Health in Scotland 2000

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Foreword

Report of the Chief Medical Officer on the State of Scotland's Health for the Year ended 31 December 2000

To Henry McLeish MSP
First Minister

Dear Sir

It is my pleasure to present my first report on the state of Scotland's health. This covers the year 2000, the last year of office of my predecessor Sir David Carter from whom I took over on 1 January 2001. The vision drive and initiative of Sir David's leadership shine through this report. Scotland owes him a great debt.

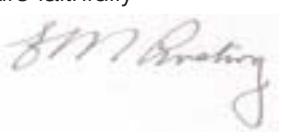
This first report of the new millennium covers trends in Scotland's health over the twentieth century, progress against targets for the year 2000 and health priorities for the people of Scotland at the start of the twenty-first century. One issue, economic deprivation, emerges from all others as a major theme of this report. This is not an editorial device, it is there in text and in table, in the epidemiology and in the clinical experience. With deprivation comes a higher burden of disease, poorer uptake of services and worse outcomes of care. Scotland is not alone in facing this problem. The WHO recognises that tackling poverty is the first priority for governments in providing health for all in the twenty-first century. I very much welcome, therefore, the Executive's determination to put the social justice agenda at the heart of health policy. Tackling exclusion: economic, social, cultural and geographic, is a key theme of our National Health Plan, A plan for action, a plan for change.

I would like to take this opportunity to acknowledge the support of so many colleagues in the Scottish Executive Health Department, the Scottish Centre for Infection and Environmental Health, the Public Health Institute for Scotland, the Health Education Board for Scotland, the Information and Statistics Division of the CSA and the General Register Office. I am also grateful to Dr Ian Macdonald, CMO Scotland from 1985–1989 for the historical oversight in the first chapter, Professor Ross Lorimer for his contribution on heart disease, Dr Penrice for her contribution on children and the 3 Directors of Public Health for their reports from the Regions.

I would especially like to thank Dr Elizabeth Stewart, Senior Medical Officer who has compiled and edited this report, and Mrs Lisa Watt for preparing and typing the manuscript.

I look forward to working with the Executive, the Parliament, and the people of Scotland in tackling the problems, and meeting the goals set out in this Report.

Yours faithfully



DR E M ARMSTRONG
Chief Medical Officer

Chapter One

Changes in Scotland's Health over the 20th century: Lessons from the Past

The Initial Phase: Health at the start of the 20th century

A century ago, infectious diseases such as diphtheria, scarlet fever, measles, and whooping cough were taking a heavy toll of young lives. Tuberculosis was responsible for much illness, often prolonged, and many deaths. Smallpox was a constant threat. In contrast, cancer was a much smaller problem, in real and relative terms, than today, and coronary heart disease was scarcely recognised.

The Government's health responsibilities in Scotland were in the hands of the Local Government Board for Scotland, established in 1894 to assume Public Health and Poor Law responsibilities. The Board included a medical member who was the equivalent of the Chief Medical Officer of later years.

Public health legislation had conferred increasing powers and responsibilities on the local authorities of the day and each was required to appoint a Medical Officer of Health and a Sanitary Inspector.

Comments on health issues in the Annual Reports of the Local Government Board for Scotland reflected the views of the Board's medical member, amplified by extracts from the reports of the Medical Officers of Health. These provide a detailed and sometimes vivid picture of health matters and the perceptions of health concerns at that time.

The Board maintained the public health initiatives of 19th century legislation and commented on issues such as standards of housing and water supplies and the provision of wholesome food.

In 1899, over 100 years before the establishment of the Food Standards Agency in the year 2000, the Board noted that a new Food and Drugs Act would give further powers *"particularly in relation to matters affecting the general interests of the consumer as distinguished from the interests of agriculture."* The Board also referred to new recommendations about the qualifications of meat inspectors and the principles to be observed when inspecting meat. Their concern was about tuberculous cattle.

The Board commented at length on morbidity and mortality due to infectious diseases. The figures in **Table 1.1**, for the year ending 31 December 1900, show that there was good reason for this as infectious diseases were a major cause of premature death.

Table 1.1 Notifications (when relevant) and deaths from selected causes in Scotland in year ending 31 December 1900. Derived from Tables 15, 16 & 17 in Appendix (B) of the Seventh Annual Report of the Local Government Board for Scotland. (HMSO, 1902, Cd 1051).

Disease	Notifications (when relevant)	Deaths		
		<5 years	5 years +	All Ages
Smallpox	524	14	42	56
Diphtheria	3,367	582	201	783
Scarlet fever	19,583	420	214	634
Typhus	203	1	33	34
Typhoid/Enteric	4,457	26	577	603
Measles	12,979*	1,618	152	1,770
Whooping cough	3,110*	1,662	74	1,736
Diarrhoea	-	2,013	495	2,509
Tuberculosis: Phthisis Other	Not yet a notifiable disease	264 2,271	6,540 1,434	6,804 3,705
Cancer, malignant	–	15	3,379	3,394
Diseases of Nervous System	–	2,136	5,677	5,913
Diseases of Circulatory system	–	409	8,410	8,819
Diseases of Respiratory system	–	6,242	9,522	15,764
Violence	–	360	1,987	2,257
Total deaths (all ages and causes)	**79,932**			

*Measles and whooping cough were not notifiable in all areas of Scotland.

- Diphtheria, scarlet fever, measles and whooping cough were jointly responsible for 4,923 deaths, the majority being among children less than 5 years old.
- Tuberculosis, in its various forms, was responsible for a further 10,509 deaths, 2,535 of these being children less than 5 years old.

These totals exceed by substantial margins the 3,394 deaths attributed to cancer. With the limited diagnostic techniques of the time some deaths due to cancer may not have been included in that figure. Nevertheless, the comparison between mortality from infectious diseases and cancer in 1900, is striking, compared with the situation in the year 2000.

Smallpox was then the only disease for which effective immunisation was available. In spite of this, it caused an appreciable number of deaths. There were 524 notifications in 1900 with 56 deaths, and numbers reached a peak in 1904 with 2,527 notifications. The Board intensified efforts to combat smallpox through immunisation.

Effective immunisation against other infectious diseases had to wait for several decades. Prevention therefore relied on measures such as early notification and isolation, attention to overcrowding, and to water supplies. Ensuring that milk was free from contamination was important in the prevention of some infections, notably bovine tuberculosis. These were valuable measures, but until immunisation became available in later years progress against infectious diseases was slow and limited.

New Focus on Health Care

The opening years of the twentieth century were marked by significant new developments in the provision of health care. The predominantly sanitary approach of the previous century had yielded and would continue to yield good results. However, further substantial progress in reducing death rates and improving health called for greater focus on the care of the individual and the provision of health care. The approach to tackling the problems of infant mortality, tuberculosis and syphilis described below provide good examples.

Infant mortality featured increasingly in the Board's reports. In 1900 the infant mortality rate (the number of deaths under one year per thousand live births) stood at 129. The dangers from bottle feeding were well understood. In 1904, continuing the sanitary approach, the first milk depot in Scotland was established at Leith and its value in preventing loss of life as a result of diarrhoea was soon recognised. In 1905 the Board said *"Scarcity of milk, its inferiority, and want of proper storage, free of contamination and cool, especially in our towns, promotes the notoriously high infant mortality and that mainly by infantile diarrhoea, which amounts to a summer plague. In fact through this and tuberculosis, milk may be said to be one of the main factors in the morbidity and mortality of children."*

In 1906 the Board distributed in Scotland a circular from the Department of Public Health of Tasmania on *"The Feeding and Care of Babies"* which importantly introduced the concept of greater attention to the care of the individual. The first Health Visitor had been appointed in Aberdeen as early as 1903, and in the Board's report for 1907 there are descriptions of the work of Health Visitors in Dundee and Greenock. These initiatives were important forerunners of today's *"Starting Well"* demonstration project, which offers intensive home based support by Health Visitors and lay support workers to families with new babies in socio-economically deprived areas.

By 1912, with the combined sanitary approach and improved care of the individual, the infant mortality rate had fallen to 106.

Tuberculosis

A coordinated service for the prevention and treatment of tuberculosis was developed in the early years of the century led by the pioneering work of Sir Robert Philip in Edinburgh. The Medical Officer of Health, hospitals, and voluntary bodies all played a part, in this co-ordinated approach. There were similar developments in other parts of the country. The emphasis was on care of the individual with fresh air and a good diet, and a milk supply entirely from tuberculin tested cows.

From 1900, the Board was expressing concern about the extent of tuberculosis among the inmates of Poor Law Institutions and the need for proper facilities. By 1905 Poor Law authorities were attempting to remedy the situation. Isolation and special treatment facilities were provided in five poorhouses. Twenty chalets were erected at Stobhill in Glasgow, and patients' diets were supplemented by 2 eggs and as much raw beef as they could consume.

First therapeutic agents for Syphilis

Further developments in health care came with the development of therapeutic advances in the treatment of infectious disease. The appearance of Salvarsan (Ehrlich's 606) revolutionised the treatment of syphilis. Concern had been mounting about congenital syphilis, ante-natal mortality caused by syphilis, and its late manifestations in various forms of chronic disease. In 1913 a Royal Commission was appointed to enquire into the prevalence of venereal diseases and the provisions for their diagnosis and treatment. It reported in 1916. It estimated that 10 per cent of the urban population might be infected with syphilis. In 1917 Local Authorities were required to make arrangements for the diagnosis and treatment of venereal diseases.

The Availability of Medical Care at the Start of the 20th century

In 1900 there were 3,462 doctors resident in Scotland, most of whom were engaged in general practice. Some also had responsibilities in their local hospitals. Specialist practice was largely confined to the cities with their long established teaching hospitals. Even there, most surgeons and physicians were still generalists and some of the familiar specialities of today, such as paediatrics, anaesthetics and radiology were only just emerging.

There were both financial and geographical constraints on the availability of the services of general practitioners to the public.

Financial Constraints

- Only the poor were entitled to free medical care under Poor Law provisions, which created statutory responsibility for maintenance. Many of those who required support because they were poor were also found to be sick and recognised as a vulnerable population. The Poor Law authorities made arrangements to provide them with medical care. In 1900 the Poor Law expenditure under the heading *"Medical Relief"* accounted for nearly 5% of the total Poor Law budget.
- For others in the general population there were friendly societies and *"clubs"* which provided the services of a doctor in return for regular subscriptions.
- For the remainder of the population, paying for the services of a doctor was entirely a private matter.

Geographical constraints

In some parts of the country, particularly the Highlands and Islands, there were simply not enough doctors. In 1901 the Medical Officer of Health for Inverness-shire reported that in the preceding year almost 400 deaths, mainly in the islands, had not been certified by any medical practitioner. He added that *"The Medical profession in the Highlands and Islands have done, and are doing, their very best to cope."*

A major initiative was The National Insurance Act of 1911 which provided medical benefit, in the shape of general practitioner services and drugs and appliances, for employed persons earning, at that time, not more that £160 per annum. That was a major step, but it left out dependents and self employed persons of equally low income. It was of very limited benefit to the Highlands and Islands where population was sparse and many were poor in cash terms, but self employed in crofting and fishing. This was remedied by the Highlands and Islands Scheme, a bold initiative proposed by the Dewar Committee in 1912 which guaranteed a minimum income for general practitioners, and which survives today as the Inducement Practitioner Scheme.

Early difficulties in providing suitable care for the mentally disordered led to the establishment of the General Board of Commissioners in Lunacy for Scotland, which was still in existence in 1900, and had responsibility to ensure that proper arrangements were made for the mentally ill. The position of the mentally handicapped was less clear. This was remedied by the Mental Deficiency and Lunacy (Scotland) Act of 1913, when the General Board of Control replaced the General Board of Commissioners in Lunacy.

Widening Horizons

New Scottish Board of Health

In 1919 the Government's increasing health responsibilities were brought together under a new Scottish Board of Health. The Secretary for Scotland described this move as *"a definite recognition by the State of the paramount importance of the health of the people, and of the urgent necessity of consolidating all activities for the permanent improvement of the health of the people."* A decade later in 1929 the Board's responsibilities were assumed by the Department of Health for Scotland, (as part of the then Scottish Office). At the same time, local government reorganisation resulted in a smaller number of larger authorities with health responsibilities, and the general hospitals provided under Poor Law arrangements were transferred to these local health authorities.

Decline of Infectious Diseases

Infectious diseases still remained the major cause of death in the period after the First World War. The great influenza pandemic of 1918-19, is estimated to have caused 17,575 deaths in Scotland. In the 1920s there were severe outbreaks of measles and whooping cough with substantial loss of life. At the same time poliomyelitis was noted in a more acute form than hitherto. There were a significant number of cases in 1928, and substantial outbreaks occurred in the 1940s and 1950s. Progress against infectious diseases resulted from a number of initiatives described below.

Progress with vaccines: National immunisation programme for diphtheria

The incidence of diphtheria reached high levels in 1920 and 1921. This resulted in the introduction of immunisation programmes in Edinburgh and Aberdeen in 1924. But although the vaccine was both effective and safe, this lead was not copied widely in the rest of Scotland. Diphtheria notifications

averaged approximately 10,000 a year in the late 1930s. A dramatic rise to 15,711 cases in 1940, finally led to a national immunisation programme and a sustained effort produced impressive results. By 1948 notifications had been reduced to less than 1,000 and by 1952 there were only 115 notifications. Unfortunately these resulted in 8 deaths, but none of the children who died had been immunised. Deaths were reduced further to 2 in 1957.

Advent of antimicrobials for Puerperal sepsis

Of particular official and public concern, by the late 1920s, was Scotland's high maternal mortality rate. In 1928 it was 7 per thousand live births and there was a perception, based on evidence from other countries, that this rate could be reduced substantially. A systematic investigation over several years demonstrated that many women were not obtaining obstetrical services *"of the amount and quality necessary to safeguard them to the maximum extent".* This led to the Maternity Services (Scotland) Act of 1937, intended to provide a comprehensive service covering the whole field of maternity provision in Scotland.

A major turning point by the mid-30s was the introduction of increasingly effective antimicrobial agents. The increasing availability and widespread use of sulphonamides led to a decline in maternal mortality due to a fall in deaths from puerperal sepsis. By 1945 the maternal mortality rate had fallen to 2.8 per thousand live births. The introduction of Penicillin and other antibiotics led to a further decline and by 1982 there were only 6 maternal deaths, giving a rate of 0.1 per thousand live and stillbirths.

Progress in Tackling TB

The war from 1939 to 1945 brought about a sharp increase in notifications of and deaths from tuberculosis, particularly the pulmonary form. There had been 4,657 notifications in 1939. This rose to over 7,000 by 1943 and remained at a similar level throughout the remainder of the war. Much of the progress made in the earlier years of the century was lost, and facilities, particularly hospital beds, were under strain during the war years, and for several years thereafter. However three important developments were emerging – screening, BCG immunisation and new antimicrobial agents.

- *Screening*

Screening of large populations by mass radiography became a practical proposition. Pulmonary infection could be detected before symptoms were apparent. Treatment could be initiated at an earlier stage and the further spread of infection reduced. By 1944, three mass radiography units had been set up in Glasgow, Edinburgh and Lanarkshire. These units detected 393 cases of active pulmonary tuberculosis between 1946 and 1947.

- *BCG Immunisation*

During 1949 a cautious start was made in the use of BCG (Bacillus Calmette-Guerin) as a means of immunising against tuberculosis. By 1952 this was being used more widely.

- *Antimicrobial agents*

In 1947 the Department reported that *"Trials of streptomycin and other agents under careful clinical observation have shown some encouraging results."* The guarded optimism was well founded and by 1949 streptomycin was generally available. Along with para amino-salicyclic acid (PAS) and isoniazid it revolutionised the treatment of tuberculosis. However, concern soon emerged about resistant strains. This led in 1963 to the designation of reference laboratories in Glasgow and

Edinburgh. With the careful use of other newer drugs that became available, the problem appeared in the 1980s to be amenable to control. Sadly at the turn of the 21st century the problem of antimicrobial resistance is reappearing.

Immunisation for whooping cough

Prior to 1950 whooping cough was not compulsorily notifiable but many authorities had local arrangements. Notification under these arrangements averaged almost 7,000 annually in the quinquenium 1943-47. In 1950, there were over 18,000 notifications and by 1951 there were almost 23,000. By 1948 some local authorities were already making arrangements to introduce immunisation against whooping cough. Any doubts about the efficacy of the available vaccine were resolved a few years later and from 1957 onwards immunisation against whooping cough was encouraged. The acceptance rate was soon as high as for diphtheria immunisation, which had already achieved a high success level. The incidence of whooping cough was reduced but the disease was not eradicated. In the year 2000, when there is public concern about the safety of MMR vaccine, it is important to note that controversy in the 1970s about adverse reactions to the whooping cough vaccine undermined public confidence. As a result the acceptance rate declined, with a marked rise in the incidence of whooping cough. Further details are given in Chapter 5.

Polio immunisation

Scotland suffered its first substantial outbreak of poliomyelitis in 1947 when 1,434 cases were confirmed with 131 deaths. In addition to the deaths, poliomyelitis left a legacy of paralysis varying from minor disability to extensive loss of power in affected muscles. A second major outbreak occurred in 1950, and the number of notifications in non-epidemic years also showed an upward trend. Poliomyelitis was soon recognised as an important and difficult problem.

In 1956 it was possible, following successful trials in USA and Canada, to begin immunisation with the Salk vaccine. There was considerable public anxiety about the disease and uptake of the vaccine was high. The Sabin vaccine, taken by mouth, was introduced soon after and was even more popular. Immunisation against poliomyelitis has been a major success, even though the uptake diminished in the mid-1970s as a result of public anxieties about the safety of all vaccines. Eradication of polio worldwide is now a tantalising possibility in the early 21st century.

Eradication of small pox

Smallpox continued to make occasional appearances, but with diminishing frequency and scale. This disease was however eradicated by the end of the 1970s as a result of an intensive immunisation programme on a global scale under the auspices of the World Health Organization. Smallpox was the first disease for which effective immunisation became available in the eighteenth century, and the first to be eradicated by a concerted immunisation programme.

Increasing Importance of Cancer

In the early years of the 20th century cancer was not overlooked, but it was difficult to identify any way forward. In 1905 the Medical Officer of Health for Roxburgh and Selkirk commented that there

was an entire lack of information about the cause of cancer or even the conditions favouring its development. The first step was therefore to pursue investigations until the necessary data were obtained. He drew attention to the Cancer Research Fund established in London by the Royal Colleges of Physicians and Surgeons. For some years understanding of the causes of cancer scarcely advanced beyond this comment. However, the numbers of deaths attributed to cancer were increasing.

Rising Incidence of Cancer

Cancer has accounted for only 3,394 deaths in 1900, although this probably understated the true position. In 1911 there were 5002 deaths attributed to cancer, followed by 5953 in 1921 and 6901 in 1928. More accurate diagnosis of cancer and changes in the age structure of the population were contributing to the increasing number of deaths attributed to this disease. In a forerunner to the Cancer Scenarios published early in 2001, calculations based on a population standardised for age led to the conclusion that most, but not all, of the observed increase in cancer deaths was attributable to ageing of the population.

Three important initiatives made an impact on tackling the rising incidence of Cancer:

- *Discovery of Radium*

By the end of the 1920s the value of radium in the treatment of certain cancers was well established, but it was also clear that its use was fraught with danger in inexpert hands. The National Radium Trust was established under Royal Charter in 1929 to ensure the availability of radium and to advance knowledge of the best methods of using it.

- *The Cancer Act 1939*

The Cancer Act of 1939, required Local Authorities to prepare schemes for the diagnosis and treatment of cancer but the intentions of the Act were largely frustrated by the war. With the return of peace in 1945, the intention to provide adequate cancer services, envisaged by the Act again received attention.

Organisation of Cancer Services

The stated intention of the Department of Health for Scotland was that a cancer organisation could be most suitably established in an area with a large population where it could be based on a main hospital with modern equipment and a team of experts, the predecessors of today's Cancer Centres.

- *Cancer Registration*

One of the first practical steps, taken in the post-war period, was the introduction of a uniform system of records of both treatment and follow-up. This was based on earlier work by the Radium Commission and was the forerunner of today's full cancer registration.

Increasing Importance of Heart Disease

The prevention of heart disease in Scotland received little attention in the first part of the 20th century because of the scourge of infectious diseases. Treatment was restricted to the relief of symptoms. Accurate diagnosis and the classification of various forms of heart disease were in their infancy.

In 1956 Sir Stanley Davidson in Edinburgh noted that coronary atheroma and hypertension had become the principal causes of heart disease in middle age and later life. Rheumatic fever was the commonest cause of heart disease in childhood, adolescence and early adult life, but fortunately the incidence was falling. (**see Table 1.2**)

Table 1.2: Approximate Incidence of Each Form of Heart Disease Seen in Hospital Practice in the Early 1950s

Form	Proportion (%)
Ischaemic Heart Disease (coronary atheroma and hypertensive heart disease)	55
Rheumatic Heart Disease	25
Pulmonary Heart Disease (higher in industrial areas)	5
Thyrotoxic Heart Disease	3
Syphilitic Heart Disease	3
Others	9

Those practising cardiology in the 1950s were all too familiar with the ravages of rheumatic fever on the heart valves. This was also the era of surgery for mitral stenosis. Opening the "shrunken, guttering orifice of the mitral valve" allowed many, young women especially, to go on to achieve a family and to bring them up. Today, rheumatic fever has gone and mitral stenosis is a rarity. Medicine played but a small part compared with environmental change. Improved housing, sanitation and nutrition reduced the spread of infection. The prompt treatment of haemolytic streptococcal throat infections by penicillin or sulphonamide were also important.

