but worse, in December 1720 rumours arose that plague had spread as far north as St Malo, and even to the Isle of Man.[58] Quarantine measures were expanded to apply to incoming ships from the Bay of Biscay, and, for

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[53] Slack, "The Response to Plague in Early Modern England,"185. As Slack points out, the sea voyage from the Levant to England, which took a minimum of 25 days, was usually long enough for any infected fleas to die on the way. Starved fleas can transmit the plague bacillus for up to 29 days.
[54] Signoli, and Tzortzis, "La peste à Marseille et dans le sud-est de la France en 1720-1722," 220. Between 1700 and 1720, for instance, plague was noted in the Marseille lazaretto at least sixteen times without spreading into the city.
[55] Mullett, "The English Plague Scare," 487; Mullett, "A Century of English Quarantine," 544. England's maritime quarantine policy would be pursued, largely uninterrupted, until 1841.
[56] Slack, "The Response to Plague in Early Modern England," 185; Slack, *The Impact of Plague,* 324.
[57] Mullett, "The English Plague Scare," 487.
[58] PC 2/87 f.26; *Applebee's Weekly Journal*, 10 December 1720. These rumours were later found to be unfounded.

the first time ever, to ships from the Channel Islands and the Isle of Man.[59] The Privy Council, however, needed to show that they had Parliamentary support for these Orders and Proclamations. The House of Lords quickly drafted a Bill based on the recommendations that Mead had stipulated in his treatise, including those for strict maritime quarantine, the removal of persons to lazarettos, and the enforcement of *cordons sanitaires*. They then submitted the Bill to the House of Commons, which passed it without amendment.[60] The Quarantine Act which came into effect on 10 February 1721 replaced the previous statute of 1710, which was deemed "defective and insufficient for the purposes intended, and the penalties inflicted by the same not adequate to the offences thereby prohibited."[61]

3.5: The Quarantine Act of 1721

The Quarantine Act of 1721 stipulated that persons refusing to perform their quarantine in lazarettos or endeavouring to escape, could be "compelled by any kind of violence." People who actually escaped were to "suffer death as felons." It stipulated that the King could "cause lines to be cast up about places infected; and prohibit persons, goods, &c., to pass such lines." Anybody caught passing the lines would suffer death. Any two justices had the power to "order inhabitants of neighbouring parishes, &c. to keep watches day and night on places infected, and upon such lines, &c. with such numbers of men as they shall think fit." The King-in-Council could order ships coming from infected places, or laden with goods from

[59] Booker, *Maritime Quarantine*, 94.
[60] Great Britain, *Journal of the House of Lords: Volume 21, 1718-1721* (London: His Majesty's Stationery Office, 1767-1830), 383-405. British History Online; Great Britain, *The Journals of the House of Commons*. Vol. 19. (London: 1803), 389-405. Google Books.
[61] 7 Geo I, c.3. In Great Britain, *The Statutes at Large, From the Fifth to the Ninth Year of King George* I, vol. XIV, edited by Danby Pickering (Cambridge: 1765), 303. Archive.org.

such places, or having on board any infected persons, to be burnt. The Quarter Sessions were tasked with raising enough money to enforce the Act and penalties were stiff: individuals could be fined £200 for concealing that a ship had come from an infected port or had infectious people on board. Anyone caught leaving a vessel without permission could be imprisoned for six months and fined £200. The Act also ordered that any new proclamations relating to quarantine should be read in churches and published in the *London Gazette.*[62] These were extraordinary measures.

That the Council and Parliament enforced these measures even though they came at a high political and economic cost demonstrates how seriously the authorities took the threat of plague. Indeed, the passing of the Quarantine Act came at an especially delicate political time. Quarantine not only impeded trade and raised the price of goods—the combined valued of English Mediterranean trade, including the Levant, was roughly 20% of the national total—but the Act was passed shortly after the bursting of the South Sea Bubble in September 1720, a massive stockjobbing fraud which ruined the fortunes of thousands of investors and aroused a great deal of popular anger.[63] England was not only in a difficult financial position, but many people had also become distrustful of the government as the spectacular financial crash had implicated several members of Parliament. Rumours of the revival of Jacobite plots in the early months of 1721 only added to the difficulty of

[62] 7 Geo I, c.3. In *The Statutes at Large,* vol. XIV, 302.
[63] Booker, *Maritime Quarantine*, 93; Stewart, "The Edge of Utility," 54-55.

the situation.[64] Still, in the months following the passing of the Quarantine Act, the government showed its willingness to enforce it, with the Privy Council and House of Lords rejecting several petitions from merchants who sought exemptions.[65] In June 1721, for instance, when the *Bristol Merchant* and *Turkey Merchant* arrived from the eastern Mediterranean with cargoes of cotton wool that were rumoured to be infected with plague, the Privy Council ordered the ships burnt and Parliament agreed to compensate the owners a sum of £23,935.[66]

The government's steadfastness in the months following the passing of the Quarantine Act can be explained by reports that plague in France was exhibiting renewed strength in the late spring and summer of 1721. By June, newspapers were printing that the plague appeared to be spreading northward into France as well as into Italy, following reports that people in Provence were becoming increasingly desperate to break through the lines.[67] Reliable news became scarce as the situation worsened, with *Applebee's Original Weekly Journal* relating that:

> Letters from these parts come very sparingly, and with the utmost caution; they are brought from Marseilles to the lines by a courtier, and they are received by two soldiers appointed to take them at the end of a long pole; after which they are

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[64] G.V. Bennett, "Jacobitism and the Rise of Walpole," in *Historical Perspectives: Studies in English Thought and Society, in Honour of J.H. Plumb*, edited by J.H. Plumb and Neil McKendrick (London: Europa, 1974), 82.
[65] Great Britain, *Journal of the House of Lords*, vol. 21, 401, 583-584; Company of Merchants of England Trading to the Levant, *The Case of the Levant Company, in Relation to the Bill Now Depending before This Honourable House, for Performing Quarentine* (London: 1721), 1-2. Wellcome Library; Company of Grocers, *Reasons Humbly Offer'd by the Grocers of the City of London, Against Part of the Bill Now Depending in the Honourable House of Commons, Entituled, A Bill to Prevent the Bringing in the Infection, by the Clandestine Running of Goods* (London: 1721), 1. Wellcome Library. The Privy Council did make exceptions for ships carrying goods that would otherwise spoil. For example, PC 2/87 f.51.
[66] Great Britain, *The History and Proceedings of the House of Commons from the Restoration to the Present Time*, vol. VI (London: 1742), 252-55. Eighteenth Century Collections Online; Great Britain, *The Journals of the House of Commons,* vol. 19, 62.
[67] *Applebee's Original Weekly Journal*, 3 June 1721.

> scorched in the fire, then sprinkled with vinegar, then perfumed, and then opened and read. The same caution is used at Lyons from whence they write.[68]

When letters became scarce, rumours filled the void: the French authorities were supposedly considering having entire infected cities burnt, their ashes thrown in the sea, and new cities built in their place some distance away.[69] With reports indicating that plague had spread to Cherbourg and to the Normandy coast by late August, observers in England voiced concern that despite the precautions of the Quarantine Act, it was only a matter of time until plague was smuggled into the country.[70]

When Parliament sat again in October 1721 after several months' recess, the frantic activity of the Privy Council and both Houses of Parliament reflected the belief that the importation of plague was likely unless additional measures were taken. The Privy Council resolved to meet every Sunday and Wednesday to discuss "proper methods to be taken to prevent the plague coming into his Majesty's Dominions," including measures to suppress smuggling.[71] The Council issued proclamations relating to the plague on multiple occasions in October 1721, further extending the regions from which ships had to perform quarantine, culminating in a new Act which enabled the King to prohibit commerce for the space of one year with any country that was or would become infected with plague.[72] The Privy Council also began to make plans for the eventuality that plague might reach London. All members of the Privy Council were ordered to become acquainted with Council

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[68] *Applebee's Original Weekly Journal*, 1 July 1721.
[69] *Applebee's Original Weekly Journal*, 15 July 1721.
[70] *Appleby's Original Weekly Journal,* 26 August 1721.
[71] PC 2/87 f.323.
[72] This Act was 8 Geo I, c.8. In Great Britain*, The Statutes at Large*, vol. XIV, 379-380; PC 2/87 ff.314-325; Great Britain, *Journal of the House of Lords*, vol. 21, 593; Mullett, "A Century of English Quarantine," 531.

abstracts produced during the plagues of 1625 and 1665, and they requested that the Remembrancer of the City of London produce copies of any orders relating to plague drawn up by the City of London during past epidemics.[73] It is at this point that the Bills of Mortality came closest to reform.

3.6: Another Board of Health

The Privy Council again sought advice from Mead as well as some of his colleagues in the College of Physicians, who were "desired to consider the most proper methods to rectify and supply whatever may be deficient towards getting a true information of the diseases within the Bills of Mortality."[74] In the first edition of his *Short Discourse*, Mead had expressed concern with the accuracy of the Bills of Mortality, proposing that "instead of ignorant old women, who are generally appointed searchers in parishes to enquire what people die of, that office should be committed to understanding and diligent men."[75] None of his recommendations regarding the Bills had made their way into the Quarantine Act of February 1721. However, with concern that plague would reach England now at a fever pitch, Mead and his colleagues were tasked with drafting a report "concerning the proper methods to be taken to getting the earlier and truest intelligence of the plague."[76] In this report, they revived the idea of a Board of Health originally crafted by Theodore Turquet de Mayerne in 1631, and recommended that "for the better encouraging of

[73] PC 2/87 f.327.
[74] PC 2/87 f.323.
[75] Mead, *Short Discourse*, 38.
[76] PC 2/87 f.324.

well qualified and diligent visitors or searchers; the number of them should be reduced."[77]

In order to achieve this, they proposed dividing London into 52 districts according to population, so that each (male) searcher would be responsible for pronouncing the cause of death of 500 of the approximately 26,000 deaths registered in London each year.[78] There would no longer be two searchers employed in each of the 97 City parishes within the ancient walls, but one searcher per district for a total of six districts in the inner City (one proposed inner City district comprised as many as 27 parishes for its one searcher).[79] The remaining districts encompassed the large, populous suburban parishes, which were to be appointed several searchers each.[80] The report suggested that the first discoverer of an infected person would receive a reward of £40, and that each such report would be investigated by physicians of the Board to authenticate the cause of death. Anyone omitting to give notice would be fined £100.[81] Both the sick and healthy members of an infected household would then be required to spend their quarantine in separate lazarettos, of which there would be two per district.[82]

The same day they received a copy of Mead's report, the Council ordered that "Mr. Attorney and Mr. Solicitor General do consider what Commissions of Health, the Crown may grant, and with what powers, for preventing the plague, & likewise

[77] *Annals of the College of Physicians 1518-1915*, vol. VIII (1710-1721), f.180.
[78] *Annals of the College of Physicians,* vol. VIII, f.181.
[79] *Annals of the College of Physicians*, vol. VIII, ff.184-187.
[80] *Annals of the College of Physicians*, vol. VIII, ff.188-189.
[81] *Annals of the College of Physicians*, vol. VIII, ff.182-183.
[82] PC 2/87 f.324.

what precedents there are of this kind in former times."[83] The report of the Attorney and Solicitor came three days later and stated that they had "caused the best search to be made for precedents of Commissions in cases of this nature that the shortness of time would admit of but have not been able to gain information of any that have passed for the purposes mentioned in your Lordships' order."[84] The attorneys concluded that "if the questions be considered upon the foundations of the prerogative of the Crown as it stood at Common Law, the same will be found to be defective more especially in respect of proper penalties to be inflicted to enforce obedience to any authority that might be exercised by such commissioners."[85] In other words, the Commissioners of Health would "not have authority to make any orders or enforce" such orders, but the attorneys found no legal impediments to founding a Commission of Health whose purpose would be to give advice regarding plague management.[86] The Privy Council quickly ordered a warrant for the passing of such an advisory Commission (lacking executive powers), which would include the Lord Mayor, four Aldermen, the Lord Bishop of London, four other bishops, two Westminster judges, two General Officers of the Army, two Commissioners of the Customs, two Commissioners of Excise, two JPs for Middlesex, two for Westminster, two for Surrey, and the President and Censors of the College of Physicians, including Dr Mead.

[83] PC 2/87 f.324.
[84] PC 1/3/95.
[85] PC 1/3/95.
[86] PC 1/3/95.

3.7: Reactions to the Board of Health

This revival of the plan for a Board of Health could not have come at a worse time: a tremendous amount of resentment had been building against the Quarantine Act and what many saw as egregious government overreach. Mead had even felt compelled to answer some of these critics in the enlarged eighth edition of his *Short Discourse*, which was published around the same time that the government was considering implementing his plans for a Board of Health. Mead reiterated his belief in the contagiousness of plague and stressed that he did not advocate measures different than those used in France and Italy. Mead still believed that his recommended measures were necessary and trusted that people would see their benefit if plague came closer, but he now distanced himself from the political implications of their application, stating that, "how far, in every situation of affairs, it is expedient to grant the powers requisite for putting all [the measures] into practice, it is not my proper business, as a physician, to determine."[87] He also mentioned that he could not see what "extraordinary danger" there might be in "lodging powers for the proper management of people under the plague, with a Council of Health, or other Magistrates, who shall be accountable like all other Civil Officers, for their just execution of them."[88] Others evidently did.

Before the proposal for a Board of Health had even reached Parliament, rumours circulated in the London newspapers regarding the scheme. A front-page letter to the editor in the 11 November 1721 edition of the *London Journal*

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[87] Richard Mead, *A Short Discourse Concerning Pestilential Contagion and the Methods to be Used to Prevent it,* Eighth Edition (London: 1722), xiii-xiv. Eighteenth Century Collections Online.
[88] Mead, *Short Discourse,* Eighth Edition, xv.

mentioned that "people have been much alarmed of late, with the rumour of a scheme, said to be contrived for the suppressing of the plague [...] but which scheme must expose everyone's life and liberty to the mercy of officers."[89] Most alarming of all, the author wrote, "the town, if seized with that dreadful distemper, is to be divided into districts; and instead of women, men-searchers are to be appointed in each district."[90] The author decried the "barbarity and inhumanity" of the proposed plan, wherein these men would have the power to forcibly convey both healthy and sick to a lazaretto, and concluded that "a scheme so barbarous, and so destructive of their Civil Liberties, can never be received by a free people."[91] The author evidently perceived that women searchers were less threatening and more compatible with a 'free people' than male officers.

Another front-page letter to the editor published in *Applebee's Original Weekly Journal* on 3 December 1721 asserted that while accurate information regarding early cases of plague conveyed to a Commission of Health would indeed be useful, physicians, surgeons and apothecaries would not be those best suited to the role since most of reported symptoms "are the objects of common eyesight" that would be "full as soon known to a nurse, or other person."[92] The author believed that in order to prevent concealment of the disease, it was necessary that the enquirers should "give the people as little trouble and terror as can be conceived; therefore nothing extraordinary should seem to be done, but everything near as

[89] *London Journal*, 11 November 1721.
[90] *London Journal*, 11 November 1721.
[91] *London Journal*, 11 November 1721.
[92] *Applebee's Original Weekly Journal*, 3 December 1721.

possible in a common familiar way."[93] In other words, a Commission or Board of Health was a good idea, but the enquiries into potential cases of plague should be made by non-threatening, unobtrusive women searchers as had always been done. The author pointed out that physicians did not agree among themselves regarding the outward bodily signs of plague, and concluded that "elaborate and learned subtleties do, for the most part, contribute less to the public good, than observations made by plain sense on common matters of fact."[94]

I am only aware of one letter of support for the scheme, which was published in *Applebee's Original Weekly Journal* on 18 November 1721. The letter spoke of "those ridiculous legends, called Bills of Mortality," and decried that all the calculations relating to the makeup of London's population—the number of inhabitants, the increase and decrease of the population, the state of health of the city—could not be depended upon as they were taken "from the wrong foundations."[95] This, the author maintained, required immediate attention. The author described the Parish Clerks as a "drunken gang of AMEN MEN," the searchers as a "sort of old women, ignorant, negligent," and charged that "many times the clerks, who are not above half a degree better old women than the searchers, often supply the searcher's office, and put the dead down of what disease comes next in their heads."[96] According to Paula McDowell, the author of this letter (signed Tom Beadle) is likely to have been Daniel Defoe, who used very similar language in his

[93] *Applebee's Original Weekly Journal*, 3 December 1721
[94] *Applebee's Original Weekly Journal*, 3 December 1721.
[95] *Applebee's Original Weekly Journal*, 18 November 1721.
[96] *Applebee's Original Weekly Journal*, 18 November 1721.

influential *Journal of the Plague Year* (1721) published a few months later. Defoe was a known and active contributor to *Applebee's Original Weekly Journal* during the Marseille plague.[97]

Defoe's *Journal of the Plague Year*, which is widely considered to be one of the earliest examples of the novel genre, is set in London during the plague of 1665, and looked to the past in order to address contemporary fears of plague. As Will Slauter points out, first-hand accounts of the 1720 plague at Marseille could "barely approximate the chronological arc laid out so neatly in Defoe's *Journal*"—a chronological arc that was only made possible because Defoe had access to the weekly figures published in the Bills of Mortality during the 1665-1666 plague.[98] Yet the reader cannot fail but notice the narrator's concern with the accuracy of the Bills of Mortality.[99] Paula McDowell argues that a preoccupation with the reliability of the Bills, and its relationship to the trustworthiness and status afforded to the printed word, is present throughout all of Defoe's writings on plague.[100] McDowell suggests that Defoe's concern with the Bills was rooted in his belief that they were associated with an older, vulgar orality (being entirely based on the oral reports of the women searchers) and therefore could not be relied upon. McDowell argues that Defoe was deeply invested in establishing a clear line between oral rumours and printed news—that is, between what was female and subjective and what was male and authoritative.[101]

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[97] McDowell, "Defoe and the Contagion of the Oral," 98.
[98] Slauter, "WRITE UP YOUR DEAD," 12.
[99] Defoe, *A Journal of the Plague Year*, see especially 3-4, 8, 94-95.
[100] McDowell, "Defoe and the Contagion of the Oral," 92.
[101] McDowell, "Defoe and the Contagion of the Oral," 95-97.

