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Discussion Point

THE HEALTHY CITY AND THE ECOLOGICAL IDEA

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Throughout the world there is currently a revival of interest in public health and, increasingly, this has an urban focus.[1,2,3] Major reviews of Public Health in England and Wales and in the United States have led to comprehensive rethinking of medical priorities, and helped to give a new direction to practitioners.[4,5]

It is in this context that it is necessary to consider the World Health Organisation's Healthy Cities Initiative which began in Europe in 1986, and has since stimulated similar initiatives in Australasia, North and South America, and the Middle East; within the United Kingdom over seventy cities and towns are now involved.[6] It seems appropriate to compare the underlying concepts of the Healthy Cities initiative with those of the Health of Towns Association in England in the 1840s as described by Finer, Lewis and Wohl.[8,9,10] A major distinction to be drawn from such a comparison is likely to be that between the sanitary idea as a motivating force of the Victorian public health movement and what might appropriately be described as the ecological idea, which increasingly pervades the new public health initiatives.

Public Health in Victorian Britain, The Health of Towns Association and the Sanitary Idea

In nineteenth-century Europe and North America the rapid growth of industrial towns created the conditions under which epidemic disease was

[1] T. Harpham, T. Lusty and P. Vaughan, *In the Shadow of the City—Community Health and the Urban Poor* (Oxford, 1988).

[2] I. Tabibzadeh, A. Rossi-Espagnet and R. Maxwell, *Spotlight on the Cities—Improving Urban Health in Developing Countries* (Geneva: World Health Organisation, 1989).

[3] J. Ashton (ed.), *Healthy Cities* (Milton Keynes, forthcoming).

[4] E. D. Acheson, *The Acheson Report: Public Health in England.* The report of the Committee of Inquiry into the Future of the Development of the Public Health Function (London: HMSO Cmnd 289, 1988).

[5] Institute of Medicine, *The Future of Public Health* (Washington, 1988).

[6] J. Ashton, P. Grey and K. Barnard, 'Healthy Cities—WHO's New Public Health Initiative', *Health Promotion*, 1 (3) (1986), 319–24.

[7] Health of Towns Commission 2nd Report Volume 1, *Remedial Measures, Local Reports* (London, 1845).

[8] S. E. Finer, *The Life and Times of Sir Edwin Chadwick* (London, 1952).

[9] R. A. Lewis, *Edwin Chadwick nd the Public Health Movement 1832–1854* (London, 1952).

[10] A. S. Wohl, *Endangered Lives. Public Health in Victorian Britain* (London, 1984).

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rife. Initially governments seemed reluctant to introduce reforms, and it was arguably the Health of Towns Association, acting in conjunction with the Health of Towns Commission, which produced much of the pressure for change.

Finer cites a number of voluntary associations which came into being around 1844, including the Association for Promoting Cleanliness among the Poor (aiming to set up baths and washhouses) and the Society for the Improvement of the Conditions of the Labouring Classes (aimed at providing model dwellings for rent). The Health of Towns Association was formed at a public meeting at Exeter Town Hall on 11 December 1844. Finer describes it as 'an avowed propagandist body . . . of capital importance'.[8] At this first meeting it was stated that the Association was formed with the purpose of sharing information gained from recent enquiries made into the terrible living conditions of much of the population. The aim was to assist changes in the law which would allow for improvements to be carried out by preparing the public for such changes.

The Health of Towns Commission had been set up by the government in 1843, led by Edwin Chadwick, and produced detailed reports on the poor conditions existing in many cities. The reports contained details on the conditions of the fifty most insanitary towns in England, and special reports on Liverpool, Preston, Nottingham, Leicester, York, and Huddersfield. According to Finer, it seems to have been the first Report of the Commission, in July 1844, which gave the impetus for the Health of Towns Association to be set up that December. The reports had shocked many, showing how desperate was the plight of so many people, many living huddled together in dark, damp cellars. They were packed with detailed statistics on mortality rates, comparing different parts of towns with each other; for example, the Health of Towns Commission second report compares death rates in sewered and unsewered streets in Ashton-under-Lyme, there being an excess of eight per cent in infant mortality in the latter over the former.[7] Finer describes how the report stressed that the water supply needed to scour the proposed drains and flush the sewers was supplied by private companies, on a costly intermittent system, at exorbitant prices, and in inadequate quantities. It was this focus on the need for plentiful safe water and the sanitary disposal of sewage which was at the heart of the sanitary idea, and which was to become such a powerful motivating force in town halls during the next four decades.

