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PUBLIC HEALTH—A BOND BETWEEN A GOVERNMENT AND ITS PEOPLE[1]

Public health is the concerted action taken to promote health and prevent disease, with a focus on society rather than individuals. There is much that we as individuals can do to protect and promote our own health. However, as a society, we recognise that actions taken by Government may affect our health. We expect Government to take responsibility for ensuring better health and well-being for its people, and we are often suspicious that poor or short-sighted decision making by politicians may harm health.

A society which has poor health is not a sustainable society and poor health is linked in a vicious circle with poor economy. On the other hand, a wealthy society tends to be a healthy society. Public health, or the promotion of health and the prevention of disease, is therefore a bond between a people and its Government. The concept of public health and its relationship with politics and governance has been a recurring theme throughout modem history. The study of the successes and failures of governments in tackling public health issues provides valuable lessons as to how today's modern diseases may be confronted.

The history of infectious diseases, and particularly of the great epidemics, has been well documented. The earliest records show leprosy being introduced into Europe and subsequently being spread by the Roman Army wherever it went. Throughout history it has been a recurring theme that the movement of troops across continents caused many of the great pandemics.

Most historians however credit Christopher Columbus's arrival in America in 1492 as a critical catalyst of infectious disease, with the subsequent death of many thousands of people on both sides of the Atlantic. It has been dubbed as the "Columbian exchange", the intercontinental flow of microbes and the first global pandemics. Measles, typhoid and smallpox were imported to the Americas, with profound consequences for the indigenous people who had no immunity at all. Later years saw huge recurring epidemics of influenza, the spread of smallpox, tuberculosis and bubonic plague, all with such devastating impact that for centuries the population of Britain and Ireland increased only slightly.

In 1842 Edwin Chadwick reported on the "Sanitary Conditions of the labouring population of Great Britain". He concluded that insanitary conditions caused social as well as biological disease—a psychological degradation that led desperate people to invest their hope in alcohol, or worse in revolution. Chadwick's report was so compelling that six years later the 1848 Public Health Act was passed. The delay of 6 years between the report and subsequent legislation was due apparently to the controversy over the Corn Law of 1846 and a preoccupation with the Irish Famine (1845-48). Central to the Public Health Act was a clean and secure water supply, together with the separate disposal of sewage and waste. It also began to address all the other major issues of the time—poverty, housing, the environment, safety and food.

The vision and energy of Chadwick ushered in a new era of social reform throughout England and Wales. The Public Health Act in 1848 was the first major piece of legislation in which Government positively intervened to prevent disease and promote health.

Belfast was not without its great visionaries at that time. In 1852 evidence was presented to a meeting of the Statistical Section of the British Association by Henry McCormac and A G Malcolm which was to begin a process of great change in Belfast.

The evidence given detailed the sanitary characteristics of Belfast and showed the link between successive epidemics in Belfast and poor sanitation. Malcolm calculated that due to the extremely high infant mortality the average life expectancy in Belfast at that time was nine years. He set out clearly the remedial measures which needed to be taken, along the lines of the Chadwick reforms and also called for the establishment of a permanent Board to superintend and regulate all sanitary matters for the Borough.

The scientific papers presented by McCormac and Malcolm however were not enough. In order to bring about change another great force was needed, and it came in the unlikely form of a Congregationalist Minister, the Rev W M O'Hanlon, who received a

[1] *Ulster Medical Journal*, 2003, v72(1), p4.

call to Upper Donegal Street Church in 1849. He very soon made his name through writing a regular column for the Northern Whig on all the burning social issues of the day. The nature of his writing however made him very unpopular with the Evangelical Society who happened to be his employer.

In one essay O'Hanlon wrote:

> "Permit me to call the earnest attention of the more affluent, respectable and especially the Christian public of Belfast, to the deplorable condition of the poor who inhabit the back streets, courts, and alleys of our rapidly expanding and populous town. This is a subject which may yet be pursued apart altogether from sectarian principles, either in religion or politics."

