



Article

# Public Health as a Matter of Concern: Victorian England, 1834-1848

Science, Technology, & Human Values  
2019, Vol. 44(3) 399-423  
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DOI: 10.1177/0162243918800575  
journals.sagepub.com/home/sth



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## Abstract

Public health is currently evolving, expanding, and reinforcing itself as a governance project in which health authorities' concerns meet and blend with epidemiology and civil engineering. Rarely, however, are those concerns found worthy of examination, at least not to account for the multiplying involvements of public health, its ability to find political life in things, and its many translations. The shape of public health is dictated as much by its matters of concern as it is by biopolitical and brute matters of fact. This article presents a genealogy of public health in Victorian England between 1834 and 1848 in order to glimpse the matters of concern around which it stabilized. The political medicine that preceded public health holds the clue in its assertion of life as a form of worth, as prominent a criterion for the assessment of sociomaterial arrangements as profitability or efficiency. This article describes public health as an ensemble presence, a unique gathering, in which political will follows medical diagnosis, and life is worth at least as much as money.

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### Keywords

biopolitics, public health, matter of concern, Victorian England, social justice

### Introduction

In 2016, in honor of its 100-year anniversary, the Johns Hopkins School of Public Health listed the “100 objects that shaped public health.” Among the top ten were mosquito nets, fluoride toothpaste, contraceptive pills, the bifurcated needle (for smallpox vaccination), tamper-resistant caps, the refrigerator, the speed limit sign, sidewalks, and warning labels on cigarette packs.<sup>1</sup> Later the same year, the Center for Disease Control came up with its own hit parade: “the ten greatest achievements in public health in the twentieth century,” including the fluoridation of drinking water, tetanus vaccines, tobacco control, decline in heart disease and stroke, decline in workplace accidents, decline in motor vehicle fatalities, safer foods, healthier babies, and family planning.<sup>2</sup>

Lists like these attest to the fact that “in many societies ‘public health’ has an authority to act on lives and property greater than any public agency save a fire department” (Hamlin 1998, 1). *Pace* a fire department, public health seems boundless by comparison because its interventions do not have an obvious locus of control. Public health finds political life in things, *many* things, seemingly without limit as “public health problems” (e.g., fluoride, gun violence, public smoking, Internet pornography, night shifts). Through them, it justifies an extraordinary intervention and upheaval of habits and material arrangements.

The main goal of this article is to explain how public health is capable of performing these political translations. To do so, I undertake a genealogy of public health at one of its main points of origin—Victorian England between 1834 and 1848—and examine this history not as the development of a “matter of fact” public agency with fixed purpose but as a “matter of concern” that multiplies its involvements (Latour 2004). Even if we agree that public health is an odd coalition between epidemiology, civil engineering, and social justice (Hamlin 1998, 340), the mystery still persists about how it does such translation. While there is little doubt that public health qualifies as biopolitics, exercising “the right of death and power over life” (Foucault [1977] 1990), it is also premised, as all biopolitical technologies are, on assertions about what is “worthy of living” (Lemke 2011, 42).

In the prism of matters of concern, such assertions are essential for public health’s history. The early Victorian association of “worthy of

living” with capital accumulation provoked a state of contention in which routine medicine asserted the “plane of life” (as Deleuze [2001] calls it) as a generalized form of worth. Medical doctors (unintended radicals) simply diagnosed illnesses as they saw them, but in the critical moment, this demanded a “readjustment of worths” (Boltanski and Thevenot 2006, 133). Is money or industrial efficiency *worth* more than life? Answering yes or no requires some justification, which generates contention, pitting worth against worth, or the *political translation* of things well-ordered (natural, objective) on other grounds into factors that lose their self-evidence when they start to kill, maim, or make sick, wasting life. That radical critics like Marx ([1867] 1976) and Engels ([1844] 1999) took early Victorian medical doctors as their primary witnesses on life in satanic mills is no surprise. The doctors found things such as poverty and wage labor, arrangements ordered by capital, to be political matters *because* they found them unhealthy. In the 1840s, bureaucrat extraordinaire Edwin Chadwick assembled “public health” from the witches’ brew of political medicine by fixing its operable form to water and sewers *only*, the only translations allowable being mere sanitary matters, not more “necessaries of life.”

By retrieving public health in early Victorian England, this article makes two arguments. First, biopolitical technologies, such as public health, are always embedded in evaluations about types of life that are worthy and types of life that are not. Second, public health is constructed from relations between population, the state, medicine, and the necessaries of life, which are arranged, polity style, through processes of justification and critique (Boltanski and Thevenot 2006).

The contribution is an STS-informed framework that combats the tendency to view public health as *only* a “matter of fact,” with sanitation and population health risk its sine qua non. Other scholars have intimated its malleability but without sufficient means to depict public health as a heterogeneous ensemble of many translations (see Gandy 2005; Stephenson 2011; Lowy 2016). Practitioners in public health, meanwhile, sense an implicit political medicine (see Braveman, Egerter, and Williams 2011; Davies et al. 2013; Levin 2017). By edging inequities and injustices (racism, sexism, inequality) closer to scientific respectability as causes of health disparities, the field of public health makes itself clear as a gathering place from which political will is mobilized in train with medical knowledge, all leveraged by life as worth.

