

The Curriculum of the Body and the School As Clinic

Histories of Public Health and Schooling

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Chapter 1 Raising a Healthy Nation

Provisioning public health in English schools,
c. 1875–1914

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RAISING A HEALTHY NATION

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Jim Harris

Williams and Mooney (1994) calculate that 78% of the English population lived in cities by the year 1901, up from roughly 50% in the middle of the 19th century. With this rise in urbanisation, the deleterious impacts of city life on the health of English citizens became an important matter for public health. Municipal sanitary reforms, whose origins Hardy (1993), Hamlin (1998) and Porter (1999) trace at least to the mid-19th century, sought to mitigate some of the ‘damage’ wrought by city life and were particularly effective at reducing the spread of infectious diseases. However, sanitary reforms alone were insufficient to improve the physical health of the many ‘puny and ill-developed’ English children, as the Scottish physician James Cantlie (1885) described them (p. 33), whose productive role in military and the political economy of the nation and empire had become a major focus of contemporary public health administrators’ attention. Cantlie’s language was extreme but still representative of upper- and middle-class nationalist fears about ‘national efficiency’ and the possibility of imperial decline vis-à-vis the other ‘Great Powers’ that in turn influenced efforts to ‘improve’ the lives of the working classes.

Protecting children’s health required carefully managed public health interventions early on in life, but public health administrators often faced resistance to what Mooney (2015) has described as ‘intrusive interventions’ into the intimate aspects of English daily life, such as public health inspections and regulations inside the privacy of the home, which were frequently perceived as the act of an overreaching state apparatus. One way in which public health sought to bypass this resistance involved targeting children outside the home. As children grew into early childhood and left home for primary school education, they became more accessible to public health administrators. In turn, this allowed for more opportunities for medical interventions intended

to promote their healthy development without creating the perception of the state invading the privacy and intimacy of the house and home.

To demonstrate how English schools became increasingly embedded in expanding systems of public health, this chapter traces the history of public health in English schools from the mid-1870s, at which time public health efforts were still largely focused on disease control, through the first decades of the 20th century, when the role of public health became embroiled in the nationalist ‘child saving’ mission during the age of high imperialism. By the first decade of the 20th century, public health efforts in schools became increasingly proactive to ensure children were not only free from disease, but also properly nourished, growing up healthy and in a physical condition to benefit from their education, as contemporaries increasingly believed that the future of the nation and the empire hinged on their physical and bodily well-being. To borrow Armstrong’s (1993) language, schools became a sort of ‘laboratory’ in which children were subject to ‘analysis, experimentation and transformation’ (p. 402). In schools, children were observed for signs of disease, and their health was *analysed* as they were routinely measured to ensure that neither disease, malnourishment, nor environmental hazards were adversely affecting their physical development into adolescence. In cases where children were found suffering, schools began to provide a space for *experimentation* with treatments ranging from the provision of free meals to simple clinical practices that would, in theory, *transform* them into a healthier future generation. All the while, because the children were under the public supervision of the Board of Education and Local Education Authorities while at school, this was believed to be less ‘intrusive’ than other aspects of public health.

Origins in infection control

The practice of promoting public health in English schools predates the 20th century, of course, and the origins of public health in schools were narrower in scope and focused on issues of contagion and disease control. As Burns et al. (2019) note, during the 19th century, the rise in mass schooling created new health risks as crowded public schools often became sites for the opportunistic spread of infectious diseases. Hirst (1991) adds that between 1848 and 1872, ‘infectious diseases were the main cause of death among the school age population’ averaging 412.8 deaths per 100,000 living (p. 108). Thus, beginning in 1851 Medical Officers of Health were permitted to enter and observe schools, at least for cases of smallpox, though they rarely did (Woodward, 1995).

By the 1870s, doctors increasingly adopted the (correct) conclusion that overcrowded, unventilated schools, often with defective plumbing, were prime sites for infectious diseases to spread. In 1875, *The Lancet* established a

Commission on the Sanitary Condition of Public Schools that forcefully argued for the importance of sanitary reforms in schools. It offered suggestions with regards to hygiene, temperature, ventilation and waste removal from classrooms (and dormitories) to reduce students' exposure to infectious diseases (Report of the Lancet Sanitary Commission, 1875). Hirst (1991) adds that beginning in 1876, Medical Officers of Health called for legislation that barred infected children from attending schools to avoid an outbreak of common childhood diseases (like diphtheria, measles and scarlet fever). However, the implementation of many of these reforms proved too costly for many local education authorities to bear. By the year 1880, when Parliament enacted free and compulsory primary education nationwide, medical authorities largely accepted that schools created a high-risk site for exposure to infectious diseases, while still debating the best course of action to prevent outbreaks in schools.

