Faculty of Public Health

of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

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State Medicine and Public Hygiene:

Implications Of The New Public Health

John R Ashton CBE

Milroy Lecture 2000

Delivered at the Royal College of Physicians of the United Kingdom - 17th April 2000

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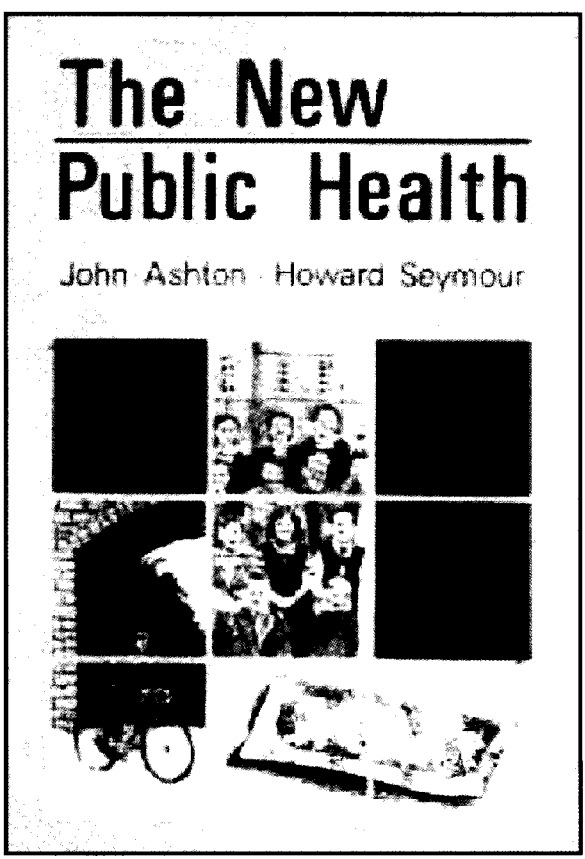
Introduction

When he died in 1886, Gavin Milroy bequeathed a sum of money to the Royal College of Physicians of London for the establishment of "a few lectures every year on State Medicine and Public Hygiene." Accompanying the codicil to his will, dated 8th February 1877, are twenty pages of suggestions for topics to be considered by the College Council. These suggestions and the notes that accompany them indicate that Dr Gavin Milroy had a wide-ranging and prescient concept of public health. Key areas of interest to him inclued the argument that was then raging about the nature of transmission of disease and the relative contribution of "judicious hygiene precautions" with respect to their "diminution and possibly their eventual extinction."

Figure 1. Milroy's Menu of Appreciable, Unwholesome and Insanitary Influences

- The amelioration of the food of the working classes
- The internal improvement of their dwellings
- The amendment of their habits as to personal and domestic cleanliness, temperature &c
- Coupled with the drainage of malarial lands near to their habitations, and the selection of healthy sites for these in the first instance

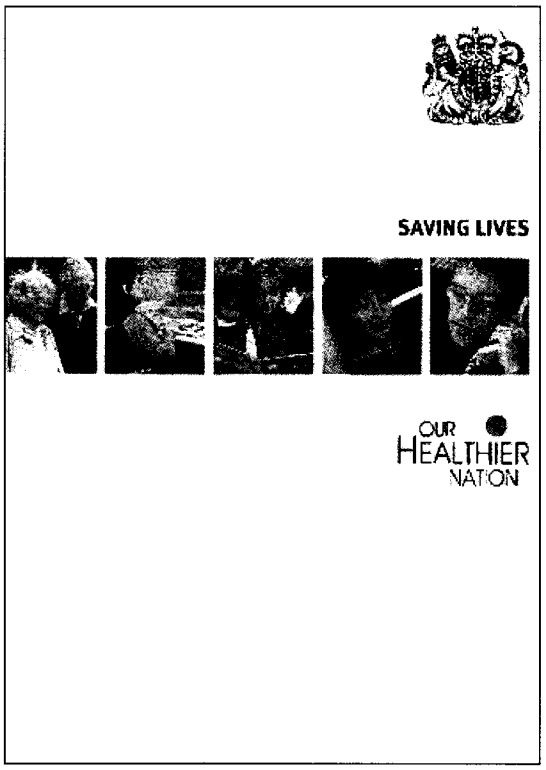
Figure 2.The New Public Health



Milroy also spoke of the value of sound systems of "state medicine" in producing what we might now call health gain, especially in the colonial context.

The revival of interest in public health in recent years and its presentation as 'The New Public Health' has culminated in the appointment of a Minister for Public Health for England and an explicit public health strategy for the first time.[1,2]

Figure 3. Saving Lives; Our Healthier Nation



Simultaneously, the latest reincarnation of the Colonial Office as the Department for International Development (DFID) has provided an opportunity to re-think the role of the British Government in international health issues.

This must now be seen in the context of the globalisation of these issues as evidenced particularly by such challenges as disparate as HIV/AIDS, BSE, tobacco-related issues, alcohol and drug abuse, accidents, rapid urbanisation, toxic waste disposal and global warming. Where they link to Milroy's menu is that they still encompass environmental and hygienic concerns. Today behavioural, therapeutic interventions and the possibilities raised by the human genome project have to be added to the list.

This lecture will revisit Dr Gavin Milroy's original areas of interest as identified in his notes, and consider them against their contemporary equivalents on the global canvas. The implications of current public health problems for the development of an effective global response will be addressed, and suggestions made as to what the College's role might be, as a contribution to the international protection and promotion of the public's health.

Gavin Milroy; Life and Times

Figure 4. Portrait of Gavin Milroy[a]

Gavin Milroy was born in 1805 in Edinburgh and studied medicine at the University of Edinburgh. He graduated LRCS in 1824 and MD in 1828, and was elected to Fellowship in 1853.

[a] Courtesy Royal College of Physicians

Figure 5. World Map

This was at the time when Britain's colonial adventure was in full spate as the world map was rapidly being coloured pink and there were opportunities to seek challenge and sometimes fortune in many parts of the world.

Figure 6. Wonder Book of Empire - Book Cover

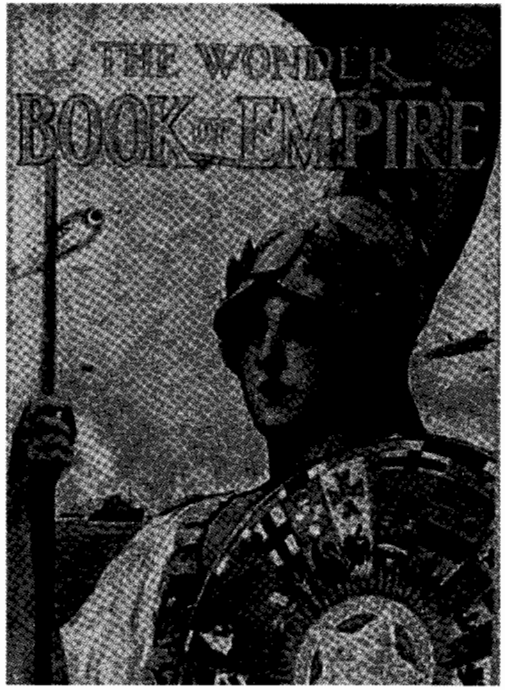


Figure 7. Group of Adventurers

Milroy himself served as a medical officer in the colonies, predominantly in the West Indies and the Mediterranean where his interest in epidemiology developed. As well as becoming a specialist in the discipline, he made his name as a medical writer, publishing extensively. The various theories of disease causation were a source of great debate at this time and, although undoubtedly involved in the discussion, Milroy seemed to be more concerned with the development of policy based on scientific epidemiological evidence.

He displayed a real vision of the future when he said of disease investigation "What is obviously wanted is the sedulous observation, and the strict recording, at the time of observation, of the facts – not of some only; but of all – in each case relating to its genesis or development, with exact details as to localities and dates, unbiased by prejudgement and uninfluenced by the work of previous writers."[3]

Milroy complained that he could not understand why members of the medical profession were unwilling to "accept the obvious logic of facts when this is in opposition to old ingrained beliefs."[3] Sadly, some things never change, although the recent emphasis on evidence-based practice raises some hope.