New National Health Service

The first four decades of the twentieth century, up to the outbreak of war in 1939, had seen a steady increase in measures to improve the health of the population. Latterly there was concern about an overall inadequacy in the provision of hospital beds. In the 1930s the Catchcart Committee undertook, for the Department of Health for Scotland, a comprehensive review of health services and health needs in Scotland. Their Report, published in 1936, was described by His Majesty's Stationery Office as "this striking report" which outlined "the main requirements of a National Health Service for Scotland". However, the implementation of a National Health Service had to await the conclusion of the war.

Care of older people

Around the middle of the 20th century it was clear that the demand for facilities for the treatment of infectious diseases, which was predominantly a problem at younger ages, was diminishing and would diminish further. In contrast, the demands on the new National Health Service for the treatment of increasing numbers of older patients would increase. As early as 1949 the Department commented that *"Many beds in acute general hospitals continued to be occupied by aged and chronic sick and it has not yet been possible to remove from mental hospitals a number of old people suffering from senile debility".*

A comment in the following year, 1950, showed how attitudes were changing. *"In the past it may have been too readily assumed that the illnesses of old age are not susceptible of treatment, but it is now established that aged patients can derive great benefit from thorough investigation and suitable treatment."* Nevertheless it was acknowledged that making adequate provision for old people who need hospital treatment was one of the most difficult problems then facing the Regional Hospital Boards. The same problem faces society, and the NHS Scotland, today at the start of the 21st century.

Chapter Two

Scotland's Population at the start of the 21st century and Future Trends

Scotland's Population

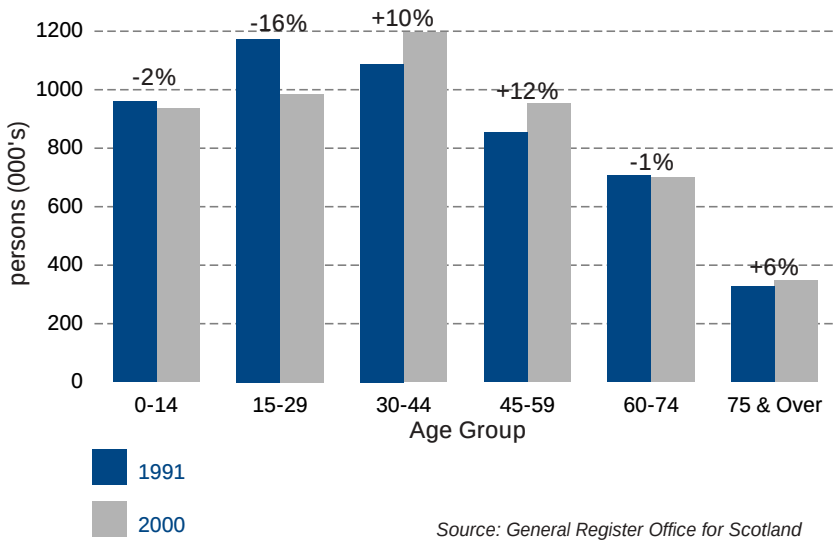
Scotland's population has remained relatively stable at a little over 5 million for the past 50 years. The population of Scotland on 30 June 2000 was estimated at 5,114,600, a decrease of 4,600 since mid-1999. The change was primarily due to deaths exceeding births by 5,700.

Scotland's Population Structure and Projected Changes

The age and sex structure of Scotland's population is changing (**Figure 2.1**). Compared with nine years ago there are now:

- 16% fewer people in the 15-29 age group;
- 10% more people in the 30-44 age group;
- 12% more people in the 45-59 age group; and
- 6% more people aged 75 or over.

Figure 2.1: The Changing Age Structure of Scotland's Population, 1991-2000



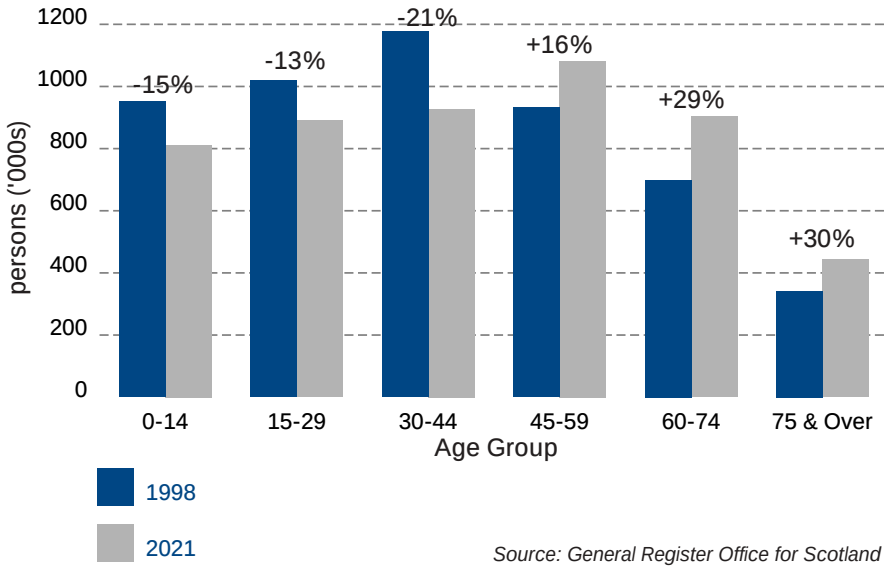
Source: General Register Office for Scotland

The latest, 1998-based, population projections suggest that over the next twenty years Scotland's population will fall to 5.06 million by 2021. Within this population, the age structure is projected to change considerably (**Figure 2.2**) with:

- a 15% fall in the number of children aged under 15;
- a 30% rise in the number of people aged over 75.

This situation is similar to that of most developed countries. In Scotland actual birth numbers are falling faster than in the latest projection and so the projection is likely to understate the decline in children numbers.

Figure 2.2: The Projected Change of Scotland's Population, 1998-2021

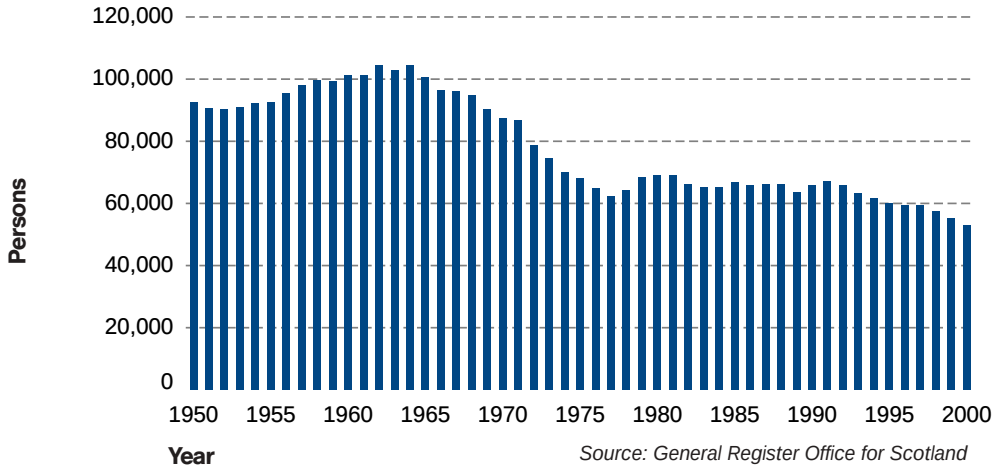


Source: General Register Office for Scotland

Births

In 2000, there were 53,076 births in Scotland. This is the lowest number recorded since civil registration was introduced in 1855. The number of births in Scotland peaked over 100,000 as recently as 1964, but fell rapidly to just over 60,000 by 1975. The fall halted in the late 70s and 80s as increasing numbers of women passed through child-bearing years. However, since 1991 the number of births has been falling again (**Figure 2.3**).

Figure 2.3: Births, Scotland, 1950-2000



Source: General Register Office for Scotland

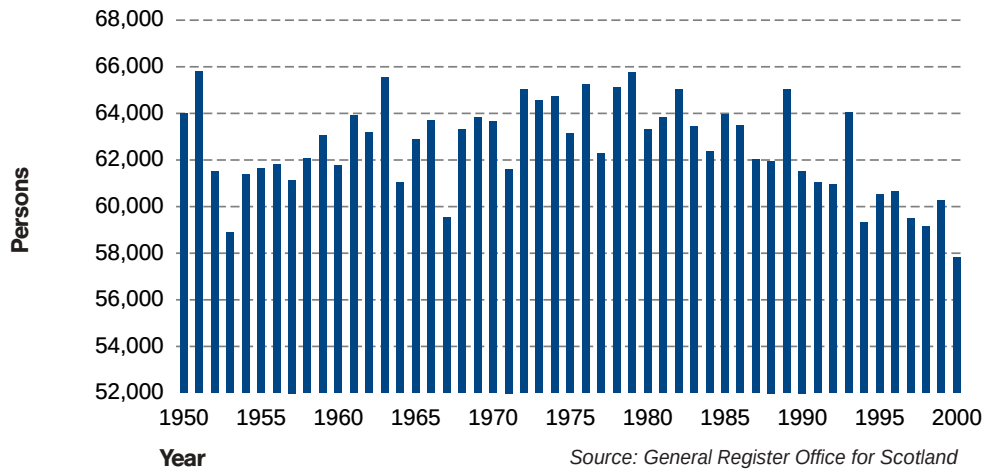
As well as falling numbers of births, the age at which women are having babies has also been changing. Since 1946:

- the proportion of babies born to women aged 30-34 has increased from 24% to over 30% (in 2000);
- there has been a corresponding fall in the proportion of births to women aged 20-24 from 23% to 17%; and
- the proportion of babies born to women aged 25-29 has remained relatively constant.

Deaths

The number of deaths in Scotland has changed little over the past 50 years (**Figure 2.4**) although there is a slow downward trend. In 2000, there were 57,799 deaths in Scotland, the lowest figure ever recorded. Of these deaths 57% were people over the age of 75, and 22% were people aged between 65 and 74 years.

Figure 2.4: Deaths, Scotland, 1950-2000

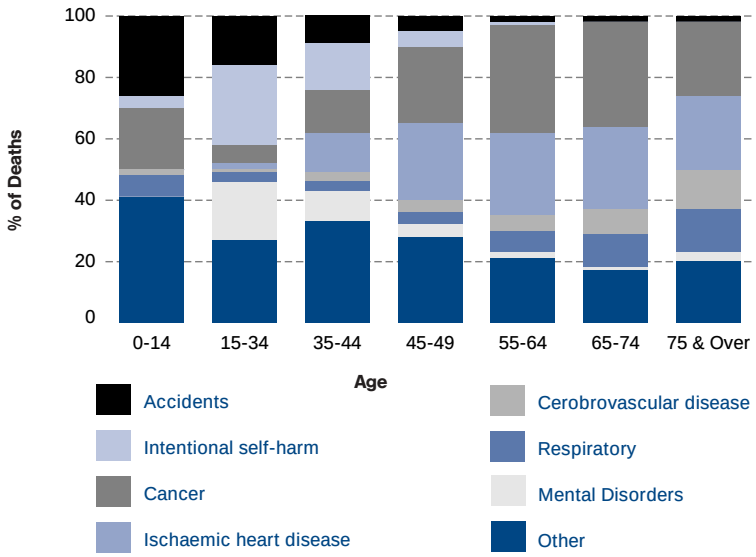


Source: General Register Office for Scotland

Cause of Death

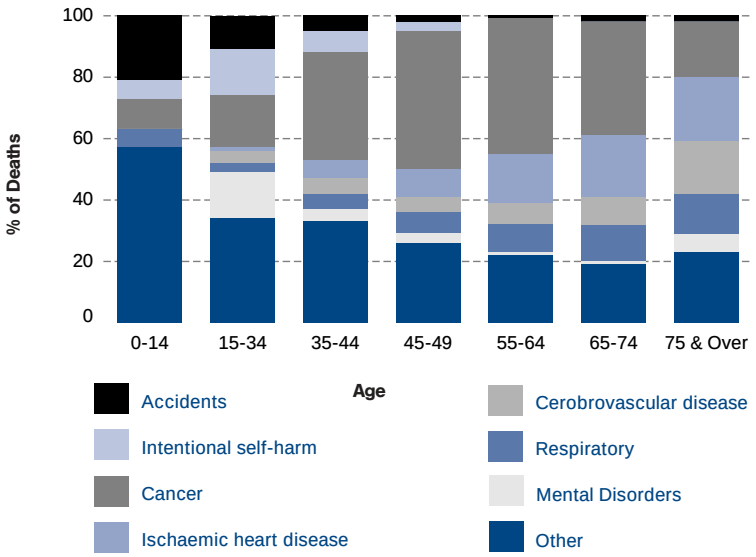
The main causes of death remain cancer, coronary heart disease and stroke, which between them account for nearly 60% of all deaths (**Figure 2.5**). Cancer accounted for 26% of deaths whilst ischaemic heart disease accounted for 22%.

Figure 2.5 (Males)



Source: General Register Office for Scotland

Figure 2.5 (Females)



Source: General Register Office for Scotland

From 1 January 2000 deaths in Scotland have been coded using the latest tenth revision of the International Classification of Diseases and Related Health Problems (ICD10). For information about this change see the Annual Report of the Registrar General for Scotland 2000. The main effect has been to reduce the number of deaths classified to respiratory diseases.

Inequalities in Health in Scotland

Scottish mortality rates remain high relative to the rest of the UK. Setting the standardised mortality rate for UK at 100, the rate for Scotland in 1999 was 117. Health inequalities also show geographical variations around Scotland. Table 2.1 shows the standardised mortality ratios (SMRs) by health board area for Scotland. The SMR for Scotland as a whole is 100 and any ratios over 100 represent higher death rates than would be expected once an adjustment has been made for different age and sex structures within the different health board areas. Greater Glasgow, Argyll & Clyde, Western Isles and Lanarkshire are the areas where the ratios are highest with Greater Glasgow standing out as having an SMR 11% higher than Scotland as a whole.

Table 2.1: Standardised mortality ratios[1] (based on Scotland experience) for selected causes, by administrative area, Scotland, 2000

			Malignant neoplasms						
	All deaths	All deaths	Stomach	Large intenstine	Trachea, bronchus and lung	Breast (female)	Ischaemic heart diseases	Cerebro-vascular	Pneumonia
		(C00-97)	(C16)	(C18)	(C33-34)	C50)	(I20-25)	I60-69)	J12-18)
Argyll & Clyde	108	105	107	116	119	96	112	119	103
Ayrshire & Bute	101	97	92	95	94	97	102	108	105
Borders	86	89	*76*	79	75	100	85	66	92
Dumfries & Galloway	88	93	65	81	84	111	99	81	58
Fife	92	92	109	89	96	109	91	101	94
Forth Valley	99	100	134	93	94	98	93	114	100
Grampian	92	96	89	90	82	87	93	90	92
Greater Glasgow	111	110	117	102	126	88	109	106	115
Highland	98	97	104	93	*74*	96	98	99	90
Lanarkshire	106	104	84	109	107	119	117	109	104
Lothian	97	99	92	93	104	102	91	93	95
Orkney	80	61	*0*	*75*	*41*	*80*	98	59	70
Shetland	75	*72*	*150*	*100*	*38*	*80*	*74*	*61*	*44*
Tayside	94	96	105	123	86	107	92	92	110
Western Isles	106	107	*50*	*200*	84	*143*	113	98	118
SCOTLAND	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: General Register Office for Scotland

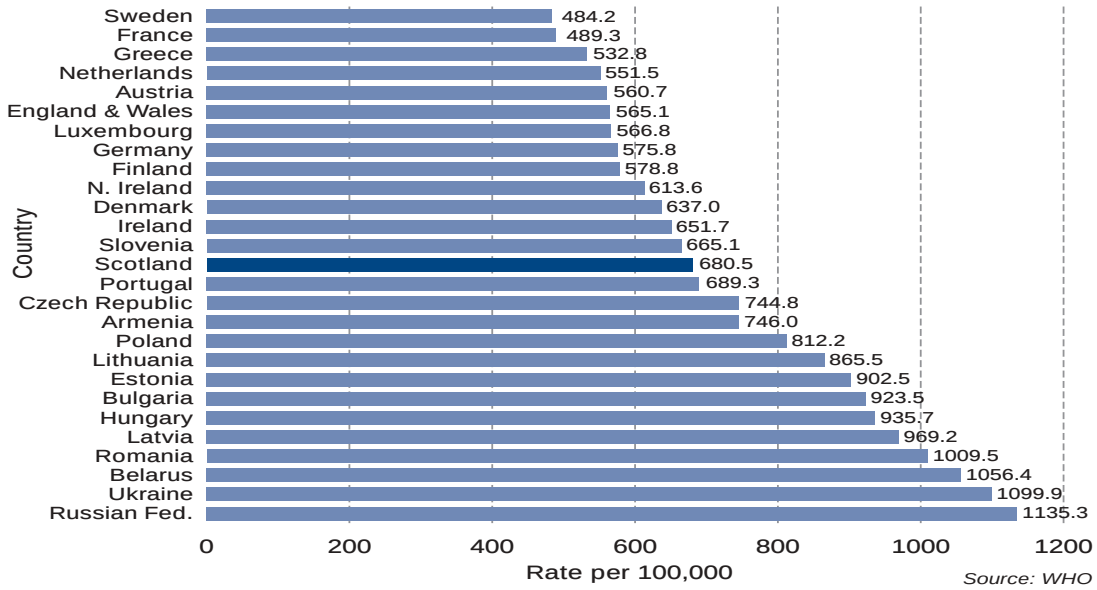
[1] Rates may vary significantly from year to year particularly those based on small numbers. Rates based on fewer than 20 deaths are shown in italics.

International Comparisons

There is no doubt that the public health challenge faced by Scotland is enormous. This can be illustrated by a brief examination of Scotland's mortality rates and life expectancy in relation to other European countries.

Figure 2.6 shows a 'league table' for age-standardised all-cause mortality rates for a wide selection of European countries in 1996: this clearly shows Scotland to be lagging well behind virtually all the other Western European nations of similar wealth and stature, with – bar one or two exceptions – only the poorer Eastern European countries having worse mortality rates.

Figure 2.6: 1996 age standardised all-cause mortality rates per 100,000 population for selected European countries



A further analysis of cause-specific death rates paints an even gloomier picture in this respect, in particular with regard to deaths due to respiratory disease, ischaemic heart disease and, notably cancer. 1996 mortality rates by country for ischaemic heart disease are shown in **Figure 2.7** and for cancer (all malignant neoplasms) in **Figure 2.8**. **Figure 2.9** shows 1996 mortality rates for lung cancer with Scotland having the second worst mortality rates in Europe.