## The Puzzle of Victorian Public Health

The genealogy of public health recorded below concentrates, first, on the prelude to the 1834 New Poor Law, particularly the arguments of Malthus ([1798, 1826] 2001) and his *Essay on the Principles of Population*. The argument here is that Malthus staged justice by creating a distinction between the categories of “savage life” and “civilized life.” On this basis, he would remove the right to live from the former category by developing a classificatory judgment rooted in proofs. Such a right was unjust because the very existence of savage life hurt the common (population) good.

This logic was effectively implemented in 1834 when the New Poor Law ended outdoor relief for the poor and enforced market dependence for the necessities of life. In Polanyi’s ([1944] 2001, 86) poignant terms, this “abolished the right to live.” Yet, in 1848, the Public Health Act moved in a different direction. The act created a General Board of Health (GBH) that oversaw the implementation of municipal sanitation projects (water and sewage systems). The government would provide for “the public health” by attempting to ensure access to certain necessities of life as entitlements regardless if markets provided them (Pelling 1978; Flinn 1976; Hamlin 2006).

The puzzle is how this change could happen. From a biopolitics that would disallow life to the point of death to a biopolitics that would foster life where markets would not? In a little over a decade? I will argue that public health appeared in a situation that seemed primed against it not from some kind of unpredicted benevolence or political upheaval, and not *only* as an institutional adaptation to the fact that urban, industrial existence was killing people. Instead, it is a contest of worth on the basic plane of life that rearranges medicine, the state, population, and the necessities of life in a way that ultimately stabilizes public health as a recognizable thing.

## Abolishing the Right to Live

It is the late eighteenth and early nineteenth century that the story begins, during “one of those rare moments when a section of the English intelligentsia called all things in question, and the vibrations were felt for decades. A most un-English moment” (Thompson 1994, 105). Gripped by the prospect of upheaval in the wake of the French Revolution, confidence in “spontaneous cooperation, the peaceful satisfaction of needs, and the absence of central control” collapsed, and the search was on for a “different paradigm of political order” (Wolin 2004, 281). Political opinion had

shifted to the point where a defense of present institutions was associated with a defense of misery, narrow-mindedness and lack of nobility, and the exercise of crass self-interest. This would inspire a great wave of conservative thought (like Edmund Burke). More to the point, the late eighteenth and early nineteenth century in England was a period of social experimentation, with aspirations to “the perfectibility of man and society” and the elimination of poverty, in which the “politicization of life” was pushed to remarkable extents (Stedman Jones 2004).

The Speenhamland System instituted by justices of the peace in the English parish of Berkshire in 1795 granted the poor an “aid-in-wages” as a kind of minimum income, enough to ensure the purchase of bread given fluctuating prices (Somers and Block 2005). Speenhamland was effectively a state sponsorship of the “right to live” by providing for necessities of life outside of participation in a competitive labor market (Polanyi [1944] 2001, 82). This followed in the wake of the same famine that led the MP Samuel Whitbread to propose a minimum wage for agricultural laborers. Thomas Paine would advocate for grants of £15 for those aged twenty-one and pensions of £10 per annum for those over fifty; William Godwin welcomed the withering away of private property, government, and punishment, even death he thought would be conquered by reason; and Nicolas de Condorcet called for applications of probability to provide life annuities, tontines, private savings, benefit schemes, and insurance policies. All of these proposals marked the “first practical proposals [aimed] to eliminate poverty” (Stedman Jones 2004, 224).

Foucault ([1977] 1990) locates the birth of biopolitics in this period. When Polanyi ([1944] 2001, 85-86) argues that the New Poor Law, under Malthus’s influence, removed the “right to live,” this is not simply an emphatic turn of phrase. It is exemplary of the way that Malthus’s *Essay* symbolizes the entry into biopolitics. Medical doctors would challenge his purposefully stratified reality. Simply by following a species homogeneity of good health and widened medical gaze, they provided for a plenitude of life in defiance of Malthus. Questions appeared that motivated a very active political medicine with anarchic potential (see Alison 1840): What kind of life could a poor person expect if his or her justified lot according to political economy was scarcity, but that scarcity made him or her sick according to medicine? This opposition of life versus capital generated much tension. Sanitation, under the crafty sponsorship of Chadwick (1842), stabilized the tension and cleaned up the controversy but could never fully encompass it.

### Malthus and the Necessaries of Life

In the middle of the critical moment that gripped England, Malthus ([1826] 2001; [1798] 2001) staged a justice claim in which the right to live was justifiably removed from life (e.g., “savage life”) that did not serve the ends of capital growth. Malthus ([1798] 2001, 8-9) is most famous for his population law in which there is a “constant and pressing disequilibrium between population and means of subsistence” (Dean 1991, 120). Populations increase geometrically; subsistence increases arithmetically: this limits the political construction of life by introducing “the strongest obstacle in the way to any very great future improvement of society” like those envisioned by Paine, Godwin, and Condorcet (Malthus [1798] 2001, ii). But it was not simply matters of fact about population that *mattered* in this case. Entangled with them was Malthus’s construction of two categories—“savage life” and “civilized life”—as the differential necessary for an evaluation, based on differing effects on population as a common world and defined by tests that proved whether persons were savage or civilized. Ultimately, this justified the removal of the right to live from savage life (see also Tellman 2013).

