

# DR EDWARD WILLIAM HOPE, MEDICAL OFFICER OF HEALTH FOR LIVERPOOL, 1894-1924: DEVELOPMENT OF AN INTERNATIONAL PUBLIC HEALTH AUTHORITY

June Clayton<sup>†</sup>

Dr Edward William Hope was Assistant Medical Officer of Health for the City and Port of Liverpool between 1883 and 1894, and Medical Officer of Health from 1894 until his retirement in 1924.

The year 1883 was to mark the beginning of a new era in the realm of public health in Liverpool. Typhus had broken out again in the city and confidence in the Medical Officer of Health, Dr John Stopford Taylor was at a low ebb. In an open letter to Stopford Taylor a local practitioner, Dr Morrish, had rebuked him for failing in his duties because he had passed the typhus cases over to the Relieving Officer.<sup>1</sup> Morrish accused Stopford Taylor of hoping to evade the most disagreeable part of his duties, and pointed to bad housing as the cause of the epidemic.<sup>2</sup>

In theory the aims of public health were commendable, but what was the reality? Improvements had been made, but the remaining insanitary housing, poverty and unemployment were major factors to the persistence of typhus and other major diseases such as smallpox. The *Liverpool Daily Post* had published a series of articles enlightening the general public to the filth, disease, poverty and other problems of the slums arising from the iniquities of the casual labour system associated with the docks.

A special Commission consisting of a City Councillor, a prominent local

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<sup>†</sup> Address for correspondence: 23 Rutland Road, Ellesmere Park, Eccles, Manchester, M30 9FA.

1 The Relieving Officer was employed by the Poor Law Union to direct its programmes of medical relief. He issued the medical orders which were then carried out by the District Medical Officers. During the latter part of 1882 Stopford Taylor had been asked by the Health Committee to sanction the introduction into parliament of a bill making it compulsory for medical practitioners to notify the Medical Officer of Health of any cases of infectious diseases which they attended, but the clause was struck off: Liverpool Records Office, Health Committee Minutes, 1883, pp. 679-80.

2 Liverpool Medical Institution, open letter to Dr Stopford-Taylor, MOH, Liverpool, from Dr T.F. Morrish, MRCS, 4 Dingle Hill, Liverpool, 9 July 1883.

physician and a reporter of the *Liverpool Daily Post* was asked to submit a report on the conditions which were prevalent in the poorest quarters of the city. The Report was entitled 'Squalid Liverpool'.<sup>3</sup> The local journalist Hugh Shimmin had described similar conditions twenty years previously in his articles in the *Porcupine*. The Report revealed that very little had changed, and it described the 'court-ridden streets' as 'fever dens'.<sup>4</sup> This effective piece of journalism drew the attention of the middle classes to the health dangers within their midst; health hazards which surrounded and affected them, not just the poor and the labouring population.

In 1883 a special committee called the Insanitary Property Committee under the Chairmanship of Sir Arthur Forwood, was appointed by the City Council to deal with dwellings which were unfit for human habitation. The Committee was aided in its work by commercial requirements which led to house clearances, partly to make way for the increasing demand for warehouses, railway lines and other commercial properties.

The City Council resolved on 27 March 1883 to appoint an Assistant Medical Officer of Health to assist Stopford Taylor in the sanitary inspection of the City, more particularly with reference to infectious diseases. By virtue of his office he would be a Medical Officer of Health in all but name, his duties strictly defined by the Local Government Board. The post could be seen as a preparation for the role of a future Medical Officer of Health.<sup>5</sup> In May 1883 the post of Assistant Medical Officer of Health was advertised nationally. There were twenty-six applicants for the post. Six were short-listed and Hope, the successful candidate, was appointed in May 1883, aged twenty-six.

Edward William Hope was born on 8 August 1856, the son of Robert Wallis Hope of the War Office, a Deputy Surveyor of Ordnance. His father's occupation could have had an indirect influence on Hope's approach to public health as a career, for his father had been involved in the detailed mapping of large towns. After preparatory education in Brighton, Hope was educated at the Royal School of Mines in Jermyn Street, London. Like two of his MOH predecessors in Liverpool, Hope attended Edinburgh University where he graduated MBCM (1878), BSc (1881) and MD (1882).