Local Associations

Following the first meeting of the national Health of Towns Association in December 1844, Lewis describes how branches were quickly formed in Edinburgh, Liverpool, Manchester, York, Halifax, Derby, Bath, Rugby, Marlborough, Walsall, Plymouth, and Worcester. The local bodies worked by disseminating facts and figures drawn from the official reports, by organizing public lectures on the subject, by reporting on the sanitary problems of their

district, and by organizing public meetings to petition parliament. According to Lewis, the public lectures instructed audiences of both the working and middle classes in the elementary principles of ventilation, drainage and civic and domestic cleanliness. It was thought that only by pressure from 'without' could changes in the law be effected. If people were aware of how much harm their poor living conditions were causing them they might be inclined to help press for reform.

The Liverpool Health of Towns Association

In April 1845, a meeting was summoned by the mayor to form a Liverpool branch of the Health of Towns Association. At this first meeting it was stated that it was the information provided by the Health of Towns Commissioners Report which had led to the meeting being called.

A feature in the *Liverpool Mercury* described the attendance at the first meeting as being not large, but highly respectable, including leading members of the council and both Protestant and Catholic clergymen, in addition to Dr Duncan, soon to become the first medical officer of health in the country, Dr Samuel Holme, and several other members of the medical profession.[11]

The *Liverpool Mercury* described those present as 'gentlemen of all sects in religion and all parties in politics'. This meeting passed, unanimously, resolutions defining the sanitary objectives to be aimed at and called for legislative action. The duty of the Association should be to 'collect funds, to supply information and to furnish those details which must be the basis of all legislation'. The meeting set up a local committee, which published a monthly journal called *The Liverpool Health of Towns Advocate* for nearly two years, 1500 of the first number being distributed free of charge.

According to White, the working classes were not well represented in the Liverpool Association, and yet they were the worst sufferers from the insanitary conditions.[12] Nevertheless, White feels that the Association did undoubtedly give good service in giving local publicity to the mass of information which was available on the subject. Up until this time many citizens seem to have been under the impression that Liverpool was one of the healthiest towns in the country. The evidence shocked many into calling for action by appealing to their civic pride and humanitarianism, but also their self-interest, for the evidence showed that the poor—while naturally the worst—were not the only sufferers from the insanitary conditions. The gentry in Liverpool were shown to have worse mortality rates than gentry in Leeds and London. Samuel Holme, at the first meeting of the Liverpool Association, suggested that, 'in endeavouring to ameliorate the conditions of the lower classes . . . they would benefit themselves if they were all breathing the same polluted atmosphere'.[11]

One spin-off of the growth of the Liverpool Health of Towns Association was that it led to other bodies becoming concerned about public health. One

[11] 'Meeting of Inhabitants of Liverpool. Health of Towns Association', *Liverpool Mercury*, 25 April 1845.

[12] White, *History of the Corporation of Liverpool* (Liverpool, 1951).

example was the Liverpool Guardian Society for the Protection of Trade, which conducted an inquiry into Liverpool's water supply in 1845. White describes how they concluded that the Liverpool water was not only miserably inadequate, but almost the most expensive in the country. There were suspicions expressed that the supply was deliberately restricted to keep up monopoly profits, and the conclusions suggested that water supply would be better if unified under a public authority.

On a local level, the activities of the Health of Towns Association played an instrumental role in the passing of the Liverpool Sanitary Act in 1846, which enabled the town to appoint Duncan as Medical Officer of Health and to pursue sanitary reform with some vigour. On a national level, the Association was central in establishing the momentum behind the public health movement, which led to the 1848 Public Health Act.