For Malthus ([1826] 2001), savage life is distinguished by “habits of indolence and improvidence” (p. 426), “ignorance . . . and desire for immediate gratification” (Malthus [1826] 2001, 453-54), lack of foresight and thinking only of “present wants” (Malthus [1798] 2001, 34), and a remarkable tendency to put “the procreative power into action” (Malthus [1826] 2001, 153). Civilized life, meanwhile, is characterized by “providence, foresight, and postponement of present gratification for the sake of future benefit” (Malthus [1836] 2001, 72). These traits are indicated by the presence of “capital,” which allows economies to grow beyond subsistence (pp. 262-63). Savage life is indicated by “cold, filth and vermin” (Malthus [1826] 2001, 23); “warfare” (p. 36); “state of depression and constant labor” (p. 30); and the “fear, cruelty, malice, revenge, ambition, madness and folly” that had overcome the French Revolution once it politicized life (p. 320).

The test determining whether one is savage life or civilized life involves traits that the “natural–theological endowment of the earth” makes worthy: if the earth could not provide enough “produce as to oblige all her inhabitants to labour for it, no manufactures or idle persons could ever have existed. But her first intercourse with man was a voluntary present, not very large indeed, but sufficient as a fund for his subsistence till he could

procure a greater” (Malthus [1826] 2001, 392). These are objective conditions. The savage life that violates them deserves its cruel fate, as evident in Malthus’s infamous statement:

A man who is born into a world already possessed, if he cannot get subsistence from his parents on whom he has a just demand, and if the society does not want his labour, has no claim of right to the smallest portion of food, and, in fact, has no business to be where he is. At nature’s mighty feast there is no vacant cover for him. She tells him to be gone, and will quickly execute her own orders . . . if these guests get up and make room for him . . . the order and harmony of the feast is disturbed, the plenty that before reigned is changed into scarcity. (quoted in Tellman 2013, 140)

Malthus would cut this paragraph of the *Essay* (its 1806 version) from its later editions, amid protest, but the moral pragmatics evident here remain in later versions of the text. The *Essay* translates the laboring poor, the Irish, the “parish paupers” all as variants of savage life that exhibit the same “ignorance and indolence of the improvident savage . . . [that prevents] him from extending the benefits of [his] supplies much beyond the time when they were actually obtained” (Malthus [1826] 2001, 28). This not only prevents their personal access to capital, it also prevents the general accumulation of capital.

[Savage life] creates a competition for the necessaries of life, in the progress of population [that] could reduce the whole human race to the necessity of incessant labour for them, man would be continually tending to a state of degradation; and all the improvements which had marked the middle stages of his career would be completely lost at the end of it. (Malthus [1826] 2001, 405-06)

Malthus reads savage life through an imperial lens back into the English metropole (Tellman 2013). His staging of justice culminates in his recommendation that the “abolition of all present poor laws” is needed for the common welfare because only this will cultivate civilized life and create capital. Assistance should only be given “in extreme distress in country workhouses . . . . The fare should be hard, and those that are able obliged to work” (Malthus [1798] 2001, 37-38).

The 1834 Poor Law reform followed suit. To receive poor relief, the New Poor Law required that all “able-bodied poor” submit to confinement in a workhouse. The reform also abolished the right to relief for single

mothers. The workhouse was a punitive institution, organized by the principle of “less eligibility,” meaning that the quality of life for those inside the workhouse must be materially worse than the quality of life for the “lowest class of independent laborer” on the outside. This was justified as a “hardship to which the *good of society* requires the applicant to submit” (Poor Law Commissioners 1834, 262; emphasis added to all). The “*common welfare requires*” that the poor receive subsistence only on these terms, in order, presumably, to teach the virtues of scarcity (p. 228). The workhouse arrangement is designed as a “*self-acting test* of the claim of the applicant” (p. 148). It molds economically responsible wage earners to contribute to economic growth, use “wages [to] supply the necessaries of life” (p. 229), and only in the most “deserving cases” appeal for subsistence (p. 271).

If the New Poor Law abolished the right to live, Malthus provided it with justification. The terms are stark: you have the right to live if you contribute to economic growth; otherwise, you are a population drag and a catastrophic danger of population check. But his account is not eugenics. The difference is that Malthus, at least in principle, provides everyone the “opportunity to make worth manifest” (Boltanski and Thevenot 2006, 82). Unlike eugenics, the workhouse test is meant to bring an order *to light*. It does not apply categorical distinctions (e.g., who has the right to live and who does not) to persons in advance but seeks to mimic the conditions that, in reality, give worth to civilized life.

What we find in Malthus is not simply an efficient means of exercising power but a justified hierarchy of worth rooted in a repeatable grammar (see Somers and Block 2005). Population becomes visible not as the statistical regularities it produces but as an answer to what is in the common good. Civilized life and savage life are its categories or person-states of different worth; their arrangement helps or hurts human populations. Malthus stages justice in his argument about the dangers of population growth and proves that only one category of person has worth. The New Poor Law “inscribes that judgment into reality” such that “persons can be identified with the capacities that the judgment has qualified” (Boltanski and Thevenot 2006, 354). Capital is the surplus effortfully (heroically) drawn out of scarcity that alone provides human populations a space beyond the cycle of bare necessity, checked by famine, violence, and a Hobbesian order of things, but not by *too* much (Malthus [1826] 2001, 392). Only civilized life grows capital. Savage life procreatively consumes the necessaries of life without restraint. It should therefore be put in “fear of want... [as] the best stimulus to industry” (Malthus [1836] 2001, 454).