According to Defoe, searchers' interpretations had long-term implications for the reliability of print.[102] Here was a first inkling of the tension between supposed female unreliability and the status of the Bills of Mortality as printed 'truth' which would become more strongly pronounced as the eighteenth century wore on. During the Marseille plague episode, however, Defoe was the only writer of substance to echo Mead's call for the replacement of women searchers with men. Other physicians were either silent on the matter or stated that they believed the women searchers to be well-suited to the role. Dr Peter Kennedy, for example, countered Mead's proposed changes to the Bills of Mortality by stating that signs of plague were "well enough known to the common Searchers."[103] A much enlarged edition of John Stow's *Survey of London* (1598) published by John Strype in 1720 had spoken effusively of the Bills of Mortality and of the "ingenious men who have made observations on these Bills," writing that:

> [T]o know how the City stands in regard of the health and sickness of the inhabitants, the weekly Bills of Mortality were appointed long ago, carefully and wisely; That so if any infectious diseases were found to reign, means might be used for the stopping it, and preventing the deaths of innumerable citizens.[104]

As such, the evidence suggests that at the time of the plague at Marseille, the general view of the Bills of Mortality was neutral if not positive. Despite how enduring both Mead's *Short Discourse* and Defoe's *Journal* ended up becoming, the idea of replacing women searchers with men did not seem to attract much

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[102] McDowell, "Defoe and the Contagion of the Oral," 101.
[103] Peter Kennedy, *A Second Discourse, by Way of Supplement to Dr. Kennedy's First, on Pestilence and Contagion, &c.* (London: 1721), 13-14. Eighteenth Century Collections Online.
[104] John Stow, *A Survey of the Cities of London and Westminster: Containing the Original, Antiquity, Increase, Modern Estate and Government of those Cities, edited by John Strype and enlarged by him*, Vol. 2 (London, 1720), 448. Eighteenth Century Collections Online.

support during the Marseille plague, especially as it was tied to the controversy surrounding the Quarantine Act.

3.8: Resistance and Repeal of the Quarantine Act

The Privy Council's plans to implement an advisory Commission of Health were overtaken by developments in Parliament, which was in great disarray in early December 1721 because of financial consequences from the implosion of the South Sea scheme. Critics capitalized on the crisis to leverage resistance to the Quarantine Act of February 1721, particularly those clauses most offensive to personal liberty, such as the power to remove citizens from their homes and the power to enforce *cordons sanitaires.*[105] Newspapers routinely described the brutality required to enforce the lines in France, including an episode in which soldiers fired at a desperate crowd of 1,700 people trying to break through, killing 178 and wounding 137, with a large portion of the casualties women and children.[106] Evidence of this kind of brutality hardened public opinion against the employment of similar measures in England. No sooner had the government passed the new Act (8 Geo I, c.8) that granted the King power to prohibit trade with any nation infected with plague for one year than it began to receive an influx of criticism and opposition.[107] The most influential petition, and the one which ultimately

[105] Siena, *Rotten Bodies*, 57.
[106] *Applebee's Original Weekly Journal*, 20 May 1721.
[107] Mullett, "The English Plague Scare," 489.

precipitated the repeal of some of the contentious clauses of the Quarantine Act of 1721, came from the City of London.[108]

On 6 December 1721, the Lord Mayor, Aldermen, and the Commons of London petitioned the House of Lords for a hearing because they conceived that in some clauses of the Quarantine Act, "not only the rights, privileges, and immunities, but the trade, safety, and prosperity of the City of London are highly concerned."[109] The Lords rejected the petition, but eighteen peers dissented, beginning the process that would lead to the repeal of three contentious clauses of the Quarantine Act of February 1721: 1-the forcible removal of both healthy and sick to a lazaretto, 2-the power to enforce *cordons sanitaires*, and 3-the ability to punish any resisters with the death penalty.

The dissenting peers had felt that relief for the City of London against quarantine was necessary due to the great financial losses the City had incurred with the bursting of the South Sea Bubble. They also asserted that as "the liberty of petitioning the King (much more than petitioning either House of Parliament) is the birth right of the free people of this realm," they conceived that "a

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[108] The perception that it was the rejection of the City of London petition that precipitated the repeal of the contentious clauses was repeated in the newspapers. See, for example, the *Evening Post*, 8 March 1722-10 March 1722 and 10 March 1722-13 March 1722. A history of London published in 1773 similarly contended that "the citizens of London deeming the powers of inforcing these regulations, injurious to their corporation rights, and inconsistent with the lenity of free government; a petition from the Lord Mayor, Aldermen, and Commons was presented to the House of Lords, for relief against it: but though the Lords rejected this petition, so much of the act as related to removing persons to pest houses, and to drawing lines round any infected town or city, was repealed." In John Noorthouck, *A New History of London Including Westminster and Southwark* (London: 1773), 319. British History Online.

[109] Great Britain, *Journal of the House of Lords*, vol. 21, 622; Anon., *I. Three clauses in the Quarentine Act, VII Georgi. II. The petition of the city of London to the House of Lords. III. Their Lordships protest on rejecting the said petition. And, IV. Another protest of their Lordships* (London: 1721), 2. Wellcome Library.

distinction might have been made in favour of the City of London," since the City was "the centre of credit, of the trade and money'd interest of the Kingdom, and the place with the plague, should we be visited by it, is most likely first to appear."[110] Rejecting a valid petition of this magnitude, the dissenting peers believed, would also "widen the unhappy differences that have arisen, and increase the dissatisfaction to the government."[111]

Over the following weeks, the dissenting Lords expressed doubts about the feasibility of enforcing the domestic plague mitigation measures stipulated in the Quarantine Act, especially in London. One peer estimated that even 200,000 soldiers would be insufficient to enforce a *cordon sanitaire* around the city and pointed out that in any case such an army did not exist; the dissenting peers concluded that "these methods were copied from France, a Kingdom whose pattern, in such cases, Great Britain should not follow; the Government there, being conducted by arbitrary power, and supported by standing armies; and to such a country, such methods do, in our opinion, seem more suitable."[112] The admission by the House of Lords that the powers required to enforce the domestic clauses would probably never be employed became reason why the powers should not have been made available to begin with.[113] The domestic

[110] Anon., *The petition of the city of London*, 3-4; Great Britain, *Journal of the House of Lords,* vol. 21, 622.
[111] Anon., *The petition of the city of London*, 4.
[112] Anon., *The petition of the city of London,* 5; Great Britain, *Journal of the House of Lords*, vol. 21, 629-630; Paul Slack argues that the City of London also resisted pressure to build lazarettos during the Marseille episode. See Slack, *The Impact of Plague*, 332.
[113] Great Britain, *Journal of the House of Lords*, vol. 21, 670-679.

clauses of the Quarantine Act of 1721, which had passed quickly and without controversy a year earlier, were now in serious trouble.

In January 1722 the Commons debated a Bill for the repeal of the contentious clauses which passed with a higher margin of support at each reading.[114] The ensuing Act (8 Geo I, c.10) revoked the power to remove people from their habitations and to draw lines around infected towns.[115] The plan to establish a Commission of Health and reform the Bills of Mortality fell with it. Although the new legislation repealed the contentious domestic clauses, it did not alter any of the measures concerning maritime quarantine and so opposition lingered. The government had realized that the extent of popular hostility against the Quarantine Act was tied to resentment over the South Sea Bubble fiasco, and they were eager to ensure the survival of their government. Paul Slack has argued that Whig Parliamentary leader Robert Walpole had to find a way to manage the threat of plague without giving his opponents an issue around which they could coalesce.[116] Walpole employed Edmund Gibson, Bishop of London and staunch Whig ally, to answer the government's critics and to "quiet the minds of well meaning people, who have been misled by the art and knavery of others."[117]

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[114] Great Britain, *The Journals of the House of Commons*, vol. 19, 730-731.
[115] 8 Geo I, c.10. In Great Britain, *The Statutes at Large*, vol. XIV, 380-382.
[116] Slack, *The Impact of Plague,* 332.
[117] Edmund Gibson, *The Causes of the Discontents, In Relation to the Plague, and The Provisions against It, Fairly Stated and Consider'd* (London: 1721), 4. Eighteenth Century Collections Online.

3.9: Anticontagionism

Gibson's short pamphlet, *The Causes of the Discontents, In Relation to the Plague, and The Provisions against It, Fairly Stated and Consider'd* (1721) was freely distributed throughout England and historians contend that it did much to calm opposition to the government's measures.[118] Gibson's pamphlet emphasized that the dreadfulness of plague required extraordinary methods to combat it, and he exhorted those who had suffered losses in the South Sea Scheme not to take out their frustrations on the plague measures endorsed by the government.[119] According to Gibson, the Quarantine Act's critics were assigning bad motives to the King and government even though they had previously shown no inkling towards tyranny.[120] Gibson countered those who opposed *cordons sanitaires* on the basis that they were devised by an absolutist government by asserting that the French chose the measure simply because it worked: "and because the French act agreeably to common sense," Gibson asked rhetorically, "are we to renounce it?"[121]

According to Gibson, the most harmful critics of all had been the anticontagionist physicians who had lent their medical authority to the cause against the government's plague prevention measures. For the first time, anticontagionist views that had been espoused by only a small number of physicians ended up winning wide public support, as they bolstered the

[118] Slack, *The Impact of Plague*, 332; Mullett, "The English Plague Scare," 491-492.
[119] Gibson, *The Causes of the Discontents*, 3.
[120] Gibson, *The Causes of the Discontents*, 10.
[121] Gibson, *The Causes of the Discontents*, 8.

position of those who were suspicious of the arbitrary powers of government and resentful of the harmful economic effects of maritime quarantine.[122] Several tracts attacked Mead's *Short Discourse* and denied that plague could be transmitted from person to person or through infected goods. Of these, Dr. George Pye's *A Discourse of the Plague* (1721) was by far the most influential, with his work cited in numerous petitions. Pye argued that that plague had domestic origins which depended on interactions between the local environment and personal disposition. Plague, Pye wrote, was not "always one and the same disease," and so did not "always arise from one and the same cause."[123] Espousing the medical theory that plague was simply the most extreme form of pestilential fever, he sowed doubts that plague could be conveyed through commerce. In his belief that "plague may possibly destroy a hundred thousand lives; but the loss of trade may starve and destroy ten times a hundred thousand," he articulated a position frequently reiterated by those who opposed the quarantine measures: the cure had been worse than the disease itself.[124]

Gibson answered that if those holding such opinions would trouble themselves "to read over the account of the plague at Marseilles, and observe from thence the dismal condition of things in such a state," it would then be impossible for them "to reason so wildly about it."[125] Other supporters of the

[122] Slack, *The Impact of Plague*, 330-331. It is no coincidence that most anticontagionist treatises published the Marseille plague were published anonymously.
[123] Pye, *A Discourse of the Plague*, 2.
[124] Pye, *A Discourse of the Plague*, 53.
[125] Gibson, *The Causes of the Discontents*, 11.

government's policies, such as Daniel Defoe, tended similarly to communicate their backing of the government's quarantine measures by showcasing the devastating effects of the Marseille plague. Scholars agree that bolstering government support was one of the major aims of Defoe's *Journal of the Plague Year*.[126] The graphic, anonymously composed A *Journal of what passed in the City of Marseilles* (1720), likely written by a high official at Marseille City Hall during the early months of the epidemic, was appended to eighteenth-century editions of Defoe's *Journal* for an added dose of realism. As mentioned above, Defoe was also actively involved with the publication of *Applebee's Original Weekly Journal. Applebee's* routinely related the horrors of the situation as Marseille and its editors acknowledged that although quarantine was harmful to trade, it was necessary in order to avert disaster. *Applebee's* showed no sympathy for merchants who would "risk their lives, and the lives of a whole City, nay, a whole nation for their present profit."[127]

For supporters of the government's quarantine measures, the contagiousness of the Marseille plague was self-evident. But this is not to suggest that the contagionists and anticontagionists formed a neat divide in terms of support and opposition to the government's measures. Another theory which gained ground during the Marseille plague was the idea that plague spread either through insects or pestilential atoms. Richard Blackmore's *A*

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[126] Slack, *The Impact of Plague,* 332; Zuckerman, "Plague and Contagionism in Eighteenth-Century England," 293; Margaret Healy, "Defoe's Journal and the English Plague Writing Tradition," *Literature and Medicine* 22, no. 1 (2003): 26.

[127] *Applebee's Original Weekly Journal*, 29 July 1721. See also the 6 September 1721 and 7 October 1721 editions. Richard Bradley's *The Plague at Marseilles Consider'd* (Dublin: 1720) also described the violence of the plague in order to encourage people in England take better precautions.

Discourse Upon the Plague (1721) argued that pestilential fevers arose from degrees of putrefaction. In a similar way to Pye, Blackmore believed that "fevers do not differ in nature and essence but in degree."[128] Those who espoused the theory that plague was generated from insects had used microscopes to demonstrate that new life (such as flies and maggots) tended to emerge out of putrefying matter.[129] This theory reinforced the traditional belief that plague could be generated by exposure to ditches, privies, and burial grounds. It also seemed to explain why plague tended to be transmitted through linens, and people were advised to "avoid handling any thing wherein the eggs and seeds of it may lie, such as quilts and coverings, wherein such as have had the plague have lain."[130] As such, those who conceived that plague was transmitted through insects could simultaneously believe that plague was generated locally while not discounting the potential that plague could be imported through infected goods.

3.10: Filth and Disease

The Marseille plague episode not only revived older debates regarding whether plague was endemic or imported, but also breathed new life into Renaissance models of disease transmission through stench or miasma.[131] After researching past epidemics of plague, Richard Mead had himself advanced a

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[128] Richard Blackmore, *A Discourse upon the Plague with a Preparatory Account of Malignant Fevers. In Two Parts. ... By Sir Richard Blackmore, M.D.* (London: 1721), 17-18. Eighteenth Century Collections Online.
[129] For additional examples of the insect theory, see Richard Bradley, *The Plague at Marseilles Consider'd* (Dublin: 1721), Jean-Baptiste Bertrand, *Observations on the Plague* (Lyons: 1721), and the Author of the Practical Scheme, *The Great Bill of Mortality* (Bristol: 1721).
[130] Author of the Practical Scheme, *The Great Bill of Mortality*, 4.
[131] DeLacy, *The Germ of an Idea*, 2, 148.

theory of disease transmission that was part contagionist and part miasmatic, warning that hot, moist air and the stench emitted from decaying corpses could amplify epidemics of plague.[132] Numerous other physicians re-issued old treatises while advancing their own hypotheses regarding disease prevention, transmission, symptoms, and cure.[133] One of the most popular such works was the *Collection of Very Valuable and Scarce Pieces Relating to the Last Plague* (1721). The bestselling *Collection* contained the plague orders issued by the Lord Mayor of London in 1665, medical advice from the College of Physicians, physician Nathaniel Hodge's account of the nature of plague, a chronicle of the 1656 plague at Naples, as well as reflections on the weekly Bills of Mortality.[134] Several of these works were sold for free, such as *The late dreadful plague at Marseilles compared with that of the terrible plague in London in the year 1665*, published in order that "every family may either have one of these books by them or may know where to borrow one [...] if ever this dreadful calamity should ever reach this kingdom."[135]

The plague *Orders* were not reissued since plague never came, but the advice they contained, which emphasized the link between filth and disease, had

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[132] Mead, *Short Discourse*, 3.
[133] Mullett, "The English Plague Scare," 485.
[134] The section on the Bills of Mortality mainly discussed the phenomenon of underreporting plague deaths, comparative studies of figures from previous epidemics, while stating the importance of establishing baseline mortality in non-plague years in order to determine the true number of plague mortality. The author had also used the Bills of Mortality to demonstrate that the popular seventeenth-century assertion that plagues tended to visit England every thirty to forty years, which Mead had denied in his *Short Discourse*, was true. See William Beckett, *A Collection of Very Valuable and Scarce Pieces Relating to the Last Plague in the Year 1665* (London: 1721), 54. Eighteenth Century Collections Online.
[135] Advertised in *Applebee's Original Weekly Journal*, 29 November 1720.

clearly not been forgotten. Despite its opposition to the domestic clauses stipulated in the Quarantine Act, the City of London had still attempted to mitigate environmental conditions which might allow plague to flourish in the City. In the early months of the epidemic in Marseille, the City began a street cleaning campaign which stressed the importance of removing sources of stench. In December 1720, the Middlesex Sessions of the Peace had ordered all parish officers to obey the laws regarding the paving and cleansing of the streets, being "fully satisfied that [...] keeping them clean and sweet will in some measure prevent any contagion that we may fear in this country."[136] In mid-January 1721, *Applebee's Original Weekly Journal* reported that "they have begun in all the parishes within the Bills of Mortality to put in execution the later Order made by the Bench of Justices, for clearing the streets, by way of precaution against the plague."[137] That same month, inhabitants near Newgate Market petitioned the Court of Aldermen regarding the stench emanating from the slaughterhouses there, explaining that they were "informed [...] that the Great Plague which happened in [...] 1665 began among the Slaughter Houses in

[136] Quoted in Mark Jenner, "Death, Decomposition and Dechristianisation? Public Health and Church Burial in Eighteenth-Century England," *The English Historical Review* 120, no. 487 (2005): 620; These orders of the Middlesex Sessions of the Peace regarding street cleaning provoked a petition from the inhabitants of Westminster, who complained that that the new law was "meant only to take away the jurisdiction of the Court of Westminster, and to invest a power in the justices to redress grievances, which are more easily done, to the inhabitants, by that Court which is of ancient and immemorial authority." Such opposition to a law which bypassed traditional parish responsibilities regarding the policing of nuisances strongly suggests that Mead's proposal of bypassing parish structures in his plans for a Board of Health would likely have encountered strong resistance from parish vestries had it been enacted. See *The Case of the Inhabitants of the Liberty of Westminster Against the Clauses, Proposed by the Justices of the Peace, to a Bill Now Passing, to Require Quarentine* (London: 1721), 1. Wellcome Library.