Prior to his appointment in Liverpool, Hope worked as a Physician Assistant at Bristol General Hospital, therefore gaining experience in a seaport environment. Hope had then been appointed House Physician and Pathologist

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3 'Squalid Liverpool', *Liverpool Daily Post*, November 1883.

4 Courts were common in nineteenth-century Liverpool, consisting of high density housing accessed by a narrow courtyard opening off a main street. They suffered from lack of sanitary facilities and poor ventilation.

5 Liverpool Records Office, Liverpool Health Committee Minutes, 27 March 1883; Report of Staff Sub-Committee, 18 May 1883.

at Wolverhampton General Hospital, thus gaining further experience of urban problems – a good combination for working in a city and port such as Liverpool. Edinburgh University had established a high reputation for training in sanitary science, so this might have influenced the Health Committee in their choice of candidate. Certainly an epidemiological expertise was to be an essential feature in the structure of his programmes in later years. He would stress the importance of protecting the health of the whole community; his role would be seen as preventing disease in contrast to the more limited object of curing the sick.

The post required a man of integrity who would be able to communicate with both his peers and the general public. In his many contacts with his professional colleagues, with Committee members and the general public, he would be required to put forward the epidemiological view, be able to speak frankly and not be afraid of incurring opposition. He would have to be prepared to stand up to criticism from influential people in the city who might disagree with him, perhaps for their own personal and financial gain. However, his appointment was protected by statute and could not be terminated except with the consent of the Minister of State.

This post was quite a formidable challenge for a young doctor. At the beginning of his office he did not have the benefit of organised schemes such as Health Visitors, maternity and child welfare clinics, maternity homes and day nurseries. There was no compulsory cleansing of body and head lice, no medical inspection of school children, no City Bacteriologist and no teaching of public health. Hope was to forge the link between the old ways of the nineteenth century and scientific medicine and public health of the twentieth century.

With the work of such public health pioneers as Budd, Greenhow, Heslop, Wilson and Ballard, there came a change in public health philosophy.<sup>6</sup> Although public health in the mid-nineteenth century had tended to concentrate on the shocking living conditions of the working classes, children were not a central concern. Life was cheap. Mothers could always bear more children, even if they were ‘delicate’ from birth. Hope’s interest and concern regarding the health of mothers and children was to be a major part of his work in Liverpool. Perhaps influenced by these pioneers and their theories during his early training at Edinburgh, Bristol and Wolverhampton, Hope aspired to be Medical Officer of Health in a large city. The move to Liverpool marked the beginning of a new period in his life’s work, and he was able to put into practice the knowledge he had assimilated from his previous experience. Though his goal of becoming Medical Officer of Health was delayed for many years until

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6 Rachel Waterhouse, *Children in Hospital. A Hundred Years of Child Care in Birmingham* (London: Hutchinson, 1962), p. 40. Thomas Pretious Heslop (1823-1885), MD, FRCP, Founder and Physician to the Children’s Hospital, Birmingham.

Stopford Taylor resigned in 1894, Hope was to prove himself the right man, for the right job, at the right time, in the right place.

### ***The day books of Dr Hope***

The day books of Dr Hope are not just a record of his work but are a personal assessment, a social history of Victorian Liverpool. They reveal the squalor in the disease-ridden courts and cellars, the poverty, bad housing, drunkenness and abuse of children, starvation and unemployment.<sup>7</sup>

Between June 1883 to December 1884 Hope made one thousand eight hundred and thirty entries in his day book. Most of this period seems to have been allotted to work with very little time for leisure. It was a very hard schedule, an arduous and demanding role for a young doctor. At the beginning the entries are limited in information, but one can see how he gained in confidence as his records become more detailed. They supply information about the courts, cellars, insanitary housing; whether the house is sub-let; the poverty; the slothfulness or drunkenness of families; the cleanliness and thrift of others; the deaths and diseased corpses; the Irish 'wakes'. He noted the personal and domestic hygiene, the nationality, the number of children, the lack of fuel, food, clothing and beds and bedding. The dirt and smells are recorded with such clarity that one can almost smell the stench of the hovels. Hope also recorded the source of the report, such as a priest, a teacher or school attendance officer, and whether a patient was sent on a voluntary basis or not to the isolation wards of the Workhouse Hospitals at Mill Road, Netherfield Road or Brownlow Hill.