Figure 2.7: 1996 age-standardised mortality rates for ischaemic heart disease per 100,000 population for selected European countries

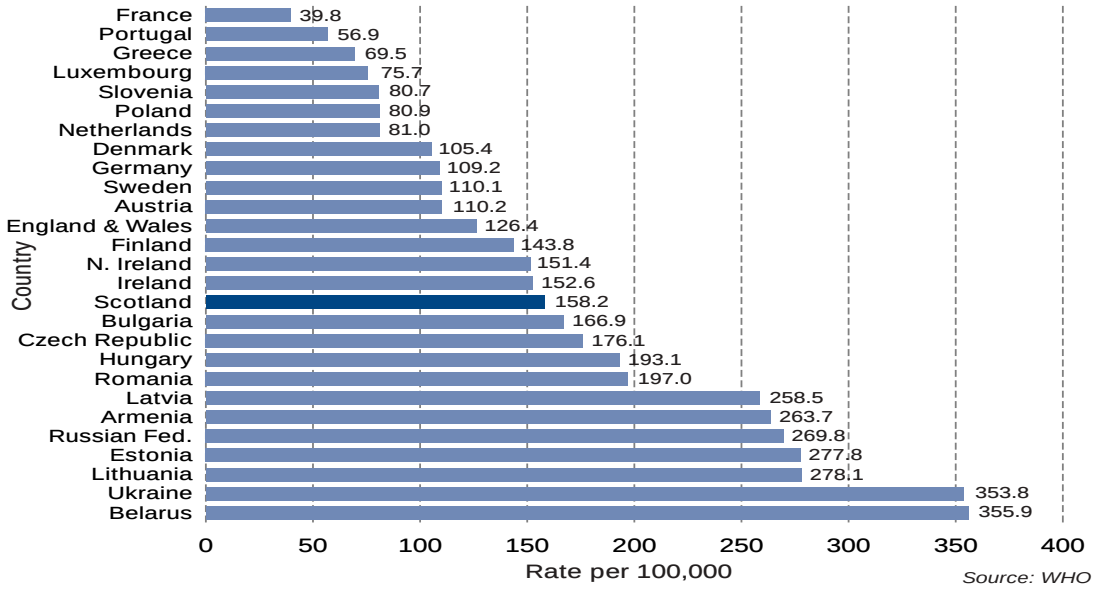


Figure 2.8: 1996 age-standardised mortality rates for all malignant neoplasms per 100,000 population

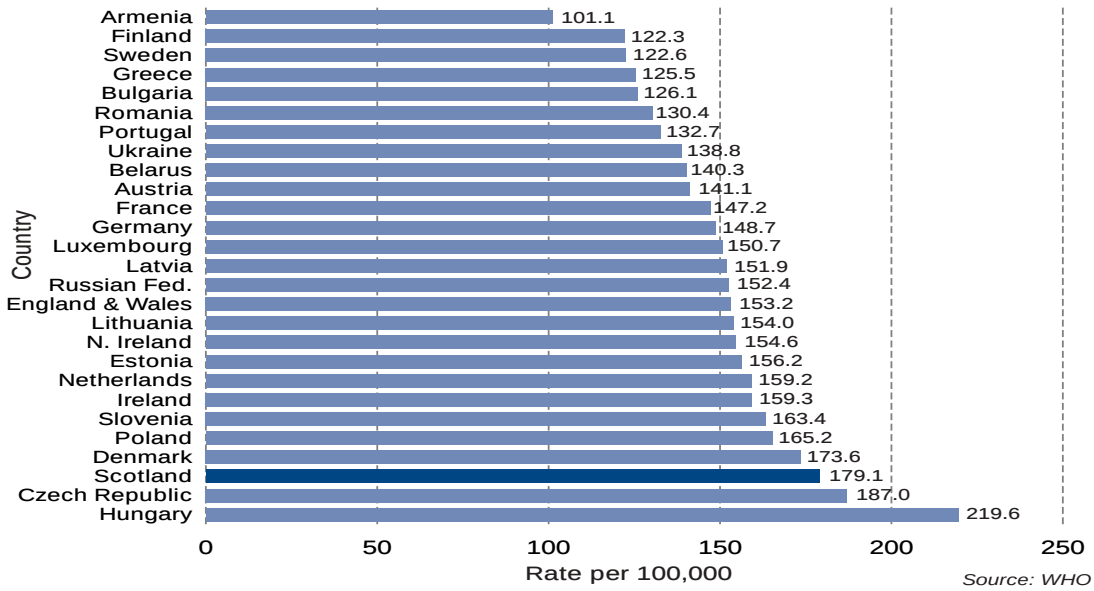
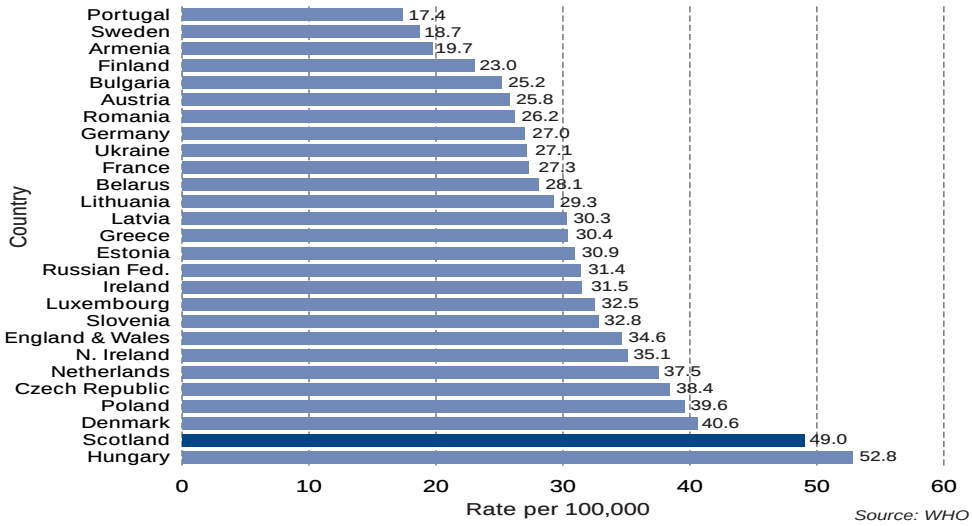
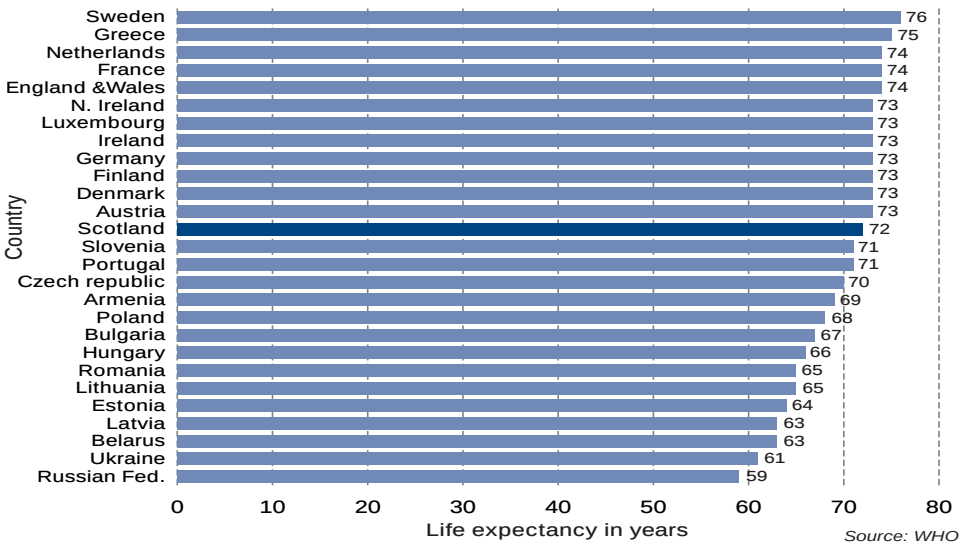


Figure 2.9: 1996 age-standardised mortality rates for malignant-neoplasm of trachea, bronchus and lung per 100,000 population for selected European countries



Not surprisingly, an analysis of life expectancy at birth for Scotland compared to other European countries tells a similar story, with Scotland again suffering by comparison. This is true for both females and – as is illustrated in **Figure 2.10** – males.

Figure 2.10: Life Expectancy at birth, 1996 – Males



Importantly, an examination of trends in both life expectancy and standardised all-cause mortality rates for Scotland appears to show that while both these 'indicators' are improving, they are matched in most cases by similar improvements by the other comparable countries. Thus, the 'gap' between Scotland and the other western European nations does not appear to be closing.

Chapter Three

Scotland's Major Health Problems at the start of the 21st century and their Links with Deprivation

- **Cancer**
- **Coronary Heart Disease**
- **Mental Health**

Progress over the Last century

There have been significant improvements in Scotland's health over the last century. Infant deaths, which were higher than 100 in every 1,000 live births at the beginning of the 20th century, have fallen to 5 in every 1,000 births at the start of the 21st century. The rates of death from infectious diseases, highlighted in Chapter 1 as a major cause of death at the start of the 20th century, have fallen dramatically due to a combination of improved social conditions, immunisation and antibiotics. Diseases which caused ill health and death in tens of thousands of people, such as measles, whooping cough, polio and diphtheria, are now very rare and others such as tuberculosis are much reduced. Our lives are now longer and healthier. Life expectancy at birth for boys is now 73 years, and for girls, 78 years, compared with 45 years and 47 years at the beginning of the 20th century.

Health Issues in the 21st century

Scotland, although its health has improved, still has a poor health record compared with other western European countries and now faces new health issues. Key health priorities for Scotland include:

- addressing priority diseases such as:

  cancer, which has increased in importance and is now the main cause of death;

  coronary heart disease, virtually unrecognised a century ago and now the second commonest cause of death;

  mental illness;

- ensuring our children and young people have the best possible start in life;
- promoting continuing health and wellbeing in the increasing numbers of older people in Scotland and ensuring that adequate care is available.

A key issue for all the above is tackling inequalities in health and improving the health of the vulnerable members of our society.

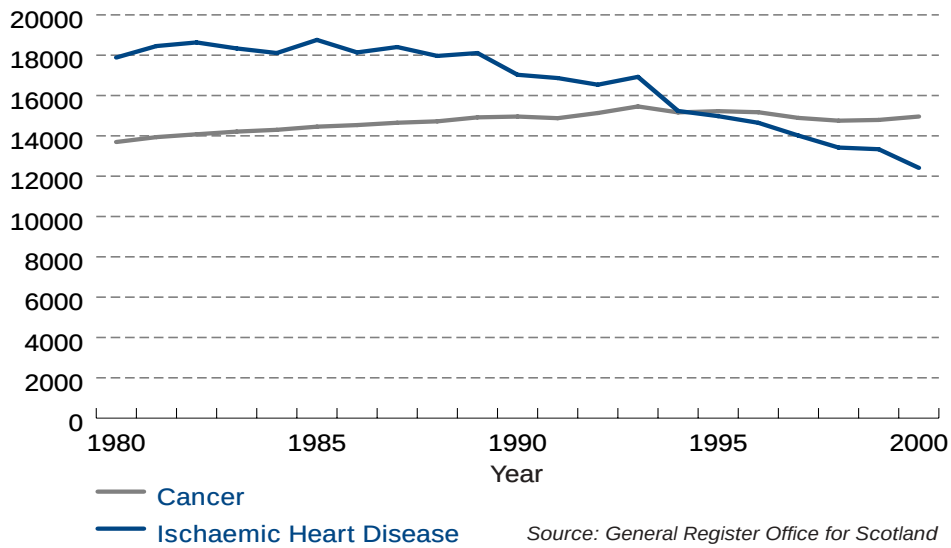
Building on previous policy documents such as *Towards a Healthier Scotland,* published in 1998, a comprehensive policy for tackling these issues was published in December 2000. This document *Our National Health; A Plan for Action, A Plan for Change* (SEHD 2000) sets the agenda for new unified health boards, which are public health focused, and work in partnership with patients, professions and communities to deliver patient-centred care.

Part 1: Cancer

Epidemiology

Cancer is one of the greatest health problems facing Scotland. Cancer has now overtaken coronary heart disease as the commonest cause of death in Scotland (**Figure 3.1**). Mortality rates from Cancer in Scotland are amongst the worst in Western Europe. In 1997 over 25,000 cases of cancer were diagnosed in Scotland, and in 2000 almost 15,000 people died of the disease. By the age of 74 approximately, 1 in 3 men and 1 in 4 women can expect to have been diagnosed with cancer.

Figure 3.1: Deaths from Ischaemic Heart Disease and Cancer, Scotland 1980-2000



Source: General Register Office for Scotland

Over the last 20 years the combined incidence of all types of cancer combined has increased. Cancer is particularly a disease of older people. As the population of Scotland includes increasing numbers of older people, we will see increasing numbers of people developing cancer. Deaths from cancer have also increased, although to a lesser extent, over the last 20 years. Substantially more people with cancer are now surviving for more than 5 years after diagnosis. Lung cancer is the commonest cause of cancer death in both sexes, followed by colorectal cancer in men and breast cancer in women.

Taking account of age, there have, by contrast, been some substantial falls in the age standardised incidence rates for a number of cancers. In particular there has been a substantial fall in lung cancer in males and a fall in stomach cancer for both sexes. But, rates of lung cancer in women, have risen by 14% over the last 10 years and rates of large bowel cancer in men and breast cancer in women have increased by over 20% over the last ten years. Prostate Cancer in men is also increasing. (**Figures 3.2 and 3.3**).

Figure 3.2: Age-standardised incidence rates for the five most frequently occurring male cancers, 1975-1997

per 100,000 person-years at risk (European standard population)

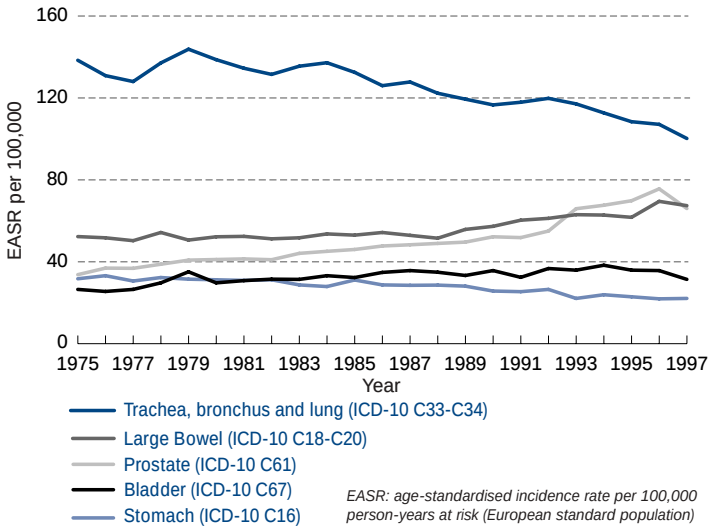
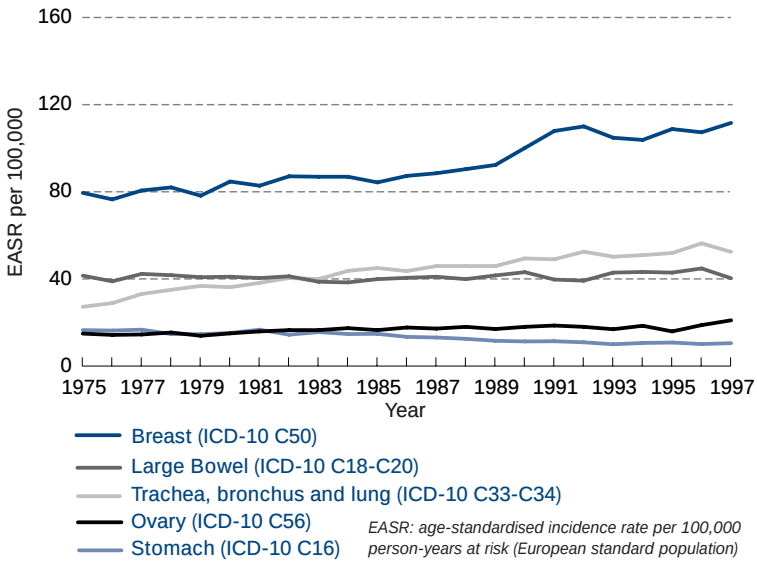


Figure 3.3: Age-standardised incidence rates for the five most frequently occurring female cancers, 1975-1997

per 100,000 person-years at risk (European standard population)



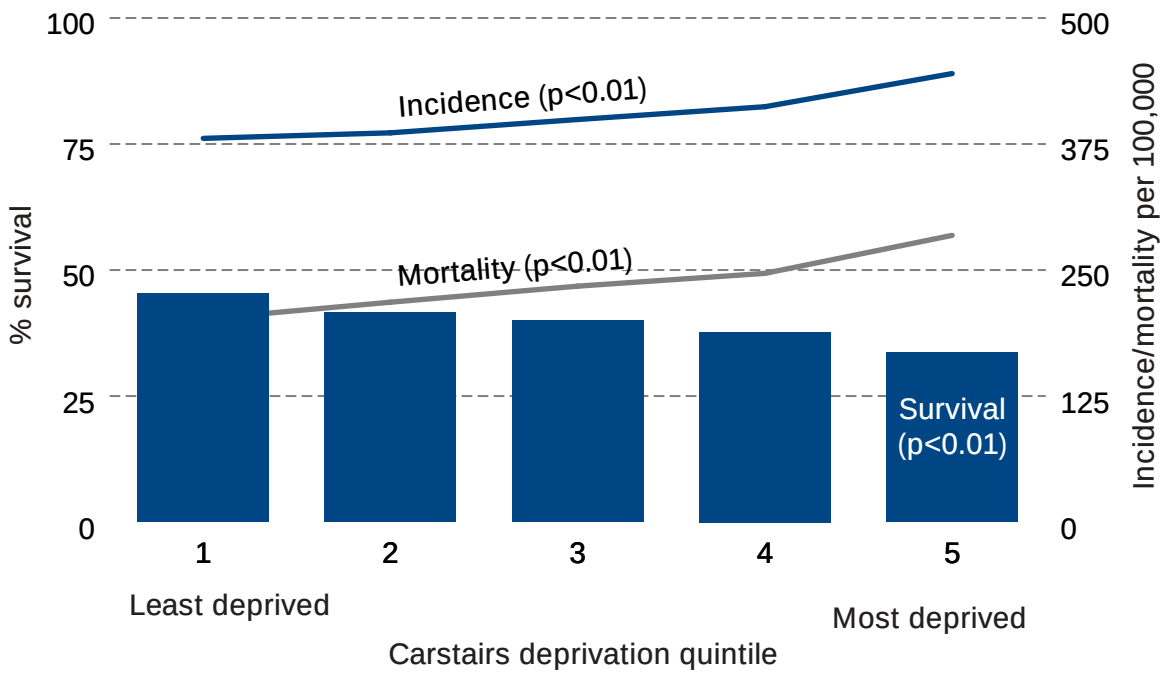
Influence of Deprivation

There is a clear association between deprivation and most cancers (Figure 3.4).

- **For lung cancer the incidence rates among people living in the most deprived areas of Scotland are three times higher than the rates in the least deprived areas.**
- **For large bowel cancer there are no differences in incidence by deprivation and for breast cancer the deaths are higher in women from the most deprived areas. But once large bowel cancer or breast cancer has been diagnosed survival is significantly worse in those from the most deprived areas of Scotland.**

Figure 3.4: Cause-specific survival[1] at 5 years, incidence[2] and mortality[2] by deprivation quintile

including test for trend[4] across deprivation categories. Patients diagnosed 1991-95.[3]



1 Adjusted for age and sex
2 Age-standardised rates per 100,000 person-years at risk (European standard population)
3 Cases diagnosed 1994 and 1995 do not have 5 years' follow-up
4 Linear regression on log rates for incidence and mortality; cox regression for survival

Over 37,000 patients were treated in Scottish hospitals for Cancer in 1998, an increase of 20% compared with 10 years ago. These patients had nearly 61,000 hospital episodes in 1998 and approximately 56,000 day case episodes. In general practice, each year, for every 1,000 registered patients, there are approximately 25 consultations amongst men and 22 amongst women for cancer.

Targets

The year 2000 target for cancer was to reduce mortality from cancer in people under 65 by 15% between 1986 and 2000. This has been met. However, there has been little evidence of decreasing inequalities in mortality from cancer. Between 1991 and 1997, age and sex standardised death rates fell by 8% in those from the least deprived areas of Scotland, but by only 5% in those from the most deprived areas.

A new target to reduce mortality in people aged under 75 by 20% between 1995 and 2010 has now been set.

Cancer – Future Predictions

The Scottish Cancer Group, which leads and directs Scotland's cancer strategy, sought means to predict the future incidence and mortality from cancer, so that cancer services, including prevention, health promotion, diagnosis and treatment, might be better placed to plan for the future.

Professor Freda Alexander, of the Department of Public Health Sciences at the University of Edinburgh, and colleagues from the Scottish Cancer Intelligence Unit (SCIU), developed a statistical model to predict trends in cancer incidence and mortality for the next decade.

During the year 2000, a group of leading clinicians and internationally recognised epidemiologists met to discuss the results of this predictive modelling and speculate on the scope to influence these trends through interventions such as screening programmes, new treatments and/or reorganisation of services.

Cancer Scenarios: an aid to planning cancer services in the next decade, published in spring 2001, predicts that over all age groups, by 2010-2014, there will be 33,000 cases of cancer diagnosed each year, compared with 25,000 cases in 1997, and that mortality will increase to 16,300 per year in the same period compared with 15,000 in 1997. In the under 75s deaths are expected to decrease slightly.

Tumour type specific projections predict that:

- With reducing incidence of cigarette smoking, by 2010 prostate cancer will have overtaken lung cancer as the most common cancer in men.
- Breast cancer will continue to be the most common cancer in women. It is also predicted that due to earlier diagnosis and improving treatments, survival from breast cancer will continue to increase so that the actual numbers of breast cancer related deaths will remain fairly constant.
- The risk of colorectal cancer will increase in men over the next decade and a small increase also for women. The higher incidence in men is expected to continue and this gap between the sexes is also expected to grow. However, mortality is predicted to decrease due to continuing improvements in survival.

Prevention of cancer

Evidence that the risk of developing cancer can be reduced through healthier lifestyles is strong. Cancer prevention through programmes of education and health promotion therefore remains a priority. The key messages also remain.

- Do not smoke
- Moderate alcohol consumption
- Eat more fruit and vegetables
- Take regular physical exercise
- Avoid over-exposure to sunlight.

Smoking

The Health Education Board for Scotland, and health promotion activities across the country, have continued to promote these clear messages and are described further in Chapter 6. In addition, Nicotine Replacement Therapy is now available on prescription and, backed up with smoking cessation support services, it is hoped that more people will be successful in giving up smoking. Examples of smoking cessation services are given in Chapter 7 in the Report from Tayside.

Targets

- **The national target to reduce smoking in Scots adults from an average of 35% to 33% by 2005 has already been met.**
- **A new target to further reduce adult smoking to 31% by 2010 has been set.**

Screening Services

Scotland's breast and cervical cancer screening programmes are well established and a pilot screening programme for colorectal cancer has been set up.

Colorectal Cancer Screening Pilot

The Scottish Demonstration Project – The Cancer Challenge – will involve men and women aged between 50 and 69 living in the Grampian, Tayside and Fife Health Boards areas. It will test the feasibility and public acceptability of introducing a national screening programme. This study, is part of the UK Colorectal Screening Pilot and is expected to complete during 2002, when it will be evaluated by an expert team, including epidemiologists, from the University of Edinburgh.

Breast Screening

The Scottish Breast Screening Programme (SBSP), established in the late 1980s, aims to contribute to the target to reduce mortality from cancer in people under 75 by 20% by 2010.

SBSP has met or exceeded its overall target uptake of screening invitations but in some areas improvements are needed in the numbers of women attending for screening. Health Boards are continuing to promote initiatives to improve uptake, particularly among women from ethnic minorities and deprived areas.

Extension of the upper age for screening from 65 to 70 was announced in *Our National Health* in December 2000. To meet training, equipment and workforce requirements, this will be implemented over a 3 year round of screening, commencing in 2003-04.