In letter after letter to the Northern Whig O'Hanlon spelt out in emotive language the misery, squalor and poverty which existed for a large part of the population in Belfast. In doing so he presented a qualitative study of life for the poor in Belfast. Whilst McCormac and Malcolm might have been ignored, the need for action was brought clearly into public view by O'Hanlon's writings in the Northern Whig. He spoke of the contrast between the poor and the salubrious spirit stores, one of which boasted that it had sold 9,380 gallons of whiskey over a four month period. O'Hanlon called whiskey "liquid fire and damnation". Whilst some of this language might have resonated with the Evangelical Society he was informed that he was not "adapted to the work" and his salary was promptly withdrawn. O'Hanlon however stayed on in post for four years and continued to harangue the ratepayers and politicians to take positive action, and the wealthy to become benefactors.

Thus was born Belfast's first Public Health reformer. The Public Health Act was duly applied to Belfast and in 1852 Samuel Browne was appointed as medical officer for health. Samuel Browne and A G Malcolm are credited with driving through the first reforms. Implementation however, was slower in Belfast than in some of the other great industrial cities throughout England. But throughout the latter part of the 19th century and in the early decades of the 20th vast amounts of public money and benevolent funds were spent in building a huge infrastructure for clean water and sewage disposal in Belfast—much of it still in existence today.

The Government of Ireland Act 1920 paved the way for the establishment of Northern Ireland but there was much still to be done to improve health. It is difficult for us today to comprehend how tenuous life must have seemed in those days. Expectation of life was only 52 years of age, the pandemic of influenza in 1918/1919 had claimed almost 6,000 lives. In 1916 more than 2,000 men of the 36th Ulster Division were killed in one day alone at the Somme. All the indicators showed that the health of the people was still much worse than elsewhere in these islands. Death rates were higher and in particular deaths from tuberculosis were 50% higher than in England and Wales. Looking at the legislative programme in the early years of Stormont there is little evidence however that health was high on the agenda.

By 1941 the death rates from tuberculosis in Northern Ireland were still far higher than elsewhere and, much later than would have been wished, the Tuberculosis Authority was established. As a public health measure it proved to be such a success that within a few years its work was almost complete. But as always seems to be the case with our health establishments, the Authority proved extremely difficult to dismantle and remained in existence for many years.

In 1942 the Beveridge Report was published. It proved to be a far-reaching report which set out the vision of the welfare state, tackling the 5 giants: Want, Disease, Ignorance, Squalor and Idleness. The public reception of the Beveridge Report was ecstatic. One journalist is reported as saying "Beveridge has put the ball in the scrum all right. I wonder what shape it will be when it comes out". The shape is still there to be seen to this day. The welfare reforms which took place during that period still form the central core around which all our welfare structures are built.

The consolidation of those reforms led to an era of optimism and a sustained period of economic growth—prompting the statement by Harold MacMillan in 1957 "most of our people have never had it so good". But it was to become evident that not everyone was having it so good, and the safety net was not catching everyone.

In 1980, the Black Report was published, the author being Sir Douglas Black, at that time President of the Royal College of Physician. The Black Report showed clearly that major inequalities in health existed in our society, inequalities between social classes, across ethnic divides, and between the North and the South. The Black Report was published in 1980 during a bank holiday weekend, with a brief introduction by the Secretary of State saying it was unrealistic. Only a very few copies were printed but it attracted a great deal of interest both in the UK and abroad. After the publication of the Report pressure was brought to bear constantly upon Government to recognise the issues which it had raised. In Whitehall

the phrase “inequalities in health” was deemed unacceptable and in its place the phrase used was “variations in health”. A change of Government finally allowed “inequalities in health” and “poverty” to enter into the vocabulary of the policy-makers.

The public health agenda in most developed countries is now one which focuses on the determinants of health. In Northern Ireland there is a recognition that Government action is needed to tackle inequalities in health and that it must do so by focusing on the determinants of health.

Last year in Northern Ireland there were 3,000 deaths in people under the age of 65, two thousand men and one thousand women. Two thirds of these deaths due to entirely preventable causes. The greatest burden of preventable deaths are carried by the lower social classes who have twice the risk of dying before the age of 65. Heart disease remains the major cause of death. Barker and his colleagues showed that the variables associated with heart disease were low birthweight, low weight at one year, low social class of father, low level of education, low adult social class and low income in adult life. In Northern Ireland last year almost 5,000 children were born to parents of social classes 4 and 5. According to Barker they may be doomed already. If we are to tackle these inequalities in health there needs to be concerted action across all Government departments.

