

A HISTORY of the SCOTTISH PEOPLE

HEALTH IN SCOTLAND 1840-1940

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This is Chapter 3 of 10. The others are:

Summary of Economy & Society, Education, Employment, Housing, Income, Leisure, Migration, Religion, Transport

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1. INTRODUCTION

Historically Scotland has had a poor record in matters of health. Even today, in spite of important advances in medical knowledge and the provision of health care, Scotland has one of the worst incidences of lung cancer and coronary heart disease in the world. However, to concentrate solely on these admittedly alarming statistics would be to obscure the tremendous progress medicine has made in this country in combating the diseases which beset Scottish people in the 19th century. Cholera, typhus and smallpox were major killers in the 19th century and were the result of environmental pollution, poverty and bad housing. However, advances in medicine, and improvements in the environment and diets of people has led to their eradication.

The major killer diseases today are more the result of post-World War Two affluence than poverty. Obesity, alcoholism and smoking have greatly increased due to higher standards of living and they have had an adverse affect on health standards. As each disease has been conquered a new one seems to have emerged to take its place and so the fight against disease continues. But what was the level of ill-health in the 19th and 20th centuries and how did the authorities in Scotland seek to deal with it?

2. ILL-HEALTH 1840-1900

2.1 AN OVERVIEW

The rapid growth in Scotland's urban population in the 19th century brought with it unprecedented social problems, of which ill-health was one. However, although ill-health was recognised as a major social problem, our knowledge of death rates and the causes of death in the first half of the 19th century is patchy. It was not until 1855 that the civil registration of births and deaths was introduced. Even after this date many deaths went uncertified, or the causes were wrongly entered on the death certificate. Still-born babies went unregistered and had no burial ceremony. In places with few doctors the cause of death was badly recorded, with 24% of deaths in Glasgow uncertified in 1871. By 1893 this had been reduced to 3%, but in Inverness 42% of deaths were still uncertified.

In spite of the poor statistical information available to historians it would appear that although disease was a feature of rural life, it was more of a problem in cities. Between 1835 and 1845 the average death rate in 331 rural parishes, with a total population of 751,016 was 20.3 per 1000. The average death rate in the 14 principal towns of Scotland, with almost exactly the same population, was 26.7 per 1000. The lower death rate for the rural parishes was largely due to the fact that people living in the country were spread out over a large area, which meant that in times of epidemics they had a natural system of quarantine. The generally healthier environment in the countryside also helped build up resistance to disease. However, at the end of the 19th century returning migrant workers from the Lowland cities brought tuberculosis with them and the damp condition of the housing saw it spread like wildfire through the Highlands.

In the cities conditions were much less healthy and overcrowding was a marked feature of life for the urban poor. Twelve to sixteen people to a room was not uncommon in the poorer parts of Edinburgh and Glasgow. Not surprisingly, the highest death rates were in the most densely populated areas of the cities. A study of Edinburgh in the early 1860s showed that the highest death rates were in the Tron, Canongate and Grassmarket areas with densities of 353, 238 and 220 persons per acre; and the lowest were in Morningside, Newington, Broughton and the Grange with densities of 8, 40, 49 and 16 persons per acre. The most common causes of death in 19th century Scotland were, in order of importance:-

1. Diseases of the brain and nervous system
2. Diseases of the respiratory system
3. Diseases of the heart
4. Diseases of the digestive organs
5. Epidemic and contagious diseases

The diseases causing the most deaths were tuberculosis, typhus, scarletina, whooping cough, smallpox and measles. In the 1860s two-fifths of all deaths in Glasgow were due to respiratory diseases and tuberculosis.

2.2 CHILD MORTALITY

The age group most vulnerable to death by illness was the very young. Deaths of children under ten accounted for more than half the deaths in Glasgow in the early 19th century, and even as late as 1861 some 42% of all deaths in the city were in this age group. In Scotland as a whole, the Registrar General's first annual report in 1861 found that the highest proportion of deaths occurred in the age group under five years. Children born in one-room homes ('single ends') were most vulnerable. Of all children in Glasgow who died before the age of five 32% were born or living in single ends, while only 2% were in five roomed homes. Appalling as these figures for infant deaths were, Scotland fared better than England in this respect.