His observations list diagnoses of diseases, sometimes the name of the attending doctor (if any), whether a death had occurred, whether a child was insured or a patient convalescent, the symptoms of each disease and the number of days of sickness before he had visited the patient, especially if typhus was diagnosed. He noted the action taken: whether the patient was sent to hospital or the corpse to the mortuary.

He was carrying out a role similar to that of a General Practitioner on call, but in addition he was acting as an investigator of environmental conditions as well as an organiser of medical and social agencies such as hospitals. Hope's comments on his visits illuminate all kinds of contextual factors: insanitary conditions of the dwellings; the poverty and wretchedness of children and mothers. He was not afraid to criticise doctors or parents. But he praised the more sensible who made provision for sickness through medical clubs. He advocated breast-feeding to address the problem of contaminated milk fed to babies by 'ignorant' mothers. He also noted cases of child abuse and those

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7 Liverpool Records Office, E.W. Hope, Assistant MOH, Liverpool, Day Books, 3 vols, 1883-1889, 352 HEA.

suffering from syphilis.

On some days he wrote two or three pages, some obviously under pressure of time, especially when there was a serious outbreak of disease like smallpox. For this disease he recorded all contacts which he had traced of family, friends, relatives, neighbours and casual visitors from the surrounding streets as well as places of business. He noted many details: the date of his visit, the patient's name, age, sex and address, state of starvation, money earned if there was a breadwinner. It is interesting to note the frequent use by Hope of the following vocabulary: wretched; filthy; foetid; chronic starvation; bare of furniture; barely clothed; in rags; dimly-lit cellar; drunkenness; wakes; destitute.

### ***The problem of sub-letting***

In nineteenth-century Liverpool the practice of sub-letting houses whereby one family would let rooms to other families, was common. This custom was the most frequent cause of over-crowding. Many were situated in respectable streets where overcrowding would never be suspected. Surveillance was therefore difficult for inspectors. Often a building with a very decent exterior, would house several families each living in squalor in a single room. The atmosphere inside was foul and offensive. Hope noted that it was in these externally respectable dwellings that the general condition compared unfavourably even with the average cellar or courtyard house, and here could be found the largest incidence of fever cases.

By 1900, 12,400 of these types of houses had been demolished, some by the Corporation, but most others to meet business requirements. Many of the worst cellars had been closed, filled in and bricked up, also at the expense of the Corporation. However, there was a downside to this achievement. Demolition had to be halted because there were no available houses to put the population into. This delayed the programme of closure of cellar dwellings as the occupants could not be moved until suitable accommodation could be found. But considerable steps were needed and were taken to prevent the re-occupation of every cellar as it became untenanted.

### ***Hope's epidemiological development***

From the beginning of his career Hope developed his interest in statistics and contributed to medical journals. He was a prolific writer throughout his life, and used his publications to establish his name initially in local public health and later to achieve both national and international recognition.

In the late-nineteenth century he tabulated the numbers of babies and young children in Liverpool dying from infantile diarrhoea and the method of their feeding, whether by breast or bottle. Hope worked with Dr Hugh Jones, the Honorary Assistant Surgeon to the Infirmary for Children in Myrtle Street, and showed that out of 1082 fatal cases of diarrhoea in Liverpool, the deaths of infants fed artificially were sixteen times greater than of breast-fed babies.