[137] *Applebee's Original Weekly Journal*, 14 January 1721.

White Chapel."[138] If the links between putrefaction and plague had not been forgotten, then neither had the suburban origins of the last English outbreak.

3.11: Suburban Graveyards

Mark Jenner has argued that the Marseille plague episode provoked a renewed and enduring anxiety about environmental conditions and burial practices in the London suburbs long before such anxiety is typically understood to have occurred.[139] Mead's *Short Discourse* had warned in no uncertain terms that "the advice to keep at a distance from the sick, is also to be understood of the dead bodies, which should be buried at as great a distance from dwelling houses, as may be; put deep in the Earth; and covered with the exactest care."[140] At precisely the time when expectations that plague would reach Britain were highest, Thomas Lewis published an influential pamphlet called *Seasonable Considerations on the Indecent and Dangerous Custom of Burying in Churches and Church-yards* (1721), which argued that the effluvia coming off living persons was the "foundation of all contagious distempers."[141] Lewis warned that the danger of infection was ever greater "when the corruption proceeds from DEAD BODIES, when the corruption is at the highest, and fatal [...] and that it is the reason the contagion spreads so violent where the

[138] Quoted in Jenner, "Death, Decomposition and Dechristianisation," 620.
[139] Widespread concerns about burial hygiene are typically only considered to have begun in the 1830s and 1840s with the implementation of Parliamentary public health inquiries into the dangers of churchyards in the London metropolitan area. See Jenner, "Death, Decomposition and Dechristianisation," 615-617.
[140] Mead, *Short Discourse*, 51.
[141] Thomas Lewis, *Seasonable Considerations on the Indecent and Dangerous Custom of Burying in Churches and Church-yards. ... Proving, That the Custom Is Not Only Contrary to the Practice of the Antients, but Fatal, in Case of Infection* (London: 1721), 50. Eighteenth Century Collections Online.

funerals of the dead are delayed," as had been the case in Marseille in the early months of the epidemic and in London in 1665.[142] While Lewis supported the Quarantine Act, he also believed that it was incumbent on the authorities in England to prevent further risks at home by legislating more hygienic burial practices.[143]

Another pamphlet on the same topic appeared around the same time, whose anonymous author praised maritime quarantine as well as the street cleaning measures, but worried that overcrowding in the suburbs posed serious dangers for the health of the metropolis.[144] The author wrote that:

> It is well known, that several out-parishes of this City and Liberties are very much straitened for room to bury their dead; and that to remedy in part that inconvenience, they dig in their church-yards, or other annexed burial places, larger holes or pits, in which they put many of the bodies of those, whose friends are not able to pay for better graves; and then those pits or holes (called the poor holes) once opened, are not covered, till filled with such dead bodies: thus it is in St. Martin's, St. James's, and St. Giles in the Fields.[145]

If the plague were to arrive from France, the author wondered, "how might the air from the stench and putrefaction of so many dead bodies as lie rotting in those holes or pits uncovered, be disposed to receive the infection, and also heighten, strengthen, and aggravate that contagion?"[146] While these pamphlets repeated familiar claims about the link between stench and plague, Mark Jenner suggests that there is evidence that their concern with decaying corpses was more intense,

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[142] Lewis, *Seasonable Considerations*, 54.
[143] Lewis, *Seasonable Considerations*, 62.
[144] Anon., *Some Customs Consider'd, Whether Prejudicial to the Health of This City; And If They Are, Whether We May Not Hope to Have Them Reformed* (London: 1721), 3-4. Eighteenth Century Collections Online.
[145] Anon., *Some Customs Consider'd*, 7.
[146] Anon., *Some Customs Consider'd*, 10.

"detailing the dangerous state of some of the capital's churchyards in a way that no seventeenth-century pamphlet ever did."[147] These concerns, furthermore, were not solely confined to print.

In 1720 the Privy Council closed the overcrowded graveyard in the large suburban parish of St Andrew Holborn, and in 1721 mounted an inquiry into those suburban burial grounds that had been a source of complaint in the two pamphlets discussed above. In October 1721, at the same time that they had consulted with Mead about instituting a Board of Health, the Privy Council considered the state of the burying places of the large parishes of the City to be of "so great consequence to the health of this town," that they requested that the Archbishop of Canterbury be consulted in order to find a solution to the problem.[148] The Archbishop summoned the ministers of the parishes in question, desiring an account of the state of the burial grounds for which they were responsible. The ministers were exhorted "to do what in them lay to prevent the inconveniency complained of in relation to the said burying places."[149] The vestry of St Giles Cripplegate, for instance, ordered that graves should be filled in every night and each corpse covered by at least two feet of earth.[150]

In 1722 a proposal to build on the site of a former plague pit in a suburban parish provoked such a serious outcry that the matter reached the House of Lords. They in turn recruited a committee of physicians, including Mead, to determine

[147] Jenner, "Death, Decomposition, and Dechristianisation," 620.
[148] PC 2/87 f.341.
[149] PC 2/87 f.342, f.351.
[150] Jenner, "Death, Decomposition, and Dechristianisation," 621.

what "danger there may be in opening ground now, where the bodies of persons were buried, who died of the plague in the years 1665 and 1666."[151] The physicians advised against it, and so the Lords ordered that "to prevent any apprehension of danger that may possibly be suspected," the builders be banned from digging up the field.[152] This concern with the dangers posed by burial grounds, initially tied to the fear of plague provoked by the Marseille epidemic, would have important long-term consequences for the compilation of the Bills of Mortality. One petition dating from the late 1740s, for instance, stated that a suburban churchyard had become so overcrowded that it was impossible to dig a grave without also digging up corpses not yet decayed. This was so offensive to the inhabitants that they had sought out private burial grounds outside their parish for interments.[153] Such practices resulted in large under-registrations of deaths in the Bills, as will be described in more detail in the following chapter.

The Marseille plague scare had other lasting consequences, too. As Paul Slack has argued, the existence of infectious diseases such as smallpox did not provoke a move towards more centralized models of public health management during the eighteenth century, despite an elevated number of deaths from such diseases being evident in the Bills of Mortality.[154] Experiments with smallpox inoculation that had coincided with the Marseille plague, performed at the request of the King and

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[151] Great Britain, *Journal of the House of Lords: Volume 22, 1722-1726* (London: His Majesty's Stationery Office, 1767-1830), 121. British History Online.
[152] Great Britain, *Journal of the House of Lords*, vol. 22, 121.
[153] Ruth Richardson, *Death, Dissection and the Destitute,* Second Edition (Chicago: Chicago University Press, 2000), 47.
[154] Slack, *From Reformation to Improvement*, 147. As will be discussed in the following chapter, physicians and social reformers concentrated their energies in the building of medical institutions, such as charitable hospitals, most of which were founded through private philanthropic efforts.

developed by leading physicians (including Mead) on the basis of calculations from the Bills of Mortality, had to be conducted on prisoners due to widespread popular resistance, and remained controversial for the rest of the eighteenth century.[155] The attempt to establish a Board of Health and reform the Bills of Mortality similarly failed as it was tied to measures deemed offensive to English liberty.

After the Marseille plague ended in 1723, physicians continued to be interested in the links between the environment and disease, but they pursued these lines of inquiry without the direction or support of the state, whose involvement was usually considered harmful to trade, local autonomy, and individual liberty.[156] Beginning in the 1730s, physicians such as Thomas Short, for instance, took great interest in figures from the Bills of Mortality in order to establish local variations in mortality. This environmental approach to disease conformed with local efforts to improve hygiene and sanitation in the suburbs.

3.12: Conclusion

The Marseille plague scare of 1720-1723 laid bare the political consequences of the fragmentation of medical thought characteristic of the period, as differences of opinion among physicians were weaponized to foment opposition against the centralized public health policies pursued by the state. Compared to the last

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[155] Andrea Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002), 48.
When the fear of plague was at its highest in late summer 1721, the newspapers reported that physicians had performed a smallpox inoculation experiment of six prisoners, all of whom recovered. Similar experiments inoculating with plague at Marseille had failed. Fearing to trample further on English sensibilities, inoculation experiments were then routinely practiced on enslaved people. The medical interest in contagion was closely linked to the relationship between British trade routes and epidemiology. See *Applebee's Original Weekly Journal*, 12 August 1721 and Stewart, "The Edge of Utility," 60-69.
[156] Slack, *From Reformation to Improvement*, 146.

outbreak of plague in 1665-1666, the Marseille panic also revealed the extent to which printed news had assumed an important new role in shaping public opinion. The controversies engendered by the proposed domestic plague management measures exemplified the challenges involved in pursuing centralized public health policies in a nation wary of government overreach and sensitive to any measures which threatened aspects of personal liberty, especially among the propertied classes. An unexpected consequence of this concern with personal liberty was that the women searchers earned support among those who deemed them to be compatible with notions of a 'free people,' adding another dimension to the complexities involved in reforming the Bills. Such challenges would impede other attempts at centralized public health or population management over the rest of the eighteenth century, including reform of the Bills of Mortality.

Chapter 4: The Bills of Mortality in the Long Eighteenth Century: The Tradition of Criticism in Context

This chapter will examine eighteenth-century criticism of the Bills of Mortality from political arithmeticians and physicians and consider it in the context of two large changes which are interrelated yet do not tend to be considered together. The first is a shift in lay-professional relations in medicine that occurred during the period between *c*. 1770 and 1820, and the second is the weakening of parish administrative structures that accelerated during these same decades, both of which are reflected in the discourse about the inadequacy of the Bills.[1]

When explaining the founding of the General Register Office in 1836, which is typically taken to have rendered the Bills of Mortality obsolete, historians tend to characterize it as a long overdue change, usually pointing to the tradition of criticism which questioned the employment of women searchers and the accuracy of the published numbers. Eighteenth-century critiques of the Bills of Mortality are, however, rarely addressed in context. This chapter will seek to appraise this tradition of criticism and will link concerns with the accuracy of the Bills of Mortality to larger changes in the practice of medicine, which in turn affected burial

[1] Roy Porter, "Lay Medical Knowledge in the Eighteenth Century: The Evidence of the Gentleman's Magazine," *Medical History* 29, no.2 (1985): 165; Mary Fissell, "The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine," in *British Medicine in an Age of Reform*, edited by Roger French and Andrew Wear (London: Royal Institution Centre for the History of Science and Technology, 1991): 92-109; N.D. Jewson, "The Disappearance of the Sick-man from Medical Cosmology, 1770–1870 * †," *International Journal of Epidemiology* 38, no. 3 (2009): 622-33; Stephan Landsman argues that this change is also reflected in the growing inclination to hear only the medical opinions of expert witnesses in the latter part of the eighteenth century, as will be described in more detail below. See Stephan Landsman, "One Hundred Years of Rectitude: Medical Witnesses at the Old Bailey, 1717-1817," *Law and History Review* 16, no. 3 (1998): 455.

[1] Peter Linebaugh, "The Tyburn Riots Against the Surgeons," in *Albion's Fatal Tree: Crime and Society in Eighteenth-Century* England, edited by Douglas Hay *et al*. (New York: Penguin Books, 1977), 69.

practices at the parish level, resulting in a massive under-registration of burials in the Bills of Mortality.[2]

This chapter will demonstrate that the founding of several large teaching hospitals and the establishment of workhouse infirmaries increased physicians' access to bodies, while at the same time fostering a hierarchical relationship between physicians and patients.[3] These changes were linked to a growing interest in the field of pathological anatomy. Consequently, from the mid-to-late eighteenth century physicians and surgeons began to show sustained professional interest in causes of death and in the establishment of standardized nosologies.[4] It is only after this point that physicians such as John Fothergill and William Black consistently foregrounded the cause of death issue in their criticisms of the Bills of Mortality. Physicians' insatiable demand for corpses—most of which were stolen from burial grounds—coupled with popular resentment directed at the anatomists for violating the personal integrity of death, increased pressure on parish churchyards and workhouse burial grounds, resulting in a strong preference for larger, privately-managed burial grounds with better security. These private burial grounds became a major cause of under-registration of burials in the London Bills of Mortality, especially from the 1770s onwards.[5] Parishes no longer had a monopoly on managing burials, a large part of what had initially made the machinery of the Bills of Mortality effective, resulting in a deterioration of the quality of the published

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[3] Linebaugh, "The Tyburn Riots Against the Surgeons," 69.
[4] Pamela J Fisher, "The Politics of Sudden Death: The Office and Role of the Coroner in England and Wales, 1726-1888," (PhD Dissertation, University of Leicester, 2007), 102 and 185
[5] Jeremy Boulton, "Traffic in Corpses and the Commodification of Burial in Georgian London," *Continuity and Change* 29, no. 2 (2014): 199.

data. As such, changes in the practice of medicine had a direct influence on the weakening of parish administrative structures, which had larger implications for the viability of the parish as a unit of local administration.

This chapter will also argue that it was the under-registration of deaths far more than the cause of death issue which attracted the attention of reformers. It will demonstrate that the criticisms of physicians and political arithmeticians intensified just as the Bills themselves were becoming less reliable. The chapter will describe how a plan to reform the Bills of Mortality and establish a national census in the 1750s failed on the basis of suspicion that it was a poorly disguised attempt to further tax and impose conscription upon the population. This resistance to attempts at establishing the direct involvement of the state in the gathering of population data made reforming Bills challenging at a time when their deficiencies were worsening and becoming more apparent. It will briefly describe how the state became much more willing to impose its authority in the aftermath of the French Revolution, so that schemes that had previously been considered too ambitious, such as the establishment of a national census, now became justifiable in the name of keeping radicalism and public disorder in check. The chapter will conclude by describing how demographic trends that had made the Bills more unreliable in the eighteenth century became completely unmanageable in the early decades of the nineteenth century as a result of rapid industrialization, causing the system of local parish administration to break down.[6]

[6] The passing of the 1836 Vital Registration Act will be considered in the Conclusion of the thesis.

4.1: Environmental Medicine on a Local Scale

As described in the previous chapter, the main obstacle to reforming the Bills of Mortality during the Marseille plague was a widely shared suspicion of any scheme which resulted in the increased intrusion of the state in private lives. The decades between 1690 and 1720 had seen a strong push towards the formation of local initiatives and voluntary associations in preference to direct intervention from the state.[7] As a result of this strong aversion to centralization (in large part due to loathing for the absolutist regimes of continental Europe), parish administration became more influential and played a leading role in promoting local initiatives in various branches of social policy, such as medical care, housing, policing, and street cleaning.[8] While the resistance to state intrusion limited the scope of action of environmental physicians and political arithmeticians, local initiatives provided them with room to manoeuvre.[9] Physicians and social reformers increasingly began to sit on parish vestries and to exercise power on a local scale. Anxieties over urbanization—such as London's consistently high mortality rate, the moral and

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[7] Robert B. Shoemaker, *The London Mob* (London: Hambledon and London, 2004), 19. One of the best-known such associations was the Society for Promoting Christian Knowledge (SPCK), which concerned itself with the moral reform of the poor. They were instrumental in leading the workhouse movement of the early eighteenth century.

[8] Lee Davison *et al.*, "Introduction: The Reactive State: English Governance and Society, 1689-1750," in *Stilling the Grumbling Hive: The Response to Social and Economic Problems in England, 1689-1750*, edited by Lee Davison *et al.* (New York: St. Martin's Press, 1992), xxxvii; Roy Porter, "Cleaning up the Great Wen: Public Health in Eighteenth-century London," *Medical History Supplement* no. 11 (1991): 63, 67.

[9] Whereas the seventeenth-century political arithmetic of Graunt and Petty had been allied to state power, that of the eighteenth century reflected a decentralized model of knowledge production that relied on correspondence networks of volunteers. Andrea Rusnock, "Biopolitics: Political Arithmetic in the Enlightenment," in *The Sciences in Enlightened Europe*, edited by William Clark, Jan Golinsky, and Simon Schaffer (Chicago: University of Chicago Press, 1991), 56-61; Zohreh Bayatrizi, "Counting the Dead and Regulating the Living: Early Modern Statistics and the Formation of the Sociological Imagination (1662–1897)," *British Journal of Sociology* 60, no. 3 (2009): 607-610.

economic condition of the urban poor, as well as the desire for better food security—drove their investigations.[10]

The interests of political arithmeticians and physicians converged in the field of environmental medicine, which sought to establish relationships of causation between the body and its environment in the generation of epidemic disease.[11] Environmental physicians established a connection between epidemic fevers and insanitary conditions, especially in enclosed spaces, and emphasized the importance of proper ventilation and hygiene.[12] This type of work was very much in line with prevalent localist and voluntarist sentiment. In order to establish medical topographies, for instance, several physicians individually kept records of fever epidemics which they correlated to weather patterns and data from the Bills of Mortality.[13] One of the best-known exemplars of this type of work was Thomas Short, an environmental physician who focused his research on local variations in mortality. In 1731, Short began a series of observations that he would sustain for nearly twenty years before publishing his results in the 1750s and 1760s. According to J.C. Riley, Short had sought to develop the first full and systematic repertoire of

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[10] Bayatrizi, "Counting the Dead and Regulating the Living," 614-615.
[11] Kevin Siena, *Rotten Bodies: Class & Contagion in 18th-Century Britain* (New Haven: Yale University Press, 2019), 35; James C. Riley, *The Eighteenth-century Campaign to Avoid Disease* (New York: St. Martin's Press, 1987), ix.
[12] John V. Pickstone, "Dearth, Dirt and Fever Epidemics: Rewriting the History of British 'Public Health', 1780-1850," in *Epidemics and Ideas: Essays on the Historical Perception of Pestilence*, edited by Terence Ranger and Paul Slack (Cambridge: Cambridge University Press, 1992), 131; Anne Hardy, "The Medical Response to Epidemic Disease During the Long Eighteenth Century," in *Epidemic Disease in London*, edited by J.A.I Champion (London: Centre for Metropolitan History, 1993), n.p. https://archives.history.ac.uk/history-in-focus/Medical/epihardy.html
[13] Porter, "Cleaning Up the Great Wen," 70. George Alter and Ann Carmichael observe that these researchers worked on similar questions but with "very little shared dialogue or shared purpose." See George C. Alter and Ann G. Carmichael, "Classifying the Dead: Toward a History of the Registration of Causes of Death," *Journal of the History of Medicine and Allied Sciences* 54, no. 2 (1999): 121.

associations between the environment (both physical and moral) and epidemic disease.[14]

In *A Comparative History of the Increase and Decrease of Mankind in England, and Several Countries Abroad* (1767), Short reflected on the quality of the data in the Bills of Mortality, and observed that while burials had increased in London overall, many were "never yet entered into the printed Bills."[15] Short concluded that this was due to "the negligence or absence of the incumbents or curates, or clerks: so that the London Bills of Mortality are now of little use, except showing the general state of health."[16] (Incidentally, Short considered the Edinburgh Bills to be of worse quality than London's and speculated that the reason for this was that "perhaps they have no searchers."[17]) Short's work indeed suffered from data quality issues, but these were not entirely due to lack of accuracy in the Bills of Mortality. In his attempt to chart all associations between the environment and disease, Short tracked such a large number of variables that it made the drawing of firm conclusions nearly impossible.[18] Despite his difficulties in demonstrating solid correlations among his variables, Short was adamant that health was affected by the environment as well as by personal disposition.[19] Environmental physicians such as

[14] Riley, *The Eighteenth-century Campaign to Avoid Disease*, 27.
[15] Thomas Short, *A Comparative History of the Increase and Decrease of Mankind in England, and Several Countries Abroad* (London: 1767), 2. Eighteenth Century Collections Online.
[16] Short, *A Comparative History*, 2.
[17] Short, *A Comparative History*, 12.
[18] Riley, *The Eighteenth-century Campaign to Avoid Disease*, 29.
[19] Health was now more than a personal responsibility—it was a marker of mortality. This type of theorising not only medicalized but further legitimized pathological conceptions of race, gender, and class. See Kevin Siena, "Pliable Bodies: The Moral Biology of Health and Disease," in *A Cultural History of the Human Body in the Enlightenment*, edited by Carole Reeves (London: Bloomsbury Academic, 2014), 40-47.