According to Lewis, the Health of Towns Association was, taking the country as a whole, a sprawling, loosely knit campaign—much less a pitched battle fought to a general's plan than an affair of local skirmishes under guerrilla leaders.

From 1848 to 1974—The Declining Momentum of Public Health

The sanitary idea, with its environmental focus, continued to exert an influence in public policy which only began to wane in the 1880s, with the advent of the germ theory of disease and the possibilities of personal preventive medical measures, such as immunization, vaccination and family planning. This later phase, of a more individual orientation to public health, marked the increasing involvement of the state in medical and social welfare through the provision of hospital and clinic services. In turn, this era was superseded by the therapeutic era, dating from the 1930s, with the advent of insulin and the sulphonamide drugs. Until that time, it has been argued by McKeown, there was little of proven efficacy in the therapeutic arsenal.[13] Since the 1930s, and until the early 1970s, public policy on health in Britain and many other countries was dominated by a treatment orientation.

The beginning of this era coincided with the apparent demise of the infectious diseases on the one hand, and the development of ideas about the welfare state in many developed countries on the other. Historically, it marked a weakening of departments of public health and a shift of power and resources to hospital-based services, and particularly those based in teaching hospitals. By the early 1970s the therapeutic era was increasingly being challenged. Most countries were experiencing a crisis in health care costs, irrespective of their structure of health services, and McKeown's seminal analysis of mortality rates in England and Wales from 1840 to 1970 had increasingly provided a rationale for a renewed interest in public health and preventive medicine.

McKeown had concluded that the high death rates of the past were, to a

[13] T. McKeown, *The Role of Medicine—Dream, Mirage or Nemesis* (London, 1976).

large extent, attributable to a combination of infectious disease with nutritional and other environmental factors. His analysis is striking for its conclusion that, with the exception of vaccination against smallpox, which was associated with less than two per cent of the decline in the death rate from 1848 to 1871, it is unlikely that immunization or therapy had a significant effect on mortality from infectious disease before the twentieth century. McKeown concluded that, 'in order of importance, the major contributions to improvements in health in England and Wales were from limitation of family size (a behavioural change), increase in food supplies, and a healthier physical environment (environmental influences) and specific preventive and therapeutic measures'. McKeown also makes the point that disease tends to occur when species stray too far from the environmental conditions under which they have evolved.

From McKeown to Healthy Cities

McKeown's work provides a constant reference point in what has come to be known as the New Public Health. This new public health is an approach which brings together environmental changes and personal preventive measures with appropriate therapeutic interventions, especially for the elderly and disabled. Its focus is on public policy, as well as on individual behaviour and lifestyle and, increasingly, it is being seen in an ecological context which has a focus on holistic health. One of the key events in the development of this new momentum for public health was the publication, in 1974, of *The Lalonde Report—A New Perspective on the Health of Canadians* in Canada.[14] This report was, in essence, a restatement of the tradition of public health reports leading to policy, which went back to Chadwick but which, ironically, was about to be dropped as one of the consequences of local government reorganization in the United Kingdom. The kind of community diagnosis which the Canadian report represents has since been taken up around the world, and at different levels of population aggregation; with the WHO Healthy Cities project, it has led to a revival of city health reports.

Since the Lalonde report was published, a series of initiatives from the World Health Organisation, starting with the Alma Ata declaration on Primary Health Care in 1977 and culminating in the Healthy Cities initiative in 1986, have provided a framework for a new public health movement.[15,16,17,18]

All these initiatives underpin an emphasis on the need to tackle the root causes of ill-health and inequalities in health, and stress the need to reorientate medical services away from hospital care toward primary health care, pre-

[14] Minister of Supply and Services, *The Lalonde Report—A New Perspective on the Health of Canadians* (Canada, 1974).
[15] *Alma Ata—Primary Health Care* (Geneva: World Health Organisation, 1977).
[16] *Global Strategy for Health for All by the Year 2000* (Geneva: World Health Organisation).
[17] *Targets for Health for All* (Copenhagen: World Health Organisation, 1985).
[18] *Ottawa Charter for Health Promotion* (Copenhagen: World Health Organisation, 1986).

ventive medicine and health promotion, the need for more public involvement in health issues and the need for integration of action between the different sectors which have an impact on health.