The infant mortality rate for England and Wales in the early 1850s was 150 deaths per 1000 live births; in Scotland it was 120 per 1000. In the 1890s there was a deterioration in the Scottish figures as infant mortality rose to 129 per 1000 live births. By 1913 the Scottish rate was only slightly better than the English. But if we look at the poorest areas of, say, Glasgow then the Scottish figures are as bad as anywhere else. As late as 1898 the infant mortality rate in Glasgow Gorbals was 200 per 1000 live births. The reason for this was the increased concentration of the population in urban areas and their poverty. Scotland really only fared better than England in the first half of the 19th century because a higher number of its people were living in the countryside.

2.3 SOME DEADLY DISEASES

The death rate among children dramatised the link between ill-health and disease and social conditions. As such this proved hard to remedy, but some success was achieved in dealing with the major killer diseases. The impetus to combat disease came from the fight against cholera. As one historian put it "The greatest factor in ensuring reform and legislation was the appearance of cholera". What made cholera induce social panic was its deadliness; 50% of those who contracted the disease in 1832 died. Another reason was the fact that it struck at all social classes. Other diseases such as tuberculosis and typhus could be dismissed by the middle classes as the result of filth and squalor and could be interpreted as a punishment of God. Cholera could not as it affected the virtuous and immoral alike. However, finding a cure for killer diseases proved difficult due to the disagreements among doctors as to the causes of disease.

One school of thought, known as the miasmatics and led by the great English social reformer, Edwin Chadwick, was convinced that the cause of disease was due to toxic odours in the atmosphere. These were the result of dirt and poor sanitation. The solution was to clean up the streets and provide an efficient means of disposing of human waste. The other school was known as the contagionists. They believed that disease was spread by touch and originated in contaminated water supplies. Poverty and bad housing facilitated its spread as the resistance of the less fortunate was low. The latter view dominated the thinking of medical men in Scotland. They did not oppose sanitary reform but saw the provision of pure drinking water as a first priority. They also called for a more generous Poor Law.

A cholera epidemic in Glasgow in 1847-1848 saw the first step taken to improve public health standards. An Act of Parliament in 1855 allowed Glasgow to draw water from Loch Katrine at a cost of £1.5m, which gave it the best public supply of water in the UK. As a result, when cholera struck again in 1865-6 only 53 people died in Glasgow. Dundee and Edinburgh quickly followed suit and provided improved water supplies. However, other diseases took longer to conquer. That tuberculosis was an infectious disease carried by a bacillus was not realised until 1884, and it took much longer to eradicate. In the period 1861-1870 TB killed 361 in every 100,000; in 1901-1910 it was still high at 209. It took until the 1940s and the discovery of penicillin for respiratory diseases like TB to be brought under control. Until that time they remained the main killer.

Epidemics and poor health were not simply the products of bad housing and defective drinking supplies. Part of the problem lay with conditions in the workplace and also food and drink adulteration. A study of Tranent, near Edinburgh, in the 1840s found that mining, because of the dirt and dust, was an unhealthy trade. Out of 35 colliers' families, the average age at death for the male head-of-household was 34, while the average age at death for male factory workers was over 51.

Ignorance of the basic principles of hygiene was also an important factor in the generation and spread of disease. It was not a common practice to boil water in the 19th century, nor was bathing popular. Dirty water and unclean bodies were major factors in the spread of diseases such as cholera and typhoid. Milk and other dairy products were a common breeding ground for scarlet fever and diphtheria. Dairies and shopkeepers diluted milk with (infected) water to yield greater profits. Beer was even adulterated with narcotic substances such as strychnine to counter the effect of over dilution with water of the original. The effect was slow poisoning. Of course, alcohol consumption, mainly of whisky, induced all manner of health problems, and Scotland's reputation for drunkenness was legend. The problem of food and drink pollution was addressed with a law in 1860 banning the adulteration of milk. At about the same time alcohol consumption started to reduce. The consumption of whisky which stood at 1.65 gallons a year per head of the population in 1861 fell to just 0.40 gallons a year by 1931.