Provision of cancer services

Over the last three years much has been achieved. Through close collaboration with the Clinical Standards Board for Scotland (CSBS), core principles for cancer services and four tumour specific standards have been published and local services are now being assessed against these. In addition:

- chemotherapy needs have been assessed to establish a baseline against which we can move forward to ensure equity of access through local managed clinical networks (MCNs)
- the centrally led (but service driven) review of radiotherapy equipment has been a great success and has seen out dated and unreliable linear accelerators and treatment planning equipment replaced, ensuring greater reliability so that delays incurred through machine breakdown can become a thing of the past
- cancer genetics services have been established across the country and clear criteria have been drawn up and widely distributed throughout NHSScotland for the referral and subsequent management of individuals who may be at increased risk of developing cancer because of their family history
- guidelines for the use of cytotoxic chemotherapy in the clinical environment have been prepared and widely disseminated throughout the NHS.

Formalisation of tumour specific managed clinical networks and regional cancer advisory groups continues apace and are further described in Chapter 6. Lead clinicians and regional network managers have been appointed in South East and North Scotland and arrangements to set these in place in the West of Scotland are well in hand. Prospective audit, based on Scottish Intercollegiate Guideline Network (SIGN) datasets or their equivalents, is up and running in most cancer services across the country, supporting not only local clinical governance/quality assurance assessments but also the CSBS.

For the future

Evidence suggests that cancer will continue to be a major challenge for us all; it remains as a top priority for the Scottish Executive and for the NHSScotland. It was therefore confirmed in *Our National Health* that a cancer plan for Scotland would be produced. This was published in July 2001.

Better Prevention

A National Diet Co-ordinator is to be appointed during 2001 who will be responsible for supporting and facilitating further implementation of the Diet Action Plan which set national targets to be achieved by 2005, including doubling the average consumption of fruit and vegetables, reducing the proportion of total fat and saturated fat by over 5% and doubling the consumption of oily fish.

A National Physical Activity Task Force is to be established to take forward action aimed at increasing regular physical exercise across all age groups and Our National Health confirmed that a national plan for action on alcohol misuse will be drawn up during the next year.

Better Screening for Cervical Cancer

An alternative method of processing smears, liquid based cytology, is to be studied during the next year. If successful, it is hoped this will reduce the number of repeat smears required and therefore reducing the anxiety experienced by women as well as the number of visits required to have repeat smears. The results of this pilot are expected by the end of 2001.

A new nationally co-ordinated IT system is to be developed over the next 2 to 3 years which it is expected will improve the current call/recall arrangements for cervical screening.

Better services

The new Cancer plan sets a clear direction for continuing improvement – securing services which are regionally planned and developed involving patients and their carers, the voluntary sector and NHS clinicians and managers working with relevant NHS Boards, and services which are aimed at better meeting the needs of patients, with swifter diagnosis and more rapid access to the best treatment and care possible.

Part 2: Coronary Heart Disease

Epidemiology

Despite the fact that coronary heart disease remains a major cause of death, there has been significant progress in tackling this disease. The mortality rate from coronary heart disease has declined steadily over the last 20 years. In 2000, 12,412 people in Scotland died from coronary heart disease compared with 17,028 in 1990 and 17,885 in 1980.

Target

- **The year 2000 target set for coronary heart disease was to reduce mortality among people under 65 by 40% between 1990 and 2000 . This has been met.**
- **A new target, to reduce rates by 50% in people under 75 between 1995 and 2010, has been set.**

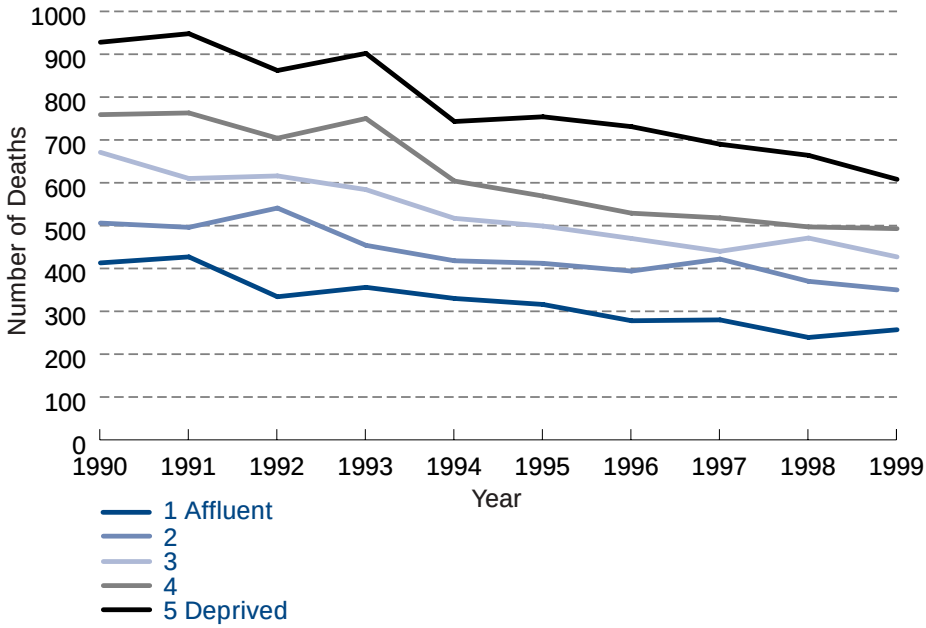
There are no grounds for complacency, however. Scotland has one of the highest death rates from coronary heart disease (CHD) in the world. CHD is a major cause of death in Scotland, second only to Cancer, and accounts for over 12,000 deaths each year. Approximately half a million people in Scotland are currently estimated to have this disease. The increasing age of the population in Scotland also means that the overall prevalence of coronary heart disease in Scotland is likely to increase. Many of those with coronary heart disease receive care within NHSScotland. Each year there are around 65 general practice consultations for every 1,000 registered patients and 5% of all hospital admissions are for coronary heart disease. NHSScotland treats approximately 19,500 in-patients for acute myocardial infarction and over 38,000 people for other forms of coronary heart disease every year.

Influence of Deprivation

There is a clear gradient of increasing incidence and mortality from coronary heart disease with increasing deprivation. People from the most deprived areas of Scotland have an annual mortality risk more that two and a half times that of people from the least deprived areas. The correlation is most marked in those aged under 65. All groups of the population have benefited from falling death rates from coronary heart disease over the last ten years.

However, there has been little evidence of decreasing inequality between those from different deprivation categories. Absolute numbers of deaths in those aged 16-64 years have fallen more in those from the most deprived areas than in the least deprived areas over the last 10 years. However the percentage reduction in mortality for those in the most deprived areas has been 34% compared with 38% in those from the least deprived areas. (Figure 3.5)

Figure 3.5: Mortality, Coronary Heart Disease, ages 16-64 by Deprivation Quintile 1990-1999



Prevention and Treatment of Coronary Heart Disease (CHD)

The treatment of CHD before 1950 was essentially limited to symptom relief which had no effect on prognosis. Advances in technology and clinical pharmacology led to the ability to visualise coronary artery anatomy by coronary angiography, intervention initially by coronary bypass surgery and now also coronary angioplasty and the development of new treatments such as beta and calcium channel blocking drugs. Prevention of CHD was thought to be theoretically feasible but impossible to achieve, but primary and secondary prevention measures are both now underpinned by a robust basis of evidence. Managing risk factors aggressively has now been shown to reduce mortality and morbidity. The multi-disciplinary approach that has been developed has been especially valuable.

Capewell and his colleagues have assessed the contribution of modern cardiovascular treatment and changes in risk factors to the decline in CHD deaths in Scotland between 1975 and 1994. In 1994 the number of deaths prevented or postponed was estimated at 6,747. Forty per cent of this benefit was attributed to treatment (coronary care, thrombolysis, resuscitation, intervention) and 51% to risk factor reduction.

Management of CHD can be tackled at 3 levels:

- treatment of an acute episode or with significant symptoms
  - medical management
  - investigation – when appropriate
  - intervention (either coronary bypass surgery or coronary angioplasty) when appropriate
- secondary prevention in those with known CHD
- primary prevention

The Scottish Intercollegiate Guideline Network (SIGN) has been instrumental in providing the evidence base for clinical practice in cardiology. They deal, for example, with primary prevention, the treatment of heart failure and the selection of patients for coronary investigation and interventional procedures. Implementation of these guidelines will undoubtedly be beneficial to management of the Scottish population with underlying coronary heart disease. Equally there is no doubt that further decline in mortality and morbidity in coronary heart disease requires changes in the lifestyle of the community at large. Prevention must be the aim rather than intervention. Further reductions in coronary heart disease, morbidity and mortality should be the responsibility of the public as well as the health professional. All efforts should involve co-ordination and co-operation. The national demonstration project in Paisley, is now under way, and its results will be keenly anticipated. It is hoped that this will be a role model for the rest of the country. Further details are given in the report from Argyll and Clyde. For the future as stated in *Our National Health*, the Coronary Heart Disease Task Force will produce its final report in 2001, on which the CHD/Stroke National Plan will be based.

Part 3: Mental Health

Epidemiology

Suicide

Mental health problems are one of the commonest causes of ill health in Scotland. In terms of mortality, suicide is an important cause of premature death, especially among young men as shown in Chapter 2 **Figure 2.5**. Mental illness is an important causal predictor to some suicides. In a quarter of all suicides there has been contact with mental health services within the previous year, but the individual prediction of suicidal behaviour is unreliable. Suicidal behaviour arises from a complex mixture of behavioural, emotional, interpersonal, social and employment factors.

- Since 1975 the suicide rates in young men have steadily increased, although the last 4 years have shown some improvement. In 1975 the rate per 100,000 population for 11 to 24 year olds was 4. By the mid 1990s the rate had reached 16 per 100,000. The figures for 1999 show a rate of 15 per 100,000.

- For young women the rates are much lower at 2.5% per 100,000 population and have stayed relatively constant over the last 20 years.

There is now a substantial body of research describing the origins and high costs of deliberate self harm which is one of the most common reasons for medical admission.

Suicide: Influence of Deprivation

There is a strong association between suicides and deprivation, with twice as many suicides occurring in those from the most deprived areas of Scotland. Over the last 10 years, the rates have also increased more in those who are most deprived, going up by 26% in this group, compared with the average increase over the period of 19%.

Anxiety and Depression

It is increasingly recognised that neglect of the psychological needs of patients may be one of the costs of the remarkable biological advances that have been made in medicine. There is evidence that approximately a quarter of medical patients suffer from significant anxiety and depression, that this may prolong illness and delay recovery, and that a quarter to a half of medical outpatients have symptoms that are medically unexplained.

The majority of mental health problems are treated in general practice. On average in Scotland, there are over 300 consultations for mental health problems for every 1,000 people in a general practice during a year.

Anxiety and Depression: Influence of Deprivation

Anxiety and depression are among the commonest reasons for a general practice consultation in Scotland and taken together have a consultation rate of over 250 for every 1,000 registered patients. The consultation rate increased by around 10% for both anxiety and depression between 1997 and 1998. Incidence rates for anxiety and depression in those from the more deprived areas of Scotland are around twice as high as rates in the least deprived areas.

Post-natal Depression: Influence of Deprivation

Post-natal depression affects 10 to 15% of women after childbirth – more in areas of deprivation – and has profound effects on the wellbeing of the mother and family and the development of her child.

Trends in Hospitalisation

While hospital admissions due to mental illness do not purely reflect incidence and prevalence of mental illness, it is important to look at the trends in hospitalisation. Overall, the number of admissions to mental illness hospitals and psychiatric units has risen during the last 20 years. However, this increase is mostly accounted for by an increase in the number of re-admissions rather than in the number of people admitted. This is illustrated by the fact that the number of first admissions has remained stable for men and has gone down slightly for women. Approximately 32,000 people are admitted to mental illness hospitals and psychiatric units each year in Scotland. Of these, over 20,000 are patients who have had a previous hospital stay. The main diagnoses relate to mood disorders, dementia and mental disorders related to alcohol use. People aged between 25 and 44 years account for approximately 40% of all admissions to mental illness hospitals and psychiatric units.

Mental Health – Better services for 21st century

As the 21st century begins, three important initiatives are having an increasing effect on the style and delivery of mental health services.

i) *The Framework for Mental Health Services* in Scotland, launched in 1997, sets out a statement of service philosophy, principles of development, and elements required for a comprehensive collaborative and inclusive mental health service. These include:

- close working relations between primary care, mental health services, and social work departments;
- user and carer involvement;
- quality development; and
- outcome measurement.

ii) *Designed to Care*, also launched in 1997, placed mental health services with community and primary care services in Primary Care Trusts as most people with mental health problems are looked after in the community. Primary care services deal with 9 out of 10 people with mental health problems. *Our National Health* (December 2000), with its emphasis on the importance of the Local Health Care Co-operatives (LHCC) as a focus for the organisation of service delivery, continues a trend to join up components of the patient's journey through care.

iii) The Clinical Standards Board for Scotland (CSBS), set up following the *Acute Services Review*, included schizophrenia in the first group of conditions for which clinical standards were produced. These standards were piloted during 2000, and are now being rolled-out to all mental health services during 2001. The standards are explicit, objective, measurable, evidence based when possible, and relate to structure, process and outcome of care. They were developed by an inclusive process, which involved service users, those who care for them, voluntary and partner organisations, as well as professionals and managers from within the NHS.

Mental Health and Wellbeing Support Group

At a mental health summit convened by the Health Department in January 2000, representatives of organisations with an interest in mental health services and Ministers endorsed the Framework for Mental Health Services in Scotland. It was agreed the services developed should be comprehensive in their scope, covering those with mild to moderately severe problems and the seriously unwell. The Mental Health and Wellbeing Support Group (www.show.scot.nhs.uk/mhwbsg) was launched in March 2000 to implement these decisions by visiting health board areas, reporting to Ministers and supporting the local implementation of change.

Allies in Change

The *Framework* for Mental Health Services in Scotland calls for inclusion of service users and carers in the planning, assessment and development of mental health services. A consortium of voluntary and independent sector organisations, *Allies in Change,* was established, supported by the Health Department, to improve the input of service users and carers into service development.

***Allies in Change* has had a significant impact in the last year. It builds on the principle that no service, however skilled the practitioners, and no matter how well resourced, can have a lasting impact on the problems of mental health unless staff recognise that a partnership between service, users, and carers is more likely to achieve full recovery and rehabilitation. The Executive has allocated a significant proportion of the Health Improvement Fund (*"the tobacco tax"*) to assist this process. *Allies in Change* is described further in the report from Argyll and Clyde.**

The year 2000 saw other initiatives:

- The Scottish Needs Assessment Programme agreed to undertake a short review of liaison psychiatry and psychology (behavioural medicine).
- The Scottish Intercollegiate Guidelines Network (SIGN) is working on Guidelines on the management of:
  - post-natal depression;
  - general anxiety disorder; and
  - people with alcohol problems in primary care.
- A major national initiative in developing substance misuse services was announced.
- A national plan for the treatment and prevention of alcohol misuse is being developed.

These latter 2 major initiatives, which are discussed further in Chapter 6, will have an impact on general psychiatry as perhaps a third of outpatients, and a half of inpatients have problems with the effects of substances and alcohol, which worsen and are liable to perpetuate the effects of their mental health problem.

Suicide Prevention Strategy for Scotland

The rate of suicide in men, has been rising over the last 2 decades especially in young men under 40 and in the most deprived socio-economic group. Scotland is divergent from the rest of the UK in this respect, with worse rates.

To tackle this important issue a multi-agency suicide prevention strategy for Scotland is being developed. Funds have been allocated to provide a telephone-based helpline, particularly for young men who may not find the statutory services accessible or user friendly. A quarter of Scottish suicides have had identified mental health problems and Scotland is contributing data and funding to the UK wide National Confidential Inquiry into Suicide and Homicide by People with Mental Illness. The most recent report of the NCI "*Safety First*" was published in March 2001. It describes groups of patients most at risk of suicide and when the risk is greatest. Twelve recommendations are made to encourage safer practice which have been commended to the services.

Mental Health Legislation in Scotland

At the end of 2000 the Millan Committee reported on mental health legislation in Scotland. In keeping with the Human Rights Act (2000), the Millan Report sets down 10 principles which should govern the application and use of any new Act. To work towards the reduction of stigma must be a priority of all involved in mental health services, and is an important part of achieving positive mental health.

Millan: Principles which apply to new Act:

- **Non discrimination**
- **Equality**
- **Respect for Diversity**
- **Reciprocity – duty to accept treatment balanced by right to appropriate care**
- **Informal care – should be used whenever possible**
- **Participation of service users in their treatment**
- **Respect for carers**
- **Least restrictive alternative should be adopted**
- **Benefit – interventions should produce benefits which are otherwise unachievable**
- **Child welfare – the welfare of a mentally disordered child is paramount**

MENTAL HEALTH OF CHILDREN AND YOUNG PEOPLE

Children's Mental Health and Socio-economic factors

The year 2000 saw the publication of the largest epidemiological survey ever conducted of the mental health of children and adolescents in Great Britain. The results show that mental disorders are common in children and adolescents and that poverty and social exclusion are significantly associated with the more common mental disorders in this age group. The survey, carried out by the Office of National Statistics (ONS) and partly funded by the Scottish Executive, provides vital information for planning services for the new millennium.

The survey showed that 10% of children between 5 and 15 years had some form of mental disorder. Five percent had clinically significant conduct disorders, 4% were shown to have emotional disorders such as anxiety and depression and 1% were assessed as hyperactive. Boys more commonly had disorders than girls. Among 5 to 10 year olds, 10% of boys and 6% of girls had mental disorders, whilst among 11-15 year olds, 13% of boys and 10% of girls were affected.

Influence of deprivation

The prevalence of common disorders was significantly influenced by socio-economic factors. For example, in families in social class V the prevalence was 14% compared with 5% in social class I. In families with an income of less than £200 per week it was 16%, whereas in families with an income of £500 per week or more it was 5%. For less common disorders, such as autistic disorders, tics, eating disorders and schizophrenia, there were no clear-cut associations between prevalence and socio-economic factors.

These important results suggest that poverty and social exclusion are significantly associated with common mental disorders in children and young people. They reinforce the importance of initiatives, such as the "*Starting Well*" projects, in the prevention of mental health disorders in children and young people. The Starting Well demonstration project is described further in Chapter 4 in the section on Children and Young People.

Mental health services for looked-after and accommodated children and young people

Young people in public care, known as "*looked after*" and accommodated young people, comprise one of the groups most vulnerable to developing mental disorders. A number of studies have shown that the prevalence of mental disorder in this group is very high, in the order of 50-60%. The Scottish Executive's Mental Health and Wellbeing Development Fund has provided funding for a number of projects whose aims are to identify those children and young people with mental disorders and to provide services for them. These projects, which are based in Glasgow and Dumbartonshire, are described in further detail in the section on children and young people in Chapter 4.

A Multi-Agency Service for Children with Autism

In response to the Scottish Executive's review of services for people with learning disabilities, "*The same as you,*" the Mental Health and Wellbeing Development Fund provided funding for an innovative new service for children with autism, in the Borders. It provides a model for services for this group of patients.

Borders multi-agency service for children with autism

Health, Education and Social Work are all involved. Early diagnosis, by the age of 2, is important to reduce the development of damaging behaviour patterns. Early diagnosis must therefore be followed by the prompt provision of an integrated treatment package.

The initial results from the Borders Multi-Agency Service for Children are encouraging. Since the inception of the service the number of two-year-old children being recognised as having a condition on the autistic spectrum of disorders has increased by 50%.

The Borders Team has used the Scottish Centre for Autism in Glasgow for training and consultation. The Scottish Centre could play a role in facilitating the development of a Managed Clinical Network for autism, constructed along similar lines, in other parts of Scotland.

Future Issues

The Scottish Needs Assessment Programme for Child and Adolescent Mental Health Services

Looking ahead, the Scottish Needs Assessment Programme (SNAP) is currently engaged in a needs assessment of Child and Adolescent Mental Health Services (CAMHS) in Scotland. It will be completed by the end of the year. This is a major task since there is considerable variation in the provision of these services throughout Scotland. Furthermore there are new challenges to be met, particularly those raised by the ONS survey which highlight the need to provide services to those children and young people most vulnerable to social exclusion. However the timing of the SNAP review is propitious: 2000 is an appropriate year to start work on a blueprint for young people in the new millennium.

Chapter Four

Caring for our priority groups:

- **Specific needs of children and young people**
- **Specific needs of older people**

Part 1: The Health of our Children and Young People

Smoking in pregnancy

Early influences have a significant effect on life-long health. Very early life is particularly influenced by parental behaviour. Smoking in pregnancy is an important and preventable cause of harmful effects on the unborn baby including miscarriage, premature birth and lowbirth weight. Currently around 27% of pregnant women in Scotland are smokers at the start of their pregnancy. This figure has seen little change over the last seven years.

Influence of deprivation

Smoking during pregnancy shows a clear correlation with deprivation. Nearly 40% of women from the most deprived areas of Scotland smoke during pregnancy compared with just 14% of women who are in the least deprived group. Over the last seven years there has been an encouraging decrease of approximately 4% in the numbers of women from the most deprived areas smoking during pregnancy. Rates for women in the other deprivation categories have not changed significantly.

Target

The current target is to reduce the proportion of pregnant women in Scotland who are smokers to 23% by 2005, and to 20% by 2010.