Healthy Cities and the Ecological Idea

The revival of interest in public health after 1974 has been quite a widespread phenomenon; so too has been a tendency for this interest to be channelled into what have been described as victim-blaming explanations of ill-health. Against this background, a conference was held in Toronto in 1984 entitled *Beyond Health Care* to review Canadian progress in the ten years since the Lalonde report. One of the objectives of the conference was to shift the focus from victim-blaming to what have been described by Milio as healthy public policies.[19] At that conference a paper on the Healthy City by Duhl fell on fertile ground and resulted in the Copenhagen Office of the World Health Organisation taking an initiative to develop a model project with a small number of cities.[20] That project has subsequently become very much bigger and has begun to seem somewhat parallel to the Health of Towns Association experience in the 1840s.

The rationale for focusing on cities is very strong. By the year 2000 seventy-five per cent of Europeans, and the majority of the world's population, will live in cities or large towns.[21] Some third world cities are expected to reach extremely large sizes by the end of the century: Mexico City, 31 million; Sao Paulo, 26 million; Rio de Janeiro, Bombay, Calcutta and Jakarta each exceeding 16 million; Seoul, Cairo and Manilla exceeding 12 million. The problems that were described in British cities 150 years ago are all to be found in these cities today, albeit on a much bigger scale and of much greater consequence. However, some things are different; technologies are available, such as immunization, which may enable some short-circuiting of the trajectory of intervention which was followed in Europe. Many of these cities have elaborate public sector organizations which may often be part of the problem in compartmentalizing their response to particular public health issues.

Increasingly, people are making the connection between the urban condition and the eco-crisis confronting the planet. According to the Chairperson of the world commission on the environment, Mrs Gro Harlem Bruntland:[21]

> There are also environmental trends that threaten to radically alter the planet, that threaten the lives of many species upon it, including the human species. Each year another 6 million hectares of productive dryland turns into worthless desert. Over three decades, this would amount to an area roughly as large as Saudi Arabia. More than 11 million hectares of forests are destroyed yearly, and this, over three decades, would

[19] N. Milio, *Promoting Health through Public Policy* (Ottawa: Canadian Public Health Association, 1986).

[20] L. Duhl, 'The Healthy City: Its Function and its Future', *Health Promotion*, 1 (1986), 55–60.

[21] G. H. Bruntland, *Our Common Future: The Report of the World Commission on Environment and Development* (Oxford, 1987).

equal an area about the size of India. Much of the forest is converted to low-grade farmland unable to support the farmers who settle it. In Europe, acid precipitation kills forests and lakes and damages the artistic and architectural heritage of nations; it may have acidified vast tracts of soil beyond reasonable hope of repair. The burning of fossil fuels puts into the atmosphere carbon dioxide, which is causing gradual global warming. This 'greenhouse effect' may by early next century have increased average global temperatures enough to shift agricultural production areas, raise sea levels to flood coastal cities, and disrupt national economies. Other industrial gases threaten to deplete the planet's protective ozone shield to such an extent that the number of human and animal cancers would rise sharply and the oceans' food chain would be disrupted. Industry and agriculture put toxic substances into the human food chain and into underground water tables beyond reach of cleansing.

There is an increasing realization throughout the world of the need to grapple with these self-induced crises which threaten global ecosystems. These crises are, in large part, the results of the lifestyle and expectations of city dwellers and of the way in which they affect patterns of agriculture and world development. It is becoming apparent that some of the engineering solutions to the sanitary problems of cities cannot be adequately dealt with using Victorian approaches. In that sense the sanitary idea has been found wanting and incomplete. Moving sewage and solid waste away from its origin may work when a few comparatively small European cities are involved, but when a much greater proportion of a much bigger world population is implicated it is a recipe for ecological catastrophe. The refinement towards ecological from sanitary thinking has considerable implications for the way life is carried on in cities and for the policies which underpin it. However, the ecological idea of understanding how complex natural systems interact, and of working with them rather than attempting to subdue them, comes with it at least as powerful motivational potential as the sanitary ideas had in 1844.