Short strongly believed that people's habitats could be modified in ways that might improve their health.[20]

In the first half of the eighteenth century, for instance, several commentators had observed that burials far outnumbered baptisms in the London Bills of Mortality and suspected that this was in large part due to a high infant mortality rate. In response to a request from Hans Sloane, President of the Royal Society, the Company of Parish Clerks decided to publish information about the age of the deceased in the weekly Bills, which was included from 1728 onward.[21] The inclusion of age of death data enabled researchers to identify variations in infant mortality based on seasonality, geography and gender. This was significant because the data suggested that the high number of deaths among infants was a product of environmental conditions that might be modified by human intervention.[22] The founding of the London Foundling Hospital in 1739 was in direct response to anxiety about high mortality among infants left exposed on London's streets.[23] In the early-to-mid eighteenth century, environmental physicians mainly spurred reform by becoming involved in volunteer-led projects such as the building of

[20] J.C. Riley asserts that three responses seemed especially promising: the elimination of standing waters (drainage), the cleansing of streets and public areas, and ventilation. See Riley, *The Eighteenth-century Campaign to Avoid* Disease, 30.
[21] James Christie, *Some Account of Parish Clerks, More Especially of the Ancient Fraternity (Bretherne and Sisterne), of S. Nicholas, Now Known as the Worshipful Company of Parish Clerks* (London: J. Vincent, 1893), 142; Will Slauter, "WRITE UP YOUR DEAD: The Bills of Mortality and the London Plague of 1665." *Media History* 17, no. 1 (2011): 8.
[22] Andrea Rusnock, "Quantifying Infant Mortality in England and France, 1750-1800," in *Body Counts: Medical Quantification in Historical and Sociological Perspective*, edited by Gérard Jorland *et al.* (Montreal & Kingston: McGill-Queen's University Press, 2005), 82.
[23]Alysa Levene, "The Estimation of Mortality at the London Foundling Hospital, 1741-99," *Population Studies* 59, no. 1 (2005): 88.

hospitals or workhouses.[24] This was linked to the belief that one of the best ways to prevent the spread of epidemic fevers was to remove individuals from their diseased environments to large, well-ventilated institutions.[25]

4.2: Medical Institution-Building

The emphasis on removing people from diseased environments and modifying building structures to ensure proper ventilation, as well as hygiene, led to spate of medical institution-building, which was mostly funded through private philanthropy. These new institutions had a profound effect on the practice of medicine. Between 1720 and 1745, five new general hospitals were founded, all of which trained their own students and began to conduct their own dissections.[26] Five lying-in hospitals were established between 1747 and 1765, as well as several dedicated fever hospitals and hospitals for sufferers of venereal disease.[27] Another important medical institution of the eighteenth century was the workhouse. Not surprisingly, workhouse-building in the first half of the eighteenth century was also

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[24] Joanna Innes, "The "Mixed-Economy of Welfare" in Early Modern England: Assessments of the Options from Hale to Malthus (c. 1683-1803)," in *Charity, Self-Interest and Welfare in the English Past*, edited by Martin Daunton (New York: St Martin's Press, 1996), 168; Adrian Wilson, "The Politics of Medical Improvement in Early Hanoverian London," in *The Medical Enlightenment of the Eighteenth Century*, edited by Andrew Cunningham and Roger French (Cambridge: Cambridge University Press, 1990), 10.

[25] Riley, *The Eighteenth-century Campaign to Avoid Disease*, 90; Porter, "Cleaning up the Great Wen," 72; Cody, "Living and Dying in Georgian London's Lying-in Hospitals," 340-341. Prisons were for this reason seen as especially dangerous locations for the generation of epidemic disease. Kevin Siena has recently argued that the prison reform movement of the second half of the eighteenth century was motivated by two notorious fever outbreaks at the Old Bailey in 1750 and 1770. See Siena, *Rotten Bodies*, 94.

[26] Hardy, "The Medical Response to Epidemic Disease During the Long Eighteenth Century," n.p.; Linebaugh, "The Tyburn Riots Against the Surgeons," 71.

[27] Lisa Forman Cody, "Living and Dying in Georgian London's Lying-in Hospitals," *Bulletin of the History of Medicine* 78, no. 2 (2004): 309.

characterized by localized, entirely voluntary initiatives.[28] After lobbying from moral reform groups such as the Society for Promoting Christian Knowledge (SPCK), the Workhouse Test Act of 1721 had authorized the private building of workhouses, while also granting parishes the right to form workhouses at their own discretion. Paul A. Fideler estimates that within a decade and a half of the Workhouse Test Act's passing, approximately 700 new workhouses had been established.[29] The workhouses operated in conjunction with the hospitals to provide medical care for London's poor.[30]

Although the SPCK had initially envisaged workhouses as a way to enforce work discipline on the able-bodied poor, they were mainly used by those who were ill, infirm, or elderly.[31] Tim Hitchcock has recently argued that popular resistance to the treatment of elderly householders, particularly those who had paid poor law rates their whole lives, led to the transformation of early eighteenth-century workhouses from sites of labour discipline to sites of social and medical care.[32] Workhouses quickly medicalized in the 1720s and 1730s and established infirmaries which became part of the city's network of charitable hospitals. By the

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[28] Tim Hitchcock, "Paupers and Preachers: The SPCK and the Parochial Workhouse Movement," in *Stilling the Grumbling Hive: The Response to Social and Economic Problems in England, 1689-1750*, edited by Lee Davison *et al*. (New York: St. Martin's Press, 1992), 146.
[29] Paul A. Fideler, *Social Welfare in Pre-Industrial England: The Old Poor Law Tradition* (Basingstoke: Palgrave Macmillan, 2006), 154.
[30] It is typically assumed that the medicalization of the workhouse was a nineteenth-century phenomenon and a product of the New Poor Law of 1834. See Kevin Siena, *Venereal Disease, Hospitals, and the Urban Poor: London's "Foul Wards," 1600-1800* (Rochester, NY: University of Rochester Press, 2004), 136.
[31] Boulton and Schwarz, "The Medicalisation of a Parish Workhouse," 123; Siena, *Venereal Disease, Hospitals, and the Urban Poor*, 146.
[32] Tim Hitchcock, "The Body in the Workhouse: Death, Burial, and Belonging in Early Eighteenth-Century St Giles in the Fields" in *Suffering and Happiness in England 1550-1850: Narratives and Representations*, edited by Michael J. Braddick and Joanna Innes (Oxford: Oxford University Press, 2017), 152.

1770s, workhouses were mainly used by those who required medical care, and parish workhouses employed medical specialists such as apothecaries, surgeons, and physicians.[33] Jeremy Boulton and Leonard Schwarz argue that in the last decades of the eighteenth century, working as a workhouse physician conferred a "worthwhile reputation," describing how when the physician for the St Martin in the Fields parish workhouse fell ill, two eminent local physicians volunteered to take his place.[34] Hospital and workhouse physicians would go on to become the elite of their profession.[35]

4.3: The Shift from Bedside Medicine to Hospital Medicine

In a 1976 article, medical sociologist Nicholas Jewson proposed a threefold division of medicine—bedside medicine, hospital medicine, and laboratory medicine—which emphasized the importance of the link between the location of medical practice and the production of medical knowledge.[36] Jewson's characterization of bedside medicine corresponds fairly closely to the seventeenth-century practice of medicine that we are familiar with from the second chapter: patients actively participated in their own diagnoses and treatments, the boundary between lay and learned knowledge of medicine was fluid, and disease defined in terms of its external and subjective manifestations rather than its internal and hidden causes.[37] Data collection for the Bills of Mortality operated within such a world, in which physicians lacked control over the production and consumption of

[33] Boulton and Schwarz, "The Medicalisation of a Parish Workhouse," 133.
[34] Boulton and Schwarz, "The Medicalisation of a Parish Workhouse," 133-134.
[35] Jewson, "The Disappearance of the Sick-man," 627-628.
[36] Jewson, "The Disappearance of the Sick-man," 623.
[37] Jewson, "The Disappearance of the Sick-man," 623-624.

medical knowledge. Mary Fissell has argued that in the era of bedside medicine, narratives of illness placed physician and patient "on near-identical hermeneutic footing."[38] By the middle of the eighteenth century, however, this middle ground was beginning to erode. The relationship between doctors and their patients changed decisively within the hospitals and workhouses, along with the production of medical knowledge.[39]

Jewson contends that in the transition from bedside to hospital medicine, physicians shifted from a person-oriented to an object-oriented cosmology.[40] That is, whereas bedside medicine had been collaborative and focused on the totality of the patient's experience of illness, hospital medicine fostered greater distance between physicians and patients. It was not just that the large size of these institutions made it easier to see patients in impersonal terms, but, in addition, many of the new hospitals required letters of recommendation for admission, which further encouraged patterns of deference.[41] Once admitted, hospital and workhouse patients had little control over the activities of the medical staff. Jewson contends that increasing the social distance between patient and physician resulted in a transformation of the production of medical knowledge as physicians became increasingly detached from the demands of the sick.[42] Access to hundreds of patients provided new opportunities for experimental medicine; it allowed physicians to devise observations of groups of patients instead of assessing patients

[38] Fissell, "The Disappearance of the Patient's Narrative," 92.
[39] Fissell, "The Disappearance of the Patient's Narrative," 93.
[40] Jewson, "The Disappearance of the Sick-man," 626.
[41] Jewson, "The Disappearance of the Sick-man," 627-628; Fissell, "The Disappearance of the Patient's Narrative," 93.
[42] Jewson, "The Disappearance of the Sick-man," 630.

in individual terms, which in turn stimulated an interest in disease classification and statistical analysis.[43] In these institutions, the patient's narrative of illness was increasingly replaced by a focus on hidden, underlying causes and post-mortem dissection. Consequently, physicians who at the turn of the eighteenth century had been generally indifferent to the medical dimensions of cause of death became increasingly interested in the corpse as an object of study.[44]

4.4: Anatomy and Burial Practice

The ensuing burst of research activity in the field of morbid anatomy led to the founding of several anatomical schools, all of which had a great demand for bodies to dissect.[45] Since the reign of Henry VIII, however, the only legal source from which to obtain bodies for dissection had been the gallows, and these bodies were reserved exclusively for members of the Company of Surgeons. Henry VIII granted the Company a maximum of four bodies per year which was then increased to six under Charles II.[46] The 1752 Murder Act made the acquisition of bodies easier by stipulating that members of the Company of Surgeons could now claim the body of any person executed for murder with the permission of a judge.[47] This caused a great deal of popular opposition, which was manifested in violent riots at the

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[43] Ulrich Trohler, "Quantifying Experience and Beating Biases: A New Culture in Eighteenth-Century British Medicine," in *Body Counts: Medical Quantification in Historical and Sociological Perspective*, edited by Gérard Jorland *et al.* (Montreal & Kingston: McGill-Queen's University Press, 2005), 42-44.
[44] Pickstone, "Dearth, Dirt, and Fever Epidemics," 141; Pamela Fisher's study of the eighteenth-century coronership supports the contention that physicians were mostly indifferent to cause of death until the late eighteenth century. See Fisher, "The Politics of Sudden Death," 102.
[45] Fissell, "The Disappearance of the Patient's Narrative," 93; Ruth Richardson, "Popular Beliefs about the Dead Body," in *A Cultural History of the Human Body in the Enlightenment*, edited by Carole Reeves (London: Bloomsbury Academic, 2014), 103.
[46] Ruth Richardson, *Death, Dissection and the Destitute,* Second Edition (Chicago: Chicago University Press, 2000), 32.
[47] Richardson, *Death, Dissection and the Destitute*, 36; Richardson, "Popular Beliefs about the Dead Body," 99.

Tyburn gallows as protesters and family members attempted to retrieve the bodies of executed felons in order to ensure them a decent burial. [48] According to Ruth Richardson, dissection was recognized in law as a form of ritual punishment precisely because it violated so many taboos: it was a fate worse than death, one which denied all hopes of corporeal resurrection.[49] William Hogarth represented this public revulsion at anatomical dissection in a famous engraving from his *Four Stages of Cruelty* (1751) series, in which the final state of cruelty depicts a body taken from the gallows and dissected by surgeons in an anatomical theatre.

Figure 4.1: *The Reward of Cruelty*. Etching by William Hogarth, 1751.
Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

[48] Linebaugh, "The Tyburn Riots Against the Surgeons," 69.
[49] Richardson, *Death, Dissection and the Destitute*, 76.

As the Company of Surgeons had a monopoly on the legal acquisition of bodies for dissection, the newly founded anatomy schools had to fend for themselves. Peter Linebaugh contends that the private teaching schools and hospitals of London illegally procured thousands of bodies in support of their research activities.[50] The bodies obtained by the anatomy schools often belonged to those on the margins of society, usually the very poor, and had to be acquired by grave robbing.[51] William Hunter's celebrated atlas of the gravid uterus, published in 1774, for example, featured the bodies of fourteen women who died in childbirth, all of which were stolen.[52] The most common targets for grave robbers were the large burial pits in the suburban parishes as well as the workhouse graveyards.[53] Ruth Richardson has found evidence to suggest that an illicit process of appropriation of the bodies of the dead hospital poor was widely adopted (hospitals operated their own graveyards), and that in many instances parish sextons cooperated directly with bodysnatchers for a fee.[54] Richardson further argues that there is a direct link between the growth of anatomy and the growth of the profession of undertaker from the 1720s onwards; she maintains that there is little doubt that undertakers benefited from public fears of post-mortem theft.[55]

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[50] Linebaugh, "The Tyburn Riots Against the Surgeons," 70.
[51] David Harley, "Political Post-mortems and Morbid Anatomy in Seventeenth-century England," *Social History of Medicine* 7, no. 1 (1994): 28.
[52] Richardson, "Popular Beliefs About the Dead Body," 102-103. The original cases of the women's bodies, with their babies still in the womb, are preserved at the Hunterian Museum in Glasgow.
[53] Richardson, *Death, Dissection and the Destitute,* 60. The parish graveyard of St Giles in the Fields was especially notorious for this.
[54] Richardson, *Death, Dissection and the Destitute*, 80, 104.
[55] Richardson, *Death, Dissection and the Destitute*, 272.

Figure 4.2: William Hunter (1718-1783) in his museum in Windmill Street on the day of resurrection, surrounded by skeletons and bodies, some of whom are searching for their missing parts. Engraving, 1782. Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

Indeed, as fears mounted over post-mortem bodysnatching, people paid greater attention to the security of the place of burial, resulting in a strong preference for private burial grounds.[56] This link between the development of anatomy and the commodification of burial practices is not one that is typically emphasized in the literature on the eighteenth-century Bills of Mortality, even though these changes in burial practices in the suburban parishes would have a direct impact on the quality of the data published in the Bills.[57]

[56] Richardson, *Death, Dissection and the Destitute*, 107; Julie Rugg, "A New Burial Form and its Meaning: Cemetery Establishment in the First Half of the Nineteenth Century," in *Grave Concerns: Death and Burial in England 1700 to 1850*, edited by Margaret Cox (Walmgate, York: Council for British Archaeology, 1998), 48.

[57] It is also important to note that private burial grounds became popular because they were less crowded and therefore perceived to be more salubrious, a concern which was a legacy of the

4.5: Under-Registration in the Bills of Mortality

Jeremy Boulton and Leonard Schwarz contend that there was a close concordance between parish registers and the Bills of Mortality until the 1760s, then a growing disparity from the 1770s until the 1830s. They maintain that this disparity can in large part be explained by the growing popularity of burial grounds located outside the limits of the Bills of Mortality.[58] In a separate microstudy of the large suburban parish of St Martin in the Fields, Boulton estimated that between 10 and 20 percent of corpses were exported from the parish for burial elsewhere in any given year.[59] Boulton found that the exportation of burials increased exponentially after the opening of a cheap, clandestine burial site at St Anne Soho, and that most of the 33,000 extra-parochial burials in this graveyard were not returned in the Bills of Mortality.[60] Boulton and Schwarz estimate that, solely as a result of clandestine burial at St Anne Soho, one burial in twenty *from the entire London area* was omitted from the Bills of Mortality for a number of years between the 1750s and 1770s.[61] The parish clerk of St Anne Soho had ignored the rules and reported only a fraction of the thousands of burials imported in the parish.[62]

Marseille plague. In both instances, people shifted their burial practices for reasons that were tied to the practice of medicine.