2.4 SOME IMPROVEMENTS

Much of the reduction in disease and other health problems was due to rising standards of living and changes in lifestyle. However, it was also due to improved public health administration and the provision of health care. Because of the Scottish medical profession's opposition to the miasmatics, Scotland was not included in the Public Health Act of 1848, but in spite of this the administration of health standards was gradually improved. Until the late 19th century most health care was provided by parishes and the standards varied according to the wealth of the parish. The shortfalls in local authority care were supposed to be made up by charitable medical services. The whole system was haphazard and any improvements were down to local initiatives. Large burghs used the device of Police Acts to appoint medical officers of health, as happened in Edinburgh and Glasgow in the early 1860s. However, it took until 1889 with

the passing of the Local Government Act for public health affairs to be put on a more organised footing.

The legislation required local authorities to appoint a medical officer of health, whose activities, and those of sanitary inspectors, were subject to the control and supervision of the Local Government Board. The appointment of medical officers of health meant that a whole host of environmental issues, such as air and water pollution, could be addressed and remedied. Encouragement was also given to the building of drainage and sewage systems in larger villages and small towns. Inadequacies in providing sanitary appliances in housing such as sinks and WCs were also dealt with. Despite the clear progress made in these areas by 1900 a number of outstanding issues still had to be addressed. Ash-pits and middens were still being used for human waste, and the removal of dirt and refuse was only being carried out once a fortnight, or less, in the large burghs. Moreover, the supply of water to homes was obstructed by ratepayers on grounds of cost. This led to the storing of water in the home, a practice which led to contamination.

2.5 MEDICAL FACILITIES

Although progress was clearly evident in improving the environment and the water and sanitation systems, the slow pace of reform was small comfort to those stricken by disease and ill-health. What was available in terms of health care for the sick and diseased in the 19th century? Unless one was a pauper, all health care at this time had to be paid for privately. There was no equivalent of the National Health Service. If a person was ill there were three types of care available: treatment in a voluntary hospital; treatment in a poor law hospital; and treatment at home by a doctor. The voluntary or teaching hospitals were superior medical institutions with first class facilities and staff. They were supported by private donations, endowments and subscriptions. To receive treatment a patient had to be provided with a 'line' signed by a subscriber. All patients had to leave the hospital within 40 days, and funeral expenses were to be guaranteed by the subscriber. Certain categories of patient were not admitted - the poor, as poorhouses dealt with them, apprentices and servants, who were to be looked after in their masters' houses. There were also some illnesses considered unsuitable for entry, including those associated with pregnant women, and incurable diseases such as smallpox.

>From 1845 the very poor and those suffering from incurable diseases were treated in Poor Law hospitals. As treatment was financed out of the rates the managers of the hospitals were under pressure to keep expenditure down, something which led to economies in the provision of medical facilities. From the 1850s to 1870s operations for the removal of tumours were performed in the patient's own bed or on a table in the ward as there were no funds for separate operating rooms. At the busiest times of the year patients, usually children, had to share beds. Baths, sinks and WCs were in short supply. In the Barony parish of Glasgow in 1883 the occupants of wards 141 (skin diseases) and 142 (venereal disease) shared the same WC and bath. It was not until the end of the 19th century that the problems in Poor Law hospitals were addressed. In Glasgow there was a hospital building programme initiated which did much to relieve the pressure of overcrowding. The programme allowed for the separation of the

hospitals from the poor houses, and those with minor illnesses from those with chronic ones. But it remained a fact that only those applying for poor relief could gain admittance to the system, the rest had to rely on the expensive voluntary hospitals or charity.

Those on poor relief could also receive visits from the parish doctor and call at his surgery free of charge. This outdoor medical service was, however, stretched to the limit. The doctor was only employed on a part-time basis and the number of patients in his care was quite phenomenal. In the city parish of Glasgow in 1875 one doctor was employed for every 20,000 of the population. A doctor might have as many as 3,000 home visits in a year and yet this was supposedly on a part-time basis! Nevertheless, during the second half of the 19th century the problems of ill-health and disease were being confronted in a serious manner by an assortment of means. Tuberculosis still remained one the most important causes of death, but infectious diseases no longer posed the threat they had earlier in the century. Typhus, scarlet fever and smallpox had all been nearly eradicated by 1901. However, it was obvious that, by 1900, despite these improvements most Scots were receiving a standard of health care which was, at best, uneven in quality and, at worse, non-existent.

3. ILL-HEALTH 1900-1940

3.1 LEGISLATION FOR HEALTH

The first half of the 20th century witnessed major improvements in access to, and standards within, the system of public health provision. Just prior to the First World War important legislation was passed in the form of the Education Act of 1908 providing for compulsory medical inspection of school children. Local authorities were empowered to provide food and even clothes for those children who were classed as either poor or needy. Although authorities in rural areas opposed the scheme it was generally adopted in the cities.