Hope also calculated that the average age at death for bottle-fed babies was as low as 7.4 months. He supplied these statistics to Dr Edward Ballard of the Local Government Board for his 1888 national report. George Newsholme, the Chief Medical Officer of Health to the Local Government Board acknowledged Hope's work in showing the close relationship of diarrhoea to the pattern of infant feeding.<sup>8</sup>

By 1886, Hope was appointed Lecturer in Hygiene at Victoria University, Liverpool. His reputation in public health matters was soon recognised on a wider scale. In 1887 Hope spoke at the Congress of the Sanitary Institute of Great Britain, held at Bolton, on two of the major diseases which he had recorded so meticulously in his day books: typhus and infantile diarrhoea.<sup>9</sup>

### ***Hope as Medical Officer of Health, 1894 to 1924***

Eighteen ninety-four was to be a turning point in Hope's career, when he was promoted to the post of Medical Officer of Health for the Port and City of Liverpool. While he held this position he was required, 'to reside within the City and devote his whole time to the duties of the office'. We begin to see him emerging from a figure of local esteem in the medical world to a man who was now prepared to air his views on both a national and international level. It was a period when major issues in public health were being questioned and confronted on all levels, both at home and abroad. Victorian sanitarian theories were beginning to be replaced by ideas derived from scientific research as the century drew to a close.

It is interesting to note that the Appointing Council consisted of William B. Bowring (Hope later married Charlotte Rennie Bowring, William's sister), Alderman Cummins, MP and Sir William B. Forwood, all powerful, influential and wealthy magnates of Liverpool. They had knowledge of Hope's work, knew him personally and recognised his dedication to his work. Were there any other applicants for the post? Was Hope's appointment a foregone conclusion? It was said many years later in Dr Carter's retirement dinner speech at the Southern Hospital that Hope had grown tired of waiting for promotion and wanted to leave Liverpool. He had been persuaded to stay, and Liverpool had benefited from that decision.<sup>10</sup>

Poverty was a threat to Liverpool's commercial interests and the health of its inhabitants. It was therefore in their interest that councillors, officials and

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8 For Hope's later research see: E.W. Hope, *Discussion on Infant Mortality*, paper read at the Congress of the Royal Institute of Public Health, Aberdeen, 1900, pp. 298-301.

9 E.W. Hope, *Localised Outbreaks of a) Typhus and b) Infantile Diarrhoea*, paper read at the Congress of the Sanitary Institute, Bolton, 22 September, 1887.

10 C. MacAlister, *History of the Royal Southern Hospital, 1835-1936* (Liverpool, W.B. Jones & Co., 1936), p. 131.

rate payers gave high priority to public health matters, so to appoint someone as efficient and diligent as Hope was to their advantage. It was often then acceptable to appoint a known applicant with the right political persuasions. This could also have been the case concerning his Professorial appointment, for Hope mixed in the intellectual circle of the University and medical world and entertained members of the Medical Faculty at his home in Faulkner Square when still a bachelor.

Hope was becoming well established in the field of public health, as well as in academic circles in Liverpool. He associated with men of academic importance: Professors Oliver Lodge, Boyce, Herdman and Sherrington. These were not only colleagues but near neighbours, who had links with many famous merchant families in the area. Professor Lodge was a close friend of the Holt shipping firm brothers, Alfred and George, and especially of the politician William Rathbone, both Unitarian families. Professor Sherrington (a Fellow of the Royal Society, one of the founders of modern neurophysiology, and holder of the Chair endowed by Holt) lived opposite to Hope in Grove Park. Professor Herdman had married into the Holt family and Professor Boyce into the Johnston family.

At over forty years of age, Hope was still a bachelor. However, was he a good 'catch' socially for these wealthy entrepreneurial families? Certainly he was academically well qualified and had shown himself to be able to face the challenge of the many problems of a big city and port. His salary was augmented from other sources: his Fever Hospital appointment and as Examiner in Public Health at the universities of Belfast, Cambridge, Edinburgh, London and Manchester. He was also Examiner to the Royal College of Physicians of London and the Royal College of Surgeons, England, as well as being a Member of the Royal Naval Medical Board. He was later to hold the prestigious posts of President of the Liverpool Medical Institution and President of the Society of Medical Officers of Health.