Building a coordinated system in which schools became connected with larger municipal public health efforts remained difficult for several reasons. First, even though the 1875 Public Health Act obligated teachers to notify the health department of suspected cases of infectious diseases among their students, individual cases often went unnoticed, especially as class sizes grew. Second, medically untrained teachers often made 'diagnostic' mistakes. Third, school boards often impeded rather than aided municipal Medical Officers of Health from working with teachers to identify infections within schools, issuing their own regulations to teachers on health matters (Mooney, 2015).

Once a system was established to identify cases of children with disease, medical authorities sought to establish a means of mitigating an outbreak within schools. Developing such a process also proved difficult, and, initially, put school officials at odds with municipal public health administrators. Under Local Government Board policy, a student who was diagnosed with an infectious disease could be barred from school until cleared by medical examination. This was highly contentious. In small, poorly ventilated, working-class homes, it was nearly impossible to isolate a sick child, meaning that if one child contracted a disease, then the entire family likely needed to be barred from attendance at school until the course of infection passed. In the event of a larger outbreak within a school, a common practice was to simply close the entire school. But this practice was rarely effective in stopping a highly transmissible disease like measles, which became infectious among close contacts before cases became visibly identifiable by the tell-tale rash, and thus could easily spread throughout a school before the first cases were even clearly identified. Thus, school closures were largely ineffectual at best in stopping disease outbreaks. In addition, school closures had serious financial consequences, as schools' funding (and teachers' salaries) were partially determined by attendance (Mooney, 2015). Educators often concealed outbreaks rather than reporting them to the municipal health authorities, which, according to

Hirst (1991) created no shortage of animosity between educational and sanitary authorities. Municipal Medical Officers of Health understood these difficulties associated with school closures, but nevertheless generally supported the practice.

The city of Manchester provides a useful case study. During an 1898 outbreak of measles, Medical Officer of Health James Niven (1899, pp. 88–89) praised the School Board for providing his office with a daily list of cases, which allowed for ‘prompter action’ to ensure isolation of the patients and better charting of the course of the outbreak. At the same time, Niven was aware of the ‘heavy responsibility’ upon his office, and the difficult choice he had to make in ordering the closure of schools. Niven concluded that the benefits of delaying and slowing the course of an outbreak of measles by closing schools outweighed the costs. The School Board disagreed, strenuously, when Manchester faced another epidemic of measles that was ‘more violent than ever’ (killing 699 and infecting 13,980 children) the following year, which forced many children’s services to close, including schools. Niven (1900, pp. 78–83) insisted that ‘prompt action’ must be taken when the presence of measles became apparent in schools. Teachers were asked to report cases directly to the Health Authorities. But this often happened too late, as measles is most infectious in its pre-symptomatic stage, making detection difficult. Thus, even when cases were reported diligently by teachers, reports often came too late to stop an outbreak within a school, and so school closures seemed necessary.

This animosity between school and municipal public health authorities was not relieved until a reform to the Education Code (Article 101) in 1892 created an important exception to the reduction in schools’ funding due to low attendance if reduced attendance resulted from an order from the Sanitary Authorities. This made school officials much more amenable to cooperation. However, when Article 101 was revoked in 1903, this financial uncertainty briefly reemerged, until the practice of whole-school closures began to fall out of favour during the first decade of the 20th century, such that Kerr (1916) declared school closures ‘as obsolete as quarantine’. He argued that their effect on stopping the spread of measles ‘was quite illusory’ because a student became infectious days before the rash appeared (pp. 248–249). Instead, he encouraged the more targeted practice of individual pupil exclusion, measured by immune status (since second cases of measles were rare). The Board of Education agreed that ‘the prompt exclusion of individual children’ was a better course of action in disease prevention and would cause the ‘least amount of interference with the education of the majority of the children in a school’ (Mooney, 2015, p. 112).