Breastfeeding

Nutrition, starting in infancy, has important effects on health. Breastfeeding provides the best start. The major health benefits of breastfeeding for both mothers and babies are well documented and accepted. It is therefore of concern that breastfeeding rates in Scotland remain the second lowest in Europe, although they have increased in recent years. Some of the recent increase may reflect increases in the age of the childbearing population and the fact that older mothers are more likely to breastfeed. The percentage of mothers breastfeeding their babies is currently 35% at 6 weeks, and this has risen slowly through the late 1990s.

Influence of Deprivation

The impact of deprivation on breastfeeding is apparent. In the highest socio-economic group, (deprivation category one areas), 70% of mothers are breastfeeding at 10 days compared with 20% in the lowest group, (deprivation category 7 areas.) Over the last five years there have been improvements in breast feeding rates across the deprivation categories with a 4% improvement being seen in the most deprived compared with a 2% increase in the least deprived. However the current rates in the most deprived areas are only 22%, which is still less than one third the rates in the least deprived areas.

Target

To encourage breastfeeding and address inequalities, targets have been set and breastfeeding strategies have been developed. Scotland has a national target of 50% of mothers breastfeeding at six weeks by the year 2005.

To work towards this target breastfeeding strategies have now been developed in twelve out of the fifteen Health Boards in Scotland. These strategies focus primarily on the 1994 Campbell and Jones' Recommendations for Health Boards: *Breastfeeding in Scotland,* which include:

- setting and surveying local breastfeeding rates;
- implementing the joint WHO/UNICEF Baby Friendly Initiative in hospitals which are evidence based good practice standards; and
- providing community support, both group and peer support, for breastfeeding.

Glasgow Breastfeeding Strategy

Glasgow's breastfeeding strategy has received praise from UNICEF for the coverage of its targets and has been held up as an example for other health boards. Key elements of the Glasgow strategy are:

- *Local Target* – Glasgow, recognising its socio-economic mix, has set a local target of 40% of mothers breastfeeding at six weeks. Breastfeeding rates in Glasgow for 1999 show, 31% breastfeeding at 6 weeks (**Table 4.1**).
- *Monitoring* – Information on breastfeeding from the Child Health Surveillance Programme (CHSP) is collated and disseminated.

- *Audit* – An audit of infant feeding was carried out in 1999 in Glasgow's Maternity units against the Baby Friendly Initiatives standards. The results showed that in a number of areas Glasgow was successfully promoting breastfeeding. But, there was considerable room for improvement.
- *Peer and Group Support* – Peer support schemes have been set up in seven areas where there is little breastfeeding and new mothers may lack friends or family with experience of breastfeeding. Support is offered in both the antenatal and postnatal periods.
- *Evaluation* – There has been a positive response to these schemes by mothers and health visitors. An evaluation of the scheme, published in 2000, showed that the project had some impact on the breastfeeding intention and behaviour. However this was not maintained when measured 6 weeks post-natally. (**Table 4.1**) It concluded that more work is needed to develop the peer support approach.
- *Training of Health Professionals* – Training health professionals in hospitals, the community, and primary care is important. The aim is to ensure that all health professionals are equipped to give:
  - consistent advice on benefits of breastfeeding;
  - skilled advice on breastfeeding techniques;
  - are able to manage simple breastfeeding problems; and
  - refer women for specialist advice as appropriate.

Table 4.1 Young People: Breastfeeding rates in Glasgow

Breastfeeding status	1995	1997	1999	Target for 2005
Intention to breastfeed at maternity booking	No information	48%	54%	60%
Breastfeeding at 7 days	32%	35%	39%	45%
Breastfeeding at 6 weeks	No information	30%	31%	40%

Starting Well Demonstration Project

The 1999 White Paper, "*Towards a Healthier Scotland*" proposed 4 health demonstration projects which commenced implementation in 2000. One of these, "*Starting Well*" aims to demonstrate that child health can be improved by a programme of activities which both supports families and provides them with access to enhanced community-based resources.

Starting Well

Glasgow Healthy City Partnership is leading this demonstration project with partner organisations representing a range of statutory, voluntary and academic interests. The Project is concentrated in two socio-economically deprived areas of Glasgow where there is evidence of both child health and parent support needs:

- **The breastfeeding rates are low in both areas, with a rate of only 14% in one of them.**
- **One quarter of all babies in one of the areas are born to ethnic minority families (Table 4.2).**

The Project has two essential components:

- **intensive home-based support provided by both Health Visitors and lay support workers for families with new babies in the target areas;**
- **the provision of a strengthened network of community-based support services for children and their parents.**

Teams of Health Visitors and lay workers are being integrated within existing Primary Care Teams and there are opportunities for family contact beginning in the early ante-natal period.

Intensive development on the Project commenced in August 2000, following the recruitment and employment of the Project Manager and Health Visitor Co-ordinators. A parenting training module, called the Positive Parenting Programme ("Triple P"), was selected which has been extensively evaluated in Australia and found suitable for a range of cultural groups. In addition, practice protocols for a variety of subject areas (Dental Health, Nutrition, Peri-Natal Mental Health) have been developed. Recruitment of 1800 families to the Project commenced in early December 2000.

Commencing in April 2001 the project will be evaluated both externally, by the Public Health Department, University of Glasgow, and internally by the Project Team using both qualitative and quantitative methodologies. Evaluation of the Project will include detecting changes at the level of the child, the family and the community over the life of the Project between target and comparison groups.

Table 4.2 Young People: Routine statistics (1998) for Starting Well areas

Indicator	Starting Well Areas		GGHB
	Area 1: South	Area 2: East	
Population profile • Total population • Age 0-4 years • Women 16-44 years	 31,155 1,927 6,508	 32,880 2,714 7,586	 894,332 57,757 192,803
0-4 year olds living in one-parent households	616 (32%)	1,173 (43%)	14,245 (25%)
Ethnic minority births % • Indian/Pakistani • Chinese/West Indian/other	 18.4 4.3	 0.3 0.9	 5.7 2.4
Infant mortality rate (Per 1000 live births)	9.9	8.4	6.3
Low birth weight (% of total births)	12.2	7.9	8.4
Teenage births (mothers age <20)	10.5	14.1	9.2
Mothers smoking %	34.7	39.4	26.9
Fathers smoking %	43.5	45.3	34.0

Nutrition in Children

As children become older, a well-balanced diet is important for both current and future health The Scottish diet is unhealthy being high in fat, salt and sugar, and low in fruit and vegetables. *The Scottish Health Survey* (published late in 2000 and relating to data collected in 1998) describes the lifestyle of young Scots, especially with regard to risk factors for cardiovascular disease. Just over half the boys in Scotland and slightly more girls (62%) have at least one portion of fresh fruit daily, and around 3 children in 10 eat at least one portion of cooked green vegetables five times or more in a week. However, consumption is still at relatively low levels, and patterns are less healthy in older children and those in areas of greater deprivation. Most children in Scotland eat chocolates, crisps or biscuits every day, and 4 in 10 eat these foods more than once a day.

Links with Deprivation

Clear differences are seen with deprivation. While 66% of boys and 72% of girls in Social Class I eat fresh fruit daily, only 38% of boys and 43% of girls in Social Class V do so. Similarly, for eating cooked green vegetables 5 times per week or more, the percentages are 42% and 47% for boys and girls in Social Class I, but only 13% and 23% for boys and girls in Social Class V.

Physical Activity and Obesity

Levels of physical activity have changed little, and are particularly low in girls, whose lifestyles become more sedentary as they grow older.

The net effect of poor diet and an even sharper decline in overall physical activity, is causing worrying increases in levels of obesity. Nearly 8% of boys and 7% of girls are now classed as obese. There is no social class difference. Twenty-one per cent of men and 22% of women are obese and many Scots adults are overweight.

Low levels of physical activity and rising levels of overweight and obesity, will lead to increased levels of cardiovascular disease, cancers, diabetes and osteoarthritis in future.

The Scottish Executive is committed to action which accelerates the implementation of the Scottish Diet Action Plan a National Diet Coordinator is to be appointed in 2001. The Scottish Executive is also committed to forming a National Physical Activity Task Force. Sustained and co-ordinated action which engages the entire population and changes popular culture to embrace a healthy and nutritious diet, and a more active lifestyle among young people is an urgent task.

Smoking

Around 12% of Scottish schoolchildren aged 12 to 15 smoke, and this figure has not shown any significant decline over the last ten years. This is of concern because many adult smokers become addicted in their teenage years.

Target

The target for Scotland is to reduce the percentage of school children aged 12 to 15 who smoke to 11% by 2010.

The *Scottish Health Survey* (2000) provides information on those who have ever smoked. Around 1 in 5 children aged 8-15 claimed to have never smoked a cigarette. Over 8 out of 10 children aged 8-15 had some exposure to cigarette smoke, most commonly in a home including, for 4 children in 10, their own home. Among those aged 15, 38% of boys and 48% of girls reported that they had ever smoked.

Information on adolescent smoking and parental socio-economic status is available from data collected in 1998 from the Scottish part of an international study *Control of Adolescent Smoking* published early in 2001.

Influence of Deprivation

Adolescents from lower socio-economic backgrounds are more likely to be daily smokers. While 18% of young people with parents in Social Class I/II were daily smokers, 30.6% of those with unemployed parents were daily smokers.

The proportion of girls who have ever smoked is rising at a worrying pace. Without a decisive reversal of this trend, we can predict high levels of heart disease and lung cancer in women in the third and fourth decades of the 21st century in Scotland. As shown in Chapter 3, lung cancer is already the most common cause of cancer death in women in Scotland.

Cigarette smoking remains the single greatest cause of cancer and heart disease in Scotland. Tackling smoking means action at many levels to lessen the attractions of the habit, to modify the peer pressure and family factors and to encourage people to quit an addictive substance. The country's ambitions must extend to environments free of cigarette smoke for those who do not wish to inhale, and every opportunity for young people to choose a non-smoking lifestyle. Further details on action on smoking are in Chapter 6.

Alcohol

The Scottish Health Survey provides information on alcohol consumption in children aged 8-15.

- The proportion of children who claimed to have had a whole alcoholic drink increased from 12% of boys and 6% of girls at aged 8, to 67% of boys and 68% of girls at age 15.
- Among ages 13-15, 12% of boys and 9% of girls reported drinking alcohol in the past week. The proportion saying this increased with age: for boys from 8% at aged 13, to 9% at age 14, and to 17% at age 15; for girls the figures were 5%, 8% and 14% respectively.

Action to tackle alcohol misuse is described in Chapter 6.

Drug Misuse

A survey of pupils aged 12-15 was carried out by the National Centre for Social Research and the National Foundation for Educational Research in the autumn of 2000 covering more than 4,700 pupils in 150 schools in Scotland. It focused on smoking, drinking and drug misuse. The study, commissioned by the Scottish Executive and the Department of Health will be published in autumn 2001.

However key preliminary findings were available earlier in 2001:

- 17-18% of 12-15 year olds had taken drugs at some time;
- 14-15% of 12-15 year olds had taken drugs in the last year;
- 10% of 12-15 year olds had taken drugs in the last month.

There was marked variation in relation to age. Only 1% of 12 year olds had used drugs in the last month, but 22% of 15 year olds had done so.

Many more pupils had been offered drugs than had tried them. 39% had been offered one or more drugs with boys more likely to have been offered them than girls (41% compared with 36%).

A major national initiative on substance misuse is described in Chapter 6.

Teenage pregnancy

Rates of teenage pregnancies in girls aged 13 to 15 are higher in Scotland than in most other Western European countries. The rates rose from around 6 per 1,000 girls aged 13 to 15 in the early 1980s to 8.8 per 1,000 girls in 1991 but have been fairly static since then. The rate in 1998 was 8.9 per 1,000 girls.

Influence of Deprivation

There is a marked Social Class gradient not only in respect to high rates in more deprived social groups, but also with respect to high rates of pregnancy which go to term.

Target

The current target is to reduce the rates of teenage pregnancies in girls aged 13-15 by 20% between 1995 and 2010.

The Scottish Executive is embarking on a number of initiatives to meet this target. These policy initiatives have not been without controversy. Evidence shows that a society which is open about facts, beliefs and attitudes towards sex and sexuality and supports young people in making informed choices, about their general and sexual health is a society which engenders positive personal and sexual relationships and delays the age of first intercourse.

A co-ordinated programme to reduce the rate of teenage pregnancy must have young people at its centre. Several examples of good services exist around the country, addressing both general and sexual advice.

Health Services for Young People

"*Healthy Respect*", the second Health Demonstration Project aims to foster responsible behaviour in Scotland's young people with emphasis on the avoiding of unwanted teenage pregnancy and sexually transmitted diseases. It is described further in Chapter 6 and in the report from Lothian. Another local initiative for young people "*The Corner*" is described in the report from Tayside.

GGHB Youth Team

One of the research projects commissioned as part of the "Walk the Talk" initiative for young people, was undertaken by the Youth Team of GGHB's Health Promotion Department. Over the past 2 years the team has been working to improve young people's access to and experience of health services.

GGHB Youth Team

Access to health-related services is an important factor contributing to the health and well being of young people. However, young people's experiences are not always positive. Barriers to accessing services can include:

- **a perceived lack of confidentiality and anonymity,**
- **attitudes and communication skills of the staff,**
- **practical aspects of service delivery and the client/staff relationship.**

The Youth Team has been working with one of the LHCCs in Glasgow on a consultation and participation project to improve uptake of services by young people within their LHCC. Young people put forward their own suggestions for tackling the problems identified by young people during the consultation process, which include trust and confidentiality issues, communication problems, accessibility to services and staff attitudes to young people. These suggestions have been used to develop recommendations and action plans for the LHCC. These include producing posters and leaflets on young people rights and confidentiality and helping staff understand the needs of and communicate better with young people.

Users of child and adolescent psychiatric services have also been consulted about their views on access to mental health services. Most users felt that their local health centre would be the most preferable venue for mental health services as some existing venues (e.g. mental health resource centres) were heavily stigmatised. The general opinion was that the attitudes of staff towards young people were good, but some examples were given showing that staff had poor communication skills and had no grasp of the needs of young people.

Mental Health Needs of Looked After Children

"Looked after" is the term used to describe all children in public care, including those in foster and residential care and those still with their own parents but subject to care orders. Although relatively small in number, these children are among the most vulnerable in our society. As documented in Chapter 3, looked after children have a higher level of health needs, than other children at the same age including physical health, mental health and health promotion needs. They are also less likely to receive adequate health care and may have poor uptake of preventative health care. The inverse care law applies to looked after children and young people – their health needs are greater but their access to appropriate health care is poor.

There is a need for early psychological intervention in this group as one half of looked after children aged between 5 and 12 have severe emotional and behavioural problems. (**Table 4.3**) Over half of all older looked after children aged 13-18 years and young people rated themselves as experiencing severe psychological difficulties (**Table 4.3**).

Table 4.3 Young People: Mental health disorders in looked after children

Age	Significant level of mental health disorder
0 – 4 year olds	30%
5 – 12 year olds	53%
13 -18 year olds	61%

Recognising these facts, 3 projects were initiated in Glasgow to address the needs of looked after children and are being funded from Mental Health Development money.

Project 1

The first project provides an individual psychological assessment for each child aged between 5 and 12 entering care in conjunction with the Child Health Medical. Common problems identified include poor self-esteem, confused relationships and poor understanding of relationships. The project provides for psychological follow-up advice to be given.

Project 2

The second project, which commenced in 2000, is a pilot mental health service for children who are looked after and accommodated by the local authority in East Glasgow. These children's problems reflect past experiences of neglect, abuse and trauma. Such children are placed all over Glasgow and the West of Scotland and further afield. The project follows them, so that there is continuity of mental health input.

The Project has taken on over 40 cases since it began in August 2000 and the project is currently being evaluated. There has been a positive response from service users so far.

Project 3

The third project involves looked after children in residential care in East Dumbartonshire. Psychology and psychotherapy input was offered as well as support to the residential care staff.

The Glasgow Social Inclusion Partnership (SIP) for care-leavers known as "*The Big Step*", has been working on a number of issues over the year 2000. These include:

- health research;
- mental health training;
- mentoring and social support;
- self-harm;
- health development; and
- a pilot nursing service.

A recent example of a health development programme is focused on food and nutrition.

"Get Cooking", an existing evaluated programme will be provided in residential units. This programme has two aims:

- **to allow young people to develop practical food preparation skills;**
- **to raise awareness of food and nutrition issues within residential establishments.**

The Partnership has also actively contributed to local and national health policy, planning and strategy where it relates to looked-after young people and those leaving care in relation to children's services planning, mental health, drugs and alcohol and sexual health.

Part 2: Health of older people

Growing numbers of older people: a challenge for Society

Demographic changes in the population of Scotland are resulting in an increasing number of older people. The number of people aged 65 and over has more than trebled during the past century, and the upward trend is expected to continue for much of the next 30 years. Population estimates show that there are now approximately 787,000 people aged 65 and over living in Scotland. Forty per cent of these are men and 60% are women.

The population of Scots aged 65 and over is projected to rise from around 767,000 at the 1991 census to a possible 933,000 by 2016 which would represent an increase of more than 21% (**Table 4.4**). Similarly the proportion of the total Scottish population aged 65 and over is projected to rise from 15.3% to 18.4% over this period. Dramatic increases in the numbers of over-80s and over-90s will also be seen.

These demographic changes constitute a triumph for society but also present a challenge. Health and social services, voluntary services, and family carers all share in a very significant achievement but the new challenges thus produced demand a truly strategic approach if both social justice and a worthwhile quality of life are to be achieved.

Table 4.4 Population of Scotland aged 65 years or over

Year	Source	Numbers	% of total pop
1901	Census	216,457	4.8
1991	Census	767,147	15.3
1999	Estimate	787,064	15.3
2016	Projection	933,259	18.4

The population of older Scots is rising steadily but their health is not improving in proportion. As people get older the incidence and prevalence of ill health increases. Life expectancy overall has increased by nearly 30 years over the past century, but life expectancy at age 65 has increased by only 4 years and the healthy lifespan has increased by only 2 years over the same period. Despite medical and social advances, an average life expectancy in men of nearly 73 years will include an average of 8 years in poor health. For women an average life expectancy of approximately 78 years will include an average of 11 years in poor health. This poses a real challenge for society as a whole and NHS Scotland in particular.

The year 2000 is likely to be seen as a watershed in the care of older people throughout Scotland. A wide range of initiatives relating to health care and social care is in place. The issue of free personal care has been debated within the Scottish Parliament following the Scottish Executive's response to the Royal Commission on Long Term Care of the Elderly (the Sutherland Report). Perhaps most encouragingly of all, cross sectoral agreement has emerged on important aspects of joint working to improve the health and wellbeing, as well as the health care and social care, of older people.

The five strategic priorities for NHSScotland in 2000 remain as articulated in the 1998 Priorities and Planning Guidance, namely:

- improving health;
- developing primary health care;
- promoting care in the community;
- reshaping hospital services; and
- tackling inequalities in health.

These strategic priorities retain undeniable, and arguably quite specific, relevance for older people as we look back at the lessons of the past century and strive to apply these to the demographic realities of the next.

Improving Health: Health Promotion and Preventative Medicine

In Scotland, as elsewhere, the proportion of the health and social services budgets spent on care or treatment of older people continues to rise and is now over 40% in both cases. As the costs of healthcare in general continue to escalate, prevention of age-related disease must be accorded a higher priority than at present although the necessary research base remains underdeveloped. The best preparation for a healthy old age is still a healthy middle age. However the adoption of good health habits late in life has been shown to be associated not only with an increase in lifespan, but also in "*healthspan*".

Factors related to lifestyle which influence the rate at which functional capacity reduces include:

- smoking,
- diet,
- alcohol consumption and
- level of physical activity.

A healthy lifestyle, with regular physical activity, avoiding smoking and a healthy diet, is important throughout life. The Scottish Health Survey suggests that smoking rates are substantially lower in those aged 65 to 74 years, compared with younger age groups. Eating fresh fruit and vegetables is also higher in those aged 65 to 74 years. However, inactivity is increasingly common as people get older. Half of women aged 64 to 75 undertake no moderate activity, and just under half of men in this age group are also inactive. The current recommended activity level for adults is at least 30 minutes of moderate activity on 5 or more days per week. Only 14% of men and 8% of women aged 65 to 74 in Scotland achieve this.

Smoking cessation and relatively small increases in the level of physical activity, reduce the risk of developing coronary heart disease in later life. There is substantial evidence that lost fitness can be regained with regular physical activity, even in extreme old age. It is becoming more widely accepted that healthy lifestyles can compress the period during which morbidity significantly compromises the quality of an older person's life immediately prior to death. Given that 72% of the cost of lifetime care is incurred in the last 10 years of life, even small amounts of investment in this area are likely to be of substantial benefit both to individuals and to society.

Vascular disease accounts for a large proportion of disability and half of all deaths in later life. The prevalence of cardiovascular disorder is similar in men (23.6%) and women (23.5%) and increases with age in both sexes. The prevalence of ischaemic heart disease (IHD) increases steeply with age, from 7.2% overall to 31.0% at 65-74 in men and from 5.3% to 20.9% in women. Neither shows significant regional variation within Scotland but both demonstrate a clear gradient with increasing deprivation. There is good evidence supporting the effectiveness of targeting modifiable risk factors such as hypertension and inactivity in old age. A reduction in blood pressure of 6mmHg, for example, reduces the risk of the risk of heart attack by 15% and the risk of stroke by 40%.