[58] Jeremy Boulton and Leonard Schwarz, "Yet Another Inquiry into the Trustworthiness of Eighteenth-Century London's Bills of Mortality," in *Local Population Studies* 85 (2010): 35.

[59] Boulton, "Traffic in Corpses," 188-189.

[60] Boulton, "Traffic in Corpses," 199.

[61] Boulton and Schwarz, "Yet Another Inquiry," 41-43. As Boulton and Schwarz's article is one of the rare studies chronicling the flow of corpses in eighteenth-century London and mainly centres on the activities of one burial ground, the authors believe the total percentage of omitted burials is likely to have been much higher.

[62] Boulton and Schwarz, "Yet Another Inquiry," 44. The Company of Parish Clerks had attempted to rectify the omission of data that resulted from people dying in one parish but being buried in another. In the 1690s, the Company instituted a system of burial certification to ensure that this flow of corpses was reflected in the published numbers. The system was designed to ensure that the parish which received the body for interment reported the death to the Parish Clerks' Hall. See

One of the first eighteenth-century commenters to point out the growing problem of under-registration in the Bills of Mortality was London historian William Maitland. In his popular *History and Survey of London* (1739), Maitland was the first to calculate an estimate of annual burial omissions from cemeteries within the bounds of the Bills of Mortality, which he claimed totaled 3,038 burials at a minimum.[63] This number did not include those carried outside the city for burial. Maitland added that:

> Notwithstanding this great number of burials not taken notice of in the Bills of Mortality, I am persuaded there die annually a considerable number more. [...] And besides those interred in the cemeteries above mentioned, I have for divers years observed that the number of persons carried from London to be inhumed in other parts of the country is greater than that of those brought from all other places in the kingdom to be buried in this City and Suburbs.[64]

Another history of London published more than three decades later repeated all the same defects that Maitland had outlined.[65]

Mid-century critics of the Bills of Mortality tended to focus on the problem of under-registration and emphasized the same key issues: the Bills omitted burial grounds not under the authority of an Anglican parish priest; consequently, burials of Dissenters, Quakers, Catholics, and Jews were not included; neither were burials at the newly founded hospitals and workhouses, or other institutions such as prisons; the Bills did not include some of the rapidly growing parishes in the

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Reginald H. Adams, *The Parish Clerks of London: A History of the Worshipful Company of Parish Clerks of London* (London: Phillimore, 1971), 59.

[63] William Maitland, *The History and Survey of London from Its Foundation to the Present Time. In Two Volumes,* 3rd edition, Volume 2 (London: 1760), 742. Eighteenth Century Collections Online. This figure was quoted by several political arithmeticians who called for reform of the Bills of Mortality.

[64] Maitland, *The History and Survey of London*, 742.

[65] John Noorthouck, *A New History of London Including Westminster and Southwark* (London: 1773), 523. British History Online.

suburbs, especially in the west and south; they omitted the burials of those who were carried away for burial to an area outside the Bills; and, as we saw in the case of St Anne Soho, sometimes burials were not reported due to lack of compliance from certain clerks, particularly in the large suburban parishes outside the authority of the Company of Parish Clerks.[66]

On 29 January 1765, the *Gazetteer and New Daily Advertiser* published a letter from an anonymous former master of the Company of Parish Clerks, who expressed indignation at attacks against the Company when it had worked very hard to compile accurate returns. The master was aware of the clandestine burials at St Anne Soho, writing that when he was master of the Company, "many weeks we had no returns from thence. [...] the deputy Clerk not being one of our body, could not be fined."[67] The master argued that the Company needed greater power to punish delinquent clerks, especially in the large suburban parishes. A response letter published two days later detailed how the author had spent some time discussing the issue with his parish clerk from one of the small, close-knit parishes within the Roman walls. The author related how his clerk had mentioned that a great quantity of corpses was now being carried out of town, "and to other places, which are not in the Bills."[68] The author wished that the Company would take greater steps to ensure that all clerks complied with the directives regarding the tracking of extra-parochial burials, and warned that "if the above Company will not

[66] Maitland, *The History and Survey of London*, 742; William Ogle, "An Inquiry into the Trustworthiness of the Old Bills of Mortality," *Journal of the Royal Statistical Society* 55, no. 3 (1892): 447-449; Boulton and Schwarz, "Yet Another Inquiry, 30-33.
[67] *Gazetteer and New Daily Advertiser*, 29 January 1765.
[68] *Gazetteer and New Daily Advertiser*, 31 January 1765.

relieve the public from the above complaint, the parishioners of the several parishes in the Bills of Mortality have it in their power to do it; that is, by taking no Yearly Bills of such persons as are not regular with their reports."[69]

The Company of Parish Clerks had on multiple occasions attempted to enforce greater compliance. As we saw in Chapter 2, in the seventeenth century the Company had petitioned the Privy Council on numerous occasions regarding the Company's lack of means of ensuring the accuracy of returns from the outer suburbs.[70] In 1735 and 1736, the Company petitioned Parliament for authority to register deaths instead of burials, but the petition went nowhere.[71] It was in addition becoming increasingly difficult for the clerks to keep track of all the bodies that passed in and out of the suburban parishes. At least eighteen of London's suburban parishes had populations in excess of 10,000, making each parish vestry responsible for a population equivalent to the largest cities in England outside London.[72] In 1751, the Parish Clerks drafted a parliamentary Bill approved by the

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[69] *Gazetteer and New Daily Advertiser*, 31 January 1765.

[70] For example: SP 16/299 f.130; SP 18/153 f.152; PC 2/55 f.1; SP 29/107 f.141. It is not entirely clear why the Clerks were not successful in extending their powers of compulsion to clerks outside the jurisdiction of the City of London. It is likely to do with the corporation rights of City companies.

[71] David V. Glass, *Numbering the People: The Eighteenth-century Population Controversy and the Development of Census and Vital Statistics in Britain* (Farnborough: D. C. Heath, 1973), 15. This was due to opposition from the clergy.

[72] Tim Hitchcock and Robert Shoemaker, *London Lives: Poverty, Crime and the Making of a Modern City, 1690-1800* (Cambridge: Cambridge University Press, 2015), 83-85; Hitchcock, "The Body in the Workhouse," 151-152. By the 1730s, all suburban parishes were administered by closed vestries rather than open vestries. In an open vestry, any rate-paying resident had the right to attend the sessions and vestry membership rotated among rate-paying residents. Large parochial populations in the tens of thousands made this model of local government difficult to sustain. While closed vestries were a pragmatic solution to overpopulation, they caused some controversy as their functioning limited oversight and favoured corruption, which many tried to expose. (See, for example, Daniel Defoe, *Parochial Tyranny: or, the house-keeper's complaint against the insupportable exactions, and partial assessments of select vestries, &c.* (1727).) Positions on select vestries typically went to powerful residents, such as physicians and justices of the peace, and created self-perpetuating oligarchies. The oligarchy of the parish was even reflected in the structure of the Company of Parish Clerks: in the eighteenth century, clerkships became a family affair, with lists of

whole Company, which acknowledged that "the Bills [of Mortality] are very defective, and cannot be made perfect without bringing to account all births and deaths."[73] The Bill proposed making it compulsory for all parents to notify the Company of the birth of a child; for undertakers to report deaths before the corpse was placed in a coffin; "to oblige clerks of exempt places, hospitals and infirmaries, to send their accounts of births and deaths"; and requested power to oblige all clerks to become members of the Company and to send in weekly returns on pain of a fine.[74] The Bill reached its second parliamentary reading despite objections from the clergy, but was withdrawn in favour of a National Registration Bill which proposed reforming the Bills of Mortality through the institution of a national census.[75] The National Registration Bill was the culmination of several years of agitation on the part of political arithmeticians.

4.6: Attempts at Reform in the 1750s

One of the biggest issues confronting political arithmeticians and environmental physicians in the first half of the eighteenth century had been the gathering of reliable data.[76] The Bills of Mortality remained a major source for research undertaken in these fields, and much of this work depended upon

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Company members showing that son often followed father in office. Wanda Henry maintains that, similarly, eighteenth-century searchers were typically relatives of parish workers chosen from "dynasties of parish servants." See Adams, *The Parish Clerks of London*, 75 and Wanda S. Henry, "Women Searchers of the Dead in Eighteenth- and Nineteenth-century London," *Social History of Medicine* 29, no. 3 (2016): 446, 458.

[73] Worshipful Company of Parish Clerks, *The Contents of a Bill to Enable the Company of Parish Clerks to Correct and Enlarge Their Bills of Mortality* (London: 1751), 1. Early English Books Online.

[74] Worshipful Company of Parish Clerks, *The Contents of a Bill*, 1.

[75] Glass, *Numbering the People*, 15.

[76] Rusnock, "Biopolitcs: Political Arithmetic in the Enlightenment," 57-58; Andrea Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002), 215.

consistent and reliable collection of numerical information. These researchers' interest in devising life expectancy tables for the purposes of calculating annuities, for instance, required that they possess information about the age and sex structure of the population.[77] In 1751, possibly in response to the introduction of the Parish Clerks' parliamentary Bill, commissioner of customs and economic writer Corbyn Morris published his *Observations on the Past Growth and Present State of the City of London*, in which he expressed concern about the high mortality rate in London, especially among young adults who moved to London from the country. Corbyn maintained that it was necessary to establish the ages at which people died of certain diseases in order to establish life tables detailing the likelihood of dying of such diseases at any given age. Corbyn argued that this "would give a faithful representation of the state of national health, and of the annual increase or diminution of the people."[78]

Corbyn's pamphlet advocated a reform of the Bills of Mortality so that the searchers and clerks employed a standardized death certificate which specified not only the cause of death but also the age at death. Corbyn believed that this type of knowledge would be useful to "the gentlemen of every province of the kingdom," who should consult the Bills of Mortality "to observe the progress of [London's] annual waste, and consequently of its annual drain from the country."[79] Soon after, mathematician James Dodson published a letter in the Royal Society's *Philosophical*

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[77] Riley, *The Eighteenth-century Campaign to Avoid Disease*, 61; Peter Buck, "People Who Counted: Political Arithmetic in the Eighteenth Century," *Isis* 73, no. 1 (1982): 28.
[78] Corbyn Morris, *Observations on the Past Growth and Present State of the City of London* (London: 1751), 5. Eighteenth Century Collections Online.
[79] Morris, *Observations on the Past Growth,* 16.

Transactions applauding Morris's proposals. Dodson argued that property relations ought to be based upon the kinds of life tables proposed by Morris, writing that "we shall find the values of the possessions and reversions of much of the greatest part of the real estates in these kingdoms, will, one way or other, depend on the value of lives."[80] Dodson suggested that Corbyn's proposed death certificates should also include a section distinguishing whether the deceased had been born in London or elsewhere. Dodson believed that this would be "effected with very little trouble, if the searchers of each parish be instructed to ask the question of the friends and family of the deceased, and annex the answer to their report."[81]

In 1752, London magistrate and social reformer John Fielding proposed a plan for a universal register office, and in 1753 a Bill was introduced in Parliament for establishing a national census, which replaced the Bill which had been drafted by the Company of Parish Clerks in 1751.[82] It included many of the same provisions, such as the requirement that all previously exempted institutions and precincts be required to submit reports for publication of the weekly Bills of Mortality, and that every clerk within the jurisdiction of the Bills of Mortality would be required to send in a weekly return.[83] Any clerk or reporting authority neglecting to submit reports could be summoned by a justice of the peace.[84] The Clerks had worked with the new

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[80] James Dodson, "A Letter from Mr. James Dodson to Mr. John Robertson, F. R. S. concerning an Improvement of the Bills of Mortality," *Philosophical Transactions* (1683-1775) 47 (1751): 334.
[81] Dodson, "A Letter from Mr. James Dodson to Mr. John Robertson," 339.
[82] Rusnock, *Vital Accounts*, 183-184.
[83] *A Bill, with the Amendments, for Taking and Registering an annual Account of the total Number of People, and the total Number of Marriages, Births, and Deaths; and also the total Number of Poor receiving Alms from every Parish, and extraparochial Place, in Great Britain* (1753), in *The Development of Population Statistics,* edited and with an introduction by David V. Glass (Westmead, U.K.: Gregg International Publishers, 1973), 6-7.
[84] *A Bill, with the Amendments* (1753), 10.

Bill's drafters to ensure that they would keep their role in producing the Bills of Mortality, and accepted Morris and Dodson's suggestion of the introduction of standardized certificates for burials.[85] The Bill for Taking and Registering an Annual Account of the Total Number of People (1753) proposed that the primary responsibility for implementing the national census provision of the Act would lay with the overseers of the poor and the clergy of each parish, who, once every year in June, would be required to perform house-to-house surveys of the number of inhabitants.[86] The implementation of the Act would have been very much rooted in existing local structures of power and authority, but it never passed. It is instead remembered for the fierce debate it provoked in Parliament.

Why would a reform Bill rooted in the existing power structures of the parish evoke so much opposition? Most of the opposition was based on the requirement that copies of the clergy's registry books be delivered to the Commissioners of Trade and Plantations, with the provision that such copies could be admitted as evidence in all courts of law and equity.[87] This would have extended the power of the Board of Trade into people's homes. An anonymous writer published a letter he had sent his MP regarding the Bill, assuring him that "people would hardly submit to the overseer or enquirer going into every room of their home," and perceived that this was a scheme to determine "how many people may be taken out of every parish for sea or land service, [and] how many may be taken for the plantations."[88] The author

[85] *A Bill, with the Amendments* (1753), 11.
[86] *A Bill, with the Amendments* (1753), 2.
[87] *A Bill, with the Amendments* (1753), 11-12, 19.
[88] Anon., *A Letter to a Member of Parliament, on the Registering and Numbering the People of Great Britain* (1753), in *The Development of Population Statistics,* edited and with an introduction by David V. Glass (Westmead, U.K.: Gregg International Publishers, 1973), 5-6, 8.

maintained that the Board of Trade should not be given the means to turn the poor into the "king's chattels."[89] Others opposed the Bill on the basis that the number of the population was an important state secret that they could not risk becoming known to Britain's enemies.[90]

The most widely publicized opposition to the Bill came from parliamentarian William Thornton, whose lengthy attack was published in its entirely in the *Gentleman's Magazine.* Thornton doubted the motives of those who drafted the Bill and could not conceive that they would "molest and perplex every single family in the kingdom," merely to "determine any questions in political arithmetic."[91] Granting that some "good purpose may be answered by the knowledge of our numbers," why, Thornton asked, "is it to be returned to the board of trade?"[92] Thornton deemed the scheme to be "totally subversive to the last remnants of English liberty," and promised that he would refuse entry to any officer demanding to know the number of residents in his household.[93] Thornton argued that the scheme for numbering the people was rooted in "the jargon of France," and likened it to the measures enacted in the Quarantine Act of 1721, stating that "to talk in a British House of Commons of establishing a Lazarette and a Police is an insult."[94] He warned that anyone supporting the Bill would soon find themselves treated in the

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[89] Anon., *A Letter to a Member of Parliament, on the Registering and Numbering the People of Great Britain* (1753), 18.
[90] John M. Eyler, *Victorian Social Medicine: The Ideas and Methods of William Farr* (Baltimore: Johns Hopkins University Press, 1979), 39.
[91] "On the Motion for a Bill to take an annual Account or Register of the People," *Gentleman's Magazine*, 1753 (23): 500. Google Books.
[92] "On the Motion for a Bill to take an annual Account or Register of the People," 500.
[93] "On the Motion for a Bill to take an annual Account or Register of the People," 500-501.
[94] "On the Motion for a Bill to take an annual Account or Register of the People," 501.

same way that the French King treated his vassals: taxed to the extreme with no oversight. "What assurance can be obtained," Thornton wondered, "that our own tax masters will be more gentle than the French, when they have the same temptations to be severe?"[95]

Thornton had not objected to the provisions which would have improved the Bills of Mortality and agreed that the parish registers were very defective, but he believed that the same purpose could be "obtained upon more reasonable terms"—that is, without being linked to the establishment of a census.[96] As Peter Buck argues, people expected statistical enquiries to be pursued by private individuals acting on their own account, "reflecting the tendency for all manner of government functions to be appropriated by local ruling elites."[97] It is possible that if the Bill for improving the accuracy of the Bills of Mortality had not become attached to the proposal for a census that it would have passed, especially as it proposed reforming the Bills of Mortality from within and did not include any provisions for replacing the women searchers with state officers. It is, in any case, the closest the Bills came to substantial reform during the eighteenth century. In 1758 and 1771, two other Registration Bills were proposed which would have obliged parishes to keep accurate registers of births, marriages and deaths, copies of which would have been sent to a national registry, but both Bills lapsed at the end of their respective Parliamentary sessions.[98]

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[95] "On the Motion for a Bill to take an annual Account or Register of the People," 501.
[96] "On the Motion for a Bill to take an annual Account or Register of the People," 502.
[97] Buck, "People Who Counted," 35.
[98] *A Bill With the Amendments For Obliging all Parishes in this Kingdom to keep proper Registers of Births, Deaths, and Marriages; and for Raising therefrom a Fund towards the Support of the Hospital for the Maintenance and Education of Exposed and Deserted young Children* (1758), in *The Development of*

Although the 1753 National Registration Bill failed, it renewed interest in the London Bills of Mortality and provoked a resurgence in the field of political arithmetic, albeit of a more local bent.[99] In 1758, Thomas Birch, secretary of the Royal Society, published a collection of yearly Bills of Mortality from 1657 through 1758, together with a reprint of John Graunt's *Natural and Political Observations upon the Bills of Mortality* (1662), a few of William Petty's treatises on political arithmetic, as well as Corbyn Morris's 1751 pamphlet. Birch's publication made it much easier for arithmeticians throughout England to analyse the Bills of Mortality.[100]

In his preface, Birch noted that a "register of the births, diseases, and deaths among any considerable number of people will easily afford much useful information to philosophers in general, as well as to statesmen and physicians."[101] Birch listed the familiar reasons why the Bills were defective, all of which related to the issue of under-registration.[102] As for the searchers, Birch acknowledged that the "low capacity of the person usually chosen into the office has been made an objection to the truth and justness of the Bills," but maintained that "with regard to natural deaths, there seems no other capacity necessary in these searchers, than

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Population Statistics, edited and with an introduction by David V. Glass (Westmead, U.K.: Gregg International Publishers, 1973), 13-14; A. Young, *Proposals to the Legislature for Numbering the People. Containing Some Observations on the Population of Great Britain, and a Sketch of the Advantages that Would Probably Accrue from an Exact Knowledge of its Present State* (1771), in *The Development of Population Statistics,* edited and with an introduction by David V. Glass (Westmead, U.K.: Gregg International Publishers, 1973), 1-45; Glass, *Numbering the People*, 20.