So, to summarise, divisions and tensions characterised the relationship between school authorities and municipal public health administrators until the 1890s when, Hirst (1991) reports, a ‘more co-operative, even collaborative

approach began to emerge' in many municipalities as both understandings of disease aetiology and educational and public health policy changed (p. 113). I would suggest that this softening resulted from a growing acceptance of a contagionist theory that 'placed less emphasis on the need to control the school, and more on the need to isolate individual cases' (Hirst, 1991, p. 114). This emphasis on the individual also increased working-class willingness to accept more public health interventions, though access to the home was still met with a high degree of resistance. As school administrators became more willing to work with municipal public health administrators towards the common goal of preventing a disease outbreak in schools, we then see the first layers of a foundation for raising a healthy nation being laid in English schools by the 1890s.

In addition, in 1890 W.R. Smith was appointed as the first School Medical Officer, in London. His position was only part-time, and his primary responsibility was to provide medical guidance on the ventilation and sanitation of the school. Other towns followed suit. Bradford was the first town to appoint a full-time School Medical Officer, James Kerr, in 1893. Unlike Smith, Kerr was responsible for examining students, looking for signs of infection (Newman, 1939; Woodward, 1995). Also beginning in the 1890s, doctors urged school officials to be methodical in their record-keeping of case histories, absences and presence of diseased children, as well as greater cooperation between school medical authorities and parents (Mooney, 2015, pp. 96–98). At roughly the same time, growing sales of medical textbooks like Arthur Newsholme's *School Hygiene* (first published in 1887) further illustrated a growing belief that schools must be healthy environments for students.

In some ways, as the Scottish physicians and medical examiners Mackenzie and Matthew (1904) argued in their popular textbook *The Medical Inspection of School Children*, concerns about infectious diseases 'played an enormous, perhaps an exaggerated part' in shaping medical examination in schools, but it is indisputable that concerns about diseases in schools established a relationship between municipal public health and educational authorities (p. 2). As this relationship developed, school-aged children were subjected to other types of medical examinations and interventions. However, the process of integrating public health into schools in a regular and systematic manner remained a slow and gradual process that would not be fully formalised until the establishment of the School Medical Service in 1907, which we will return to at the end of this chapter.

Expansion: Monitoring for malnutrition and school meals for public health

As English medical personnel began working with and directly in schools in the last decade of the 19th century, they began to not only monitor for infectious diseases but other indicators of poor health as well. Doctors

encouraged careful monitoring of the height, weight, teeth, eyesight, hearing and skin of schoolchildren as metrics for physical and mental well-being (Woodward, 1995, p. 132). In 1904, the Inter-departmental Committee on Physical Deterioration (1904), which was tasked with surveying the physical condition of the population at large, asserted that ‘a systematized medical inspection should be imposed as a public duty on every school authority’ (p. 65). By 1907, as Dwork (1987) makes clear, inspections had become commonplace in English schools. These inspections were not merely attempts to tabulate statistics on average heights and weights but to identify the nearly one-fifth of schoolchildren in need of intervention to ensure their healthy development.

Like concerns about infectious diseases spreading in schools, concerns about the condition of children’s physical and bodily health also emerged in public health discourse during the last decades of the 19th century. *The British Medical Journal* warned that if a child was ‘pale and feeble and depressed, badly fed and clothed and housed, and surrounded by all the most depressing influences of sanitary neglect’, extended school days would do more harm than good to their ‘badly nourished brains’ (Educational Pressure, 1880, p. 892). J. Milner Forthergill (1889) lamented that driving ‘children like a flock of sheep, through a certain series of examinations’ while they were in poor health and malnourished did more harm than good and feared that ‘a system of education, which kills off the weak children, is [of] doubtful advantage’ (pp. 92–93).

Concerns about malnutrition garnered special attention in these discussions. An 1889 study conducted by the British Medical Association found that 43,000 children in London board schools were ‘inadequately fed’, and this was stunting growth and inhibiting mental capacity for education (Feeding the Hungry Children, 1889). According to Frances Warner (1892) of the London Hospital, malnourished children were visibly ‘thin, pale or delicate-looking’ (p. 538). Warner suggested that determining the severity of a child’s malnourishment required physical examination of the limbs and torso as well as the face. Abnormalities in cranial development (21 inches in circumference at age seven was considered average), spinal development (measured by the curvature of the spine and symmetry of the head balance) or nervous defect (such as eye twitches or hand imbalance) all potentially indicated malnourishment. Yet, despite vivid reports of sickly, malnourished children, many contemporaries believed that providing meals to these starving children was ‘an unnecessary intrusion on the responsibilities of parents’ (Welshman, 1997, p. 7).