Prevention of stroke

Nearly 20,000 people living in Scotland today have been disabled by a stroke. Of these 80% were aged over 65 at the time it happened. The risk is greatest in older people and stroke has become

the main cause of neurological disability in our population. The loss of function and independence can be sudden and devastating, to the affected individual and also to their family and friends. The risk of a further stroke is very real and a sense of social isolation can develop. The risk factors are known and increasing emphasis is being placed on prevention and health promotion. Preventative measures include campaigns against cigarette smoking and alcohol abuse, effective screening and treatment of high blood pressure and encouragement towards a better diet and more exercise.

There are some grounds for optimism. The incidence of stroke in our community is declining. A number of local initiatives are under way to help reduce the unevenness of provision of acute stoke units. The importance of involving patients and carers in this process is now recognised.

Nutrition

Nutrition has a vital role in maintaining health and improving the quality of life in older people. In contrast, undernutrition is associated with increased morbidity and mortality in older people. The National Nutritional Audit of Elderly Individuals in Long-term Care was conducted from April 1997 to March 2000 and funded by the Clinical Resource and Audit Group (CRAG). Despite a number of improvements, it confirmed a disappointing level of overall progress and emphasised a need for continuing commitment to, plus prioritisation of, nutritional care. Health boards, acute hospital and primary care trusts, local authorities and the private sector were issued with a list of recommendations, including attention to both direct staffing levels and the adequacy of dietetic and other PAMs (Professions Allied to Medicine) support. The Chief Nursing Officer personally chaired several CRAG-funded meetings during the summer and autumn of 2000 to disseminate the findings of this project and other related SEHD initiatives.

Health Care Needs of Older People

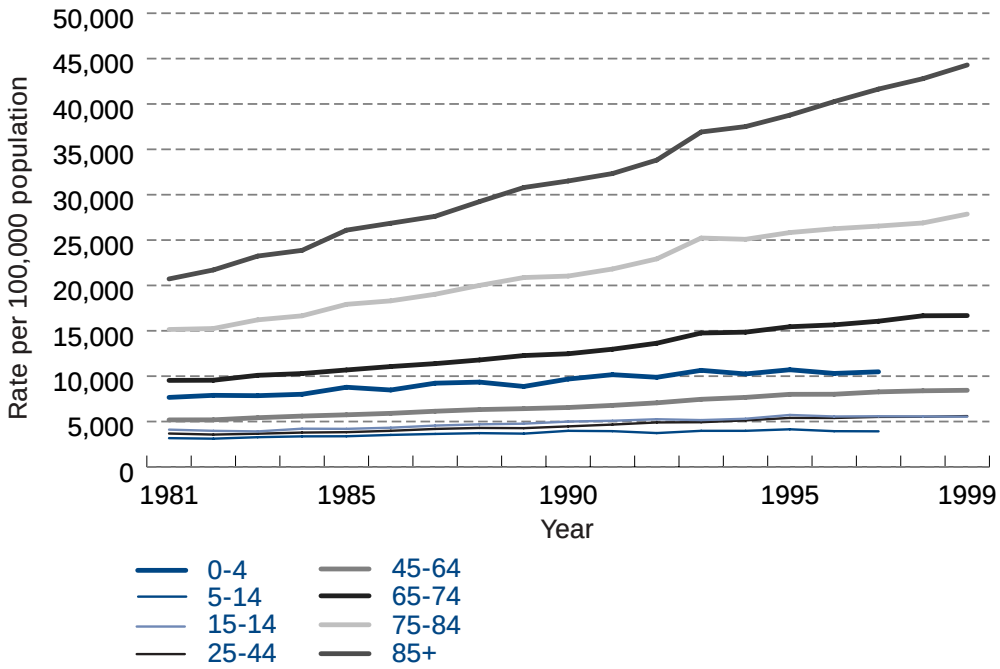
In adults, general practice consultation rates rise with age, reaching rates of around 4,500 per 1,000 population each year in those aged over 65. The commonest reasons for consultation are high blood pressure, heart failure, upper respiratory tract infections, chronic obstructive pulmonary disease and osteoarthritis.

The modified General Household Survey continues to confirm that those aged 75 and over are most likely to need a home visit from their GP. Two-thirds of those in that age group have a long-standing illness, disability or infirmity and in half this limits their activity.

The over-75s remain at a higher risk of accidental death and injury even than children, with falls accounting for the majority of accidental deaths. This is of particular relevance in Scotland where the number of accidental deaths among the over-65s is higher than in England. Falls in older people are a major area of concern. Between 1982 and 1998 the annual number of hip fractures in people aged 55 and over rose by 1,700 to just over 4,000 cases. Most of the increase was in women aged 80 and over.

In Scotland the number of emergency admissions, especially to medical specialties has been rising over the last 20 years. The increase is particularly rapid among older people (**Figure 4.1**). For those aged over 65, between the time period 1985/89 and 1995/99 there has been a doubling in the proportion of the population admitted as an emergency four or more times in a five year period. One in ten of the population aged 85 and over is being admitted as an emergency four times or more in a five year period.

Figure 4.1: Emergency admission rates by age group, Scotland 1981-1999



NHSScotland now performs approximately 17,000 cataract operations, 3,300 total hip replacements and 2,300 knee replacements on people aged 65 and over each year.

Primary Care of Older People

Approximately 22% of NHS resources are used to meet the needs of the 7% of the Scottish population aged over 75. There is much debate about the best way of identifying those who may be in need of care. The current 75+ screening assessment has many sceptics and is variable in its application. A Medical Research Council (MRC) study is currently evaluating a range of possible alternatives. Meantime the CNO has reviewed nursing care for frail older people. This exercise has been helpful in defining the appropriate response for those with relatively high needs, both in the community and in nursing or residential homes.

Local Health Care Co-operatives (LHCCs) have much to offer the care of older people in terms of better mapping of needs, co-ordinated local approaches and a meaningful focus in reducing inequalities of access to services. LHCC responses to a questionnaire on health screening for older people confirmed the divergence of views regarding its value and highlighted the lack of data collation for planning and prioritisation purposes. The report affirmed the value of discussing conclusions with the patient. It also identified potential initiatives to strengthen strategic thinking about older people, built up from individual perspectives, with particular attention to the interaction between health and social care needs. However, despite progress on locality – based needs assessment, most LHCCs feel further progress is needed before they become local public health organisations.

Mental Health/Community Care

The year 2000 saw a number of important initiatives:

- Alzheimer's Scotland – Action on Dementia published an important strategic document "*Planning Signposts for Dementia Care Services*";
- The Scottish Executive Health Department (SEHD) made a substantial contribution to help secure the future of the planned Iris Murdoch Building to re-house the internationally renowned Dementia Services Development Centre (DSDC) at the University of Stirling;
- The UK National Institute of Clinical Excellence (NICE) backed by the Health Technology Board for Scotland (HTBS) took a wide range of submissions in preparation for their guidance on the use of anticholinesterases in Alzheimer's disease;
- Scotland's first senior lecturer in clinical old age psychiatry was appointed in the Dundee University Department of Psychiatry;

The Adults with Incapacity (Scotland) Act 2000 heralds legislation with a very broad potential impact, for those with dementia and their immediate carers.

Working in Partnerships in support of care for older people: Reshaping Hospital Services

The crucial importance of joint working involving health, housing and social work is seen most clearly in the vexed issue of delayed hospital discharge, a tragedy for both the individual patient and for the service, and something which has a disproportionate effect on older people. From April 2000, ISD set up a reporting system on this for all health boards as a mandatory process and using agreed definitions. The first quarterly census in June 2000 confirmed that the position varied across the country but extended well beyond the winter months. In July 2000, the Minister for Health and Community Care set up a short-life working group to develop a learning network for delayed discharges. This called for an effective framework for managing older people's health and social care needs.

Tackling inequalities

Links with deprivation

Inequalities in health are often less evident in older people. There is, however, a clear relationship between coronary heart disease and deprivation for those aged 65 to 74 years, although it is not quite as marked as at the younger ages. The annual mortality risk in those living in the most deprived areas of Scotland is slightly less than twice that of those in the least deprived areas. There has been no evidence of a reduction in this variation over the last ten years. Rates in the least deprived have fallen by 39%, but in the most deprived the reduction has been only 31%.

Planning for the Future

The successful "*Coming of Age*" conference in Glasgow in November 2000 was supported by the SEHD and allowed the Scottish branch of the British Geriatrics Society (BGS) to explore strategies for specialist health care of frail older people with an appropriately diverse audience of practitioners, managers, commissioners and policy-makers. Presentations on key topics such as equity and access combined with those on specific aspects of service delivery such as acute medical admissions and effective rehabilitation against a background theme of enabling older people to remain at home. The ensuing multi-agency and multidisciplinary discussion demonstrated a will to embrace best practice but also an increasing recognition of the need to prioritise exactly what is being asked of a relatively small specialty and what would require changes in the organisation of more generic primary, secondary and social care services.

Subsequently, *Our National Health: A Plan for Action, A Plan for Change* accorded a greatly enhanced priority to the health care needs of older people. The existing Scottish health priorities of cardiovascular disease, cancer and stroke have, of course, always been of relevance to older people and the age ranges of the target populations have been progressively revised upwards. The Chief Medical Officer (CMO) was charged with setting up an expert group to look into health care issues relating to older people, not least the perception of ageism. Among a range of organisations working on national care standards for older people, the emerging National Commission for the Regulation of Care will be able to cooperate fully with the newly-established Clinical Standards Board for Scotland and the more long-standing Scottish Health Advisory Service in ensuring that, for those who are due to enter a single category care home following the best efforts of proper care in the community, this too is a positive experience.

Planning for healthy ageing

Properly planned and financed retirement can be a time of both leisure and constructive endeavour. Older people have much to offer, not least to their grandchildren and in activities such as volunteering. The University of the Third Age exemplifies life-long learning and role models are easy to find in respect of work, sport and exercise and contribution to the community via churches and secular societies. It is not age as such, but associated disadvantages and societal attitudes to ageing, which create the basis for negative stereotypes. Older people themselves should be seen as one of this country's most valued and valuable resources. Active ageing can lend itself to addressing illness prevention and enhanced quality of life.

Chapter Five

Communicable Diseases and Environmental Health

- Communicable Diseases: Successes and Challenges
- Environmental Health

Part 1: Communicable Diseases: Successes and Challenges

Primary Childhood Immunisation

As Chapter One shows, immunisation has been one of the great successes of the last century. At the start of the 20th century vaccination provided protection against smallpox only. Improvements in the provision of clean water, adequate nutrition and better living conditions were the only means to control infectious diseases and lower mortality rates in the earlier part of the 20th century.

By the start of the 21st century immunisation had led to the complete eradication of smallpox worldwide and offers protection against many previously feared and frequently fatal infectious diseases. (**Figures 5.1 and 5.2**)

Figure 5.1: Measles deaths, notifications and vaccine update, Scotland 1920-1999

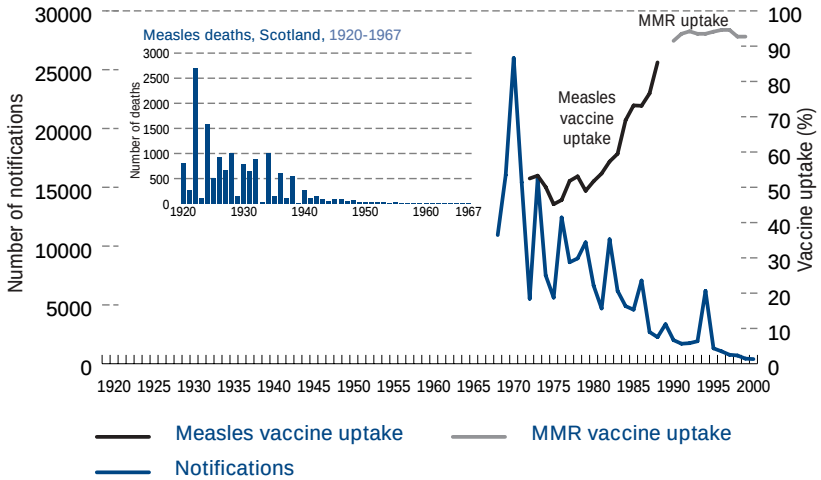
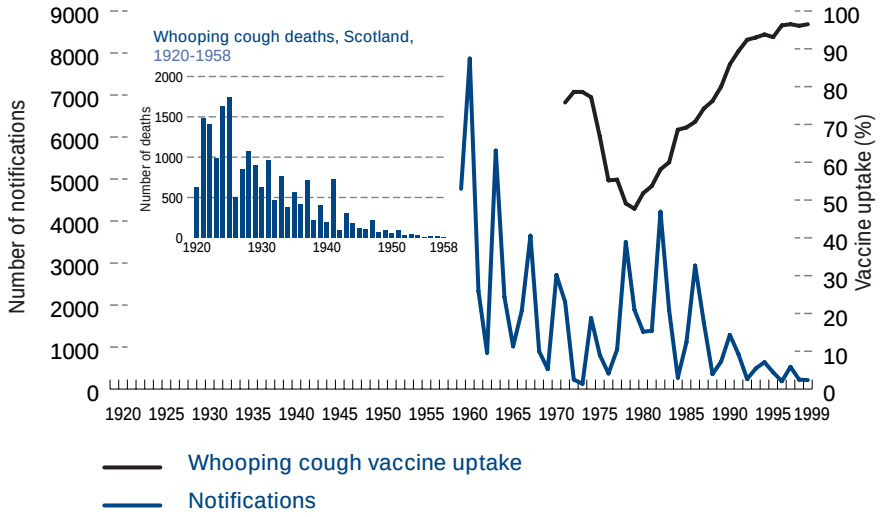


Figure 5.2: Whooping cough deaths, notifications and vaccine uptake, Scotland 1920-1999



The routine childhood immunisation schedule now provides protection against: diphtheria (introduced 1940s), pertussis (1950s), tetanus (universally 1960s), (now given as DTP); BCG introduced for general use in 1953; polio (inactivated polio vaccine, 1956; oral attenuated live vaccine, 1962); measles (1968), rubella (school girls, 1970), mumps, measles and rubella combined (as MMR) 1988); *Haemophilus influenzae* type b (1992); and the recently introduced meningococcal serogroup C (1999). However, continued control of these diseases can only be achieved by maintaining the high levels of vaccine uptake, evident in Scotland at the start of the 21st century.

Primary immunisation rates in Scotland in the year 2000 remain generally high (**Figure 5.3**) and continue to compare favourably with those for England, Wales and Northern Ireland (**Table 5.1**).

Figure 5.3: Vaccine uptake at age 24 months, Scotland, by quotes 1995-2000

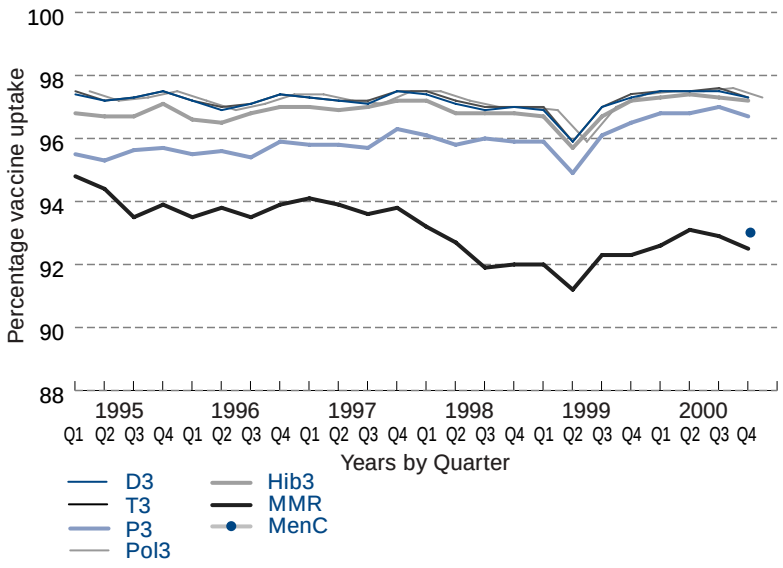


Table 5.1: Primary immunisation uptake rates, United Kingdom, 2000*

		% coverage at 24 months				
	Diphtheria 3	Tetanus 3	Pertussis 3	Polio 3	Hib 3	MMR
Scotland	**97.5**	**97.5**	**96.8**	**97.5**	**97.3**	**92.8**
England	94.6	94.6	93.7	94.6	94.2	87.6
Wales	96.1	96.2	94.1	96.2	95.9	87.2
Northern Ireland	96.6	96.6	95.6	96.5	96.7	91.9
United Kingdom	**95.0**	**95.0**	**94.1**	**95.0**	**94.6**	**88.2**

* Annual rates have been prepared by amalgamation of quarterly data.

An increased time interval for data collection accounts for the slightly higher confirmed uptake rates quoted for Scotland in Table 5.2.

Rates between health boards vary, but rates for areas with smaller population cohorts are more sensitive to small changes in uptake (**Table 5.2**).

Table 5.2: Primary immunisation uptake rates, by Health Board area, Scotland, 2000

		% coverage at 24 months					
	Number in cohort	Diphtheria 3	Tetanus 3	Pertussis 3	Polio 3	Hib 3	MMR
Argyll & Clyde	4653	97.6	97.6	97.0	97.6	97.8	92.7
Ayrshire & Arran	4094	97.9	97.9	97.6	97.8	97.9	93.7
Borders	1081	97.8	98.0	96.8	97.8	97.4	93.2
Dumfries & Galloway	1547	99.0	99.0	98.3	99.2	98.9	96.1
Fife	3909	97.6	97.,6	96.8	97.6	97.3	92.7
Forth Valley	3208	98.1	98.1	97.5	98.1	98.0	95.2
Grampian	5784	97.6	97.6	97.3	97.5	96.4	93.8
Greater Glasgow	9704	96.9	96.9	96.2	96.9	96.9	92.7
Highland	2468	93.2	93.2	92.3	92.2	93.2	86.2
Lanarkshire	6593	98.6	98.6	97.9	98.6	98.6	93.8
Lothian	8611	98.2	98.3	97.6	98.3	98.2	94.1
Orkney	198	99.5	99.5	99.5	99.0	99.5	97.0
Shetland	259	98.8	98.8	98.1	98.5	97.7	91.1
Tayside	4134	98.3	98.3	97.4	98.3	98.2	93.5
Western Isles	307	94.5	94.5	94.5	94.1	93.5	88.6
Scotland	**56,550**	**97.6**	**97.7**	**97.0**	**97.6**	**97.5**	**93.2**

Meningococcal C Vaccination Programme

The introduction of the new Meningococcal serogroup C conjugate (Men C) vaccine into the routine childhood immunisation programme, and the 'catch up' programme to offer the Men C vaccine to all young people in Scotland aged under 18 has been a major achievement.

- *Aim*
  The new vaccine was introduced into the UK in November 1999 with the aim of immunising all children and young adults under the age of 18 years before the end of 2000.

- *Results*
  This "catch up" campaign was successfully completed in the year 2000 with gratifyingly high vaccine uptake through both the schools-based and primary care programmes. Vaccine uptake figures show that 91% of pre-school children and 88% of school children under 18 received the vaccine. A "mop up" campaign was launched at the end of 2000 to ensure the Men C vaccine was offered to any of those eligible who had missed out.

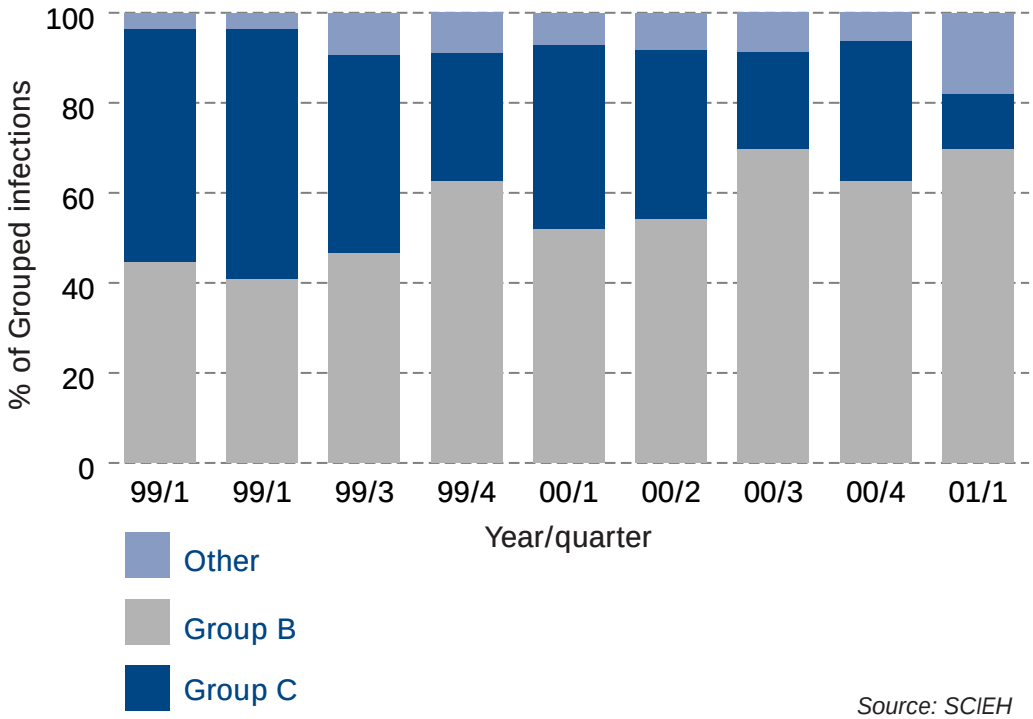
  Infants will continue to be protected through the three doses of Men C vaccine recommended in the UK childhood immunisation schedule at two, three and four months. The first routine primary immunisation uptake rates showing figures for Men C vaccine were published for the fourth quarter of 2000. These show coverage of 93.9% for children aged 12 months and 92.9% for children aged 24 months.