In 1899 Hope eventually married the twenty-six year old beauty, Charlotte Rennie Bowring, a member of one of the wealthiest and most influential families in Liverpool, who were sailing ship owners and insurance brokers. Hope now had access to the world of money, political and intellectual power, and these families were often able through philanthropic effort to help him achieve his aims in public health such as the establishment of the School of Hygiene, which was assisted by Lord Leverhulme, the Holt family and John Rankin.

By the end of the century the Renshaw Street Chapel for Unitarians, with its offshoots at Ullet Road and Hope Street, was described as, 'the greatest political and social force in our midst', patronised by the merchant aristocracy of Liverpool: the Rathbones, Boults, Jevonses, Holts, Lamports and Bowrings. The Unitarian approach to intemperance was the same as Hope's, as they saw it

as the basis of much of the misery, poverty, child neglect and abuse.<sup>11</sup>

Now firmly established at a local level, his reputation was to be further enhanced by the Health Committee's decision to permit him to attend the 12th International Medical Congress to be held in 1897 in Moscow. This trip was a major breakthrough for Hope. Of special interest to him was the Moscow Clinic for Diseases of Children, one of the leading hospitals for Diseases of Children in Europe. Hope's keen interest was in children's diseases and their need for separate hospital accommodation. The fact that he was accompanied by Alderman Houlding ensured the future support of the Health Committee in Children's Welfare. As Hope's Annual Report for 1897 emphasised, the problem of infant mortality from diarrhoea was still of major concern: in that year there were 850 deaths, mostly infants under three months of age.<sup>12</sup>

The most important contribution of public health medicine in the twentieth century has been to recognise that to prevent disease is best practice. Indeed, in the nineteenth century there was no alternative. In this respect, Hope can be seen as forward-looking. Hope persuaded Liverpool City Council to enter into a partnership to construct a purpose-built laboratory for bacteriology and to fund the appointment of a Corporation Bacteriologist. Thus Professor Rubert William Boyce held the first appointment of its kind in the kingdom in 1894. Hope and Boyce were to become a well-respected team. In 1900 to 1901 there was a world-wide epidemic of bubonic plague. The Pathological Laboratory supplied vast quantities of vaccine to the Colonial Office, the War Office and many English cities. At least five cases died during the Liverpool outbreak, the first being a nineteen year old boy in the Workhouse Hospital at Brownlow Hill.

Although public interest in children's health and welfare had been reflected in the Midwives' Act of 1902, Liverpool's increased efforts were enhanced through the expansion of voluntary effort in the form of the Society for the Care of Invalid Children, later to become in 1905 the Child Welfare Association. Hope was closely associated with Margaret Beavan's pioneering work in this area. It is of special interest to note the closer co-operation between the Health Department and these organisations. Hope in his Annual reports was continually drawing attention to the problem of drink, especially its relationship to child neglect and suffering.

During 1897 the Local Government Board recognised that the pressure on the Liverpool Port Sanitary Authority had become intense. In 1896 no less than 3516 vessels were examined, and of these 1996 had some sanitary defect. There

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11 H.D. Roberts, *Hope Street Church, Liverpool and the Allied Non-Conformity* (Liverpool: Liverpool Booksellers, 1909); *Liverpool Unitarian Annual*, Hope Street Church; The Unitarian Institute; *Jubilee Celebrations* (Liverpool: Hope Street Church, 1849-1899).

12 'Twelfth International Medical Congress, Moscow', *Lancet*, 2(1897), 343-74 (p. 363), 1711.

were seventy-three cases of infectious disease, and fifteen cases of beri-beri reported on ships arriving in Liverpool that year. With the opening of the Panama Canal in 1913, Hope anticipated the new threats to port health. He was concerned over the greater speed of vessels: voyages could be completed during the incubation period of diseases such as typhoid and smallpox, and the risk of plague from rats on ships. This put an enormous strain on Liverpool's isolation policy and resources. The formation of the Port Sanitary District of Manchester, after the construction of the Manchester Ship canal eased the strain on Liverpool.