By the first decade of the 20th century, concerns about the physical condition of school-age children became more pronounced amid growing fears of national and imperial ‘degeneration’. One commentator wrote in *The British Medical Journal* that there ‘can be little doubt that one of the chief causes of

this degeneracy in young people is to be found in the insufficient food on which it seems to be expected that the hard work of school life should be performed'. They insisted that schools should provide a diet that was 'good for boys' so that they might 'reach the highest possible physical and mental development' (*The Food Factor in Education*, 1903, p. 424). James Kerr (1916), the first full-time school medical officer, went even further, arguing that 'if the food supply is scanty ... growth will be impeded, and children will be stunted specimens of humanity' (p. 195). Under these circumstances, it appeared as though the importance of feeding these necessitous children began to outweigh concerns about 'intrusion' into the responsibilities of parents.

Malnourished children were easily identifiable in schools where they were subject to regular observation, and this further reinforced the role schools could play in raising a healthy nation. Contemporaries generally agreed that schools could also be sites for direct interventions, including providing nourishing meals to children. One commentator in *The British Medical Journal* believed 'when those in control of the school are directly responsible for the feeding of the children ... there is no excuse for the diet being other than sufficient in quantity and suitable in quality' (*The Food Factor in Education*, 1903). In 1904, the *Report of the Inter-departmental Committee on Physical Deterioration* (1904) made clear that a substantial population of school-aged children were malnourished, and the committee urged schools to serve reduced-cost meals in a systematic way so that the diets of malnourished children could carefully regulated, unlike in meals taken at home (Davin, 1996). That same year, James Kerr, along with school board member Margaret McMillan and city councillor Fred Jowett, introduced the first municipally funded programme for school meals in Bradford (Vernon, 2007).

A year later, the *Report of the Inter-departmental Committee on Medical Inspection and Feeding of Children Attending Public Elementary Schools* (1905) expanded on the need for systematic feeding of school-aged children. Tasked with determining which children should receive subsidised or free meals, the manner of serving them and what foodstuffs they should provide, the committee advised that a relief committee rather than teachers should select the children to receive meals; that permanent and regular feeding of those children most in need would do much greater good than feeding a larger number of children irregularly; that meals should be provided every school day and throughout the year; and meals should be properly served to train in both manners and suitably prepared food.

In 1906, W.T. Wilson and Thomas Macnamara introduced the 1906 Education (Provision of Meals) Act into Parliament, which allowed public elementary schools to provision meals to the pupils—and either recover the costs by billing the parents or with public funds from the Board of Education. According to Vernon (2007), the voluntary nature of the Act made it

attractive across political lines. To appease conservative dissenters, Chief Medical Officer of the Board of Education George Newman (1939) explained in his memoirs that the Board of Education programme for feeding school-children aimed only to supplement at-home feeding of the children, but above all else to ensure that the child received ‘sufficient and stable food’. To Newman, the provision of school meals was not an act of an overreaching state, but a supplement to home feeding to prevent ‘disability, defect or weakness, physical or mental—threatening or actual—of the child’s body’ (pp. 332–333).

The school meals programme was not simply a new form of poor relief (although malnutrition was often the function of poverty); it was another major example of how schools became important sites of public health reform in the early 20th century as the provision of school meals to necessitous children did aid in their healthy development. However, the permissive nature of the Act made its adoption uneven across Great Britain before 1907. Thus, this important Act was not a permanent or absolute solution to the problem of malnutrition in English children. Rather, as Welshman (1997) notes, the 1906 Education (Provision of Meals) Act laid the foundation for further legislation later in the century, beginning with the expanded Education (Provision of Meals) Act of 1914, which expanded state funding for school meals, and even more far-reaching legislation in the 1940s that made the earlier permissive Acts compulsory.