[99] Buck, "People Who Counted," 36. Buck contends that after the defeat of the two Registration Bills, political arithmetic became a field pursued almost solely by Dissenters who sought to distance themselves from schemes which would have provided additional powers to the state.

[100] Rusnock, *Vital Accounts*, 188.

[101] Thomas Birch, *Collection of Yearly Bills of Mortality, from 1657 to 1758 Inclusive* (London: 1759), 3. ULAN Press Reprint.

[102] Birch, *Collection of Yearly Bills of Mortality*, 6.

that of relating what they hear."[103] Even the "wisest person in the parish would be able to find out very few distempers from a bare inspection of the dead body, and could only bring back such an account, as the family and friends of the deceased would be pleased to give."[104] The bulk of the criticism levied against the Bills of Mortality in the mid-eighteenth century evidently centered upon under-registration rather than cause of death, though physicians would soon become concerned with the searchers as a result of their newfound interest in anatomy and disease classification.

4.7: The Eighteenth-Century Searchers of the Dead

As previously discussed in the introductory chapter, until recently most scholarly representations of the searchers had been mediated through the words of physicians, who had a vested interest in elevating the status of their own knowledge over that of the searchers. Sources on the searchers are fragmentary, and consequently, little is known about them in the post-plague era. There are only two published studies on eighteenth-century searchers, which come to different conclusions as to why they were eventually supplanted by the men of the General Register Office. Kevin Siena's 2011 book chapter contends that professionalization among male medical practitioners caused the elimination of women searchers in a competition that paralleled a similar rivalry with midwives.[105] Wanda Henry's 2016 article offers an alternative explanation by examining the politics of the parish.

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[103] Birch, *Collection of Yearly Bills of Mortality*, 7.
[104] Birch, *Collection of Yearly Bills of Mortality*, 7.
[105] Kevin Siena, "Searchers of the Dead in Long Eighteenth-Century London," in *Worth and Repute: Valuing Gender in Late Medieval and Early Modern Europe*, edited by Kim Kippen and Lori Woods (Toronto: Centre for Reformation and Renaissance Studies, 2011), 133-137.

Henry argues that the searchers were not supplanted because there was the desire to replace them with medical men, emphasising instead the declining involvement of the parish in the management of burials in the city.[106] Henry rightly stresses the importance of people's growing preference for newly created cemeteries instead of the parish graveyards, but does not discuss how developments in the practice of medicine had a direct effect on these burial preferences.

Although they disagree on why the office of searcher was abolished, the research of both Siena and Henry has revealed the importance of eighteenth-century searchers as parish officers.[107] They both contend that the searcher's role evolved beyond its initial iteration as a first line of defence in the detection of plague to become instead a first line of defence in the detection of murder: in addition to swearing that they would not hide any pestilence, eighteenth-century searchers swore oaths on appointment stating that they would not hide any suspected homicide.[108] The requirement that no one be buried without a searcher's report stating that the person died of natural causes was widely considered to be useful for preventing the concealment of suspicious deaths.[109] In the opinion of one physician, this requirement might even have been enough to dissuade some from committing homicide altogether. After a spate of suspected poisonings resulted in a push to

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[106] Henry, "Women Searchers of the Dead," 448.
[107] Searchers were charged with enforcing the Wool Acts of 1666 and 1678, which required corpses to be shrouded in wool for burial. Siena uncovered evidence of searchers in the 1730s who lost their appointments when found to be lax in enforcing the law, while Henry discovered that after the passing of Hardwicke's Marriage Act of 1754, which required the signatures of two witnesses at weddings, that approximately one third of searchers and sextonesses regularly signed their names in the parish register. See Siena, "Searchers of the Dead," 142 and Henry, "Women Searchers of the Dead," 454.
[108] Henry, "Women Searchers of the Dead," 455.
[109] Siena, "Searchers of the Dead," 140.

better regulate the apothecaries' trade, this physician published a letter in the *Gazetteer and New Daily Advertiser* placing the plan for regulating the apothecaries alongside other laws and customs that had been enacted to prevent loss of life, such as the appointment of searchers of the dead and Coroner's Inquests, which had been "productive of infinite good, and saved the lives of millions, who might otherwise have perished."[110]

Indeed, simply refusing to notify a searcher of a death could lead to suspicion of murder and to the exhumation of the body. In the 1715 trial of Elizabeth Flood, for instance, the report stated that the victim "being dead, the Prisoner refused to bury her as the deceased had desired, or that the Searchers should visit her body. That being buried privately, she was taken up 12 days after by order of the Coroner."[111] In 1773, *The Public Advertiser* related how a husband's refusal to let the searchers in to see the body of his deceased wife, whom he had allegedly murdered, led to a Coroner's Inquest and resulted in public scandal.[112] In another trial, a searcher mentioned how the family of a deceased child seemed determined to prevent her from taking a good look at the body, describing how she had "called for more light," but they had only "opened the shutter a little more." Following neighbourhood rumours that the child had been murdered, the searcher returned a few hours later to take another look. The court examiner was curious to know whether the mother had appeared to be "in any particular haste to have the body

[110] *Gazetteer and New Daily Advertiser*, 17 January 1772.
[111] *Old Bailey Proceedings Online* [*OBP*] (www.oldbaileyonline.org, version 8.0, 19 February 2020), December 1715, trial of Elizabeth Flood (t17151207-14).
[112] *The Public Advertiser*, 14 October 1773.

buried."[113] Even as late as 1818, when the parish burial system was becoming increasingly unworkable, it was still assumed that undertakers would work in conjunction with searchers before proceeding with interment.[114]

Searchers, then, were clearly expected to recognize the visual differences between natural and violent deaths in a way not altogether different than what was expected of the Coroner. In one trial, a searcher detailed how a young woman could not have died of convulsions, as her mother claimed, "because her nails were white and clear," insisting that convulsions caused the nails to turn black. The searchers had also noticed that there had been "a place on the floor where the deceased first lay, that was mopped up and seemed to be bloody."[115] If the searchers suspected a murder, they were expected to call upon the Coroner, who might trigger an inquest into the death. The coronership was held by laymen until the appointment of the first medical coroner in 1840. From the 1780s to the 1830s, however, there had been increasing acceptance that coroners should have specialized medical training.[116]

Stephen Landsman argues that in the course of the century between 1717 and 1817, there was a perceptible increase in the authority ascribed to medical evidence in criminal trials.[117] Landsman maintains that until the late 1760s and early 1770s, it was not uncommon to find trials where lay witnesses were called upon to give testimonies upon cause of death that would seem to have required

[113] *OBP*, December 1766, trial of Jane Collins (t17661217-5).
[114] *OBP*, February 1818, trial of David Evans (t18180218-37).
[115] *OBP*, October 1735, trial of Margaret Hambleton (t17351015-5).
[116] Fisher, "The Politics of Sudden Death," 93-94.
[117] Landsman, "One Hundred Years of Rectitude," 449.

medical expertise.[118]After the 1760s, however, Landsman finds a growing inclination to hear only the medical opinions of medical practitioners.[119] It is at this time that demand began to grow for precise information about the stated cause of mortality in Coroner's Inquests beyond the concern with broad categorizations of criminality.[120] The timing of this concern with cause of death in Coroner's Inquests is significant because it corresponds exactly to the timing of when physicians began to take an interest in the cause of death data published in the Bills of Mortality.

4.8: Medical Professionalization and Cause of Death

In 1768, eminent physician John Fothergill published some reflections on the Bills of Mortality which he had delivered in an address to the Medical Society of London earlier that year. Fothergill expressed support for the reforms of the Bills proposed in 1753 and 1758, and regretted that they had been introduced alongside centralized registration schemes, which, in his opinion, "totally overthrew the design, and was the principal cause of its being rejected by a great majority."[121] Fothergill knew "of nothing that would more effectually conduce to state the different degrees of healthiness and unhealthiness in the different parts of this nation so clearly, as a proper Bill of Mortality."[122] Unlike earlier reformers, Fothergill stressed that "these bills are framed from the reports of common searchers, appointed to view the dead bodies, in order to prevent the concealment

[118] Landsman, "One Hundred Years of Rectitude," 454.
[119] Landsman, "One Hundred Years of Rectitude," 455
[120] Fisher, "The Politics of Sudden Death," 5.
[121] John Fothergill, "Some Remarks on the Bills of Mortality in London; with an Account of a Late Attempts to Establish an Annual Bills for this Nation," (1768), in *The Works of John Fothergill,* M.D., edited by John Coakley Lettsom, Volume 2 (London: 1783), 109-110. HathiTrust Digital Library.
[122] Fothergill, "Some Remarks on the Bills of Mortality," 110.

of violence," and argued that the searchers were "for the most part, ignorant poor women" who, "if they see the body emaciated, immediately enter in their report as consumption."[123] As physicians such as Fothergill became interested in cause of death data, they typically led with concerns about the searchers and their ability to discern causes of death rather than with the state of the parish registers or under-registration.

In 1783, for instance, physician William Hawes published an address he had delivered to Parliament, in which he argued that the Bills of Mortality were deficient primarily because the foundation of the data rested on the judgements of "women advanced in years and indigent in circumstances."[124] Hawes asserted that "age in general is attended with a decrease of faculties; and even if it were not so, the habits and education of women in the prime of life seldom enable them to pronounce positively that a person is dead, much less so to explore the cause of death."[125] He concluded that "the inaccuracy of the searchers, &c. to an important subject is astonishing; but it is more so that the [yearly Bill] of Mortality pays annually at least a visit to the houses of princes, ministers and legislators, and yet no reformation brought about in an age truly philosophic, and in which it can boast the most valuable and important discoveries."[126] In other words, the advancement of

[123] Fothergill, "Some Remarks on the Bills of Mortality," 111-112.
[124] William Hawes, *An Address to the King and Parliament of Great-Britain, on Preserving the Lives of the Inhabitants. The Third Edition. To Which Are Now Added, Observations on the General Bills of Mortality* (London: 1783), 39. Wellcome Library.
[125] Hawes, *An Address to the King and Parliament*, 39. Hawes gained notoriety as an advocate of the possibility of resuscitation in cases of drowning, and worried that some persons were being interred before being truly dead.
[126] Hawes, *An Address to the King and Parliament*, 59-60.

knowledge depended upon accurate cause of death data. This represented a massive shift in the tone of the debate.

Historians generally agree that the decades between 1770 and 1820 formed an important turning point in lay-professional relations in medicine, with the world of medicine becoming increasingly cut off from non-medical practitioners. The gap between the language that physicians used and that used by lay people grew after the 1770s, and this intensified the more physicians sought to distinguish themselves professionally. As discussed in the second chapter, it was not unusual for seventeenth-century physicians to adopt popular definitions of disease (as we saw in the case of rickets), whereas as the eighteenth century wore on and nosology became more important, the terminology employed by searchers increasingly differed from that used by physicians. Typhus, for instance, became the accepted medical term for purple or spotted fever, but the term never appeared in the Bills of Mortality.[127] It is within the context of this larger transformation in lay-professional relations that we see the shift in focus on the searchers and the cause of death data. The effects of this transformation were wide-ranging, not only being reflected in the weight given to expert medical testimony in criminal trials, but also visible in popular culture.

Roy Porter found evidence of the shift in lay-professional relations in the eclectic *Gentleman's Magazine*, published from 1731 until 1907, whose contents

[127] Margaret DeLacy, "Nosology, Mortality, and Disease Theory in the Eighteenth Century," *Journal of the History of Medicine and Allied Sciences* 54, no. 2 (1999): 280-281; John Landers, *Death and the Metropolis: Studies in the Demographic History of London, 1670-1830* (Cambridge: Cambridge University Press, 1993), 204.

Porter estimated "reflected the sober opinions of the enlightened reading elite."[128] Medical topics were regularly published, including figures from the Bills of Mortality. Porter initially observed a common medical culture, with lay readers and physicians engaging in sophisticated discussion on near-equal terms.[129] In the later decades of the eighteenth century and especially in the first decades of the nineteenth century, however, Porter observed a dramatic decline in the exchange of medical advice and remedies. The magazine began instead to report on the proceedings of medical societies and to provide reports on what the medical profession was doing. Porter concluded that readers were still "given a window on to the world of the medical profession and medical politics," but that this was "a world in which they were no longer expected to participate."[130] Porter surmised that the shift in the magazine's medical coverage faithfully reflected transformations in lay-professional relations that occurred during these decades, lending further support to Nicholas Jewson's characterization of the effects of the change from bedside to hospital medicine outlined earlier in the chapter.[131]

As was mentioned above, access to hundreds of patients in large institutions provided new opportunities for experimental medicine, which stimulated an interest in disease classification and statistical analysis.[132] The development of routine autopsies further encouraged the establishment of disease taxonomies and

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[128] Porter, "Lay Medical Knowledge in the Eighteenth Century," 141
[129] Porter, "Lay Medical Knowledge in the Eighteenth Century," 150.
[130] Porter, "Lay Medical Knowledge in the Eighteenth Century," 165.
[131] Porter, "Lay Medical Knowledge in the Eighteenth Century," 164-165. According to Jewson, the detachment between physicians and patients that occurred as a result of institutionalization had been a prerequisite for the professionalization of the medical profession. See Jewson, "The Disappearance of the Sick-man," 630.
[132] Trohler, "Quantifying Experience and Beating Biases," 42-44.

prompted the creation of new systems of classification.[133] Most influential in the English context was Edinburgh physician William Cullen's classification of diseases, the *Synopsis Nosologiae Methodicae* (1769), which made it possible for physicians to correspond and compare notes using the same categorizations of disease.[134] Within the hospitals, physicians increasingly came to rely on Cullen's nosology, which employed Latin diagnoses. Mary Fissell estimates that the shift from English to Latin happened quickly: in the 1770s, 70% of hospital diagnoses were in English, whereas by the turn of the nineteenth century, 79% of diagnoses were in Latin, with only 1% in English (the remainder were diagnoses in one language that lacked any clear equivalent in one or the other).[135] This change in the language of diagnosis was another transformation which increased the social distance between patients and physicians, and which ultimately affected the perception of the searchers' adequacy.[136]

This newfound concern with the exactness of disease terms and the importance of statistical analysis is evident in the work of physician William Black, one of the best-known eighteenth-century critics of the Bills of Mortality. Black was the first reformer to call for a complete medicalization of the Bills, coining a new term in the process: medical arithmetic.[137] Medical arithmetic purported to assign

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[133] Alter and Carmichael, "Classifying the Dead," 129.
[134] Cullen's system became the standard used until the 1820s and provided the foundations for the classification established by William Farr, chief compiler of vital statistics for the General Register Office. See DeLacy, "Nosology, Mortality, and Disease Theory," 284.
[135] Fissell, "The Disappearance of the Patient's Narrative," 103.
[136] Henry, "Women Searchers of the Dead," 459.
[137] Rusnock, *Vital Accounts*, 142; William Black, *An Arithmetical and Medical Analysis of the Diseases and Mortality of the Human Species*, Second Edition (London: 1789), vii-viii. Eighteenth Century Collections Online.

the certainty of number and statistics to questions of environmental medicine such as salubrity, hygiene, and the effects of weather on health, while also providing the means to ascertain the effectiveness of new medical interventions, such as inoculation.[138] In 1781, Black proposed the creation of a public office staffed by medically trained men who would be in charge of collecting vital statistics data. Black had wanted to build a nosology which incorporated statistical data about the incidence of disease and death correlated with information about population density. According to Black, the foundations of certain knowledge rested on sound calculations, which in turn depended on sound data. The only source that might have provided him with such data was the London Bills of Mortality. Black found the Bills so deficient that he proposed reforming them in their entirety, writing that "if any material instruction is in future expected from the London Bills of Birth and Mortality, they must undergo a total reformation."[139]

In the Bills of Mortality, Black complained, "many different genera of fevers are crammed into one indiscriminate heap, from which it is impossible to extricate the specific nature or genus of febrile carnage."[140] After detailing the "gross mismanagement and error from searchers and parish clerks," Black then described the deficiencies in the Bills which stemmed from under-registration, which had become a much larger issue by the time Black was writing in the 1780s.[141] The

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[138] Rusnock, "Biopolitics: Political Arithmetic in the Enlightenment," 52.
[139] William Black, *Observations Medical and Political, on the Small-Pox, And the Advantages and Disadvantages of General Inoculation, Especially in Cities,* Second Edition (London: 1781), 268. Eighteenth Century Collections Online; Riley, *The Eighteenth-century Campaign to Avoid Disease*, 49; Trohler, "Quantifying Experience and Beating Biases," 38.
[140] Black, *An Arithmetical and Medical Analysis*, 44.
[141] Black, *An Arithmetical and Medical Analysis,* 256.

suburban parishes on the margins outside the jurisdiction of the Bills, such as Pancras and Marylebone, had grown large and populous, and Black asserted that he could name "several parishes outside the walls, any two of which united, that return a number of annual deaths equal to the 97 parishes within the walls."[142] The Bills of Mortality, Black concluded, were "Gothic ruins, which it is wasting time to prop and plaster."[143]

Not unlike the plan devised by Richard Mead during the Marseille plague, Black proposed that "instead of an uninformed rabble of 147 parish clerks and 294 female searchers," that London should be divided into twenty-eight districts, each under the authority of an inspector salaried at £100 per year.[144] The inspectors should be chosen from among the medical profession.[145] The inspectors would not report to the Company of Parish Clerks but to a physician responsible for registering all deaths in a central hall.[146] Black proposed that the plan should be under the supervision of the Royal Society, "which would give authenticity and respectability to the registers."[147] Members of the Royal Society would choose the officials and classify diseases in a comprehensive manner, including the deaths of all who died in the city, regardless of religious affiliation.[148] Black's plan attracted attention in the

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[142] Black, *An Arithmetical and Medical Analysis*, 257-259.
[143] Black, *Observations Medical and Political*, 268.
[144] Black, *Observations Medical and Political,* 273. Kevin Siena argues that Black's assessment of searchers resembled his opinion of midwives, and that Black's explicit purpose was to marginalize the searchers in order to elevate the status of physicians. Elevating the status of physicians involved the removal of lay participation in medical matters more generally. See Siena, "Searchers of the Dead," 147.
[145] Black, *Observations Medical and Political*, 116.
[146] Black, *Observations Medical and Political*, 274.
[147] Black, *Observations Medical and Political*, 276.
[148] Black, *An Arithmetical and Medical Analysis*, 261.

press, with *The Morning Chronicle* publishing a letter from a physician which agreed that "if the Bills of Mortality were formed upon a larger scale, and with greater accuracy, they would be of infinite use to physicians and philosophers," as they would then show "the actual and comparative ratio of mortality, by every distemper and casualty, the diseases principally fatal during the year, and the seasons most destructive to the human species."[149]

Black perceived that the only objection to his plan would regard the funds required to pay the physicians and inspectors, which he proposed to levy through a tax on undertakers, reasoning that "as many of these gentlemen live and grow rich by death, it is but fair that they contribute a small pittance of their large profits to the Bills of Mortality."[150] It is reasonable to assume, based on other previous attempts at reforming the Bills of Mortality, that Black's plan would have encountered resistance had it made its way to Parliament. In 1789, perhaps in response to criticisms provoked by Black's treatises, the Company of Parish Clerks had tried to obtain an Act authorising the weekly returns to cover births and deaths instead of baptisms and burials, which would have made the reporting more complete, but this was cast aside as Parliament reacted to news of the French Revolution.[151]

[149] *The Morning Chronicle,* 31 December 1782.
[150] Black, *Observations Medical and Political*, 277-280.
[151] Glass, *Numbering the People*, 15.