Milroy demonstrated the unique role the British could play in international health in a report on the 'Geographical Course of Pestilential Disease' given to the Epidemiological Society in 1862.[4] He described how Great Britain, through its "extensive consular agents in every foreign land", provided information that he used to trace the course of cholera in the East.

Milroy seems to have been particularly adept at challenging established practices that he thought could be unnecessary or harmful. One of his main recommendations, made to promote both industry and public health, was the abolition or considerable mitigation of quarantine to be replaced by appropriate sanitary measures.

An editorial in the *British Medical Journal* of 1869 reported that "From an able report by Dr Gavin Milroy ... we obtain valuable information as to the kind of quarantine which is necessary for our own safety"[5] Milroy considered that many other long-standing practices such as the enforced segregation of lepers were expensive, inhuman and unnecessary.

Figure 8. Leprosarium Gate

Milroy accepted the need for what he described as "impartial scrutiny, but felt that despite the lack of knowledge of disease causation, there was sufficient evidence to recommend much more attention to sanitation and hygiene as the best way to improve public health.

The Epidemiological Society owed much to Milroy, and he was its Secretary from 1862 to 1864 and President from 1864 to 1866. He considered that a considerable amount of evidence to inform disease prevention activities could be provided by making better use of routinely collected information from a wide variety of sources.

In a report to an Epidemiology Society meeting in 1860, he lent support to the production of annual reports as pioneered by William Henry Duncan of Liverpool, the country's first Medical Officer of Health.[6,7]

Figure 9. Portrait of William Henry Duncan of Liverpool, the Country's First Medical Officer of Health

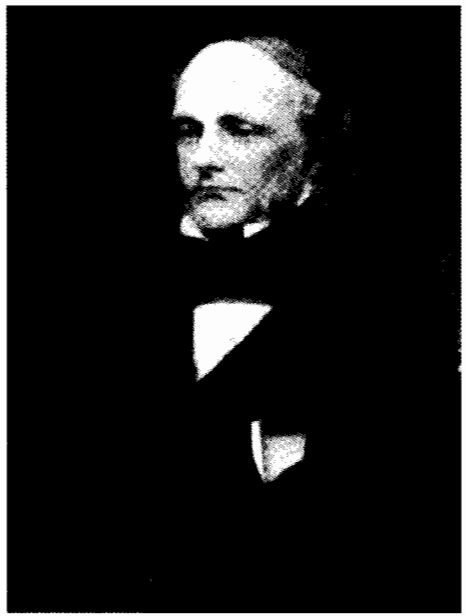


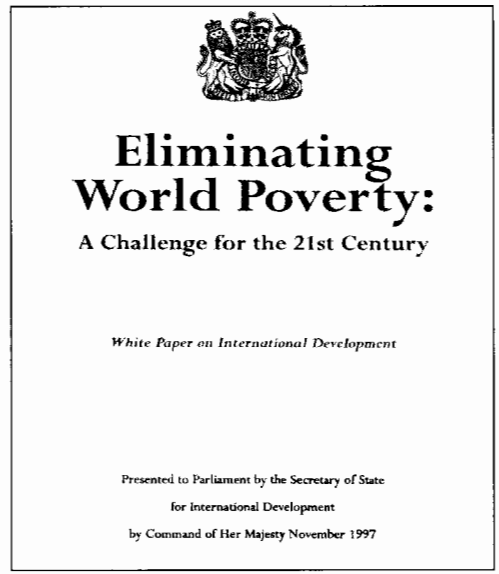
Figure 10. Milroy's Support for the Use of Routine and Other Data

> "... we know nothing, as we ought to know, as to the most frequent disabling disease in different towns, villages and rural districts, among the poor; nor the influence of age, sex, condition and employment in their production. And yet most valuable data upon all these points might be obtained from the returns which the medical officers are requested to make for boards of [Poor Law] guardians ... An annual report, founded on an examination if these documents could not fail ... to be of the highest value to the science of public hygiene."[6]

Inequalities in health featured strongly in his writing: "No wonder," he said, "that three-fourths of all the actual paupers in the country have been made paupers, directly or indirectly by disease."[6] The prevailing view that ill-health was the cause rather than the effect of poverty has been questioned in recent years.[8,9]

But the evidence that the two-way relationship between poverty and ill-health is as important today as it was in the Victorian era is provided in the recent White Paper on International Development.[10]

Figure 11. Eliminating World Poverty



According to Secretary of State Clare Short, the successes of (economic) development are demonstrated by evidence that "people live longer, fewer mothers die in childbirth, fewer infants die from preventable diseases," but that to achieve sustainable development for everyone, the elimination of poverty is "the single greatest challenge which the world faces." The prime aim of the Department for International Development (DFID) has become the elimination of poverty in poorer countries.[10]

Health is seen as "... a key component of human development and poverty elimination, because the burden of ill-health falls disproportionately on poor people and obstructs their escape from poverty."[11] The World Bank – the world's largest investor in health – now has poverty reduction as its prime aim.[12]

So what did Milroy hope to achieve through his lectures? His main wish seems to have been "to promote the advancement of medical science along with the interests of philanthropic benevolence and of social welfare."[3] He wanted the lectures to be a forum for debating the important issues of the day. He believed that public health dealt with diseases which were caused by neglect of the "natural laws" of healthy existence, an insight that was to have a resonance in Thomas McKeown's seminal underpinning of the new public health one hundred years later,[13] and was convinced that many diseases were made worse, if not actually caused, by people living in "unwholesome or insanitary conditions."[3] He had observed at first hand the increase in incidence of tuberculosis and other diseases when people lived in crowded and insanitary conditions and used the evidence before him to recommend sanitary changes to improve public health. It is this paradigm of connecting biological and social science through epidemiology to policy and social and environmental action which Milroy understood so well and which remains at the heart of public health and of good clinical practise today.

The Evolution of the Lecture

The timing of Milroy's bequest assumes some significance when the history of public health development in Victorian Britain is viewed through the 'retrospectoscope.' It coincides with that period which was marked by the establishment of an infrastructure for public health training and practise, codifying and regulating the work that had been going on in an ad hoc fashion for several decades.[14]

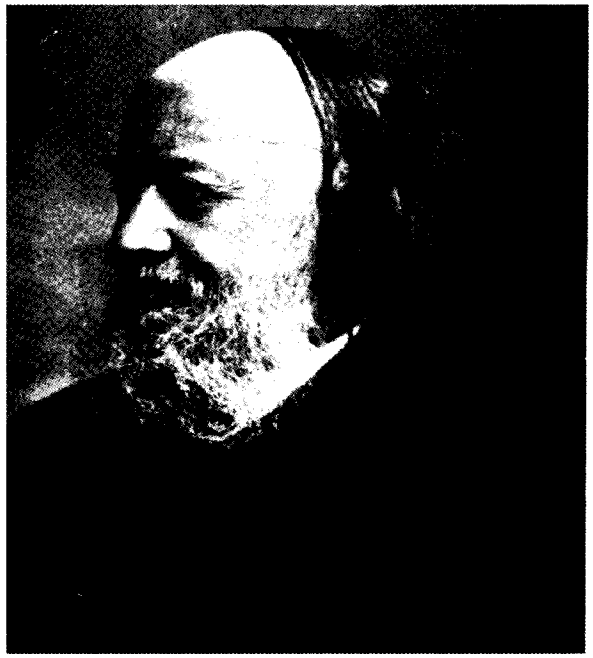
The early part of the nineteenth century witnessed an expanding British Empire, with a massive increase in foreign trade. England, and especially the major port cities of London and Liverpool, became the hub of a global network of maritime commerce.[15] Cheap foods and raw materials were imported and, as the industrial revolution rolled on, textiles and other manufactured goods were exported. Coinciding with changes in agriculture with increased productivity and larger farm units, push and pull factors conspired to produce massive migration from rural to urban areas. The resultant huge increases in the numbers of slum dwellers provided ideal conditions for the frequent epidemics of infectious diseases such as cholera, typhoid, typhus and smallpox that periodically ravaged the poorer areas.