By 1950 Hope was fifty-four years old and fast approaching almost a quarter of a century in the service of Liverpool's public health. However, he continued to press for greater recognition both at home and abroad. With the growth of the city the number of inspectors and work staff had increased enormously, from sixty-two in 1894 to 470 by 1923.<sup>13</sup> Importation of food-stuffs through the port had led to increased work for inspectors, while medical inspections in schools and the Notification of Births Act meant still more duties and responsibility for Hope. The year 1911 was another landmark in public health: the introduction of Lloyd George's National Insurance Act.

There was also increased emphasis on diagnosis and treatment of tuberculosis. In 1912 Hope delivered a detailed paper at the International Congress on Tuberculosis held in Rome. A few months later he presided at the fourth Annual Conference of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis at Milton Hall, Manchester. Although TB dispensaries and sanatoria had been in existence for many years, the post of Tuberculosis Officer was a new idea, and Hope initiated a Tuberculosis Scheme for Liverpool.

Hope's policies were to gradually extend the responsibility of the Public Health authority from sanitary reform through the control of infectious diseases to a general awareness and need of the welfare of the future generation. The Trustees of the Carnegie United Kingdom Trust invited Hope, in conjunction with Dr Janet Campbell of the Ministry of Education, to write a report on infant mortality. For this detailed work the Trust expressed their gratitude by funding the Carnegie Welfare Centre adjacent to the Liverpool Maternity Hospital in Myrtle Street. In recognition of the importance of his work, Hope was awarded the OBE in 1918.<sup>14</sup> In 1917 the Royal Institute of Public Health also recognised his 'conspicuous services rendered to the cause of preventive medicine', by awarding him the Harben gold medal.

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13 Liverpool Records Office, Annual Reports for the Medical Officer of Health for Liverpool, 1894 and 1923.

14 E.W. Hope, *Report on the Welfare of Mothers and Young Children for the Trustees of the United Kingdom Carnegie Trust* (Dunfermline: United Kingdom Carnegie Trust, 1917).

For most of his life Hope had been a prolific lecturer, a writer of books, compiler of statistics. His Annual Reports were well-known. He was also a pioneer in industrial medicine. In 1923, a year before his retirement, in conjunction with his colleagues W. Hanna and C.O. Stallybrass, Hope attempted the difficult task of bringing together in one volume aspects of health and disease affected by occupation. The book, *Industrial Hygiene and Medicine* was very favourably reviewed.

Nineteen twenty-four was the final year of Hope's term of office, although he was to continue his Professorship for a few more years. In June, as his retirement neared, Hope addressed the Congress of the Royal Institute of Public Health (of which he was President) at Bordeaux in France. For his work in public health the French government conferred upon him the Order of Officier de l'Instruction Publique, a final international recognition for his work.

### ***Epilogue***

Having explored the matrix of his skills, we are confronted by a clinician who was not only an excellent administrator, but also a man who was prepared to devote long hours to his work. He showed dedication and expertise in his clinical analysis and scheduled visits, a witness to the poverty in Liverpool homes and families during this period.

His role as Assistant Medical Officer of Health allowed him to witness an overview of the city and port. Such experience was to stand him in good stead. It was a beginning, a preparation and training in great depth for his future role as Medical Officer of Health for thirty years from 1894 to 1924. Many of the diseases which he encountered in this 'apprenticeship' as Assistant Medical Officer of Health would be eliminated almost entirely because of his dedication and policies in public health. He held the post of Professor of Hygiene at the University of Liverpool until 1931. Through his policies of health education and his special interest in mothers and children, the health of Liverpool citizens gradually improved.

During his long tenure of office he had witnessed many changes. Many Acts had been passed including the Midwives Act, the Notification of Births Act, the Factory and Workshops Act, the National Insurance Act and various other Acts relating to food and milk supplies, the Education Act and the introduction of Medical Inspections of Schools, the notification of tuberculosis. He had successfully bridged the transition from the nineteenth century to the more enlightened public health policies of the twentieth century. His department had increased in manpower. He was respected at home and abroad.

Hope continued writing in his retirement, still taking an active interest in public health. His book, *Health at the Gateway*, published in 1934, is a testament to his life's work in public health in Liverpool. He died at Caldy, Wirral, aged ninety-five in 1951.