Inequalities in health are likely to be with us for some time. There is every prospect that the near future will be even more challenging than the past 100 years. It may be that we will require to be as energetic and forceful as Edwin Chadwick if we are to secure the health of future generations.

Smoking will remain a major threat to health. If everyone stopped smoking today we would still see the impact of tobacco on health for the next 30 years. In Australia and in some states in the US tough action by Government has reduced the levels of smoking to well below 20%. In the UK, belatedly, action is being taken on tobacco advertising. It may be of some significance that the UK is the fourth leading importer of raw tobacco and the third largest exporter of cigarettes. On the other hand it is estimated that up to one third of cigarettes smoked in UK is illegally imported.

If poverty and smoking are currently the two main causes of poor health then they are closely followed by the modem epidemic of obesity. In the US the Centre for Disease Control and Prevention estimate that obesity causes 300,000 deaths in the US each year and Type 2 diabetes in children is now an emerging epidemic. The American Health Association this year stated that from four years of age every child should have its blood pressures, blood cholesterol and anti-insulin factor checked. Recent studies have shown that over 20% of young people are overweight and almost 8% are obese. A newspaper headline a few months ago put the message over very clearly—”our children are eating themselves sick”. As for our adult population, instead of five portions of fruit and vegetables every day the average diet in NI consists of 800gms of fresh fruit and vegetables each week—the equivalent of a large apple.

It has been predicted that based on these trends the prevalence of diabetes will double by 2020. In addition obesity and lack of exercise is a major factor in cancers of colon, breast, kidney and digestive tract. So it is likely that the incidence of cancer is set to rise significantly. Today more than ever before concerted Government action is needed to tackle the risk factors of smoking, diet and exercise. The traditional health education campaigns have had limited success and are no longer valued by an increasingly sceptical public.

Multi-national enterprises now determine diet and lifestyle and the WHO warns that Governments have lost their sovereignty or control over the determinants of health. In America it has been calculated that 10 billion dollars are spent each year by the food industry on targeting the advertising of their products at schoolchildren. The number of hours spent by children watching television is directly related to their risk of becoming overweight. This is due not only to the inactivity but also to constant bombardment with junk food commercials.

These matters have been hotly debated in the newspapers and journals recently. On the one hand there are those who argue for regulation of the food industry with, for example:

A tax on fast food and soft drinks;

A subsidy on nutritious food;

A ban on vending machines in schools; and

A ban on “junk” food advertising aimed at children.

On the other hand there are those who say that people should simply be given the information and then allowed to choose for themselves.

In summary therefore poverty, smoking and obesity can be seen as the three major plagues of our modem age. But there may be a fourth. It may well be that the greatest threat facing us in the next few decades is one which will take us back to the times of Edwin Chadwick, the re-emergence of infectious diseases.

Over the centuries as we look at the history of

infectious diseases we have seen that, with epidemics, timing is everything. The Black Death in 1346, the Spanish Lady in 1920 and HIV, now infecting more than 36 million people worldwide. All these occurred because the time and the conditions were right.

Today we have all the ingredients for the next great pandemic. The world's population is now 6 billion with the majority living cheek by jowl in large cities. Every day there are millions on the move. Every day there are vast quantities of crops, animals and processed food being shipped from place to place. Think of the mayhem which would have been caused last year if foot and mouth had been pathogenic to man.

In the 19th century the ascendance of the British Empire placed Britain at the epicentre of the movement of people and goods. Now—at the beginning of the 21st century the expansion of Heathrow puts the British Isles again at the epicentre.

In her book "Betrayal of Trust, the Collapse of Global Public Health", Laurle Garret illustrates how our global public health system has been systematically eroded and that no person is safe from infectious disease." The threats arise from antibiotic resistant bacteria, epidemics from new and re-emerging organisms and the very real threat of bio-terrorism.

Wealthy countries such as ours fight vigorously against their own infectious diseases but at the same time we allow them to devastate poor countries. But infectious agents do not recognise borders and we are now beginning to see for example that AIDS and tuberculosis can have a direct effect on us because of the movement of populations. Perhaps we should regard the world not just as a global village but also as a global culture medium.