Figure 12. The Slums of Liverpool

It was this combination of circumstances which gave birth to the Victorian public health movement with its roots in the great cities and its initial focus on what came to be known as the Sanitary Idea.[1,16]

In the early 1830s public health was still the concern of local parishes, with only rudimentary competencies resting with local authorities. Indeed, it is arguable that the whole edifice of local government as we know it today was built as a result of town and borough councils rising to the challenge of the epidemics in the slums.

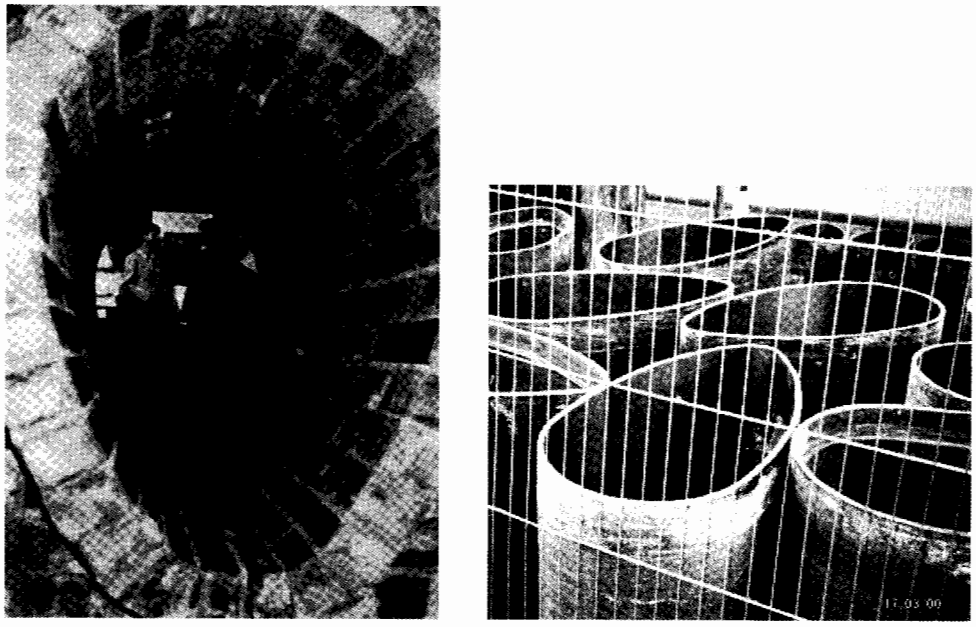
Figure 13. Portrait of Sir Edwin Chadwick



Edwin Chadwick's *Report on the Sanitary Conditions of the Labouring Populations*[17] published in 1842, stimulated a great deal of local activity, not least the establishment of the Health of Towns Association, which campaigned for national legislation and for local authorities to have powers to intervene on local public health matters. One of these powers, that of the freedom to appoint a city medical officer, was anticipated by Liverpool in 1846 with its 'Sanatory Act' enabling the town to appoint Duncan, a move which became commonplace among towns and cities after the first National Public Health Act was passed in 1848.[7,18]

The sanitary movement, with its environmental emphasis, was driven by Chadwick's central 'sanitary idea' based on the necessity to separate human and animal waste from food and water – something that was revolutionised by the design of the egg - shaped sewer

Figure 14. Egg Shaped Sewers. Old Sewer and New Liners.



All that followed in relation to slum improvement, water supply, sanitation, street paving and cleansing and food hygiene regulation can be seen to emanate from this central idea. Clearly Milroy will have been familiar with these developments and was influenced by them.

Figure 15. Sunlight Soap

Similarly, the shift of emphasis at home from sanitation and the environment to personal prevention and hygiene followed the establishment of domestic water supplies. The establishment of washhouses, the availability of the technology provided in the form of soap and the beginnings of personal preventive medicine coupled with advances in bacteriology and the germ theory of disease were part and parcel of the debate which Milroy helped introduce to the colonies.

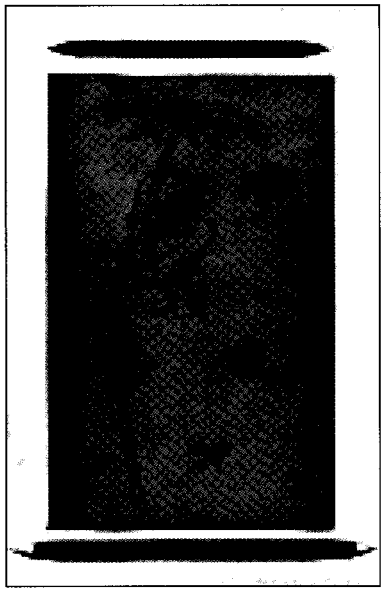
Milroy predeceased the third, therapeutic era of public health, which did not make an appearance until some fifty years after his death, but which has dominated medical thinking for much of the past sixty years. One perspective of note, is the extent to which tropical diseases and the contribution of the laboratory per se, rather than their underlying proximal determinants (environment, lifestyle, organism and host interaction), have tended to distort the work of the schools of tropical medicine, such as that at Liverpool and London, as well as the medical schools themselves.

Figure 16. Lab Scene

Source: Department of Special Collections and Archives,Sydney Jones Library, Front of the Sir Alfred Jones Laboratory in Freetown, Sierra Leone, ref.D.745/TM 13/11 (An album of photographs)

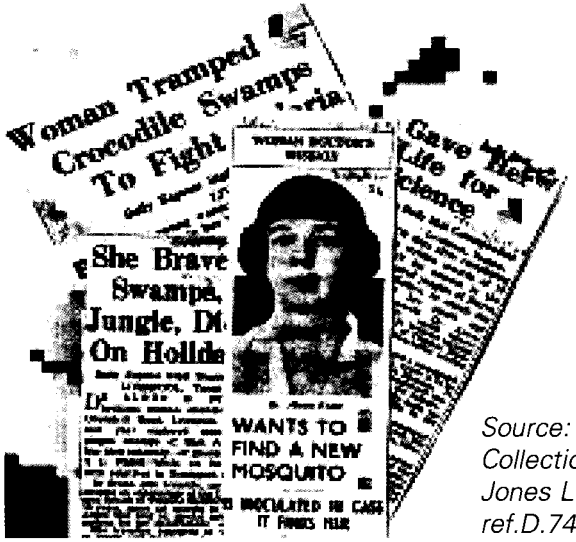
Figure 17. Liverpool School of Tropical Medicine

Figure 18. Cartoon of Sir Rupert Boyce as he Leaves Liverpool to Stamp out the Yellow Fever Outbreak in Sekondi.



Source: Department of Special Collections and Archives, Sydney Jones Library, Anonymous cartoon ref.D.745/TM 14/BoR 3

Figure 19. Dr Alwen Evans - Newspaper Clips

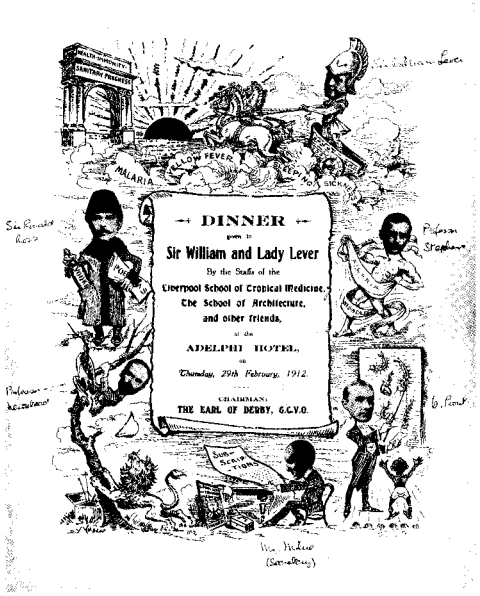


Source: Department of Special Collections and Archives, Sydney Jones Library, Newspaper cuttings ref.D.745/TM 14 Eva 36,39 – 41

For most of the twentieth century Milroy's public health context has been sorely missed. From the 1840s to the present day, public health, although always involving them, has never been the sole prerogative of physicians. In an address by its president to the Public Health Section of the National Association of Social Science in 1868, Dr Rumsey made the point that "... the intimate relations which exist between sanitary improvements and the skilful enterprise of civil engineers render it very desirable (if I may be excused for making the suggestion) that this department should sometimes be headed by one of their profession."[19]

Similarly, the failure of bio-medical and environmental programmes to deliver health improvement today often occurs because of a lack of consideration of anthropological and social factors coupled with a lack of ownership of the intervention by the population targeted. This represents a lack of genuine multidisciplinary endeavour on the one hand, and of true professional - public partnerships on the other.