## The Medical Critique

The birth of public health appears from a medical critique drawn into Malthus's claims because of how he stages justice and makes some life worth more than other life. We find this medical critique in the medical knowledge prevalent in the early Victorian period, specifically how the medical gaze understood disease, where it located disease, and in what circumstances the medical gaze encountered disease (Foucault [1963] 1994, 7). First, the question posed to the New Poor Law and its Malthusian grammar by medical doctors was whether removing the right to live actually created disease. If so, those conditions would count as a *force* that displaces the test introduced by the New Poor Law. One does not succeed on a market because one is a responsible wage earner who earns his keep by growing capital. One succeeds simply because one is *not* sick. Second, according to "constitutionalist" medical doctors, disease becomes apparent in the body, but it can be "spatialized" inside or outside of the body (Foucault [1963] 1994, 9). Third, all medical practice engages in a "tertiary spatialization" of disease by constructing a space for the medical gaze, like in a hospital. In this case, it is important that tertiary spatialization took place in a poor law workhouse (Foucault [1963] 1994, 16).

In these different ways, the medical critique was disruptive of Malthus and the New Poor Law. In general, medicine will *remain* disruptive of inequities because it stakes a commitment to the species homogeneity of healthy life. Doctors do not have to justify their action with respect to the causes of disease they seek to eradicate. This makes those causes natural (dealing with kind) rather than social (dealing with worth; Fourcade 2016). It allows the "plane of life" to become apparent, as a singularization incarnated by persons but situated "beyond good and evil" (Deleuze 2001, 29). If the space that constitutes disease as "natural" does so by making its cause a condition that an order of worth makes *social*, then this can alter biopolitics based strictly on its embeddedness in an order of worth. Here, we find an example: for Malthus and the New Poor Law, poverty was savage life that justifiably lacks the necessities of life because it becomes catastrophic for populations; for early Victorian medical doctors, poverty was a medical problem found in outside-the-body conditions that would make anyone sick.

"Constitutional" medicine was the predominant form of medical knowledge during this time, and it understood health to be "the uninjured endowment of vitality or vital energy" (Hamlin 1992, 54). This "non-diseased

state” prevented sickness, yet it remained vulnerable to a range of different factors that could cause disease (Blane 1822, 48-49). For Blane (1822), author of *Elements of Medical Logic*, the leading medical textbook at the time, the “locus of disease” was the patient’s entire “constitution” inclusive of “all the properties in which the essence of life consists” (p. 42). While he localized disease in the body, Blane gave disease a spatial dispensation in predisposing conditions that were reflected in a patient’s “constitution” (28; 202). Those conditions themselves were capable of “putrescence” when they sapped the body’s ability to block their noxious influence (Blane 1822, 50-51).

For medical doctors influenced by Blane, like Joseph Barnard Davis, “public hygiene” should include many provisions and protections since, in principle, a diseased body signaled diseased conditions of various sorts. “The means of directing, of modifying, and of equalizing the organs in the exercise of their functions” is what “[procured] health and longevity” (Davis 1836, 1). The “well-being of the mind and body” was contingent on “constitutional” factors, including

[a person’s] knowledge, virtue and prosperousness, on the cultivation of the soil, on facilitation of communication, on draining, on the supply of food, both in quantity and quality, on the construction and situation of dwellings, on arts, manufactures and other occupations, on clothing, and on many other influences which directly or indirectly come under the cognizance of their rules. (Davis 1836, 3-4)

Hence, the provision and maintenance of these necessary objects provided for “individual happiness” and was also immediately related to “the strength of a commonwealth” (Davis 1836, 3). Such a holistic focus could not ignore the disease–poverty relationship (see King 1982, chap. 8).

Likely the strongest argument that being poor made people sick (or dead), particularly in the emerging urban slums, came from the Scottish medical doctor William Pulteney Alison. In his definition of “destitution,” this argument is particularly clear. For Alison (1842), destitution was not primarily a matter of economics; rather, it involved “persons who have a deficient supply of the necessaries of life . . . whose food is scanty and precarious, who are obliged to part with bed clothes, body cloths and furniture to procure food; who are inadequately clothed, and generally obliged, at least in towns, to associate together in masses, for the sake of food and shelter” (p. 289). Destitution thus referred to a medical condition that

Alison linked as a predisposing cause to the prevalence of disease among the poor. As he continues:

It is a general principle of pathology that contagion, and indeed any other cause of acute disease, acts most rapidly and most certainly on the human body when enfeebled by deficient nourishment, by insufficient protection against the cold, by mental depression, by occasional intemperance, and by crowding in small, ill-aired rooms, all of which are inevitable effects and concomitants of destitution. (Alison 1840, 13-14)

He subsequently claims that the presence of “fever” in Edinburgh is rampant among those “families partially or wholly unemployed, scantily and irregularly fed, and depressed in spirits, obliged to part with their bed-clothes for subsistence . . .”. (p. 31)

Thus, the presence or absence of the necessities of life determined the presence or absence of disease. Poverty was the localization of disease, its natural cause.

When I say that I consider poverty as a fruitful source of disease, I do not mean to assert that even extreme poverty is adequate to the production of fever; yet I am nevertheless of opinion that it is one of the most predisposing causes, and that it cannot exist long without contagious fever making its appearance, more particularly in densely crowded situations. Poverty not only indicates an inability to procure food in quantity and quality, but it also indicates a like inability to procure all other necessities of life; and it is universally admitted, that where circumstances combine to enervate the human constitution, contagious diseases extend with frightful rapidity. (Alison 1842, 345-46)

Medical attention must focus on the predisposing causes of disease as consistent with “all the causes” of which life consists. Living conditions were disease-free only if they afforded a sufficient barrier against the vulnerability of human bodies to noxious influences. That barrier is contingent on sufficient access to the necessities of life.