Consolidation: The School Medical Service

Monitoring for infectious diseases linked schools with broader municipal public health efforts administered by the Medical Officers of Health. The provision of nourishing meals in schools further emphasised the importance of work schools could do to promote and improve children’s health. But the irregularity of public health interventions in schools across English cities made further codification necessary. To this end, on 28 August 1907, Parliament passed the Education (Administrative Provisions) Act (1907), which empowered Local Education Authorities ‘to provide for the medical inspection of children immediately before or at any time of, or as soon as possible after, their admission to public elementary school’. In addition, the Board of Education was obligated to ‘make arrangements ... for attending to the health and physical condition of the children educated in public elementary schools’ for the duration of their education. According to Harris (2003), even conservative Members of Parliament like Sir William Anson supported this bill, because the physical condition of the schoolchild had been established as a matter of ‘national importance’ (p. 96). The following year, the School Medical Service was established to serve as an administrative centre for the

medical inspection of school-aged Britons, and according to Mooney (2015) marked ‘an important milestone in social welfare in Britain’ (p. 114).

Passing this Act was another foundational moment in shaping the role the schools would play in a provisioning public health to English children in the early 20th century, but many problems remained unresolved with regards to the implementation and funding of school medical inspection. As Harris (1995) has argued, many questions arose about the process and scope of medical examinations: for example, should only sick children be inspected or should all children be inspected? Where would the inspections take place? Eventually, the Board of Education concluded that ‘all children must periodically come into the hands of the doctor ... to enable every school child to take full advantage of the education provided for it by the State’ (Newman, 1913, p. 194). The Board of Education directed school medical examiners to inspect children a minimum of three times: at the age of five, seven or eight, and ten. Doctors were also encouraged to provide a fourth examination at age 13 or 14 as the child was leaving primary school. Newman (1913) recalled that this was an enormous task, requiring the inspection of approximately two million children per year. Inspectors were required to address a list of eight questions, and to determine if the child was suffering from any type of physical deficiency that might inhibit his healthy development into adolescence and adulthood (pp. 199–200):

- 1 Has the child had any illness in the past which would be likely to affect his physical future?
- 2 What is the present condition of his body as regards cleanliness and nutrition?
- 3 Are his senses normal?
- 4 Has he sound or decayed teeth?
- 5 Are the throat and tonsils normal and healthy?
- 6 Is he normal and sound in mind?
- 7 Does he show any signs of disease or deformity (rickets, tubercle, rheumatism, rupture, glandular disease, ringworm, anaemia, epilepsy, psycho-neurosis, etc.)?
- 8 Has he any weakness or defect unfitting him for ordinary life and physical exercise, or requiring any exemption from any branch or form of instruction?

The first few years of school inspections revealed that much work still had to be done to improve the health of English children. Despite improvements in hygiene and prevention of infectious diseases since the 1890s, Newman (1913) reported that three ‘morbid conditions’ still afflicted enormous numbers of children: upwards of 70% of children suffered some form of dental decay; at least 120,000 children needed ‘prompt treatment annually’ for

defects of vision and diseases of the eye; and another 95,000 cases of diseases of the ear, nose and throat that required annual attention (p. 203). Other conditions afflicting the school child included skin diseases, tuberculosis, rickets, nervous maladies, malnutrition, rheumatic fever and common infectious diseases (measles, whooping cough, scarlet fever and diphtheria). The outcome of these early inspections conducted by the School Medical Service provided doctors with a more thorough 'knowledge of the physical and mental condition of the school-child population of Britain' (Newman, 1913, pp. 208–209), which in turn helped bring about more careful attention to the threats to the health of children and further efforts to provide individualised treatments to necessitous children.

The formation of the School Medical Service not only established a clear responsibility for schools within growing networks of public health, but also gradually gave rise to the formation of the school as a clinical space. Under the new 1907 Education (Administrative Provisions) Act, medical inspections were mandatory, but the Act also granted permissive powers to schools to provide treatment for childhood ailments or physical defects. Some Local Education Authorities exercised this optional power, developing quite elaborate school clinics. In 1908, there were just seven school clinics across England and Wales, but by the outbreak of the First World War, this number had risen to 179 (Hirst, 1989).