4.9: The French Revolution and Population Explosion

The French Revolution definitively altered the relationship between English subjects and the state.[152] The perception that unruly subjects could potentially pose an internal threat to the existence of the state made the British government much more willing to adopt new methods to manage its population. Whereas political arithmeticians for most of the eighteenth century worried about depopulation (on the assumption that large populations increased the power of the state), in the 1790s the ruling classes became much more worried about the revolutionary potential of large masses of urban poor. The effects of dearth, unemployment and inflation caused by war with Revolutionary France only increased such anxiety.[153] This change of perspective was notably reflected in Thomas Malthus' *Essay on the Principles of Population* (1798), which argued that parish welfare created dependency and gave the poor enough resources to create large families which were becoming a burden on the limited food resources of the state.[154] Schemes which decades earlier had been deemed too ambitious, such as the implementation of a national census, could now be justified on the basis that the state required more information about its subjects in order to keep political radicalism and public

[152] Bayatrizi, "Counting the Dead and Regulating the Living," 606; Rusnock, *Vital Accounts*, 211; Hitchcock and Shoemaker, *London Lives*, 398.
[153] Hitchcock and Shoemaker, *London Lives,* 399; Fideler, *Social Welfare in Pre-Industrial* England, 178; Eyler, *Victorian Social Medicine*, 39.
[154] Fideler, *Social Welfare in Pre-Industrial England*, 185; Paul Slack, *From Reformation to Improvement: Public Welfare in Early Modern England* (Oxford: Clarendon Press, 1999), 164.

disorder in check.[155] This willingness for government to intervene, coupled with the effects of industrialization, created a new climate for reform.

The beginning of the nineteenth century marked an important turning point in the administration of the Bills of Mortality. Before discussing the challenges created by rapid industrialization and the population explosion that occurred between 1800 and 1840, it is important to pause and assess the collective effect of a century of localized efforts in environmental medicine. Several historians suggest that local efforts to improve the urban environment resulted in a significant lowering of the overall death rate and especially of the infant mortality rate. By examining the Bills of Mortality, Quaker records and Foundling Hospital records, it appears that the infant mortality rate fell by more than half in the decades after 1740. The infant mortality rate peaked at approximately 450 deaths per 1000 births in the 1740s, was closer to 250 per 1000 in the 1700s, then was consistently under 200 by the end of the eighteenth century.[156] This mirrors a similar decline in the proportion of fever deaths, which peaked in the 1740s before commencing a steady decline that continued until the early nineteenth century.[157] In response to lobbying by prominent parish vestrymen, Parliament had passed a series of City Improvement Acts in the 1760s which improved street paving, cleaning, and lighting, sanctioned the building of new waterworks and sewers, while tightening

[155] Historians agree that the exigencies caused by war with Revolutionary France was the main impetus behind the institution of the first national census in 1801. Hitchcock and Shoemaker, *London Lives*, 399; Bayatrizi, "Counting the Dead and Regulating the Living," 618.
[156] Landers, *Death and the Metropolis*, 192; Levene, "The Estimation of Mortality at the London Foundling Hospital," 87
[157] Siena, *Rotten Bodies,* 14.

the regulation of building standards.[158] Together with the emphasis on cleanliness and ventilation, these measures presumably reduced contact with disease-causing pathogens enough to effect a significant decline in mortality.[159]

Urban conditions at the time of the passing of the 1836 Vital Registration Act were markedly different than those at the close of the eighteenth century. From 1800 to 1840, London's population doubled—growing from one to two million—as the city rapidly industrialized.[160] The combined effects of explosive population growth and pollution from heavy industry had a negative effect on the mortality rate. Industrialization significantly reshaped migration patterns as well as poor relief needs, and parishes which had been gradually burdened by a growing population over the course of the seventeenth and eighteenth centuries became overwhelmed in a matter of decades.[161] Consequently, parishes not only struggled in their management of burials in the city, but they were also having an increasingly harder time administering the poor law. The viability of the parish as a unit of local administration was indeed reaching its end: the 1834 Poor Law Amendment Act and the 1836 Vital Registration Act would completely bypass parish structures, instead relying upon newly devised registration districts.

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[158] 2 Geo III c.21, in Great Britain, *The Statutes at Large, From Magna Charta to the End of the Eleventh Parliament of Great Britain*. *Continued,* Vol. XXV, Part 1, edited by Danby Pickering (Cambridge: 1763), 150. Archive.org; 6 Geo III, c.24, c.26, c.27, c.37, c.54, in Great Britain, *The Statutes at Large from Magna Charta to the End of the Eleventh Parliament of Great Britain Anno 1761. Continued*, Vol. XXVII, edited by Danby Pickering (Cambridge: 1767), 56-57, 72-77, 96, 135, 183, 290. Archive.org.
[159] Porter, "Cleaning up the Great Wen," 75; Riley, *The Eighteenth-century Campaign to Avoid Disease*, xi.
[160] Porter, "Cleaning up the Great Wen," 75.
[161] Henry, "Women Searchers of the Dead," 464; Fideler, *Social Welfare in Pre-Industrial England*, 134.

Figure 4.3: A crowded street in London. Coloured etching by George Cruikshank, 1812. Credit: Wellcome Collection. Attribution 4.0 International (CC BY 4.0)

Still, the Company of Parish Clerks mounted one last effort to reform the Bills from within. In 1818, physician George Burrows published a pamphlet on the deficiencies of the Bills of Mortality, writing that the Bills "have remained stationary; and in form and language are almost coeval with their origins; while every thing else connected with science or the arts has advanced with civilization."[162] Burrows maintained that "the knowledge of their deficiencies in regard to christenings and

[162] George Man Burrows, *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality, in Reference to Marriages, Births, Baptisms, Diseases, Casualties, and Burials* (1818), in *The Development of Population Statistics,* edited and with an introduction by David V. Glass (Westmead, U.K.: Gregg International Publishers, 1973), 10.

burials, as well as their inaccuracies respecting diseases, gradually sunk their repute."[163] The catalogue of diseases reported in the weekly Bills was a "national disgrace," which was "wholly irreconcilable with our acknowledged pre-eminence in medical science and civilization."[164] Burrows recommended the replacement of searchers, who were deemed "ignorant and venal," with "qualified medical practitioners, upon actual knowledge of a disease of which a person died."[165] Burrows concluded that, considering the "the learning and rank of many of the commentators on them, the improvements which have been repeatedly suggested, and the important uses to which they, with all their faults, have been applied, it appears wonderful that greater reformation has not been accomplished."[166] Though Burrows proposed replacing the searchers with medical men, he still believed that the Company of Parish Clerks was best suited to carry out the required reforms.[167]

Burrows' pamphlet attracted the attention of the Secretary of State, who, taking a personal interest in the matter, sent a letter to the Company of Parish Clerks alerting them to the unsatisfactory state of the returns. The Company in turn sent a circular letter to its members requesting that all clerks comply with the requirement for making accurate and timely returns, then drafted a Bill for reform for the consideration of Parliament.[168] The reform Bill proposed to add another twenty parishes to the current system in order to reflect the recent growth of London. Again, the Clerks stressed an issue that they had had since the seventeenth

[163] Burrows, *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality*, 40.
[164] Burrows, *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality*, 46.
[165] Burrows, *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality*, 46-47.
[166] Burrows, *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality*, 47.
[167] Burrows, *Strictures on the Uses and Defects of Parish Registers and Bills of Mortality*, 55.
[168] Christie, *Some Account of Parish Clerks*, 143-144.

century: their lack of power to coerce clerks in the suburban parishes. They requested that clergy from other faiths be compelled to submit returns, along with officers from charitable institutions, hospitals, prisons, and workhouses, as well as any keepers of private burial grounds.[169] The Bill provoked considerable opposition from the twenty suburban parishes the Company had proposed to add to the Bills of Mortality, who did not wish to be "vexatiously compelled" to make weekly returns.[170] The Bill was rejected in its second reading in the House of Commons.[171]

Unfortunately for the Company, it had incurred considerable costs in its effort to draft the Bill (over £700) and this had completely exhausted its funds.[172] The Company had been experiencing financial difficulties since the mid-eighteenth century as newspapers reprinted figures from the weekly Bills of Mortality as soon as these were published, which significantly decreased the Company's sales.[173] The Company had tried to remedy this loss of revenue by petitioning for the sole right to print figures from the weekly Bills as part of its reforming attempts of the 1750s, but this and other fundraising efforts proved unsuccessful.[174] In 1833, a parish clerk reported that the annual expenses that the Company incurred in the production of the Bills of Mortality totalled over £100. This was minimally offset by a £15 annual

[169] The contents of the Bill are related in *The Morning Chronicle,* 29 March 1819.
[170] *The Morning Chronicle*, 29 March 1819.
[171] Adams, *The Parish Clerks of London*, 87-88.
[172] Christie, *Some Account of Parish Clerks*, 144.
[173] Christie, *Some Account of Parish Clerks*, 190; Slauter, "WRITE UP YOUR DEAD," 9; Adams, *The Parish Clerks of London*, 62.
[174] In their 1751 Bill, the Clerks had sought the power to fix the price of the weekly Bills and to recover £20 in damages from any other printer caught reprinting the figures. In 1758 they unsuccessfully attempted to get the City of London to raise their annual subsidy. See Worshipful Company of Parish Clerks, *The Contents of a Bill*, 1 and Christie, *Some Account of Parish Clerks,* 142-143.

subsidy from the City of London. The clerk reported that the Company had only earned 40s from the sale of weekly Bills during the previous year; the remaining £85 had to be made up from the sale of the annual Bill.[175]

The Company had expended the last of its financial reserves and taken on debt at a time when explosive population growth put a tremendous amount of pressure on individual clerks. If the suburban parishes had struggled to manage large populations and a correspondingly large number of deaths in the eighteenth century, it was nothing compared to the pressures felt in the early decades of the nineteenth century. Indeed, parishes which had been consistent in issuing weekly returns in the eighteenth century began to lapse in their duties, with several parishes in quick succession stopping their reports in the 1820s.[176] Parliament intervened by encouraging the building of private cemeteries outside the city limits in the 1820s and 1830s (including the famous Highgate Cemetery) in order to ease the strain put upon parochial graveyards.[177] This further diminished the role of the parishes in managing death in the city. Finally, in the 1850s Parliament closed all city parochial graveyards after a Parliamentary Commission concluded that closing crowded urban graveyards was necessary to halt the progress of cholera.[178]

The first appearance of cholera in 1825 renewed concerns with the disease-generating potential of corpses—a legacy of the Marseille plague—which was

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[175] House of Commons, *Report from the Select Committee on Parochial Registration; With the Minutes of Evidence and Appendix* (London: 1833), 128.
[176] Henry, "Women Searchers of the Dead," 463.
[177] Henry, "Women Searchers of the Dead," 464; Rugg, "A New Burial Form and its Meaning," 44-46.
[178] *Lloyd's Illustrated Newspaper*, 16 September 1849; Thomas W. Laqueur, *The Work of the Dead: A Cultural History of Mortal Remains* (Princeton: Princeton University Press, 2015), 219-220. The closure of the city parochial graveyards marked the official end of the Bills of Mortality.

exacerbated by the abundance of bodies.[179] Kevin Siena has recently argued that nineteenth-century sanitarians were deeply indebted to ideas about the generation of epidemic disease that dated from the era of plague.[180] In response to the appearance of cholera, physicians indeed examined the environmental determinants of disease familiar from previous centuries, such as hygiene, population density, and building quality.[181] The difference now was that physicians were becoming convinced of the value of statistical analysis in public health just as the state was becoming much more willing to direct public health efforts (along with other aspects of population management) from the centre, inaugurating a new age of Parliamentary Commissions and reform.

The report of the Parliamentary Commission on Parochial Registration and the passing of the Vital Registration Act of 1836 will be considered in the concluding chapter, but it is important to note that the Act passed in close proximity to other substantial pieces of legislation which altered the relationship of individuals to the state, most notably the 1829 Metropolitan Police Act, the 1832 Reform Act, as well as the 1834 Poor Law Amendment Act mentioned above. Although it was only possible to touch upon these briefly, the importance of the shift in the political climate that occurred as a result of the French Revolution together with the effects of rapid population growth on the parish system cannot be overstated when considering the conditions which led to the end of the Bills of Mortality.

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[179] Riley, *The Eighteenth-century Campaign to Avoid Disease*, 139.
[180] Siena, *Rotten Bodies,* 17.
[181] John M. Eyler, "Mortality Statistics and Victorian Health Policy: Program and Criticism," *Bulletin of the History of Medicine* 50, no. 3 (1976): 336.

4.10: Conclusion

This chapter's examination of the tradition of criticism of the Bills of Mortality from the 1720s to the 1820s has demonstrated that these critiques were intimately related to important changes in the practice of medicine over the course of the eighteenth century. On a more obvious level, the language of criticism changed as medicine underwent a process of professionalization in the later decades of the eighteenth century. Indeed, it is only from the 1770s onward that we see sustained calls for reformation of the Bills of Mortality which first and foremost stressed the deficiencies of the women searchers in determining causes of death, a change which mirrored physicians' newfound interest in post-mortem anatomy and disease classification. Early-to-mid-century reformers had tended to emphasize the deficiencies which led to the under-registration of deaths in the Bills, which the Company of Parish Clerks on multiple occasions attempted to rectify. What is less obvious is that the main cause of under registration—the opening of several extra-parochial burial grounds—was also related to changes in the practice of medicine, as people feared the generation of epidemic disease caused by overcrowding while also desiring protection from the predation of bodysnatchers.

Chapter 5: Conclusion

5.1: The Passing of the 1836 Vital Registration Act

The 1836 Vital Registration Act, which centralized the gathering of population data and resulted in the creation of the civil General Register Office (GRO), is typically taken to have rendered the Bills of Mortality obsolete. The Bills continued to be published for another two decades (albeit intermittently and with only a fraction of parishes still reporting) until 1858, when the City of London finally declined to provide the Company of Parish Clerks with their yearly allowance in support of the Bills' publication.[1] This coincided with the closure of all city parochial graveyards after a series of Burial Acts passed in the 1850s. After this date the GRO assumed the entirety of registration of civil events in England and Wales. Historians have tended to explain the founding of the GRO as a direct result of the desire for accurate data for the purposes of statistical analysis, typically placing emphasis on dissatisfaction with the cause of death data.[2] The cause of death data was, however, one of the last issues to be satisfactorily reformed after the passing of the Vital Registration Act.

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[1] James Christie, *Some Account of Parish Clerks, More Especially of the Ancient Fraternity (Bretherne and Sisterne), of S. Nicholas, Now Known as the Worshipful Company of Parish Clerks* (London: J. Vincent, 1893), 145; Reginald H. Adams, *The Parish Clerks of London: A History of the Worshipful Company of Parish Clerks of London* (London: Phillimore, 1971), 62.

[2] After discussing the deficiencies of the searchers in ascertaining causes of death, Thomas Forbes stated that, "progress was achieved in 1836 with the passage of the Birth and Deaths Registration Act," while John Eyler contended that, "from the perspective of the technical expert—physician, actuary, lawyer—the Registration Act marked the end of the first major campaign to remedy the long-acknowledged deficiencies of existing English vital statistics." See Thomas R. Forbes, "Crowner's Quest," *Transactions of the American Philosophical Society* 68, no. 1 (1978): 8 and John M. Eyler, *Victorian Social Medicine: The Ideas and Methods of William Farr* (Baltimore: Johns Hopkins University Press, 1979), 37. See also David V. Glass, *Numbering the People: The Eighteenth-century Population Controversy and the Development of Census and Vital Statistics in Britain* (Farnborough: D. C. Heath, 1973), 126-126, 141-142.