The problem for the New Poor Law, then, was that constitutionalist medical knowledge destabilized the necessities of life that the law used to stabilize a market test. This was only made worse by the Poor Law medical service, which provided a venue for the constitutionalist medical gaze to be applied directly to savage life. The service was a holdover from the Old Poor Laws that the 1834 reform did not abolish, merely replacing

the old parish surgeons with district medical officers (see Hodgkinson 1967; Flinn 1976). The retrenchment of aid posed significant problems for the medical service and not only because the district medical officers on staff tended to be constitutionalists. The relieving officers who decided the merit of applicants were not fit to judge whether they needed medical treatment (Hodgkinson 1967, 20, 38-39). That was the medical officers' expertise. Yet the relieving officers objected to the medical officers' recommendations as all too generous, unjustified, and inconsistent with the principle of "less eligibility." The "superiority of the condition of paupers over that of independent labourers *as regards medical aid* will . . . encourage a resort to the poor rates for medical relief . . . and will thus tempt the industrious laborer into pauperism" (1841 Poor Law Commissioners Report quoted in Flinn 1976, 58).

The tension revolved around the constitutionalist claim that poverty was a medical condition and that lacking the necessities of life caused disease. This claim was directly at odds with the relieving officers' preference that even sick poor applicants enter the workhouse, despite the cruel irony that the punitive means of receiving medical aid resembled the causes that medical doctors found as the source of their disease. The medical critique established a different grounds for biopolitics, one that would provide for the plenitude of (healthy) life instead of disallowing any human form of it to reach the point of (near) death.

In one sense, "plague is the oppressor's reward". Population health is put at risk when a segment of the population is so deprived of the necessities of life that they become conduits of disease. In a different sense, the medical critique contradicted the Malthusian claim that life only had worth for capital. On the plane of life, the medical critique made no differentiation between types of life as better or worse; it was committed to physiological universalism instead. Whether the healthy body was poor or rich was incidental. Medical doctors' secondary spatialization of disease in conditions like poverty meant that medicine surpassed Malthus's attempt to differentiate between savage and civilized life. Where Malthus judged life against a standard of capital growth (the common good of populations), the medical critique used a different standard, one that scrambled the sense that the conditions of life of a working person *should be* worse than those of a rich person.

Even civilized life offered no immunity. Producing capital and economic growth (by selling labor power) could make one sick or even dead (see Wing 1837, 146). Karl Marx ([1867] 1976) would retrieve this point several decades later in vivid language: "the period of time for which [the worker]

is free to sell his labour-power is the period of time for which he is forced to sell it, that in fact the vampire will not let go ‘while there remains a single muscle, sinew or drop of blood to be exploited’” (p. 381). Marx here quotes Engels, who concluded that, at least in 1840s Manchester, “supply and demand are the formulas according to which the logic of the English bourgeois judges all human life . . . All the conditions of life are measured by money, and what brings no money is nonsense, unpractical, idealistic, bosh” ([1844] 1999, 282). The medical statements given above would suggest that Marx and Engels are not being (merely) hyperbolic. Rather, capital and life *are* deeply entangled and opposed: just ask the medical doctors. These most famous critiques of capitalism (see also Polanyi [1944] 2001, 76) are variations on the medical critique.

In short, then, the medical critique goes something like this: if the conditions that define your social class also make you sick, medicine will erase your social class by bringing you to a state of health. Medicine should *not* do this, according to Malthus, based on the common good of populations. Constitutionalist medical doctors say that medicine *should* do this, based on the undifferentiated worth of life and the spread of “fever” from the city slum to the high street.

The remainder of the article will establish how public health emerges from this controversy as a way to stabilize and clean it up, to “purify” it (Latour 1983). As a counter to the medical critique and its extension of life to the point that it begins to erase distinctions of class (or race, gender, nationality), public health is organized around a bifurcation of the medical critique, disentangling only *certain* causes of ill-health from its wide-ranging set of causes and determining “what aspects of whose health are the public’s business” (Hamlin 1998). The problem is that the things in question (necessaries of life) have such deep connections that the phrase “public health problem” is capable of seemingly infinite extension.

## Getting to Water and Sewers

The Public Health Act that passed in 1848 recognized only sanitation as a public health problem. The argument here is that the English civil servant Edwin Chadwick contained the unruly potential of the necessaries of life by fixing public health on causes that carried no ambiguity: feces and water or rather the absence of the former and the flowing presence of the latter. The state would foster a form of life freed from the presence of shit. It would not foster a type of life freed from the material conditions

that made poverty a predictor of early death. The public dimension of health was not, then, tied to something that made people both sick and *poor*. As Hamlin (1998, 7) points out, you don't need to visit your local public health department to find out how influential Chadwick's "sanitary revolution" is for making public health as matter of fact as can be. Just observe how most people "judge places mainly on 'sanitary' grounds: be the inhabitants dull, rude, even brutal, so long as they have proper restrooms they are civilized."