School Medical Officers justified the need to offer treatment in schools lamenting the high rates of 'defects' among students and even greater concern about parents' inability to act upon the child's condition, which often resulted from unavailability or inaccessibility of necessary remedies or access to hospitals. With low treatment rates outside of schools, reformers ranging from socialists to trade unionists also urged the Local Education Authorities to provide treatments inside the school for diseased and disabled children. Bradford schools established a model for other municipalities to follow in expanding the services provided by the School Medical Service: from solely a site for observation and diagnosis, into a clinical space that offered basic treatments for ear and skin diseases, defective eyes and teeth, and cases of ringworm, all of which Hendrick (1994) notes, were not mandatory but permissive under the 1907 Act. As Hirst (1989) further notes, providing treatment also benefited the schools themselves, as absences continued to cost schools funding after the repeal of Article 101. As a result of this pressure, a handful of local education authorities saw value in providing treatments in schools (including the provision of glasses, dental care, adenoid and tonsil removal and the use of X-rays to eliminate ringworm) and began to establish clinics for treatment directly in schools, rather than solely collecting diagnosis and then referring students to a hospital that they often did not attend.

In offering these simple treatments, and by blurring 'the boundaries between preventative and curative medicine' (Mooney, 2015, p. 215), School

Medical Services was generally effective in providing affordable and accessible treatments to children and became a significant partner in promoting public health in early 20th-century England. But, in establishing sites for treatment, school medical officials temporarily once again put themselves at odds with other systems of public health. Newman (1908, as cited in Hirst, 1989), initially argued that schools should ‘point out defects and disease and ... leave treatment as far as possible to the ordinary channels’ (p. 326). But when the position of the School Medical Officer was frequently a duty assigned to the municipal Medical Officer of Health (or one of their deputies), this tension between municipal and school-sponsored public health often subsided.

Conclusions and legacies

According to George Newman (1926), who served as the Chief Medical Officer for the Board of Education from 1907 to 1919 and then Chief Medical Officer to the Ministry of Health from 1919 to 1935, ‘the health of the child is the foundation of the national health’ (p. 70). This commonly held belief shaped the ways schools became an important partner in public health. Schools offered public health officials a physical environment in which they could monitor children’s health to ensure that they were growing up healthy and fit amid fears of national ‘degeneration’ around the turn of the 20th century, while avoiding concerns about public health becoming overly ‘intrusive’. But this was only possible if school officials were willing to partner with municipal public health authorities.

This chapter has sought to lay out some of the ways that a partnership between school authorities and municipal public health authorities emerged in England from the late Victorian and early Edwardian years as schools became important places for provisioning public health. Both school and public health authorities were both keenly aware of the importance of children’s health, but forming a public health partnership was not without its hurdles. Much like the broader history of public health, the origins of this partnership were rooted in efforts to protect children from dangerous infectious diseases that often spread inside schools, but the financial consequences of school closures due to disease outbreaks created tensions that inhibited an early partnership. By the early 20th century, though, as public health efforts became increasingly proactive and especially focused on children as this ‘foundation of the national health’, the relationship between schools and municipal public health began to grow closer. As public health officials became increasingly focused on proactive measures aimed at raising a healthy nation, partnering with schools as important sites for interventions became increasingly important. Providing nutritious meals, a potentially ‘intrusive’ act, became possible in schools and expanded the ways public health could improve the healthy development of the ‘puny’ children that Cantlie and others feared. This expansion gave way to further roles for

schools to play after the passage of the 1907 Education Act. The data collected by periodic monitoring of children in schools equipped public health officials with more precise knowledge of the conditions and ailments of English children, and in turn created the opportunities for more targeted treatments at a critical developmental juncture in the child's life. Thus, by 1914, English schools had become an important partner in public health campaigns.

As a final thought, it should also be noted that the formation of the School Medical Service and its growth before the First World War is not an endpoint but rather an origin story. The role of schools as sites of public health would continue to grow and expand throughout the first half of the 20th century. By the mid-century, for example, the Education Act (1944) would greatly expand state authority over education by reconstituting the Board of Education as the Ministry of Education, mandating that local education authorities must provide school meals and milk in the case of hardship, provide compulsory medical inspection for all children ages two to 15 (a much-widened age range), and also greatly expand the free medical and dental treatments that Local Education Authorities were expected to provide through the School Medical Service (Hendrick, 1994).