- *Surveillance*
  To measure the impact of the Men C vaccine on the epidemiology of all types of meningococcal disease, an enhanced surveillance scheme was developed by SCIEH in collaboration with the Scottish Meningococcal and Pneumococcal Reference Laboratory (Meningococcal Invasive Disease Augmented Surveillance, MIDAS). This new surveillance scheme has principally involved follow-up of all known cases to maximise diagnostic information and to collect data on clinical features, outcomes and vaccination status. MIDAS, implemented in mid-1999, was built on a foundation of existing extensive surveillance activity.

- *Impact*
  The MIDAS surveillance scheme has already shown a steep decline in the absolute number and proportion of meningococcal cases and deaths due to Group C infection in the target age group. [see **Figure 5.4** over] In addition, there were no confirmed vaccine failures in 1999 or 2000, indicating the potential for elimination of Group C disease in the under-18 age group.

- *The Future*
  There are several promising candidate vaccines for Group B infection under development. Given the necessity of continued monitoring of the epidemiology of Group C and rarer types of meningococcal infection, MIDAS data will remain pivotal in strategic planning and monitoring for this highly feared disease.

Figure 5.4: Percentage of typed meningococcal infections by group, by quarter for 1999-2000



Source: SCIEH

Measles, Mumps and Rubella

In Scotland uptake of measles, mumps, and rubella (MMR) vaccine at 24 months increased to 93.2% in 2000, compared to 92.7% for the calendar year 1999. The uptake rate for a second dose of MMR by age six was 90.0% in 2000. However, MMR vaccine uptake rates for the third and fourth quarters of 2000 were slightly lower than for the second quarter of 2000 probably reflecting media speculation about safety of MMR. There therefore remains no scope for complacency, as high uptake levels must be maintained to prevent disease transmission.

In spite of the recent speculation on the safety of MMR, the overall body of scientific evidence to date is that this vaccine has an excellent safety record. No credible evidence has been produced to support the hypothesis that there is a link between MMR and autism or inflammatory bowel disease. The data show that the high uptake of this vaccine, first introduced in 1988, has resulted in a substantial decrease in these three serious infections. (**Figure 5.5**). The whooping cough (pertussis) scare of the 1970s has already been discussed in Chapter 1. SCIEH estimate that for the period 1977-1991, 100,000 cases may have occurred in Scottish children with up to an estimated 75 deaths. This is an important lesson from the past about the consequences of a fall in vaccine coverage.

Figure 5.5: Graph 1 – Measles notifications and measles vaccine and MMR vaccine uptake, Scotland 1968-2000

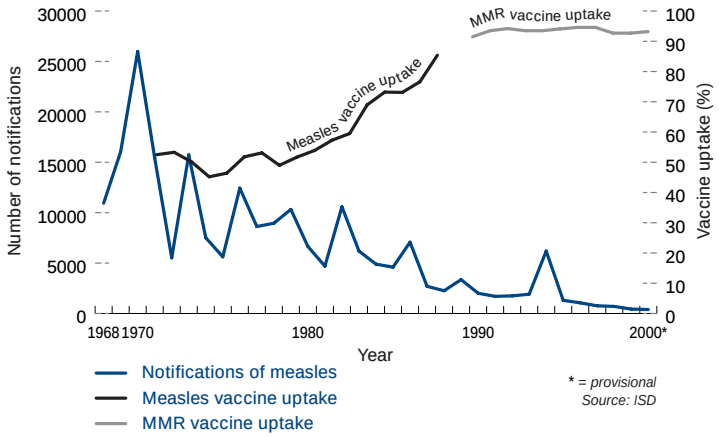


Figure 5.5: Graph 2 – Mumps notifications and MMR vaccine uptake, Scotland, 1989-2000

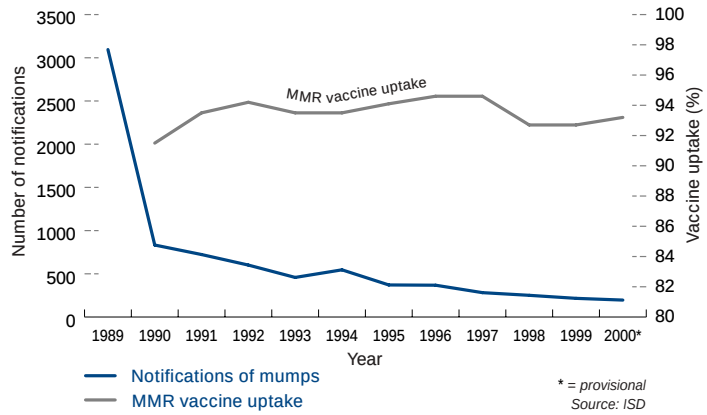
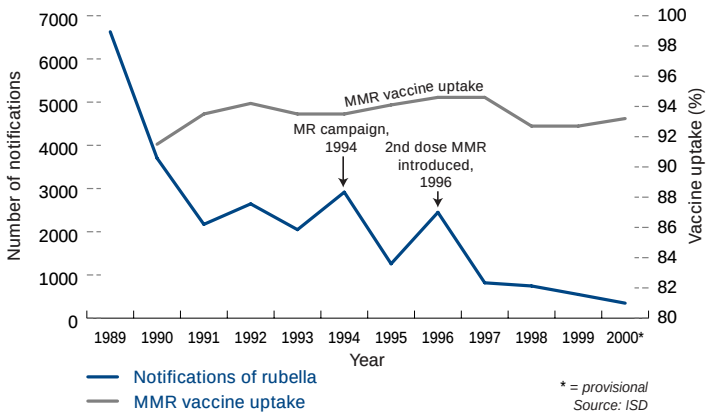


Figure 5.5: Graph 3 – Rubella notifications and MMR vaccine uptake, Scotland 1989-2000



Tuberculosis

Like many western countries, Scotland saw a precipitous decline in tuberculosis during the 20th century due to mass screening, BCG vaccination and the advent of effective treatment. This decline arrested in the late 1980s, in many western countries. The incidence of tuberculosis in Scotland since then has been stable or in slow decline at around 400 to 500 cases per year. The recent upsurge in cases, including some with multi-drug resistant TB (mdrTB) witnessed elsewhere in the UK, particularly in London, has not occurred in Scotland. Numbers of multi-drug resistant TB have remained low with 0-3 Scottish cases per year being reported.

The epidemiology of tuberculosis in Scotland has always been distinct from that seen in England in that indigenous infection rates have always been somewhat higher in Scotland and the proportion of cases who were born outside the UK much lower in Scotland than in England (currently around 15% and 55% respectively).

Enhanced Surveillance of Mycobacterial Infections (ESMI)

A new initiative to improve the quality of surveillance data, the Enhanced Surveillance of Mycobacterial Infections (ESMI) project began operating in January 2000, funded by the Scottish Executive and implemented by SCIEH. ESMI, and the similar scheme developed for England, will supply detailed continuous information on each case of tuberculosis. This will inform future policies for control of this disease aimed at hastening the elimination of indigenous tuberculosis from Scotland. Full exploitation of ESMI data and the development of an elimination strategy form the principal challenges in this area for the next few years.

The schools BCG vaccination programme was interrupted from September 1999 by problems with vaccine supply across the UK which continued throughout the year 2000. With resumption of supplies the programme restarted in the second half of 2001.

Influenza

The substantial outbreak of influenza in the winter of 1999-2000 was significant in creating winter pressures on the NHS in Scotland at the start of the year, due to the large number of patients requiring hospitalisation. As part of Scottish Executive initiative to maximise preparedness for the winter season 2000/01, a new policy was introduced to offer influenza immunisation to all people aged 65 and over, in addition to the usual “high risk” groups under 65, and those in residential homes. Immunisation was also offered for the first time to health and social care workers.

Target

A target of 60% uptake was set for those aged 65 and over. By December 2000 the target of 60% coverage in those aged 65 and over had been comfortably exceeded (63.5% of those aged 65 and over in reporting practices, with 80% of Health Boards meeting the target overall).

Influenza outbreaks are unpredictable in terms of timing and of size therefore surveillance is important. The early warning system for influenza for Scotland since 1972 has been based on clinical data only from “spotter” General Practitioners who report weekly to SCIEH during the influenza season.

Scottish Enhanced Respiratory Viral Infection Surveillance (SERVIS)

In an important new development this year SCIEH was funded by the Executive to design and implement the new Scottish Enhanced Respiratory Viral Infection Surveillance project (SERVIS) in collaboration with ISD and the West of Scotland Regional Virus Laboratory.

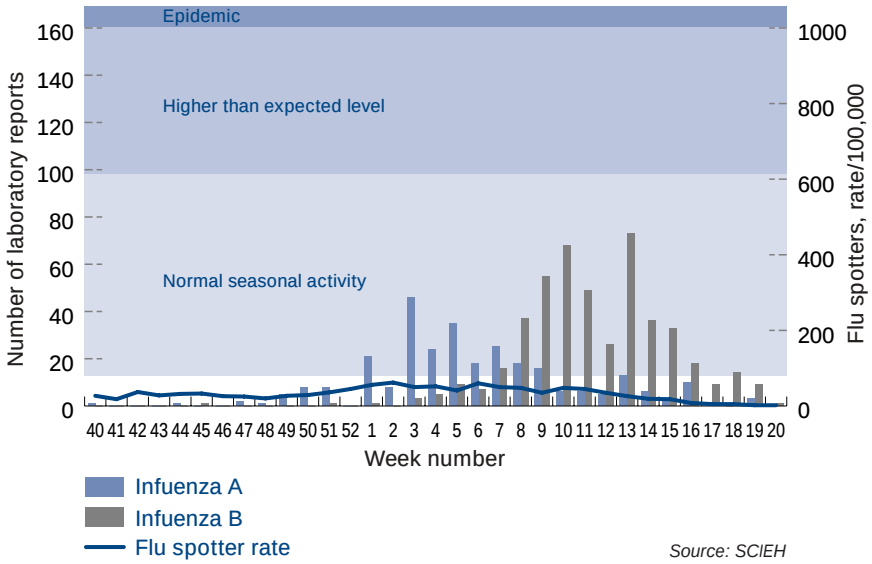
This new scheme aims to provide improved surveillance data on flu and flu like illnesses caused by other respiratory viruses. The components of the scheme include weekly computerised clinical data from a further set of General Practices participating in the Continuous Morbidity Recording (CMR) project, and importantly linked to virological sampling for respiratory viruses such as influenza A & B, RSV, picornavirus (common cold), adenovirus and parainfluenzavirus. The tests on these swabs, involving a multiplex PCR technique, give rapid results with high sensitivity.

Weekly influenza surveillance reports were provided to appropriate NHS staff to support winter planning. In addition, the SERVIS scheme was used to monitor influenza vaccine uptake in the 65+ age group. Future developments of SERVIS include further refining and calibration of new surveillance indices and investigation of modelling techniques to further improve and expand advice given to the service.

Historical disease patterns predicted that in the winter 2000–01 there would be substantially less influenza than in the previous season. Scotland actually experienced the lowest flu activity since recording began in 1972.

The flu spotter consultation rate remained around baseline activity levels (50 consultations per 100,000) for the duration of the winter season and its highest level was 62 consultations per 100,000. (**Figure 5.6**)

Figure 5.6: Number of influenza virus diagnoses and flu spotter rate, Scotland weeks 00/40 to 01/20



Source: SCIEH

The main influenza types were A (H1N1) and B. Influenza B was predominant in the latter part of the season and accounted for most laboratory isolates. From new information provided by the SERVIS scheme, the main age group consulting for flu-like illness were adults.

Older age groups were relatively unaffected by this year's influenza season, but the low activity overall makes it difficult to attribute this to an effect of the vaccine. However the high vaccine uptake rates, with a vaccine well matched for the circulating strains, contributed to reducing illness in the target age groups. It is recognised that influenza vaccine offers effective protection in the over-65 age group. Amongst those in the frail elderly group, this vaccine has been shown to decrease both deaths attributable to influenza and hospital admissions for pneumonia by around half.

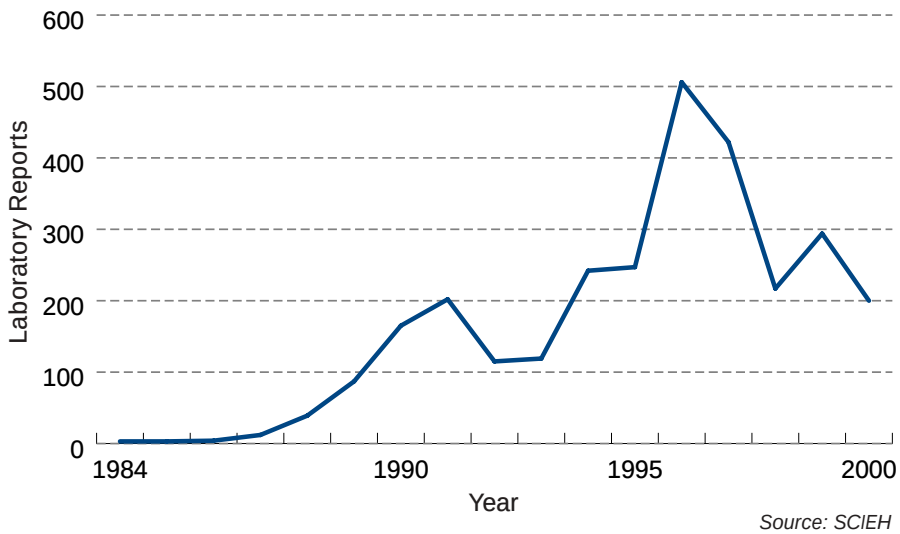
Gastro-Intestinal Disease

Gastro-intestinal disease remains an important cause of morbidity in Scotland. Salmonellosis has declined markedly in recent years, and reports of Staphylococcus aureus and other foodborne toxins have almost completely disappeared. However reports of Campylobacter and Cryptosporidium continue to rise, as does viral gastro-enteritis. Rates of infection due to verocytotoxin producing *E.coli O157* remain much higher than in the rest of the United Kingdom. An important initiative in 2000 was the establishment of the Food Standards Agency on 1 April 2000. The aim of the FSA is to protect public health from risks which may arise in connection with the consumption of food and otherwise to protect the interests of consumers of food.

Escherichia coli O157

There were 197 reports of *E.coli O157,* 97 (33%) lower than in 1999 (**Figure 5.7**). However, it remains a serious problem with more than twice as many cases per head of population in Scotland than in England and Wales.

Figure 5.7: Laboratory reports of *E.coli O157* in Scotland 1984-2000



Source: SCIEH

There were five general outbreaks in 2000. The largest affected 70 people at a scout camp in Grampian. As a result of this incident, together with the findings of the *E.coli O157* case control study and annual prevalence studies, the Scottish Executive and the Food Standards Agency established an *E.coli* Task Force in September 2000. Its remit is to:

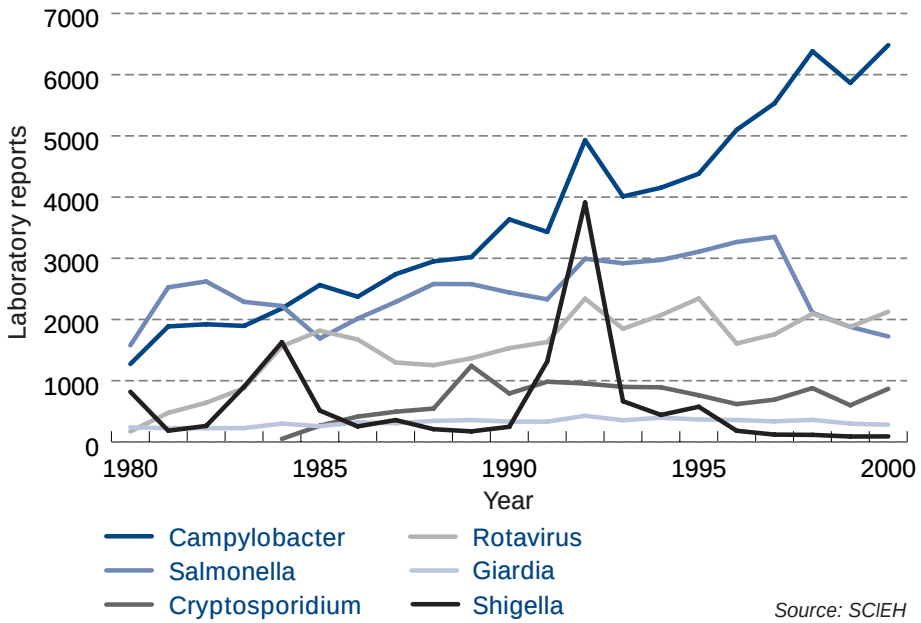
- Review the risk to health of the public on Scotland, and current activities to prevent human infection with *E.coli O157*.
- Assess the effectiveness of the present arrangements for co-ordination of action at national and local level.
- Consider what future measures would help protect the public health.

The Task Force reported to the Minister for Health and Community Care in June 2001.

Salmonella

Identifications of salmonellas decreased by 156 (8%) to 1723, and, except for 1985, are the lowest for 20 years (**Figure 5.8**). The decline was 178 (15%) for *Salmonella enteritidis*, and 255 (35%) for *S.enteritidis* Phage Type (PT) 4. This was probably due to the immunisation of poultry against this pathogen. This decline was partially offset by an increase in reports of other strains. Six general outbreaks occurred in Scotland in 2000. The two largest affecting 148 people in total occurred over the summer, and the autumn of 2000. About half the cases were due to *S.enteritidis* PT5c and the rest to *S.enteritidis* PT6a. Most cases had eaten at a number of different Chinese restaurants across the central belt of Scotland, and although many had eaten chicken, no common source of infection could be identified.

Figure 5.8: Laboratory reports to SCIEH of identifications from humans of important gastro-intestinal pathogens 1980-2000



Campylobacter

Reports of campylobacter rose by 617 (10%) to 6482, the highest ever (**Figure 5.8**). There were three general outbreaks. Information has been provided to SCIEH on one, thought to have been due to the consumption of untreated water from a private supply, in which 17 people were affected.

Shigella sonnei

Reports of Shigella sonnei declined by 3 (5%) to 62. A seven-year cycle has been postulated, and may have occurred in the past (**Figure 5.8**). If so, a national increase is overdue.

Norwalk-like virus

Reports of NLV increased by 45 (28%) to 208, probably due to continuing improvements in ascertainment rather than increases in clinical disease. There were 40 general outbreaks of NLV infection as well as 44 of presumed viral aetiology, some of which may have been NLV.

Rotavirus

Reports of rotavirus rose by 240 (13%) to 2126. As reports have fluctuated over recent years this cannot be seen as a trend. There were two general outbreaks.

Cryptosporidium and Giardia

Reports of *Cryptosporidium* species rose by 269 (45%) to 867, following a 31% fall the previous year. There was one general outbreak affecting at least 77 people and suspected to be waterborne. Reports of *Giardia intestinalis* fell by 15 (5%) to 281, following a 17% fall in 1999. There was one general outbreak, affecting 6 people and thought to have been spread from person to person.

Clostridium difficile

Reports of *Cl.difficile* increased by 1031 (47%) to 3210, having increased by 28% in 1999 and 22% in both 1997 and 1998. Although *C.difficile* infection has been attributed inappropriate use of antibiotics, the increase may be due to increased screening of patients tested on admission to hospital. Surprisingly, only one general outbreak of *C.difficile* was identified.

Travel-Related Medicine

Travel related medicine is an area of increasing importance. An important initiative in the year 2000 was the setting up by SCIEH of a public internet site for travel health advice as a companion to the professional site (TRAVAX). The introduction of the large bodied aeroplane has lead to over a 500% increase in international travel over the last 20 years. Over 50 million visits abroad are now made from Britain every year. The bulk of these visits are package tours principally to Mediterranean countries, but increasingly they are to less economically developed countries with very different health and infection risks.

Travel-related medicine began as a discipline focusing on the specific health needs of individual travellers with particular reference to pre-travel requirements, vaccinations and malaria prophylaxis. It is evolving into a specialty where both “sending” and “receiving” countries work in collaboration to maintain the health of travellers and also to monitor the impact of travel upon the host population and environment.

With exotic travel increasing, there is an increasing need for travel health advisors, to have training on how to make a sound risk assessment, and to have access to continually updated information on

changing patterns of disease, outbreaks of infection and the availability of effective vaccines. Continual surveillance is essential and electronic communications make the collection and dissemination of up to date information much more effective.

TRAVAX

SCIEH has continued to improve the NHS TRAVAX database set up in 1984. It contains continually updated information for health professionals in Scotland, but is now also extensively used in the other parts of the UK. At present around 15,000 users log-on each month to TRAVAX (www.travax.scot.nhs.uk). The public site for travel health advice (www.fitfortravel.scot.nhs.uk) was launched during 2000 and on average received around 600,000 hits a month.

An important role of these databases is to facilitate the recognition of "emerging" and "re-emerging" infections, which can pose a special risk to travellers and allows these infections to be monitored and advice given more quickly than before. Recent examples of emerging and re-emerging infections of international concern include:

- HIV infection worldwide;
- multi-drug resistant falciparum malaria in Africa, Asia and South America;
- multiple drug resistant tuberculosis worldwide but especially in Africa and Eastern Europe;
- Diphtheria in Eastern Europe;
- Meningococcal infection in Saudi Arabia.