How public health became fixed in this way must be recounted in a few episodes and how they culminated in Chadwick's own landmark publication: the 1842 *Inquiry into the Sanitary Conditions of the Labouring Population of Great Britain* (hereafter the Sanitary Report). One of the more intriguing places where we find the initial fixing of public health involved the question of "fever": what it was, what caused it, and why it was rampant in the growing tenements of urban areas (Pelling 1978). The *Report on Certain Physical Causes of Fever in the Metropolis* written by Arnott and Kay (1838) tried to locate it in "environmental" causes. Their attempted purification of what, for the medical critique, was a quite obvious "poverty equals plague" connection had a profound influence on Chadwick's version of public health.

Arnott and Kay (1838) distinguished between two types of cause for "endemic contagious fever" among the populations they surveyed in London: first, those "circumstances injuriously affecting the well-being of the poorer classes, and arising independently of their habits" and second, "circumstances injuriously affecting their well-being, and originating to a considerable extent in their habits" (p. 108). In the latter were "habits" such as "the gross want of cleanliness of the person and dress and habitations of certain classes of the poor." In the former were "environmental" factors that would become mainstays of the sanitary paradigm: "the imperfection or want of sewers or drains . . . the existence of uncovered and stagnant drains and ditches . . . open stagnant pools of water rendered putrid" (p. 108).

The "want of drains or sewers" does not indicate poverty. The "habit" of dirtiness among the poor is not caused by their lack of water. Contagious fever affects *anyone* who happens to live in sewerless and drainless environs. It does not (as it really did) affect primarily *the poor* (especially the poor Irish) who crowded the tenements in which Arnott and Kay sampled their data.

Meanwhile, in the *Prevalence of Fever in 20 Metropolitan Parishes*, published in 1839 by Southwood Smith (1839), the solution to fever prevalence echoed the recommendations of Arnott and Kay: "extend and

perfect the drainage and sewage . . . prevent the accumulation of putrefying vegetable and animal substances” (p. 170). “The filthy, crowded, state of the houses, and the poisonous condition of the localities in which a greater part of the houses are situated [results] from the total want of drainage, and the masses of putrefying matters of all sorts which are allowed to accumulate and remain indefinitely” (p. 170). The location of disease is in these conditions, equally noxious to everyone. Even “relieving officers and medical men . . . lost their lives in consequence of a brief stay in these places,” proving that “by no prudence or forethought on their part can [anyone] avoid the dreadful evils . . . to which they are thus exposed” by such disease-ridden environs (p. 171). That the vast majority who do succumb are in dire poverty to start with is beside the point.

Arnott and Kay’s *Report* and Smith’s *Prevalence* were both essential in fixing public health on sanitation. Chadwick himself and his critical reaction to the pioneering statistician and epidemiologist William Farr’s (1839) claim that starvation caused deaths provides a further example, giving insight into why water and sewers, basic sanitation, anchored public health and not something more. Farr’s (1839) radical claim was not that 141,607 deaths were recorded in England and Wales between June and December 1837. His radical claim was that “the deaths of 63 individuals . . . were ascribed to starvation.”

The want of food implies the want of everything else—except water—as firing, clothing, every convenience, every necessary of life, is abandoned at the imperious bidding of hunger. Hunger destroys a much higher proportion than is indicated by the registrars in this and every other country; but its effects, like the effects of excess, are generally manifested indirectly, in the production of diseases of various kinds. (p. 106)

Chadwick’s reaction to Farr was quick and hostile. He understood the problem that Farr’s findings posed to the Poor Law system, based as it was on market dependence for access to the necessities of life, as a *medical* challenge. If hunger caused death, then food should be given. But this would exercise the state’s power over life in ways that did not require a debt of justice in the form of labor. Farr’s study was “either inadequate to [its] object or improperly administered” (Chadwick 1840).

Chadwick attempted to pick apart Farr’s findings point by point. At least thirty-six of the starvation deaths were infants, Chadwick claims, most of whom likely succumbed not to starvation but to “various causes of mortality prevalent amongst the children of all classes” not just the poor (Chadwick

1840). Even if infants had died of starvation, the cause was not an absence of food but “the extreme ignorance in administering proper nutriment to infants, which physicians represent as too often found in the laboring classes.” Among the noninfant deaths with alleged starvation causes, Chadwick claims that most “were either voluntary or wilful [*sic*] or suicidal,” stemming more from irresponsible “habits.”

Chadwick points to logical errors in Farr’s claims: if starvation causes deaths among a population where “hunger or destitution [is] equally pervading a whole class . . . [it] must be attended with effects as extensive as the cause.” *Only* sixty-three deaths suggest otherwise. Chadwick reaffirms the commitment of the New Poor Law that “the labouring classes of the kingdom should enjoy the largest possible share of the comforts and necessaries of life, which is compatible with their condition.” If they did not squander their “surplus means . . . on expenditure for immediate gratification,” they would not be so close to starvation. Ultimately, Farr promotes an “unfounded representation of the existence of all-pervading causes of privation, suffering and death—’hunger.’” Farr’s argument that starvation causes death does not respect the dichotomy found in Chadwick’s preferred focus on drains and sewers.

Farr’s (March 9, 1840) rebuttal is worth discussing because it includes a more extensive list of the necessaries of life, posed against Chadwick’s fixed focus. The statistical category of “starvation,” Farr claims, referred not just to hunger but “would imply death by privation, the want of warmth and proper food at all ages.” The “want of proper food is generally accompanied with a want of all the other necessaries of life.” Farr emphasizes that a “certain amount of animal and vegetable food” is required in order to prevent disease. Such a diet need not be as robust as the English soldier’s diet, but surely it must surpass the “average workhouse diet” as mandated by the New Poor Law, which is simply not enough. In every instance of mortality due to starvation, an insufficient diet combined with “different circumstances, such as cleanliness, ventilation,” to create an insufficiency of “carbonic acid” and body heat. Farr therefore concluded that an absence of food was the cause of death, but starvation worked “indirectly by giving rise to diseases of various kinds.”