References

- Armstrong, D. (1993). Public health spaces and the fabrication of identity. *Sociology*, 27(3), 393–410.
- Burns, K., Proctor H., & Weaver, H. (2019). Modern schooling and the curriculum of the body. In T. Fitzgerald (Ed.), *Handbook of historical studies in education* (pp. 1–21). Springer. 10.1007/978-981-10-0942-6_34-1
- Cantlie, J. (1885). *Degeneration amongst Londoners: A lecture delivered at the Parkes Museum of Hygiene, January 27, 1885*. Field & Tuer.
- Davin, A. (1996). *Growing up poor: Home, school and street in London, 1870–1914*. Rivers Oram Press.
- Dwork, D. (1987). *War is good for babies and other young children: A history of the infant and child welfare movement in England, 1898–1918*. Tavistock Publications.
- Educational Pressure (1880) *The British Medical Journal*, 1(1015), 892–893.
- Feeding the Hungry Children (1889). *The British Medical Journal*, 2(1510), 1295.
- Fothergill, J. (1889). *The town dweller: His needs and his wants*. H.K. Lewis.
- Hamlin, C. (1998). *Public health and social justice in the age of Chadwick, 1800–1854*. Cambridge University Press.
- Hardy, A. (1993). *The epidemic streets: Infectious disease and the rise of preventative medicine, 1856–1900*. Clarendon Press.
- Harris, B. (1995). *The health of the schoolchild: A history of the School Medical Service in England and Wales*. Open University Press.
- Harris, B. (2003). Educational reform, citizenship and the origin of the School Medical Service. In M. Gijswijt-Hofstr & H. Marland (Eds.), *Cultures of child health in Britain and the Netherlands in the twentieth century* (pp. 85–101). Rodopi.
- Hendrick, H. (1994). *Child welfare: England, 1872–1989*. Routledge.

- Hirst, J.D. (1989). The growth of treatment through the School Medical Service, 1908–18. *Medical History*, 33(3), 318–342.
- Hirst, J.D. (1991). Public health and the public elementary schools, 1870–1907. *History of Education*, 20(2), 107–118.
- Inter-departmental Committee on Physical Deterioration (1904). *Report of the Inter-departmental Committee on Physical Deterioration*.
- Kerr, J. (1916). *Newsholme's school hygiene: The laws of health in relation to school life* (14th ed.). George Allen & Unwin.
- Mackenzie, W.L., & Matthew, E. (1904). *The medical inspection of school children: A textbook for medical officers of schools, medical officers of health, school managers and teachers*. William Hodge.
- Mooney, G. (2015). *Intrusive interventions: Public health, domestic space, and infectious disease surveillance in England, 1840–1914*. University of Rochester Press.
- Newman, G. (1913). *The health of the state* (3rd ed.). Headley Brothers.
- Newman, G. (1926). *An outline of the practice of preventive medicine: A memorandum addressed to the Minister of Health*. His Majesty's Stationery Office.
- Newman, G. (1939). *The building of a nation's health*. Macmillan.
- Newsholme, A. (1887). *School hygiene: The laws of health in relation to school life*. Swan Sonnenschein, Lowrey, & Co.
- Niven, J. (1899). *Report on the health of the City of Manchester, 1898*. Henry Blacklock.
- Niven, J. (1900). *Report on the health of the City of Manchester, 1899*. Henry Blacklock.
- Porter, D. (1999). *Health, civilization and the state: A history of public health from ancient to modern times*. Routledge.
- Report of the Inter-departmental Committee on Medical Inspection and Feeding of Children Attending Public Elementary Schools. (1905). Wyman & Sons.
- Report of the Inter-departmental Committee on Physical Deterioration. (1904). Darling & Son.
- Report of the Lancet Sanitary Commission on the sanitary condition of public schools. (1875). *The Lancet*, 105(2703), 859–861.
- The Food Factor in Education (1903). *The British Medical Journal*, 2(2225), 424–425.
- Vernon, J. (2007). *Hunger: A modern history*. Harvard University Press.
- Warner, F. (1892). Abstracts of the Milroy lectures on an inquiry as to the physical and mental condition of school children. *The British Medical Journal*, 1(1628), 538.
- Welshman, J. (1997). School meals and milk in England and Wales, 1906–45. *Medical History*, 41(1), 6–29.
- Williams, N., & Mooney, G. (1994). Infant mortality in an 'age of great cities': London and the English provincial cities compared, 1840–1910. *Continuity and Change*, 9(2), 185–212.
- Woodward, J. (1995). The school medical officer before the School Medical Service: England and Wales, 1850–1908. In J. Woodward, & R. Jütte (Eds.), *Coping with sickness: Historical aspects of healthcare in a European perspective* (pp. 121–146). European Association for the History of Medicine and Health Publications.