Developments in Sanitation in Newcastle Upon Tyne from 1873-1913:

Dr. H.E. Armstrong’s position as Medical Officer of Health

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The efforts in sanitation developments of Dr. H.E. Armstrong as Chief Medical Officer are best described, I would argue, by J. Coote Hibert and W.H. Wells, in an address which was read at a Sessional Meeting in Newcastle-Upon-Tyne, March 15th 1907:

"During the decade, however, which began with 1873, in which year the Newcastle Sanitary Authority first appointed a medical officer of health, the dawn of the modern sanitary era appeared, and at the end of those ten years, a reduction of the yearly death-rate by 10 per 1000 of the population, and a diminution of typhus fever to a fifth of its prevalence in the years immediately antecedent to that period, were the first happy augury of a better time".1

Published in 1907 as "A Sketch of the Sanitary History of Newcastle-Upon-Tyne", Hibert and Well’s text stands as a testament to the many developments Dr. Armstrong achieved as the first Medical Officer of Health in the city; particularly his dedication to frequent reports and meetings to consider the city’s sanitation and public health. Dr. Armstrong made his intentions to improve the public health of the city from first meeting on the 26th November 1873. Much of his work focuses particularly on the lower classes, most of whom lived in overcrowded and poorly ventilated slum areas with inefficient waste disposal. His medical report from November 1873 stated that "diarrhoea has been fatally prevalent, Scarlet Fever epidemically prevailing, and enteric or typhoid fever more common than usual", "due to breathing ventilated air and drinking unwholesome water", deducing that poor air quality was due to overcrowding "from immigration and high rent".

Issues like these at the start of his career led to Dr. Armstrong to work with engineers when replanning areas of the city, particularly in the overcrowded lower class areas, fitting sewers with ventilation holes, charcoal filters and paving streets. Alongside this focus on better city planning, Dr. Armstrong worked with the Sanitation

Committee to better educate the public about health, hygiene and childcare, and during his time as Medical Officer of Health, the committee published many educational pamphlets.

1Hibbert J.C. and Wells W.H., "A Sketch of the Sanitary History of Newcastle-Upon-Tyne: being a continuation ofa paper read by Dr. H. E. Armstrong at the Congress of the Institute in 1882", *Journal of the Royal Sanitary Institute,* 28(4) (1907):161.

These pamphlets coincided with a national move to better public health education, particularly that regarding child care due to high rates of infant mortality. This spurred the Midwives Act of 1902, which ensured all midwives were suitably trained and registered with the government in their cities so that "the educated midwives will help the patients to put in order their houses and carry out sanitary precautions for their own protection".2

Dr. Armstrong was also highly praised in his response to tuberculosis. Dr. Armstrong’s annual reports revealed "how Newcastle with other industrial cities suffered death rates well above those for the country as a whole and that infant and child mortalities were particularly high",3 yet Armstrong struggled to trace the causes of these excess deaths. Much of these deaths can now be attributed to tuberculosis but were recorded on death certificates as *phthisis*, as tuberculosis had no bacterial evidence until after 1882. Even after 1882, the number of deaths attributed to phthisis "were probably understated for there was considerable family opposition to the term, as tuberculosis was widely thought to be a hereditary trait".4 Armstrong was concerned to gauge the prevalence of tuberculosis in Newcastle, but lacked suitable access to the community to mount a study.

In his 1907 annual report, Armstrong "pleaded for a scheme of local and nationalprevention of tuberculosis".5 He demanded compulsory notification of tuberculosis cases, better provisions to hospitals for the treatment of the disease, better methods of prevention of infection, a new approach to public education and the establishment of a national health authority. In 1911, following the National Insurance Act establishing a panel for the medical care of working men saw, for the first time, tuberculosis "named in a general act of parliament and the sum of a sixpence per insured person was set aside for treatment".6 The national measures against tuberculosis can be largely attributed to Dr. Armstrong's early pushes for better local and national responses for the disease.

2 Cousins, J. Ward, “The Midwives Act of 1902”, *The British Medical Journal*,2 (2223) (1903): 294[.](http://www.jstor.org/stable/20277335)

3 Miller, F.J. and Thompson, M.D., "Decline and fall of the tubercle bacillus: The Newcastle Story, 1882-1988", *Archives of Disease in Childhood*, 67 (251)(1992): 251.

4 Ibid, 251.

5Ibid.

6Ibid.