The Farr–Chadwick controversy reveals how settling a cause of death involves confronting the unruly materiality of the necessaries of life, the force they exercise, as recognized by medical doctors at the time and revealed in Farr’s statistics. Their absence can cause disease and death, leading to catastrophic epidemics involving inscrutable ailments like “fever.” This eludes the use to which the New Poor Law has put them and

challenges the way Malthus stages his responsibility claim for poverty. Chadwick does not dismiss the medical force of the necessities. He instead provides counterarguments that fix their materiality on only certain causes and dangers. Chadwick knew that medicine would pursue disease violently, without justification, and unravel the enforced scarcity of the New Poor Law. What he, Arnott, Kay, and Smith all demonstrate, is the formula for “public health” that appears in a justification against the medical critique and constitutes a selective purification of its medical gaze.

### The Sanitary Report

In 1842, Chadwick authored the *Sanitary Report*, which served as the key document influencing the 1848 Public Health Act. The act created the General Board of Health with Chadwick at the helm. While short-lived, the GBH enjoyed unprecedented centralized authority over English municipalities within this notoriously “small state” (Jensen 2008; Rosen [1958] 1993, 196-97). The Public Health Act followed recommendations by the 1843 Health of Towns Commission that concluded that “the best mode of preserving the Public Health [is] by an improved system of sewerage in large Cities [and] by a more abundant Supply of Water . . .” (Sir James Graham quoted in Hamlin 1998, 219). The agency of public health was set, then, as sanitation.

What Chadwick does in the *Sanitary Report* is carefully purify certain causes of ill-health as “accidental” and “essential” (Chadwick 1842, 113). Problems that appear when the New Poor Law meets constitutionalist medicine are contained by partition: what “medical men” consider an essential connection between something like conditions of work and disease is probably only an accidental connection, which can only be understood if the medical gaze is not limited to the hospital (or the workhouse) but instead applied to “such patients under the varied circumstances in which the disease may have been contracted” (Chadwick 1842, 114). Thus, Chadwick plants a seed of doubt in medicine’s expansive claims for health. Biopower as Chadwick was aware of it simply cannot be exercised to fight causes of ill-health that are accidents. Not only do they rest outside the conceivable realm of state control, they are also not even a matter of justice but chance instead. This makes them the domain of the responsible wage earner, not the state.

All of this defends Chadwick’s own preferences for public health. Chadwick had no medical training but that didn’t matter. He has a very distinct and unignorable materiality on his side: Chadwick (1843) makes “offensive

smells” the essential sign of a public health problem. “On the whole, the evidence tends to establish the general conclusion that offensive smells are true warnings of sanitary evils” and the “mass of atmospheric impurity” is the main concern of “public health” (p. 16, 31). Such a proposition eliminates anything whose olfactory presence is limited or negligible, such as unemployment or lack of food, and it does so with the force of obviousness that anyone with a nose can see (or smell). Chadwick’s (1842) *Sanitary Report* acknowledges only “the pervasiveness of various forms of epidemic, endemic, and other disease caused . . . chiefly by atmospheric impurities produced by decomposing animal and vegetable substance, by damp and filth” (p. 369).

Chadwick is aware of constitutional medicine and how medical concerns involve many more necessities than just water and sewers. As he explains, “employment and wages, and various and abundant food” appear to “[afford] no exemptions from attacks of epidemic disease” (Chadwick 1842, 369). A careful parsing of the medical doctors’ arguments shows that the “attack of fever precedes the destitution, not the destitution the disease.” Chadwick (1842), not known for humor, becomes satiric at this point: disease cannot “be made generally to disappear simply by grants of money” (p. 144). He focuses public health instead on “atmospheric impurity, occasioned by means within the control of legislation, [as] the main cause of the ravages of epidemic, endemic, and contagious diseases among the community, and as aggravating most other diseases” (Chadwick 1842, 4).

This means that the constitutionalist diagnosis of poverty and illness is exactly the reverse: “The occurrence of severe destitution is denied as a cause of disease [but] not as a consequence” (Chadwick 1842, 149). Sickness precedes poverty; it does not follow it. Arguments that destitution causes disease “have had extensively [*sic*] the disastrous effect of preventing efforts being made for the removal of the circumstances which are proved to be followed by a diminution of the pestilence” (Chadwick 1842, 150). In one sense, this is simply an argument for what is “within the control of legislation” and what is not. What is fixable? It does not mean what is easiest to do. The vast infrastructure required for water and sewers does not suggest a path of least resistance (Crook 2016). Fixable also does not mean following medical opinion at the time.

For Chadwick, rather, fixable means that which treads lightly on Malthus’s polity, in which life is justified by its contribution to capital growth. Markets, in these terms, make someone a point of the converging desires of others, justified in existing by their contribution to capital; civilized life not savage. Participation in the common good is signaled by employment. But

this only works if biopower is exercised on few to no necessities of life, the right of access otherwise being determined by the invisible hand and one's ability to make it grow. Whatever is outside of the "control of legislation" interferes with that. Or at least this seems to be why Chadwick would limit public health to "atmospheric impurities," important, no doubt, but not what we would expect if public health were medical.