Figure 20. Menu From a Dinner for Sir William and Lady Lever



Source: Department of Special Collections and Archives, Sydney Jones Library, ref.D.745/TM15/11.2

Things were different in Milroy's time. It is not surprising to see that a dinner for Sir William and Lady Lever (of Port Sunlight and soap fame) in 1912 was given by the staff of the Liverpool School of Tropical Medicine together with the University of Liverpool School of Architecture and other friends, implying a close relationship between international public health, architecture and other academic departments, including the University's Department of Hygiene established in 1897 and the Department of Civic Design which was the first of its kind in the world

The importance and scope of public health was addressed at a discourse on state medicine at the University of Dublin in 1872, when William Stokes remarked that "Sanitary science is related more particularly to preventive as distinguished from curative medicine. The one deals with causes; the other with effects, which in their turn become causes. Now if we compare the relative importance of these two branches of medical knowledge, a greater value must be attached to the first than to the second; and for this reason – that the well-being of larger numbers of mankind depends immeasurably more on preventive than on curative medicine ... preventive medicine embraces everything ... which relates to the physical and moral well-being of our fellow men ... its object is the health, and therefore the happiness and prosperity of man; its instruments are science and common sense." Stokes foresaw a day when "... no man for his own ends or for his own profit, will be permitted to damage the health ... of his neighbour ... The gifts to man from Heaven – pure air, pure water, bright light, and wholesome food will be more freely shared."[20]

This demonstrates an understanding of the interdependence of people, the necessity of public policies to support health and the importance of equity and sustainability for good health. As such it prefigures much of the values and emphasis of the 'New Public Health,' such as the precautionary principle (primum non nocere) and that of reciprocal maintenance. It also supports the social administration perspective that came to be so strongly associated with Richard Titmuss and the London School of Economics and indirectly with the London School of Hygiene and Tropical Medicine.[21] A further underlining of the importance of public health in the thinking of the day is to be found in the report of the opening of a new hospital in 1872, when Lord Derby "... advised the inhabitants of Bootle not to content themselves with providing a hospital for effecting cures, but to study the best means of preventing disease." He reportedly "endorsed the opinion recently expressed by Mr Disraeli ... who speaking on all the great questions of the day declared that the sanitary question was at the bottom of all national well-being and greatness."[22] An opinion that he recognised would have been totally unacceptable thirty or even less years ago. (How things come round!)

Milroy's Wishes

Milroy's bequest contained suggestions to the Council of the Royal College on the subject mater for his proposed lecture series. Because of his extensive travel overseas he was probably only too well aware of the devastating consequences of rapid urbanisation on poor populations. Milroy had first hand experience of the effects of poor sanitation and inadequate and unhygienic food supplies on public health in the colonies, and he suggested that attention should be paid not to diseases that were thought to be congenital or of an hereditary nature, but rather that related to public health and that could be acquired through the neglect of the "natural laws of healthy existence."

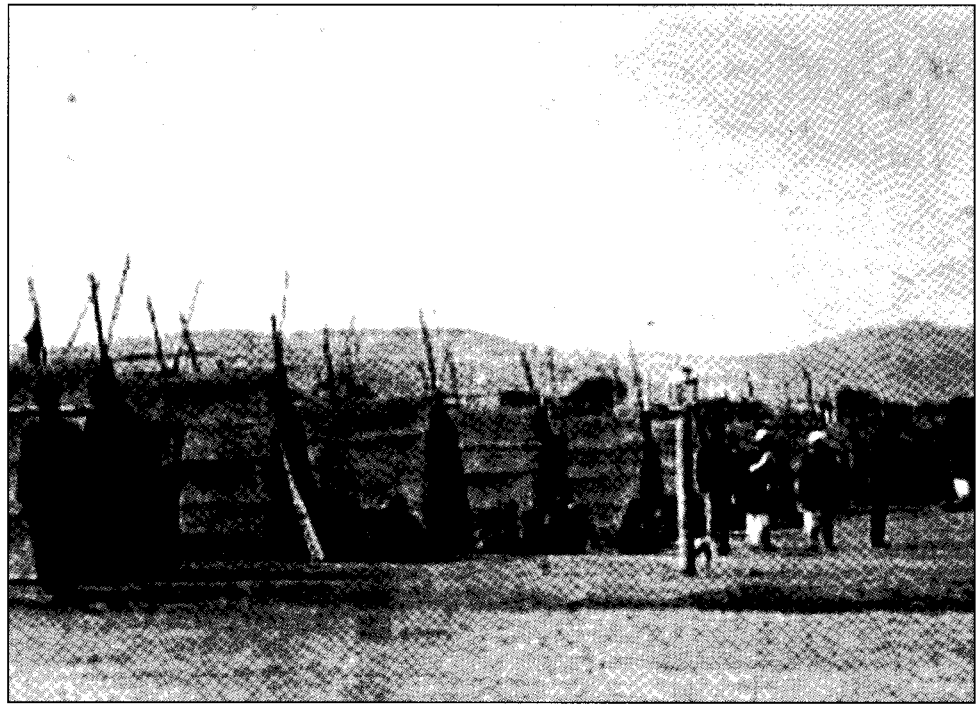
Figure 21. Annual Average Deaths per 100,000 Population from 1887 to 1912 in one hundred selected cities throughout the world.

Cause of Death	Deaths per 100,000 population
All Causes	1470
Diphtheria	18
Enteric Fever	15
Measles	16
Scarlet Fever	10
Tuberculsis	75
Whooping Cough	9

Source: Cliff A, Haggett P, Smallman-Raynor M. *Deciphering Global Epidemics: Analytical Approaches to the Disease Records of World Cities,1888-1912.* Cambridge Studies in Historical Geography 26. Cambridge: Cambridge University Press, 1998.

Viewed from the perspective of a developed country where perinatal and infant mortality is more likely to have a genetic and congenital cause we might be inclined to disagree with this point of view. However, if viewed from a global perspective, where health gains for mothers and children still come mainly from environmental, socio-economic and hygienic improvement, we would be wise to be cautious with our views.

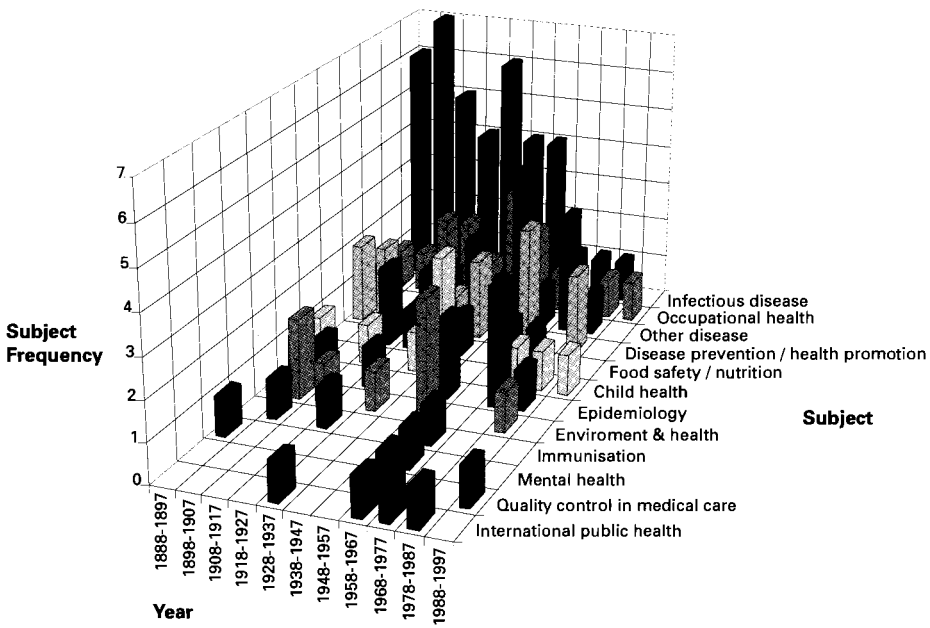
Figure 22. Plague camp



Many of the communicable diseases were in Milroy's sights. Plague, measles, diphtheria, smallpox, typhoid, typhus, cholera and pertussis were all considered to be suitable lecture topics. Tuberculosis, then as now, was a leading killer.