The Healthy Cities project began at a meeting of twenty-one European cities in Lisbon in 1986, when it was agreed to collaborate in developing sound approaches to city health. The focus of the WHO initiative is somewhat programmatic, and perhaps bureaucratic, working as it does around five elements (fig. 1) and seven tasks (fig. 2).

FIG. 1. *Five major elements of the WHO Healthy Cities project.*

1 The formulation of concepts leading to the adoption of city plans for health which are action-based and which use Health For All, health promotion principles and the 38 European targets as a framework.
2 The development of models of good practice which represent a variety of different entry points to action depending on cities' own perceived priorities. These may range from major environmental action to programmes designed to support individual life-styles change, but illustrate the key principles of health promotion.
3 Monitoring and research into the effectiveness of models of good practice on health in cities.
4 Dissemination of ideas and experiences between collaborating cities and other interested cities.
5 Mutual support, collaboration and learning, and cultural exchange between the towns and the cities of Europe.

FIG. 2. *Seven tasks of the Healthy Cities project.*

1 To establish a high-level, intersectoral group bringing together the executive decision makers from the main agencies and organizations within the city. The purpose of this group is to take a strategic overview of health in the city and unlock their organizations to work with each other at every level.
2 To establish an intersectoral officer or technical group as a shadow to the executive group to work on collaborative analysis and planning for health in the city.
3 To carry out a community diagnosis for the city down to the small-area level, with an emphasis on inequalities in health and the integration of data from a variety of sources including the assessment of public perceptions of their communities and their personal health.
4 The establishment of sound working links between the city and the local institutions of education both at a school and higher education level. Links at school level can be explored as partnerships for learning, at the higher education level as partnerships for research and teaching. These latter links should not be confined to medical training establishments, but should include any department or institution with an interest in urban health-related phenomena. Part of this work involves the identification of appropriate urban health indicators and targets based on the Barcelona criteria:
   That they should stimulate change by the nature of their political visibility and punch through being sensitive to change in the short-term and being comparable between cities.
   That they should be simple to collect, use and understand, be either directly available now or available in a reasonable time at an acceptable cost.
   That they should be related to health promotion.
5 That all involved agencies should conduct a review of the health promotion potential of their activities and organizations, and develop the application of health impact statements as a way to make health promotion potential in different policy areas explicit. This includes the recognition that within a city there are many untapped resources for health, both human and material.
6 That cities will generate a great debate about health within their cities which involves the public in an open way and which works actively with the local media. This might include the generation of debate and dialogue using, for example, the interfaces which exist with the public, such as schools, community centres, museums, libraries, and art galleries. A city's own public health history is itself often a powerful focus for debate and learning. Part of this work is the exploration of developing effective health advocacy at the city level.
7 The adoption of specific interventions aimed at improving health based on Health For All principles and the monitoring and evaluation of these interventions. The sharing of experience between cities and the development of promoting one fundamental goal of the World Health Organisation, i.e. the promotion of world peace and understanding without which all health is threatened.

Nevertheless, buried within these can be found, to a greater or lesser extent, most of the activities of the local Health of Towns Association branches of 1844–5—bringing together key players in the cities, establishing a clear picture of health in different parts of the city, developing advocacy and coalition, building for change, intervention and legislation.

The members of the Health of Towns Association were not afraid of argument and debate, and the Medical Officers of Health were at one point branded 'trouble-makers' by *The Times*. Will the new practitioners have the commitment and strength of purpose to take on the motor manufacturers, and the petroleum companies, the junk food companies, and the purveyors of political philosophies that are bankrupt of a social and ecological ethic?

It remains to be seen whether a global movement in the 1990s can be as effective as a national one in the 1840s.