While physicians did become increasingly concerned with medical statistics and nosology in the last decades of the eighteenth century and called for reform of the Bills of Mortality on this basis, the initial draft of the Vital Registration Act had not included any provisions for recording the cause of death. The main impetus for the reform of vital statistics came from Dissenters who desired a civil mode of registering vital events in order to ensure the legal status of the documentation required to transfer property across the generations.[3] Consequently, studies which depict the passing of the Vital Registration Act as a direct result of universal dissatisfaction with the women searchers are off the mark.

Indeed, searchers still had their supporters in the years immediately preceding the Vital Registration Act, even among physicians. In 1829, *The Morning Chronicle* related "extraordinary reports of cases of poisonings in France," positing that hundreds of people died of poisoning every year, these deaths passing "without discovery or inquiry, because no Searchers are required to report the cause of death."[4] In 1833, after it became known that Parliament had appointed a Select Committee in anticipation of reforming the parochial registers, an anxious physician wrote to the editor of the *London Medical Gazette* hoping to "impress upon the legislature the propriety of including in this bill the mechanism necessary for

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[3] The terms of Hardwicke's Marriage Act of 1754, for instance, had brought the legal status of many Dissenters' marriages into question. Property transfers among Dissenters, as well as between Dissenters and members of the Church of England, depended upon legal recognition of their vital event records. For more information on this topic, see Edward Higgs, *Life, Death and Statistics: Civil Registration, Censuses and the Work of the General Register Office, 1836-1952* (Hatfield, Herts: Local Population Studies, 2004), 7-8; M.J. Cullen, "The Making of the Civil Registration Act of 1836," *Journal of Ecclesiastical History* 25, no. 1 (1974): 40-42; Wanda S. Henry, "Women Searchers of the Dead in Eighteenth- and Nineteenth-century London," *Social History of Medicine* 29, no. 3 (2016): 460; Eyler, *Victorian Social* Medicine, 42.

[4] *The Morning Chronicle*, 8 December 1829.

registering the cause of death; in other words, of extending throughout England, and giving a legislative sanction to, the system now pursued in the London Bills of Mortality."[5] The author complained that in his populous parish, Marylebone, "there are no searchers, nor any means of ascertaining the diseases of which the parishioners die, other than is afforded by casual conversation at the burying ground."[6] Far from wishing for the abolishment of the office, the physician had hoped that the Select Committee would recommend the appointment of searchers in parishes throughout England.

The Select Committee on Parochial Registration was appointed after Dissenting reformers had repeatedly called Parliament's attention to the defective state of the parochial registers—an "urgent" matter which the Committee deemed to be "of great public and national interest."[7] The Committee interviewed dozens of witnesses such as members of the clergy, parish clerks, and medical authorities. In his interview with members of the Select Committee, the parish clerk for the south London parish of Bermondsey agreed that death registration required reform, but suggested that "there should be searchers appointed in every parish" since "there does not appear to be any objection to women."[8] The perception of women searchers as being particularly unthreatening and unobtrusive evidently continued to work in their favour. When asked whether he thought that it would be possible to "establish searchers of respectability" who would be able to accurately report not

[5] *The London Medical Gazette; Being a Weekly Journal of Medicine and the Collateral Sciences*, vol. 12 (London: Longman, Rees, Orme, Brown, Green & Longman, 1833), 19. HathiTrust Digital Library.
[6] *The London Medical Gazette*, vol. 12 (1833), 19.
[7] House of Commons, *Report from the Select Committee on Parochial Registration; With the Minutes of Evidence and Appendix* (London: 1833), 8.
[8] *Report from the Select Committee on Parochial Registration*, 127.

only on the number of deaths but also the diseases of which people died, the clerk answered that he had no doubt.[9]

The Committee also interviewed Dr George Burrows, the author of the 1818 pamphlet mentioned in the previous chapter which had called for a complete reform of the Bills of Mortality, including the abolishment of the office of searcher. Burrows continued to insist that the office of searcher should be abolished, but wished that the new registration system should include "statements of the diseases, sexes, and ages of all persons dying."[10] The interviewer, however, pointed out that even though Burrows was mainly concerned with "the medical imperfections connected with the existing system," these imperfections were "only secondary in the view of the Committee."[11] Of primary concern had been the creation of an institutional structure which would ensure the protection of property rights. Consequently, the initial draft of the Bill for the establishment of a central registry had not included any stipulations regarding the inclusion of cause of death information.[12] During the Parliamentary debates, one lord had loudly objected to the insertion of a cause of death clause, considering it to be obtrusive and inconvenient, especially for the poor who would have to pay a fine for late registration. He imagined that the registrar would be "authorised to obtrude himself on the widow on the very day, it might be, of the funeral, to answer all sorts of questions, merely to gratify the curiosity of a few individuals who were wedded to statistics."[13]

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[9] *Report from the Select Committee on Parochial Registration* 127.
[10] *Report from the Select Committee on Parochial Registration*, 52.
[11] *Report from the Select Committee on Parochial Registration*, 51.
[12] Cullen, "The Making of the Civil Registration Act of 1836," 50.
[13] House of Lords, *Nineteenth Century House of Lords Hansard Sessional Papers*, Third Series, Volume 35 (London: 1836), 88. U.K. Parliamentary Papers Online.

The Select Committee had anticipated that their plan for the recommendation of a national civil registry of vital events would provoke some resistance but had assured Parliament that "people's resistance would be overcome by prohibiting interment without entry [into the register]."[14] By making death registration universal and compulsory, the Vital Registration Act of 1836 resolved the issues that had resulted in the under-registration of deaths in the Bills of Mortality, such as the bodies being sent for burial in extra-parochial burial grounds and the unreported burials from exempt institutions and precincts.[15] It also ensured that all English subjects, regardless of religious affiliation, recorded their vital events in a uniform manner.

The Vital Registration Act did end up including a provision for the cause of death, but only after the intervention of Edwin Chadwick, Secretary to the Poor Law Commission.[16] Chadwick had wanted the inclusion of cause of death information in the new death certificates because of their potential usefulness for poor law administration, particularly in matters of sanitation. It is important to note that the Vital Registration Act was passed only two years after the complete overhaul of the parochial poor law system that had been in place since the reign of Elizabeth I, and which had operated in tandem with the administration of the Bills of Mortality. The

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[14] *Report from the Select Committee on Parochial Registration*, 10. It is also worth noting that although the government was much more prepared to enforce its authority in support of such schemes after the French Revolution, popular resistance to such efforts had not vanished. In the 1830s, for instance, the public resisted plans for national vaccination laws, as well as a plan to nationalize the metropolitan parish burial grounds. See Eyler, *Victorian Social Medicine*, 199.

[15] 6 & 7 Geo IV, c. 86. In Great Britain, *The Statutes of the United Kingdom of Great Britain and Ireland, 6&7 William IV. 1836* (London: His Majesty's Printers, 1836), 528-538. Archive.org.

[16] Cullen, "The Making of the Civil Registration Act of 1836," 55-57; Higgs, *Life, Death, and Statistics*, 22-23.

GRO would in many ways also operate in tandem with the New Poor Law of 1834: the registration districts of the GRO corresponded to the New Poor Law districts which had been created two years earlier. Furthermore, the appointment of any new officer under the Vital Registration Act was subject to the approval of the Poor Law Commissioners.[17]

5.2: The Cause of Death Issue

The cause of death provision that made it into the 1836 Vital Registration Act did not require medical certification of cause of death, stating only that the "person present at death or attendant during the last illness shall give notice within eight days; giving information, upon being requested to do so, to the said registrar, according to the best of his or her knowledge and belief."[18] In other words, causes of death were to be reported by laypersons. Upon receipt of this information, the registrars did not enter the cause of death in medical terms; they had been instructed to enter the popular or common name of the disease.[19] As such, the cause of death data gathered in the early years of the GRO would not have been qualitatively different than the data gathered by the women searchers, who also made their reports after enquiring with the deceased's friends and family. This

[17] 6 & 7 Geo IV, c. 86. An investigation of the close link between the operation of the eighteenth-century poor law and the administration of the Bills of Mortality was unfortunately beyond the scope of this thesis, but it would have been interesting to study the administration of the Bills of Mortality in relation to the implementation of workhouses and the adoption of closed vestries from the 1720s onwards. Were searchers still expected to be recipients of parish aid? What about the searchers that Wanda Henry identified as being descendants from long lines of parish workers? Were there different patterns of appointment in the inner-city parishes compared to the suburbs? It does not seem to be a coincidence that it was only once the parish had become unworkable as a unit of local administration for the poor law that a new registration system was successfully implemented.
[18] 6 & 7 Geo IV, c.86.
[19] Henry, "Women Searchers of the Dead," 460.

supports Edward Higgs's suggestion that, at its inception, the GRO "was not a statistical bureau but the centre of a system for the recording of property rights."[20]

The statistical functions of the GRO would change after the appointment of William Farr as chief compiler of statistics for the Office. Between 1848 and 1855, no cause of death information had been published in the GRO's annual reports. For most diseases, continuous reporting only began in the 1860s after Farr devised his own statistical nosology for use by the registrars.[21] Farr strongly believed that empirical knowledge would become the foundation of advances in medicine, especially in matters of public health, and likened the importance of nosology in medicine to that of weights and measures in the physical sciences.[22] He campaigned for the introduction of a law mandating medically-certified deaths, which came in 1874 with the passing of the Medical Registration Act.[23]

Still, medical practitioners grappled with many of the same issues which the searchers had confronted: physicians had difficulties ascertaining causes of death using only the external bodily signs and so relied on reports of last symptoms from friends and relatives, or they might falsify death certificates to shield influential families from the embarrassment of association with diseases which carried social

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[20] Higgs, *Life, Death, and Statistics*, 216. On pages 43-44, Higgs argued that historians "have perhaps been too ready to assume, with hindsight, that the development of the GRO as a centre of scientific medical and demographic research was inevitable, and that intellectual élan counted for everything in the Office's history."

[21] Anne Hardy, "'Death Is the Cure of All Diseases': Using the General Register Office Cause of Death Statistics for 1837-1920," *Social History of Medicine* 7, no. 3 (1994): 473-477. Farr's nosology would remain in use until an international standard was devised in the 1920s.

[22] Michael Donnelly, "William Farr and the Quantification of Nineteenth Century Public Health," in *Body Counts: Medical Quantification in Historical and Sociological Perspective*, edited by Gérard Jorland *et al.* (Montreal & Kingston: McGill-Queen's University Press, 2005), 257; Eyler, *Victorian Social Medicine*, 6-8.

[23] John M. Eyler, "Mortality Statistics and Victorian Health Policy: Program and Criticism," *Bulletin of the History of Medicine* 50, no. 3 (1976): 339; Hardy, "Death is the Cure," 477.

stigma.[24] Tuberculosis, for instance, had a reputation as a hereditary disease, and so families would have had much to gain from concealing this cause of death from the authorities. Anne Hardy posits that people might have been even more inclined to hide such diseases once the searchers were replaced by the registrars of the GRO.[25]

5.3: Conclusion

Despite physician William Black's 1781 assertion that the Bills of Mortality had become "Gothic ruins" by the later decades of the eighteenth century, highlights from the annual reports of the GRO, which were routinely published in the London newspapers, reveal that the Office saw itself as the producer of "new Bills" and as the inheritor of a proud tradition.[26] In 1859, the GRO's report stated that "the Bills of the London parish clerks, though imperfect, were of unquestionable utility; and the new tables of mortality carry about the ideas of the age of Elizabeth, by recording daily the causes of all the deaths of the people of the metropolis."[27] The 1865 annual report boasted that "London has hitherto been the only great city of the world in which the causes of all the deaths and the births have been inquired into, and published weekly."[28] Such comments make it clear that while the Bills of Mortality had their critics over the course of their long history, they were at no point ever universally reviled. (Ditto with the searchers.)

Overall, the conditions surrounding the creation of the GRO do not support the interpretation that the Office was founded to cater primarily to the demands of

[24] Eyler, "Mortality Statistics," 352.
[25] Anne Hardy, "Diagnosis, Death, and Diet: The Case of London, 1750-1909," *The Journal of Interdisciplinary* History 18, no. 3 (1988): 395.
[26] *Lloyd's Illustrated Newspaper*, 16 September 1849.
[27] *The Morning Chronicle*, 18 February 1859.
[28] *Lloyd's Illustrated Newspaper*, 15 January 1865.

physicians and political arithmeticians and that, consequently, the long tradition of criticism of the Bills of Mortality can only be taken to have represented the interests of a narrow group of people. This thesis has demonstrated that although physicians were the most vocal critics of the Bills of Mortality on the eve of the passing of the Vital Registration Act, and although historians have given their criticisms of the cause of death issue a disproportionate amount of weight in their own appraisal of the Bills, physicians' concerns with medical nomenclature not only came considerably late in the Bills' long history but also had the least amount of pull with Parliament. In addition, physicians' newfound interest in reforming the Bills had been a reversal of the situation in the sixteenth and seventeenth centuries, when physicians had shunned the opportunity for greater involvement in the operation of the Bills of Mortality.

Criticisms of the Bills of Mortality, when taken out of context, can make it appear that contemporaries shared our modern concern with the accuracy of numbers and our acceptance of the value of statistical analysis. From this vantage point it might seem odd that the Bills of Mortality endured as long as they did. But as this thesis has revealed, the collection of information which ended up printed in the Bills of Mortality always involved negotiations of power—negotiations that cannot be separated from their political context. The English political context in the century between the Glorious Revolution of 1688 and the French Revolution of 1789 explains the seemingly paradoxical situation where the strongest resistance to reforming the Bills of Mortality came at the same time as the data in the Bills was becoming less reliable. Contemporaries had to work hard to convince their

governments and the general public that assuring greater accuracy of the data published in the Bills was a worthy endeavour, especially if it meant giving up a system of data collection which was familiar and unobtrusive.

Indeed, people's attachment to a system deemed unthreatening to notions of English liberty (and this despite its initial association with the controversial imposition of household quarantine during the era of plague) goes a long way towards explaining why the Bills of Mortality endured largely unaltered for the duration of the eighteenth century. The belief that women searchers were more compatible with notions of a 'free people' was integral to this longevity. Women searchers of the dead had their supporters for the whole of the Bills' existence precisely because they were deemed non-threatening compared to male state officials, inexpensive compared to medical professionals, while also considered largely adequate for assessing causes of death. Ultimately, eighteenth-century reformers failed to overcome resistance to schemes which would result in the increased intrusion of the state in people's lives. Only an event as massively disruptive as the French Revolution succeeded in altering the accepted boundaries of the power of the state in relation to its citizens.

There were many aspects of the Bills of Mortality that I was not able to explore in detail (such as how the connection between the Bills and the poor law evolved during the eighteenth century), and in several instances had to sacrifice depth in my attempt to understand the functioning of the Bills of Mortality over the entirety of their history. Tracing the founding of the Bills of Mortality and subsequent attempts at their reform over such a long period, however, allows one to

see how public health measures which initially targeted plague—such as the management of the urban environment, sanitation, and overcrowding—remained recognisable throughout the period under consideration in this thesis albeit under different guises, whether in the localized environmental medicine of the eighteenth century or in the era of centralized public health reforms of the 1830s and 1840s. It has also revealed the extent to which the quality of the data contained in the Bills was affected by local burial preferences and customs, both in times of plague and not. In Chapter 2, for instance, we saw that strong attachment to individual interment in the parochial graveyard might result in searchers and parish clerks 'hiding' plague deaths to prevent influential citizens from being interred in the mass plague pits. In Chapter 3, we observed that fears of overcrowding in suburban graveyards during the Marseille plague provoked a great deal of concern and marked the beginning of a trend which saw Londoners prefer large, privately-run burial grounds on the outskirts of the city, while in Chapter 4 we examined the acceleration of this trend due to widespread fears of post-mortem bodysnatching.

As research into the eighteenth-century Bills of Mortality is still in its infancy, and in light of the fact that the pursuit of public health measures was at this time concentrated at the local level, microstudies which tackle the nitty gritty of parish politics would be most useful.[29] By establishing an aggregate view of these 'little

[29] Here are some examples of such studies: Jeremy Boulton and Leonard Schwarz, "The Medicalisation of a Parish Workhouse in Georgian Westminster: St Martin in the Fields, 1725-1824," *Family & Community History* 17, no. 2 (2014): 122-40; Jeremy Boulton, "Traffic in Corpses and the Commodification of Burial in Georgian London," *Continuity and Change* 29, no. 2 (2014): 181-208; Tim Hitchcock, "The Body in the Workhouse: Death, Burial, and Belonging in Early Eighteenth-Century St Giles in the Fields," in *Suffering and Happiness in England 1550-1850: Narratives and Representations*, edited by Michael J. Braddick and Joanna Innes (Oxford: Oxford University Press, 2017), 149-169.

commonwealths,' where many localized efforts together resulted in a significant lowering of the mortality rate by the end of the eighteenth century, the true significance of the public health role of the Bills of Mortality in post-plague era London should hopefully become easier to discern. The relationship of the City of London to its suburbs over the course of the eighteenth century would be another fruitful area of research.

The story of the Bills of Mortality in many ways begins and ends with the London suburbs. Originally founded to grapple with the public health consequences of London's sixteenth-century suburban growth, the Bills of Mortality were ultimately overwhelmed by the unprecedented population growth of the industrial era. The suburban parishes had always been the weakest link in the machinery of the Bills: they were outside the jurisdiction of the City of London and of the Company of Parish Clerks, they governed the largest populations in the metropolis with a fraction of the resources, and were eventually completely overwhelmed by the large number of corpses which they had to manage. It is not the case, as some historians suggest, that the Bills of Mortality simply faded from view over the eighteenth century as plague receded from popular consciousness; the Bills were very much embedded in the structure of London parish life.

In order to appraise the significance of the eighteenth-century Bills of Mortality in the post-plague era, then, it is necessary to understand their administration within a specific political context in which power was concentrated at the local level. The concentration of power in the localities and suspicion of central government involvement affected everything from the practice of political

arithmetic and environmental medicine to the scope of acceptable action in the reform of the Bills of Mortality. Although it can appear that the Bills remained largely static over the course of their 250-year history, this thesis has revealed that the Bills of Mortality were affected by the political climate and the acceptable scope of centralized government action at every turn, whether in their initial expansion under the royal prerogative or in their contraction after the centralising reforms of the 1830s.

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