In the first 70 years the main topics covered by the Milroy Lecture were indeed subjects relating to infectious disease, reflecting their international importance. The natural history and prevention of named diseases such as tuberculosis, typhoid and diphtheria, or quarantine issues, being the commonest topics.,

Figure 23. Subjects for the Milroy Lectures 1888-1997



Although often appearing as part of other lectures, topics relating specifically to tropical diseases appear rarely, and rather surprisingly one of the world's biggest killers – malaria – has never been the main subject of a lecture. Maybe now that malaria is one of the WHO's main programmes this inconsistency will be redressed in the near future.

It was the reduction in the number of leprosy cases that resulted from improved sanitation and hygiene in Europe that was one of the key observations, which led to Milroy's appreciation of the importance of epidemiology. Epidemiological principles and practices have formed the basis of many of the lectures – e.g. the lecture on *Experimental Epidemiology* by Topley in 1926. Milroy felt that there was a great need for research, since too much medicine was based on traditional medical custom and practice.

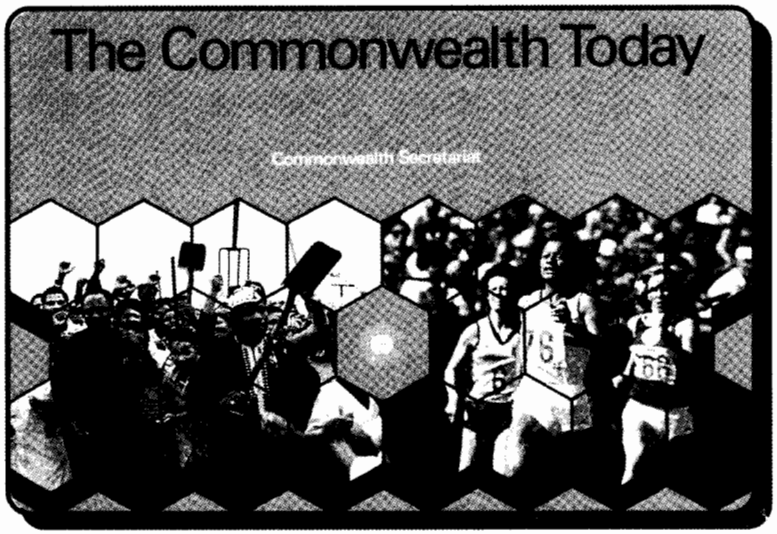
He gave the example of scurvy, which was long considered a communicable disease but through a series of trials was found to be caused by inadequate diet. We have only to consider the recent history of peptic ulcer to appreciate that this phenomenon of massive erroneous assumptions about aetiology remains a live issue.

Syphilis (once more appearing in Manchester and elsewhere) and its suspected complications caused much suffering, and were problems mentioned by Gavin Milroy. Goitre and cretinism were also referred to, and were thought to be a result of a toxin or poison found in drinking water or vegetables. Skin diseases such as yaws were not well understood but caused substantial problems, especially in tropical countries.

Topics relating to the effects of war on public health, such as *The Health of the Factory Worker in War Time* by Henry in 1943, were common in the years surrounding the Second World War.

In the post-war period, therapeutic medicine was in its ascendancy, and concern about infectious diseases was replaced by interest in chronic non-communicable disease, and as a result topics such as bronchial carcinoma and chronic respiratory disease began to appear as lecture topics. For example, *Pulmonary Asbestosis with Special Reference to an Epidemic of this Disease at Hebden Bridge, Yorkshire* by Mann in 1978, and *Bronchial Carcinoma; Incidence and Aetiology* by Doll in 1953. As the sun set on the British Empire and the Commonwealth came into being, the international context for these lectures seems to have been increasingly lost.

Figure 24. The Commonwealth Today



This is not to suggest that non-communicable disease is not important in the commonwealth countries today, but rather that the political and social context and the focus on poverty, the environment and policy, seems to have been lost.

This parallels what was happening at home in the post-war period, where for twenty years or more public health was forgotten, and lay neglected and atrophying under the dominance of the therapeutic model. This led to complacency about the environment, infectious diseases and many other wider determinants of health.

Recent years have seen an increase in the diversity of lectures, with a move away from specific diseases. In the last ten years topics have included ethics, genetics, logic versus intuition, children's rights, state spending and an audit of medico-legal actions, with no specific diseases mentioned at all, but with little in the way of international health development.

The overwhelming impression is one of a lack of coherence and of a need to revisit Milroy's codicil.

Who Should Give the Lecture?

It is apparent that Gavin Milroy needed no convincing of the multidisciplinary nature of public health and wished to involve different groups of people in delivering the lectures (plural because he intended that there be more than one a year). Milroy suggested that "Army and Navy officers; educated medical men who were not members of the College; other professional men with experience of living in the colonies and veterinarians" as suitable candidates. Maybe women did not exist in 1877 because they were never mentioned, although my colleague Mike Eastwood, former Chief Environmental Health Officer for Manchester, reminded me that health visitors began their life as female sanitary officers. However, only two women have ever delivered a Milroy Lecture. Milroy's multidisciplinary wish has never been fulfilled, since as far as I can tell Milroy Lectures have always been given by medical doctors with no sign even of a vet – perhaps the recent revival of interest in the zoonoses following the BSE and similar debacles in the area of animal husbandry, food and human health will rectify this soon. Maybe the resistance of medical members of the College in the past to multidisciplinary working and to acknowledging the contribution of other professionals to public health is somewhat embarrassingly exposed by this short overview.

World Health Today

Everything changes, everything remains the same, but history is helical not pendular.

Various major global influences, with their impacts on the environment, changes in lifestyle and behaviour and the advent of immunisation and scientifically based treatments, have resulted in great changes in patterns of communicable disease and their impact on public health. Hygiene in its various guises,

in relation to food, water and sexual, remains important and birth control, through its impact on spacing and a reduction in the numbers of births, has had a significant impact on infectious disease in many developing countries as it has done historically in the United Kingdom and elsewhere in the developed world.

Smallpox has been eradicated, and the global eradication of polio and measles appears to be just around the corner – but despite this undoubted progress communicable diseases are evolving and emerging internationally as major problems. The incidence of tuberculosis is increasing and is estimated to kill around three million people a year worldwide, with 7.3 million new cases annually.[23] It is now almost thirty years since McKeown pointed out that the major reduction in the death rate from tuberculosis in England and Wales occurred before its cause was known and before specific medicines to prevent or treat the disease were available. McKeown concluded that environmental measures and improved nutrition were probably responsible for the gains made.[13] Yet today the battle against tuberculosis is often described in narrow, medical, logistic, administrative and managerial terms.

Antibiotic resistance is increasing, and diseases such as HIV/AIDS and variant Creutzfeldt-Jakob are emerging, sometimes dramatically, to confront us with our complacency about infectious diseases, animal husbandry, food hygiene and production. The increase in both these diseases reinforces the importance of maintaining interest and work in the zoonoses. Nevertheless, the World Health Organisation estimates that in the developed world, infectious diseases such as pneumonia, tuberculosis, diarrhoea, HIV/AIDS and malaria are only responsible for about one per cent of all deaths, whereas in developing countries they still account for forty three per cent.