What is clear in the *Sanitary Report* is how much Chadwick knew of the medical critique and how extensive public health could be. But he argued that his own version would suffice for the necessities of life, secretly admitting that there could be more. It is worth concluding this discussion by comparing Chadwick on this point with standpoints far-flung from his own. The Chartists, those political radicals armed with a People's Charter, seeking Parliamentary reform and much else, tied access to "substantial necessities of life," including food and clothing, to "extended" political enfranchisement. They thought this necessary to maintain an individual's "ardent love of liberty" ("The Franchise." *The Chartist Circular* April 17, 1841). For a radical like William Cobbett, meanwhile, "sufficient access to all the necessities of life," including food and clothing, constituted the very "foundation of society" and made "a civil society" possible. Without access to the necessities of life, people could justifiably break laws. The poor had a "right . . . to obtain from the rich sufficient supply" of the necessities (Cobbett 1832, 26).

Neither the Chartists nor Cobbett was particularly medically minded. But that didn't matter. If you accept that there are social causes for ill-health, not simply acts of God or natural systems at play, then you can draw extensive claims, with no end in sight. This was obvious at the time, and it entangles health as a key ingredient in social formations of every sort. Chadwick seemed to recognize that equipping people with proper motivations and ambitions, call it "ardent love of liberty," "civility," or whatever you like, required basic health. He agreed with the Chartists and radicals like Cobbett on this. But it required no grand design. Human dignity itself needed only proper sanitation, flowing water, freedom from filth: "The improvement [through sanitation] has arisen . . . from the parties feeling that they are somewhat raised in the scale of society. The man sees his wife and family more comfortable than formerly . . . he is stimulated to industry . . . and becomes aware that he has a character to lose . . ." (Chadwick quoting Charles Higgins 1842, 262; see also Chadwick 1842, 143, 157, 247).

Such was Chadwick's "sanitary paradigm," and it did not eliminate public health as a matter of concern, but it did drastically narrow the

associations by focusing them on the sanitary condition. After the Health of Towns Commission approved of Chadwick's sanitarianism and the Public Health Act followed suit, Chadwick (*sans* engineer training) came into conflict with engineers over the design and construction of water lines and sewerage systems (see Rosen [1958] 1993, 194). He preferred high-pressure and constant water supplies shot through small clay pipes that allowed for continuous draining. The engineers feared overflows and favored larger brick sewers that were slower moving (Hamlin 1998, 320-21; Rawlinson 1852, 27-28).

The point, however, is that public health was now a problem for the engineers and not the doctors. "The great preventives—drainage, street, and housing cleansing by means of supplies of water and improved sewerage, and especially the introduction of cheaper and more efficient modes of removing all noxious refuse from the towns—are operations of the civil engineer, not the physician" (Chadwick 1842, 341). Public health becomes technology (literally), but only in being carved out by a process of purification, the setting of boundaries and bifurcations, making public health a matter of fact that is recognizable, yes, but in this perspective also limited.

## Conclusion

This genealogy of public health attempts to construct it as a matter of concern. The burden is large because the matters of fact are so self-evident. Public health can be explained much more simply by citing a bare and brutal empiricism. For instance, the historian Oliver MacDonagh (1977, 6) places emphasis (felicitously) on the "bare facts of the extent of suffering, waste, dirt and disease" exposed as part of the "vast mass of information and statistics" gathered by select committees and royal commissions (after 1830 in particular). For MacDonagh, the origin of Victorian public health holds no mystery: put these facts in front of professionals with the right technical and scientific gaze and the solutions become so obvious they could not be any other way. "Resolved [those problems] had to be" and so they were. People die from ingesting fecal matter; the lack of sewers spawns disease; rich and poor bodies alike are vulnerable to urban coexistence; humans do not like stinky odors. These "irreducible brute facts" (MacDonagh 1977, 20) speak volumes. Don't think about it *too* hard.

In taking a constructivist approach, this article has not attempted to generate disbelief about these bare facts or other constructions that

emphasize straightforward matters of fact but rather to entangle these different types of fact with concerns that are not peripheral to them. MacDonagh is no Foucauldian, and his bare facts are not what is “matter of fact” in a biopolitical account. Nevertheless, in an important sense, both he and Foucault demonstrate the same problem. Their realities are more fixed, indisputable, and less lively than what is the case. The bare facts on which MacDonagh rests his case were *not* the only facts available to public health protagonists like Chadwick, and while there is no reason to doubt the validity of biopolitics in this case, the practical engagements involved in governing life presuppose concerns that are largely omitted if power and interest are the only relevant stabilizing forces behind familiar worlds. With Puig de la Bellacasa (2011), this is a “problem of knowledge politics: how we present things matters” (p. 87). Such lessons assume greater relevance for scholars interested in the process of translation, its critical capacity, and how public health seems uniquely to be a venue for it.

### **Acknowledgments**

Sara Shostak and the students in her So You Want to Change the World? seminar provided invaluable feedback on this work in its late stages. It also benefitted from a close reading by Lyn Spillman. Special thanks to the ST&HV Editor, Managing Editor and reviewers for their generous assistance, suggestions and patience. To Cammi Bailey for everything else.

### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

### **Notes**

1. Johns Hopkins Bloomberg School of Public Health, “From the Obscure to the Everyday, These Objects Tell the Story” (September 13, 2016).
2. Center for Disease Control and Prevention, “Ten Greatest Public Health Achievements of the Twentieth Century” (November 18, 2016).

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