The health of adult male workers was also addressed in the National Insurance Acts of 1911-12. Workers in trades such as shipbuilding and construction earning less than £160 per annum were included in the scheme. For fourpence a week they were allowed access to a doctor and appropriate treatment, although consultant and hospital services were not covered. Even so, the dependants of those paying into the scheme were not entitled to treatment. The government had reasoned that a family's poverty was more the result of the chief breadwinner being sick than his wife or children. Therefore, the priority was to get him back to work rather than restore a sick child to health. This was one the most glaring anomalies in the provision of health care in the decades before the introduction of the National Health Service. The fact that the National Insurance Scheme did not cover dependants forced the local authorities to fill the gap.

By 1919 maternity and child welfare schemes were in place in areas comprising 55% of the population of Scotland. Ten years later this had increased to 94%, and by 1935 the scheme was operating in all areas of Scotland. Those Scots living in remote parts of the Highlands and Islands also saw their access to medical care improve. These parishes were generally too small and poor to support a rate-funded medical service and the State was forced to intervene. The Highlands

and Islands Medical Service was established in 1913 by a grant of £42,000 from the government. The intention was to induce doctors to settle and practice in these out of the way places. In time, the scheme became a model for other countries with scattered populations.

The actions of the government at both the local and national level in providing health care made the idea of a national health service 'fashionable'. The size of the public sector was in any case increasing during the inter-War years. The combined bed space in local authority and Poor Law hospitals in 1924 was 15,625 beds compared to 8,589 in the private or voluntary sector. The Local Government Act of 1929 streamlined the number of parishes and reorganised them into large burghs (population over 20,000) and county councils (population under 20,000). This reduced the number of authorities responsible for health care provision and, at the same time, spread the cost of provision. The 1929 Act also did away with Poor Law infirmaries by turning them into general hospitals and encouraged better co-operation between the public and private hospitals.

Finally, a government commission in 1936 recommended the creation of a National Health Service. It was opposed by the medical profession, who saw in it the creation of a state medical service. It was also opposed by the Conservative government. The plans were shelved, although the experience of the Second World War made the establishment of a national system a foregone conclusion.

3.2 A HEALTHY NATION?

Much had been achieved by the outbreak of war in 1939. More beds were available in hospitals; more people had access to medical care; the system had been made more efficient. However, much remained to be done. Bed space in hospitals for pregnant women and sick children was still in short supply. The infant mortality rate was still high, in spite of a fall by a third in the period 1901-21, because it had increased during the depression years of the 1920s and 30s. From 1920 onwards and through the 1930s the infant mortality rate was on average 17-18% higher in Scotland than in England and Wales. Diphtheria was rife with 15,069 cases reported among children as late as 1940. John Boyd Orr's "Food, Health and Income" (1935) had shown that the Scottish diet was insufficient to maintain health. The continued existence of squalid housing in urban areas of Scotland and the overcrowding it promoted still had to be addressed. Of Glasgow children evacuated during the War 31% were found to be infested with fleas and lice, and scabies were common. The problems highlighted during the War were addressed and the health and diet of the population improved. Most of the major anomalies in terms of access to health care also disappeared.

Due to higher War-time nutritional standards and easier access to medical treatment, the infant mortality rate fell during the Second World War to a fifth of the 1901 level. The post-1945 welfare state improved the social fabric of urban areas beyond recognition, particularly in the area of housing. As a result health indicators showed a vast improvement, with the most sensitive of all - infant mortality - falling by 89%, or from 70.4 deaths per 1,000 births to 7.5 deaths per 1,000 births between 1911 and 1968. In Aberdeen in 1911 there were 848 deaths among children under 5; 40 years later 98 children died each year in

this age group. The infant mortality rate was reduced from 139 per 1,000 births to 27 over this period. This was a remarkable achievement by any standards. However, there was little room for complacency. The west central region of Scotland in the early 1950s still had the highest child death rate of any region in the UK. Although there remained discrepancies in terms of life expectancy between social classes, the battle against the diseases of poverty had been virtually won by 1950; the battle against the diseases of affluence were about to begin.

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