The Rise of Chronic Disease

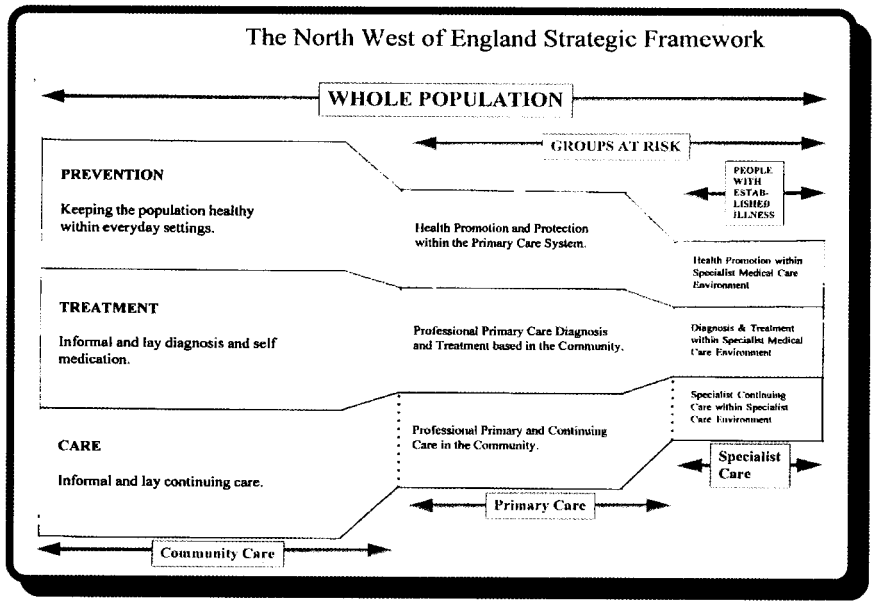
Economic development, the trend to smaller family size and improved living and working conditions for many have led to big gains in life expectancy and a changing balance between the communicable and non-communicable components of the burden of disease. However many people have not benefited from these changes, and frequently different typologies of public health co-exist side-by-side;

- Rural poverty with its traditional problems of malnutrition and infectious disease
- Urban slums where these threats to health are added to by sexually transmitted disease, accidents, alcohol, drugs, tobacco and violence
- Urban elites, who to an extent enjoy Western developed world standards of living and life expectancy together with the challenges of non-communicable disease

Wilkinson has suggested that more egalitarian societies are healthier, and that the way to advance public health is to reduce socio-economic inequity both within and between countries;[24] a reminder that one of the drivers for change in Victorian England was that the gentry in the more salubrious towns lived longer than those in the industrial cities. Today, enlightened self interest is becoming a global as well as a local issue.

Non-communicable diseases and the diseases of ageing are chronic in nature and the complexities of their natural history are not well understood. Consideration of manageable chronic diseases such as type 2 diabetes illustrates that effective secondary interventions result in a huge burden on health service resources for many years. Ultimately population-based primary prevention must be the Holy Grail, as so well understood by William Stokes.

Figure 25. North West Strategic Framework



A rational strategy for promoting and protecting the public's health has three components;

- Encompasses a total population perspective
- Addresses those at risk
- Meets the needs of those in ill health

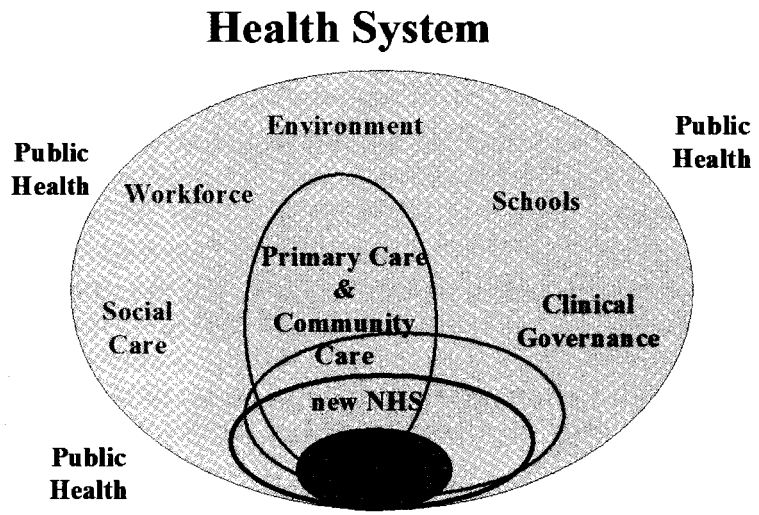
It is the last of these three that has dominated our efforts for fifty years or more, to most people's detriment.

With chronic conditions, the links to environment, lifestyle and hygiene tend to be complex and unlike several infectious diseases, they rarely have an easy 'cure'. Considering that the aetiologies and natural histories of chronic diseases are multifactorial and different not only from each other but also from infectious diseases, it seems illogical to expect that medical systems, which have been primarily designed to treat single agent infectious diseases should also be proficient at preventing premature death and disability from chronic diseases.

As the tuberculosis saga shows, 'magic bullets' have limitations even for infectious disease. Consideration of the determinants of ill health, coupled with interventions at the population and environmental level must be the primary concern. The question of how the health care system relates to the determinants of health and therefore the wider health system and how these elements can be influenced is now being seriously considered.

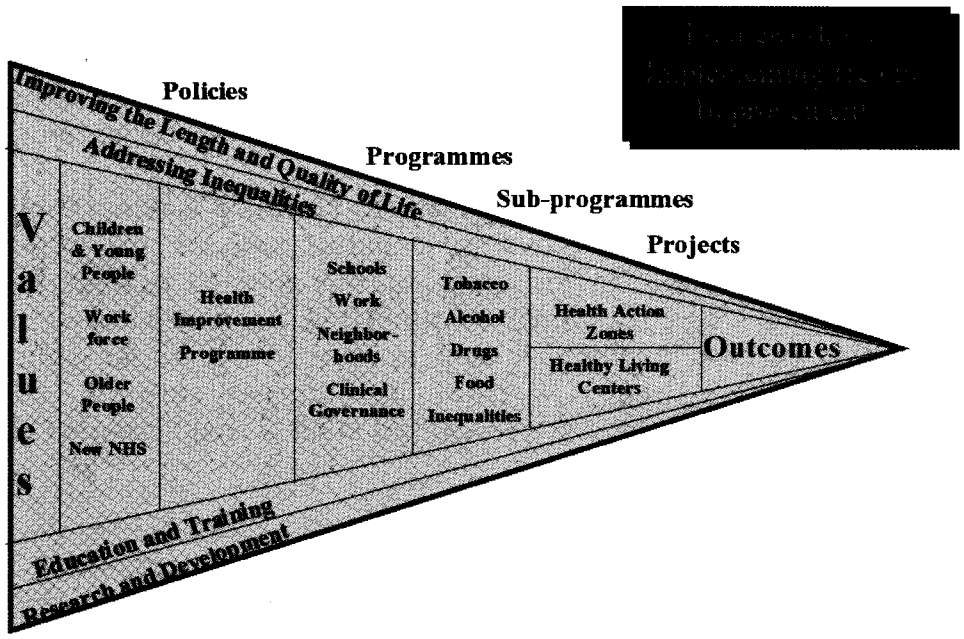
The British Government's public health strategy 'Saving Lives: Our Healthier Nation' seeks to develop policies for whole populations as well as for those at risk and to refocus the treatment services provided by the NHS. In doing this it is implicitly placing the health care system in the wider policy context of the health system and those settings and environments which have always had such a major impact on health.

Figure 26. Public Health Strategy



As clearly demonstrated by the substantial reductions in mortality achieved in some developed countries, the number of premature deaths from chronic disease can be reduced when tackled through multi-disciplinary efforts carried out in partnership with the public.