For all of us perhaps the most frightening scenario is that of bio-terrorism. The roots and causes of war, including bio-terrorism, lie in poverty and in political, economic and social inequalities. The priority for peace-makers and politicians will be to redress these issues rather than, by their actions, make them worse.

But, whilst we wait for our politicians to deliver world peace, public health has to be the first line of defence. This will mean increasing disease surveillance, professional and public education, stockpiling vaccines and antibiotics and continued research.

The challenges facing the health of our society today are as significant and challenging as in the time of Edwin Chadwick. Inequalities in health still persist and are associated with unacceptable levels of avoidable death. Infectious diseases have not disappeared, instead they have outwitted modern medicine. In addition the modern lifestyles which we have adopted have brought a huge burden of chronic disease.

And perhaps the greatest threat to health is man himself. There is always the threat of war—and the emerging evidence of a readiness to use biological warfare. As for science and technology we are in a society which is pushing at the boundaries of high technology—some of which is barely understood. We need to be very wary that we do not unleash a monster.

John Wynn Owen of the Nuffield Trust has argued with others that, as in Chadwick's time, there is an urgent need for a new Public Health Act which would provide a legislative framework for the establishment of a strong and accountable public health function. Discussions around our preparedness for bio-terrorism will no doubt strengthen the case for Public Health Legislation.

As a society we are still undecided about the role of the State. Should the State intervene on matters of health with legislation and regulation, or should information be provided and individuals be allowed to make up their own minds. Many would argue that the insidious power and influence of the multi-nationals is so pervasive that regulation is needed.

There are of course other actions which Government could take to protect health. Take for instance very simple measures such as water fluoridation, banning of smoking in public places, folic acid in flour, the reduction of salt in food processing, more time for physical activity in the school curriculum. We could all add to that list.

Now, in an age of devolution and of public participation it is more difficult to envisage decisive Government action being taken on these public health issues. No matter how vigorous the debate may be in medical and public health circles there can be no guarantee of a successful outcome on the floor of the Assembly. It would sometimes appear that we are in a post-professional era and the voice of the popular lobbyist is given the greatest ear.

Political decision-making is not an easy task. It involves a complex assessment of moral, legal, ethical, technical, financial and political issues and inevitably requires compromise. Devolution of power and public participation brings new opportunity in public health. Engaging local communities in the debate about their health encourages local action on health. It might also bring a much-needed diversion from local sectarian issues. In terms of health each community in North or East Belfast has more that binds them to their neighbour than divides them.

Gro Harlem Bruntland, Director General of WHO put it very succinctly when she was recently speaking

about the global threat of war—"Health is a bridge to peace and an antidote to intolerance and a source of shared security."

The medical profession even in Northern Ireland still enjoys great privilege. But we also need to accept that with privilege comes responsibility and that our corporate responsibility must be advocacy for the health of our people.

Perhaps one way forward is to bring our people to a sense of singular community in which the health of each member rises or falls with the health of all the others. It would be within our power as a profession to bring that about.

Back in the 1840s Edwin Chadwick was spear heading what was to become a public health revolution across England and Wales. At that time our medical fore fathers here in Northern Ireland were busy calling for more and bigger hospitals to be built—apparently incapable of recognising that the root causes of disease urgently needed to be tackled. We need to be sure that we are not guilty of the same omission today.

In the past year two documents have been circulated for consultation. "Investing for Health" set out a cross-departmental strategy to improve health. "Developing Better Services" proposed a rationalisation and modernisation of acute hospitals. There are no prizes for guessing which has excited the most interest within the medical profession.

The Constitution of the Ulster Medical Society states that the object of the Society shall be to improve the care of the sick by widening, improving and developing the education and knowledge of all concerned in the pursuit of medical matters.

This is a very laudable objective and we have all been greatly enriched in our professional lives because of the work of this honourable society. But perhaps it is time to revisit our objectives as a society so that we might also strive to ensure better health for our society. In these days of devolution of political power and public consultation this society might become a powerful advocate for the health of our people—united, honourable, credible, reclaiming again the higher ground, and not to be silenced. If this were to happen I believe that our fledgling government would be better informed and all the stronger, but also called to account by the people for delivering on their better health.