Figure 27. Health System



The late twentieth century has seen a trend towards a healthier, longer life for many but by no means all people. Three out of four people in the least developed countries today are dying before the age of fifty. The majority of these early deaths are preventable, and inequalities in health are increasing. The gaps between the health status of rich and poor, both at home and internationally, is growing.[24]

The Main Players in International and World Health Today

In Milroy's times there were no international health organisations as such, other than the appendages of national colonial administrations. The need for co-operation in health issues became apparent as international trade and travel increased and pandemics of cholera and the like manifested themselves as signs of a shrinking world. Early institutional developments such as the Liverpool and London schools of tropical medicine (1897 and 1898 respectively) came about more as a support to international commerce than to international development and solidarity.[25]

The first international meeting on health was held in Paris in 1851, when an unsuccessful attempt was made to produce an international sanitary convention. Success was eventually achieved, and a convention restricted to cholera was adopted in 1892. In 1919 the League of Nations was created and, among other things, had a mandate for the prevention and control of disease. The forerunner of the World Health Organisation (WHO), the Health Organisation of the League of Nations was set up in Geneva in parallel with the Office International d'Hygiene Publique (OIHP), previously established in Paris in 1907. Eventually, at the International Health Conference in New York in 1946 the constitution of the World Health Organisation was approved as one of the United Nation's family of agencies established in the hope that it might be possible to tackle the proximal causes of global conflict and WHO came into being in 1948.[26] Since then it has been joined by many other international agencies whose remit includes health in one way or another. (See APPENDIX 1)

Figure 28. Some of the International Agencies with a Significant Health Impact

- The World Health Organisation (WHO)
- The World Bank
- The International Monetary Fund (IMF)
- The International Labour Organisation (ILO)
- The Food and Agriculture Organisation (FAO)
- The World Trade Organisation (WTO)
- The United Nations Development Programme (UNDP)
- The United Nations Population Fund (UNFPA)
- The United Nations Children's Fund (UNICEF)
- Rotary International
- The Rockefeller Foundation
- OXFAM
- Save the Children
- European Union
- The British Commonwealth
- Department for International Development (DFID)

How do these players work together?

WHO was set up to direct and co-ordinate international health work, but its increasing lack of financial resources means that it is now considered just one of many organisations involved.[27] WHO is however still heavily involved with the production of health policy, but the group with the most money, the World Bank has assumed the role of lead agency in the health sector, with WHO providing medical expertise or 'technical support.'[12] The determinants of health are so broad that no one agency or group can succeed alone and this is as true at the global level as it is at the local level. Projects as diverse as literacy, agriculture and sanitation all affect health and while the formal mandates of the various UN organisations and funds are generally complementary, their effective mandates have increasingly overlapped over time, leading to confusion over who should be doing what.[28]

If the international agencies with the most money and consequently power are controlled by countries with successful market economies, there is a risk that trade and policies that benefit these countries will be adopted at the expense of weaker, poorer countries. Smaller groups or countries that do not want to 'fall into line' may become marginalised and excluded in the same way as poor and minority groups have been in our own society. Wilkinson has suggested that egalitarian societies are healthier,[24] and that the way to advance public health is to promote equity both between and within countries. It is too early to tell whether the change in focus of the World Bank in recent years will actually reduce inequalities. Investment in projects that educate girls and empower women seem likely to succeed. More controversial perhaps are the World Bank policies of promoting diversity and competition. One of the World Bank's main principles is that they work in partnership with public and private sectors and it is possible that one of the reasons for the World Bank's enhanced reputation is its willingness to collaborate and develop partnerships.

The Role of the Royal College of Physicians

Figure 29. The Royal College of Physicians

The Royal College of Physicians was created by Royal Charter of King Henry VIII in 1518, since when it has been engaged in activities dedicated towards upholding and improving standards of medical practice. In addition to this primary function, the College has always been active across a broad range of work and has made major contributions to the development of medical literature and education. The publication by the College of the first edition of the *London Pharmacopoeia* in 1618 was a cornerstone in the regulation of the composition of medicines. Its publication in 1809 of the *Nomenclature of Diseases* lasted until relatively recent times, when the WHO superseded it with the *Manual of the International Classification of Disease*.

The College's keen interest in public health has been evident since its earliest days, when it was frequently called on to advise on the need for sanitation in public housing and measures aimed at curbing the spread of infectious diseases such as cholera and smallpox. That the practise of medicine in the last century and the work of the College was grounded in a public health context seems apparent from Milroy's writings. Yet, with the exception of this lecture, can that still be said of the work of the College today?

The role of physicians within the broader canvas of public health has always been controversial. As a result of the first really serious cholera epidemic in 1831, a short-lived 'Central Board of Health' was formed which sat in the Royal College of Physicians and was dominated by physicians. Edwin Chadwick, a lawyer and the architect of the 1848 Public Health Act, was highly critical of the competence of physicians in the field of public health after their advised methods to control it, being based on the miasma theory and methods of quarantine used to control plague in the previous century, were totally ineffective. Chadwick saw sanitary engineering and social reform as the basic means of promoting public health,[29] but after careful consideration did later concede that there was an important medical component. Strong-minded medical men such as Rumsey, Farr and Simon, and presumably Milroy, supported Chadwick and accepted the need for multidisciplinary teamwork.

In the 1970s the Faculty of Public Health Medicine of the College was set up to "act as an authoritative body for the purpose of consultation in matters of educational or public interest concerning public health medicine" and to "promote for the public benefit the advancement of knowledge in the field of public health medicine."[30]

In 1996 an international working party reported on a review of the Faculty's wider role in international health. In the background to the section on global public health responsibilities, the working party concluded that "It is no longer possible to consider public health only at a national level. Public health problems have never respected national boundaries and increasingly the issues that we face have a global dimension ... Over recent years it has become clear that the debate in the West is no longer about altruism but also about our own long term survival; no longer an optional issue but one we must address, and on which the Faculty could and should take a lead."[30] So as we move from a local to a global public health perspective, that old driver of the Victorian public health movement, enlightened self-interest, is as relevant today as it ever has been.

The report outlined the role the working party thinks the Faculty should have as that of "increasing awareness of these issues amongst its members and the wider medical and public health community." More recently, at a symposium organised by the College jointly with the Nuffield Trust, *Global Health: A Local Issue*, extensive evidence was produced of the pressing nature of the global challenges to health and the need for urgent action. The College was considered to have the important responsibility of providing leadership in a UK partnership for global health with the intention of:

- Raising public awareness of global health issues.
- Improving the understanding of global health risks.
- Supporting trade and aid for global health.
- Developing knowledge for health.
- Supporting local responses to global health threats through community involvement and health improvement plans.
- Reviewing policies on travel-related diseases.
- Building health governance from the community by listening to community voices and empowering local action by the voluntary sector.

In this first year of the new century and millennium, the College, which is now almost five hundred years old, has a rare opportunity to provide leadership. College President, Sir George Alberti, has spelled out his vision of the College as being that of bringing organisations and individuals together for the benefit of the population - neither a comfortable little club, nor an ivory tower providing a licence for physicians to make money, but something more.

Figure 30. From Milroy to Alberti

In echoes of Milroy, the President has recently further described his conversion to public health thinking and its central importance to work on diabetes and the emergence of non communicable diseases that now form a major part of the burden of disease in sub-Saharan Africa where he has collaborative links.[31]

If we are seeking clues as to the possible future role of the Royal College in International health development we could do worse than start with the President's conversion and with Milroy's original observations. The heart of the matter seems to be about vision and leadership. Vision about how future clinical practice must be embedded in a public health context and understanding leadership by embracing genuine multidisciplinary working and partnerships with the public. There will always be specific technical contributions to be made in relation to collaborative initiatives in education and training and research and development, but the nature of these should follow on naturally from the focus on multidisciplinary partnerships for the public's health. It is a radically different vision from that of professional meal ticket. The College's offer to develop a capacity in support of the implementation of the Nuffield Trust's initiative is a concrete example of where we might head. A role in supporting the development of health intelligence through international and local health observatories might be another.

There are good examples of how health professionals can play a new and significant role by stepping out of the bio-medical box;

- in the WHO 'Health Cities' initiative[32]
- in international agency work for humanitarian relief and international health development[33,11]
- in supporting global networks through twinning and exchange
- in the development of distance and open-leaning

But above all;

- in setting an example of moving beyond the protective self–interest of professional groups.

Gavin Milroy and George Alberti, one hundred and twenty three years apart have given us the vision; the Milroy lectures could provide a born-again vehicle by which that vision is realised.

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APPENDIX 1

Issues Relating to International Organisations Involved with Health Today

The World Health Organisation

WHO has four functions:

- to give world-wide guidance in the field of health
- to set global standards for health
- to co-operate with governments in strengthening national health programmes
- to develop and transfer appropriate health technology, information and standards.

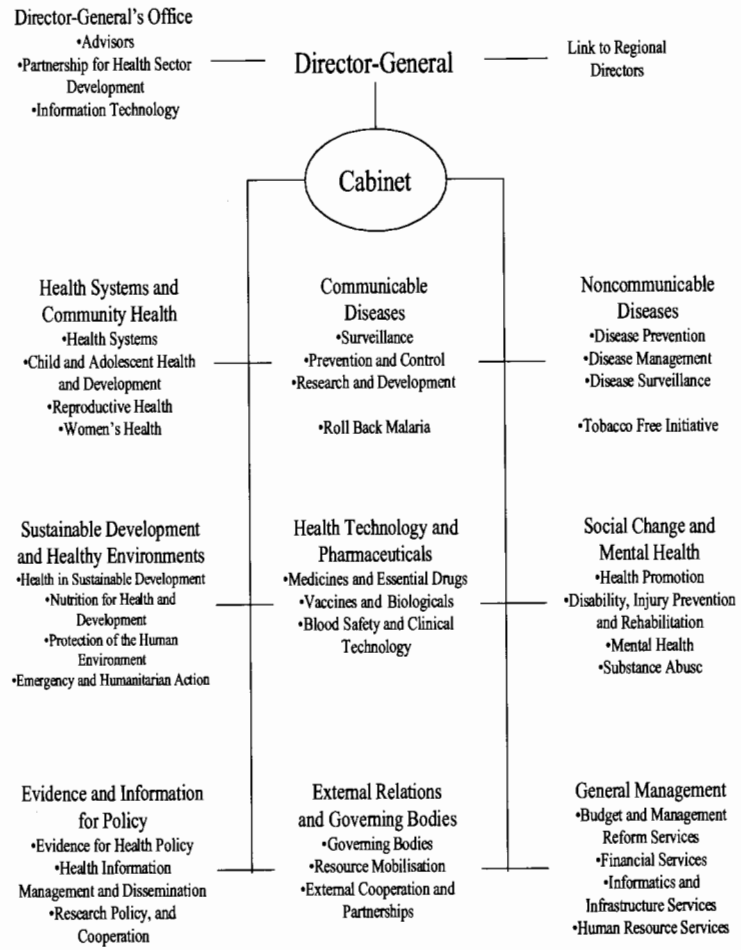
Despite these grand aims, WHO has always had a limited budget and has concentrated on global health policy, communicable disease control, the provision of technical expertise and the medical training of doctors from developing countries. The position of WHO has been weakened in recent years, partly because of poor leadership but also from an apparent lack of focus. There often seems to have been confusion as to whether it was concerned with health systems or narrowly with health care systems and in particular with doctors and medical schools. The applicability of a 'Western' style of training, based on comparatively high resource levels and the availability of high technology, for poor countries with limited resources was highly questionable.[34] WHO has been heavily criticised for concentrating exclusively on infectious diseases when chronic non-communicable diseases are increasing in all areas of the world, and it has tended to concentrate on vertical, disconnected programmes when multidisciplinary partnerships were increasingly being seen as the way forward. There seemed to be a failure to appreciate that above all public health is successful when it mobilises and

focuses the "organised efforts of society" on threats to health.[35] The recent change of leadership at WHO has led to a reorganisation that will focus on nine priority programmes:

- Health systems and community health
- Communicable diseases
- Non communicable diseases
- Sustainable development and health environments
- Health technology and pharmaceuticals
- Social change and mental health
- Evidence and information for policy
- External relations and governing bodies
- General management

It remains to be seen whether the organisation can overcome its deeply bureaucratic structure.

Figure 31.WHO Headquarters Structure



The World Bank and the International Monetary Fund

The World Bank was founded in 1944 to promote economic and social progress in developing countries. The Bank's image as an uncaring bully developed because of its investment in large-scale projects that harmed the health of indigenous people and their environment.[12] However, since the appointment of James Wolfensohn as its President, and under the recent influence of Richard Feachem (the former Dean of the London School of Hygiene and Tropical Medicine), the Bank has become increasingly active in health.[36] The World Development Report of 1993 was titled *Investing in Health*, and promoted a shift of government investment away from specialist health care towards public health. "Of these economic policies, increasing the income of those in poverty is the most efficacious for improving health."[37] With "social sector lending" accounting for fifteen per cent of all World Bank lending by the mid-1990s, the Bank has become the largest single source of financing for health.[38]

The International Monetary Fund (IMF) was set up as a twin institution to the World Bank, and was created to maintain an orderly international monetary system that would encourage trade, create jobs, expand economic activity and raise living standards throughout the world.[39] Both institutions were heavily criticised in the 1980s for forcing policies that made recipient countries cut back on education and health programmes to meet loan repayments. In the nineties policies became more humane, but also more pragmatic and realistic as the IMF recognised that to ensure economic development when a country is suffering financial problems more attention must be paid to ensuring adequate social safety nets, including more spending on education and health to cushion the effects of fiscal policies on poorer people.[39]

The World Trade Organisation

Trade and investment are vital for eliminating poverty, which in turn is essential for improving public health. In countries that depend on export earnings for a large part of their revenues, the ability to trade effectively affects the amount of money available for health, education and other social services. The goal of the World Trade Organisation (WTO) is to secure and improve the welfare of the peoples of the member countries by ensuring that trade flows as smoothly, predictably and freely as possible.[40] The WTO in collaboration with a variety of UN and other organisations provides trade related technical assistance in this area to the least developed countries in the world. But the WTO has been heavily criticised for promoting trade at any cost in a world where the players with the most purchasing power – the developed world – make the rules and control the trade so that they benefit.

Other International players

There are numerous international players working in health. Particularly important are the UN organisations and funds, such as the United Nations Development Programme (UNDP), the International Labour Organisation (ILO), the United Nations Population Fund (UNFPA) and the United Nations Children's Fund (UNICEF). Non-Governmental Organisations (NGOs), foundations, religious groups and charities such as Rotary International, Rockefeller, Oxfam and Save the Children are also heavily involved with public health work both locally as well as overseas. As government funds get tighter, money from private sectors such as pharmaceutical and insurance companies is also becoming increasingly important.

The European Union

The European Union (EU) is an important player on the international health scene. Many developing countries in the Pacific, Africa and the Caribbean were colonies or dependent territories and have benefited from substantial development assistance from the EU, so much so that in some of these countries the EU is the major aid donor. Article 129 of the Maastricht Treaty included, for the first time in a European treaty, specific provisions regarding public health in Europe. The treaty said that the health impact of all Community policies would be considered before any new policies were implemented. The EU also has a heightened impact on health through its role in the development of European social policy. Although not directly responsible for the provision of health services, the EU is involved in several public health programmes and is heavily involved with many issues that have a big impact on health, such as health and safety at work, equality of opportunity, social security and conditions of employment.

Commonwealth and UK

Since it had to care for its huge scattered Empire, Britain was heavily involved in the development of international health, epidemiology and tropical disease management, including that involving the two schools of tropical medicine. As colonies gained independence the links between these disparate countries were kept in place through the institution of the Commonwealth. The Commonwealth Secretariat's mandate in health derives from Commonwealth Heads of Government Meeting (CHOGM) and Commonwealth Health Ministers Meetings (CHMM). Assistance for a variety of programmes in education and health remains central to their work. It is worth remembering that about one quarter of the world's population is a member of the British Commonwealth. Properly mobilised this resource to improve public health could have a dramatic impact.

The Department for International Development

The Department for International Development (DFID) is the British government department responsible for promoting development. In the foreword to the White Paper *Eliminating Poverty*, Clare Short outlined the way DFID must work in partnership to achieve specific targets aimed at "ensuring that the poorest people in the world benefit as we move towards a globa society."[10] The first section of the White Paper presented the challenge of development, and it was here that government acknowledged the flaws in models of development over the past half century. Neither the over-bearing, over-powerful, nor the minimalist, unregulated state can succeed. Section two describes how the challenge will be met through building partnerships with other donors and development agencies and putting in place new ways of working with the UK private and voluntary sectors and the academic community. Interventions will include support for the basic necessities of life, water and food, education and health services, as well as support for infrastructures to create employment, prevent corruption and ensure quality. As well as building partnerships with development countries the Government wishes to form new partnerships within the UK involving the public, private and voluntary sectors, academic and research institutions and local and national government.

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