Also of concern are:

- Plague in India and Africa;
- Dengue in the Far East, Central and South America;
- Ebola haemorrhagic fever in Central Africa;
- Nipah virus in Malaysia;
- Yellow fever in Brazil.

Healthcare Associated Infections (HAI)

It is estimated that at any one time 9% of hospital patients have infections which have been acquired during their inpatient stay. These infections are distressing to patients and costly to the NHS. It is estimated that between 15% and 35% of these infections can be prevented. Guidelines for the control of HAI were provided in *"The Scottish Infection Manual"* published in July 1998. Guidelines encompassed both operational and organisational aspects of infection control.

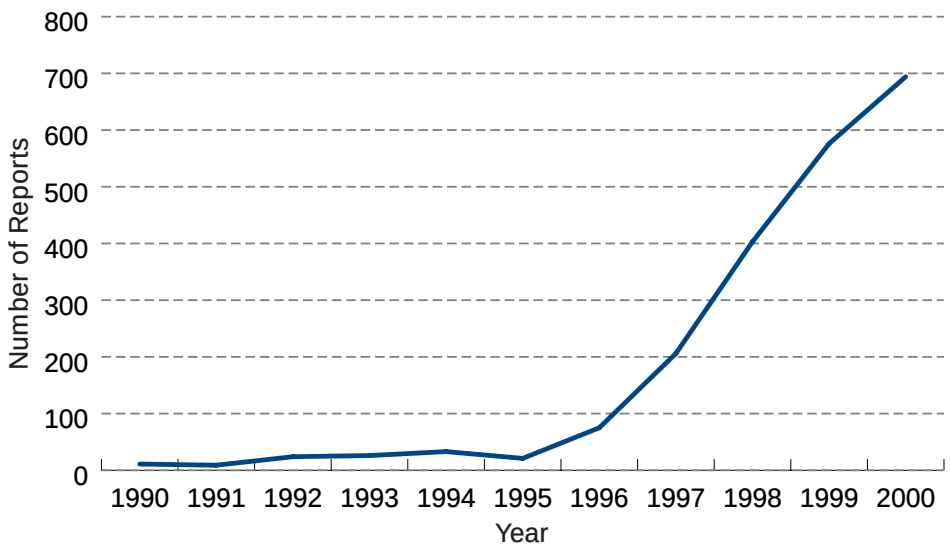
SEHD Working Group on Surveillance of HAI

A survey undertaken on behalf of the SEHD Working Group on Surveillance of HAI, published in 1999, identified some of the problems facing infection control teams (ICT) in Scottish hospitals. The survey suggested that ICTs were working very actively to control infection. However, many were hindered by the low profile accorded infection control activities resulting in an inability to plan properly, lack of resources and a feeling of frustration among the members of these teams. These findings were echoed for England in the National Audit Office Report "*The Management and Control of Hospital Acquired Infection in Acute NHS Trusts in England*" which was published in 2000. Simultaneously, a joint publication of the Public Health Laboratory Service and the London School of Hygiene and Tropical Medicine "*The Socio-economic Burden of Hospital Acquired Infection*" highlighted the costs to the NHS of HAI. These and other publications in England and in Scotland over the last 2 years have raised the profile of infection control within the National Health Service and resulted in several important developments in this area.

Surveillance of HAI

The successful prevention of HAI locally requires an effective infection control team and feedback of the results of monitoring HAI to the clinicians involved. In the late 1990s, HAI rates have been acknowledged to be a measure of quality of care, both locally and nationally. Few national data on HAI are available in Scotland. Data on bacteraemias due to methicillin resistance Staphylococcus aureus provide some indication of the extent of one type of HAI since a large proportion of these infections will have been acquired in hospital. As **Figure 5.9** shows the numbers of MRSA bacteraemias reported to the Scottish Centre for Infection and Environmental Health (SCIEH) have increased significantly in the last five years.

Figure 5.9: Trends in blood isolates of MRSA received at SCIEH



Source: SCIEH

Both the Scottish survey referred to above, and the report of the National Audit Office, found that a great deal of surveillance activity was carried out by ICTs. However, the methods used did not produce results which allowed comparisons between similar hospitals. Standard protocols were not used and the collation of national data was not possible. The requirements of Clinical Governance and the need for acceptable Clinical Standards demand that robust and timely surveillance data on HAI are available locally and nationally. As a result of the work of the SEHD Working Group on Surveillance of HAI a Clinical Resource and Audit Group (CRAG) funded national study was set up to monitor surgical site infections following hernia surgery. This work will be completed in 2002.

In 2000, the Advisory Group on Infection Sub-group on Surveillance of HAI and Antimicrobial Resistance has been developing a framework for national surveillance of HAI in Scotland. This central-local collaboration between SCIEH and the trusts will provide standardised data on a range of HAI. The use of standardised protocols and collection of national minimum data sets will allow comparisons of Scottish data with those obtained elsewhere in the United Kingdom and in Europe. More importantly, information will be available to enable trusts to monitor their own performance in a standard way and on the basis of which they can take appropriate action to control HAI. Standardised surveillance of surgical site infections, of MRSA, post-discharge surveillance and surveillance of outbreaks of hospital infection are included in the recommendations of the subgroup which was published in 2001. SCIEH will develop and facilitate the adoption of standard methodologies, support trusts in undertaking surveillance, ensure data quality and compile national datasets.

Surveillance of HAI is included among the standards set for Infection Control which will be monitored by the Clinical Standards Board for Scotland.

Our National Health recognised the importance of the highest possible standards of cleanliness in hospitals. Every NHS Trust will be expected to have an Infection Control Policy in place.

Decontamination

It is estimated that between 15% and 30% of HAI can be prevented by better application of existing knowledge and realistic infection control practice. The proportion of HAI which could be prevented by improved decontamination practice is difficult to estimate. However it is well known that decontamination failures can result in a range of infections. It is likely that in many sporadic cases of HAI, ineffective decontamination as a contributing factor goes unrecognised. Effective decontamination can therefore make an important contribution to lowering the prevalence of HAI.

The Spongiform Encephalopathy Advisory Committee (SEAC) which advises UK government departments on transmissible spongiform encephalopathies, considers that the effective decontamination of instruments is a key measure in reducing the risk of transmissible spongiform encephalopathies (TSEs). This includes Creutzfeldt Jakob Disease (CJD) and variant Creutzfeldt Jakob Disease (vCJD). Increasing attention is therefore being paid to ensuring medical devices are effectively decontaminated before re-use and when necessary and wherever possible, employing single-use instruments for a range of procedures.

The SEHD established a Decontamination Working Group to advise on the following points:

- Are current guidelines on the cleaning and sterilisation of surgical instruments adequate?
- How effectively is that guidance being implemented?

- What practical difficulties are there in ensuring good practice?
- What measures need to be taken to improve the effectiveness of decontamination in the NHS in Scotland?

The Working Group recommended that SEHD carry out a review. SCIEH were commissioned to carry this out with technical support from NHS Estates (England) and reported early in 2001.

Based on the interim findings of the review a working group (Glennie Group) has been established to review the decontamination services.

A further working group on Managing the Risk of HAI in NHSScotland (Carey Group) is also examining and setting standards in the area of decontamination, together with HAI and Cleaning Services. This group will report in the summer of 2001.

Antimicrobial Resistance

The House of Commons Select Committee on Science and Technology Report "*Resistance to antibiotics and other antimicrobial agents*" reported that "*antimicrobial resistance now constitutes a major threat to public health*", a view echoed in a number of other national and international reports on the subject. The "*United Kingdom Antimicrobial Resistance Strategy and Action Plan for Scotland*" was published in 2000. The aims of the strategy are set out below.

Aims of Antimicrobial Resistance Strategy

In the face of the ability of micro-organisms resistant to antimicrobial agents to emerge and spread, the increasing prevalence of resistant strains and the dearth of new agents for therapeutic use in the near future:

- **to reduce the overall use of antimicrobial agents and hence the exposure to them;**
- **to minimise the morbidity and mortality due to antimicrobial resistant infection;**
- **to maintain the effectiveness of antimicrobial agents in the treatment and prevention of microbial infections in man and animals.**

The Strategy and Action Plan address surveillance, prudent antimicrobial use in humans and animals, infection control, information technology and research. It is being taken forward by a multidisciplinary Steering Group.

HIV, Hepatitis and other Sexually-Transmitted Infections

HIV

As at December 2000, a total of 3178 cases of HIV and 1042 of AIDS had been diagnosed in Scotland; 1241 HIV-infected persons were known to have died. It is almost 20 years since the first case of AIDS in Scotland was identified. It is now clear that HIV initially entered the male homosexual and haemophiliac populations in the late 1970s and very early 1980s.

Between 1983 and 1985 epidemics occurred among injecting drug users in Edinburgh and Dundee, "Shooting galleries", where numerous injectors would share a single needle were commonplace at this time. In the late 1980s and early 1990s, following the introduction of harm reduction measures, notably needle and syringe exchange and methadone maintenance therapy, the incidence of HIV among injectors declined, and by the late 1990s, infection among this group had become a rare event. The only injector-related outbreak to have occurred during this decade was that which involved 13 inmates at HM Prison Glenochil in 1993; this remains the only proven major outbreak of HIV in a prison setting anywhere in the world.

The impact of the transmission of HIV through needle/syringe sharing was not just confined to injectors. In the mid-late 1990s, HIV began to spread among non-injecting, particularly female, heterosexual partners of infected injectors. This pattern of spread continued throughout the early 1990s and it was only in the mid-late 1990s that the incidence of such transmission declined.

Prevention

However, the potential for the transmission of HIV heterosexually in Scotland remains considerable. In 2000, of the 154 diagnosed HIV infections, 60 were in heterosexual men and women; of these, 38 were known to have acquired their infection abroad, mainly Africa. Although the majority of the 38 were non-UK nationals who had come to Scotland, some were Scottish travellers. With the increasing frequency of international travel and global prevalence of HIV, the need to educate those who travel to high prevalence areas about the risks of becoming infected is of paramount importance.

The prevention of the spread of HIV among gay men remains a major challenge. The annual number of new diagnoses has been relatively constant throughout the last 15 years (in 2000 it was 61) and surveys of gay men attending genito-urinary clinics suggested a slight decline in the incidence of infection during the late 1990s. However it is of concern that there has been no similar trend in the incidence of rectal gonorrhoea, which is a robust marker of high risk sexual activity. Also of concern, is the observation that around 50% of HIV infected gay men who attend genito-urinary clinics, remain undiagnosed following their clinic visit. The Scottish Executive's HIV Health Promotion Review Report, published in 2000, recommended that efforts should be made to increase the uptake of HIV testing in this setting; it is now recognised, widely, that the benefits of an earlier diagnosis – in particular the possibility of patients being commenced on Highly Active Antiretroviral Therapy (HAART) at the optimal time – greatly outweighs the disbenefits.

The advantages of an HIV diagnosis are not merely confined to the individual. In Scotland, it is estimated that 12% of index cases' contacts who are traced and tested are HIV positive.

Antenatal Screening for HIV

In 2000, the prevalence of HIV among women giving birth was 1 in 2000 (0.05%) (25/53347). This is the highest annual prevalence since monitoring began in 1990 and compares with an annual average prevalence of 1 in 5000 (0.02%) in 1998 and 1999, and the previous highest annual prevalence of 1 in 3330 (0.03%) in 1992. Preliminary analyses suggest that approximately half of the 25 infected women in the year 2000 learned of their HIV status either prior to or during their pregnancy. Thus, it is estimated that a considerable number of women in 2000 did not know they were HIV infected and were unable to take advantage of interventions which would have reduced the chances of them infecting their babies from 15-30% to 0-5% namely:

- **antiretroviral therapy;**
- **caesarean section; and**
- **avoidance of breastfeeding.**

The SEHD's HIV Health Promotion Review Report (2000) has recommended that all health boards in Scotland should ensure that all their resident pregnant women be offered and recommended an HIV test. Currently, this approach, is being applied only in the Lothian, Tayside and Fife health board areas. If all pregnant women in Scotland during 1995-99 had been tested for HIV and had been offered the appropriate interventions if they were HIV positive, it is estimated that between one and two mother-to-child transmissions would have been prevented annually.

Hepatitis C Virus (HCV)

Hepatitis C virus (HCV) infection was highly prevalent in the 1980s in Glasgow, home to almost half of Scotland's injectors, as well as in Edinburgh and Dundee. By the late 1990s, it was estimated that 62% of current injectors in the country had been infected. Harm reduction measures, so effective in preventing the transmission of HIV among injectors, had reduced, but by no means controlled, the spread of HCV among this population; indeed, between 1997 and 1999, it is estimated that the annual incidence of HCV among Glasgow's injectors was 20-30%. HCV is thought to be more difficult than HIV to control because:

i) its prevalence among injectors was higher than that for HIV prior to the implementation of interventions to prevent the transmission of bloodborne viruses; and

ii) because the ease with which HCV is transmitted through the percutaneous route is tenfold greater than that for HIV.

Scottish Needs Assessment Programme (SNAP) Hepatitis C Report

A SNAP Hepatitis C Report, published in 2000, highlighted the need to control this infection among injectors as one of the major public health challenges of the new millennium. For primary prevention of Hepatitis C it is essential that gaps in the provision of injecting equipment are filled and that new interventions to prevent transmission are designed and implemented. It is of concern that, throughout the late 1990s, the frequency of needle and syringe sharing among injectors, reported to Scotland's Drug Misuse Database, increased from 28% in 1997 to 34% in 2000.

The SNAP Report also made reference to the cost effectiveness of Interferon and Ribavirin therapy for HCV infected persons and recommended that those eligible for such treatment should be identified and treated. Current injectors, generally, are not eligible for therapy because of their inability to comply with 6-12 months of combination therapy and their high probability of becoming re-infected. The challenge is to detect infected non or ex-injectors who have signs of advancing liver disease.

As at 30th June 2000, 10,929 persons in Scotland had been diagnosed as HCV antibody positive; 6326 were known to be injecting drug users (though it is likely that the majority of the remainder have a history of injecting), 68% were male, 71% were diagnosed since 1996 and 87% were aged 15-44. Of the 10,929, 37% were from Greater Glasgow, 16% from Lothian, 11% from Grampian and 8% from Tayside. The central estimate for the total number of HCV infected persons in Scotland is 35,000. **Table 5.3** shows the wide spectrum of HCV antibody prevalence among different population groups; of particular note is the 10,000 fold difference in prevalence between injecting drug users and repeat blood donors.

Table 5.3: Prevalences of HCV infection among populations throughout Scotland

Population	Region	Year of Specimen	Tested	+ve	%
IDU	Scotland	95-96	1905	1173	62
IDU	Glasgow	90-94, 96	1949	1403	72
IDU	Glasgow	99	436	232	53
Prisoners IDU Non-IDU	Scotland	94-96	 536 917	 312 33	 58 4
GUM Clinic Attenders (non-IDU) Heterosexual Male Heterosexual Female Homosexual/Bisexual Male	All Scotland	97	 4135 3035 668	 32 10 4	 0.8 0.3 0.6
Pregnant Women (non-IDU) Sexual partner of IDU No sexual partner of IDU	Dundee	97	33 3498	5 11	15 0.3
Healthcare workers Surgeons Non-Surgeons	Glasgow	93-96	 438 7974	 1 22	 0.2 0.3
Blood Donors	Scotland	98	285105	44	0.01
All Persons Diagnosed HCV positive IDU Risk Unknown Risk Blood Factor Other	Scotland	91-99	 N/A N/A N/A N/A	 5612 3623 319 433	 N/A N/A N/A

Source: SCIEH

The possibility that donated blood may be contaminated with bloodborne viruses such as HCV has been recognised since the 1980s and measures are now in place to minimise the risk of such transmission to recipients.

Hepatitis B Virus (HBV)

In Scotland, the Hepatitis B virus (HBV) is an infection which is transmitted predominantly through the sharing of equipment by drug injectors. The pattern of spread of this virus over the last twenty years has been similar to that for HIV in this population – epidemics in the early to mid 1980s and a general decline in incidence, contemporaneous with the existence of harm reduction measures.

For Hepatitis B such interventions included targeted vaccination of high risk groups including injectors which was recommended by the Joint Committee for Vaccination and Immunisation in 1988. However only recently have serious efforts to implement this recommendation been made. These efforts, including the Scottish Prison Service's initiative to commence offering vaccination to inmates in 1999, were precipitated by an increase in the incidence of community and prison-based HBV infection among injectors; Port Glasgow and Aberdeen were notable hotspots. In 2000, 360 persons in Scotland were reported to SCIEH as HBV positive; this figure represents a rise compared with 215 in 1997, 249 in 1990 although not at the level of 708 in 1985.

While vaccination is effective in reducing HBV infection incidence among injectors, it should be undertaken as an adjunct to interventions designed to reduce injecting drug use and sharing of injecting equipment.

Antenatal Screening for Hepatitis B

In recognition of the high probability of HBV infected pregnant women transmitting infection to their babies at birth, the UK Departments of Health instructed all health authorities and boards to implement universal HBV antenatal screening by April 2000. Hitherto, such screening was available to women in only half of Scotland's health boards.

Also in 2000, the UK Departments of Health modified their guidance on the management of HBV infected health care workers (HCW) on the basis of advice from the Advisory Group on Hepatitis. In the 1990s, several HBV infected patients were found to have acquired their infections from HBV eAg negative HCW. Guidance which previously excluded HBV eAg positive HCW from undertaking Exposure-Prone Procedures, was extended to include HBV eAg negative HCW who had an HBV DNA level exceeding 103 genome equivalents per ml.

Other STIs including Chlamydia and Gonorrhoea

The late 1990s have seen a rise in incidence of some STIs compared with a decline over the previous fifteen years. In the early 1980s and before, the incidence of sexually transmitted infections, other than HIV and Hepatitis B, in Scotland was high. In 1980, for example, 204 cases of syphilis, 4856 cases of gonorrhoea, 1119 cases of trichomoniasis and 6704 cases of NSGI (Non-specific Genital Infection – later to be identified, principally, as Chlamydia infection) were detected among attenders of genito-urinary clinics. As a consequence of the intense health promotion campaigns to promote safer sex following the identification of HIV in 1983/84, the incidence of STIs in Scotland declined substantially. By 1994, the corresponding figures were: 21 for syphilis, 272 for gonorrhoea,

102 for trichomoniasis and 2882 for chlamydia. However, the reduction in the incidence of acute STIs, between 1985 and 1994, appears to have been reversed, albeit minimally, during the late 1990s indicating a return to unprotected sexual intercourse.

In the year April 99 – March 2000, the numbers of genito – urinary clinic-based cases of STIs were: syphilis 35, gonorrhoea 586, trichomoniasis 88 and chlamydia infection 3497 respectively. The increase in gonorrhoea from 272 cases in 1994 to 586 cases in 99/00 is particularly worrying and there are indicators that this trend will be sustained in 2000/2001. The upward trend for chlamydia infection from 2882 in 1994 to 3497 in 99/00 is more difficult to interpret. Between 1998/99 and 1999/2000, there was a 25% increase in diagnoses made at genito-urinary clinics; however, both screening (mainly women) and the accuracy of the diagnostic test increased during this period. In recognition of the importance of diagnosing chlamydia infection which, if undetected, can cause considerable morbidity, the Scottish Executive's Chief Scientist Office have funded a number of studies to evaluate the feasibility and impact of screening a range of at-risk populations who attend, for example, family planning and general practice clinic settings. This issue is also being addressed in the health demonstration project Healthy Respect. Further details are in Chapter 7 in the report from Lothian.

Part 2: Environmental Health

Mobile Phones, Transmitters and Health

Concerns about possible health effects from non-ionising radiation emitted by mobile phones and the transmitter base stations have been prominent. Requests for information and advice on the subject resulted in the production of a guidance note by SCIEH which addressed the issues and highlighted the areas of controversy.

The level of non-ionising radiation received by an individual using a mobile phone is much greater than that from a transmitter mast. However, the siting of masts generates much public concern particularly when a mast is sited or planned near a school or other community facility or near housing. Masts sited in industrial or commercial sites rarely attract attention.

The evidence relating microwave-band radio-frequency (RF) radiation to health was reviewed by a group under the chairmanship of Sir William Stewart. This reported in May 2000. As with previous reviews of the subject carried out in other countries such as Canada, the Stewart Committee came to the conclusion that the evidence available at present does not support an association between adverse health effects and radio frequency emissions from mobile phone technology, at the levels in current use. The energy levels of emissions specified as safe by bodies such as the NRPB and the International Commission on Non-Ionising Radiation, were considered appropriate though the committee advocated that the lower thresholds level advised by the ICNIRP should be accepted for use in the UK.

The Stewart Committee also concluded that there was some scientific evidence of biological effects of RF emissions at energy levels lower than those associated with thermal effects. The significance

of such effects on health was accepted as unknown. However any effect is most likely to be seen in children. The uncertainties were sufficient for the committee to recommend that a precautionary approach be adopted regarding the use of the technology until more robust information on possible health effects becomes available.

Recommendations were made on restricting the unnecessary use of mobile phones by children, and attention was drawn to the one conclusive finding, that the risk of a road traffic accident was increased where car drivers used a phone while driving.

Lead and Health

The effects of lead on health are well known. Strenuous efforts have been made to control the use of lead and to limit its escape into the environment. Lead-free paint has been in use for decades, leaded solder in food tins has long since disappeared and most recently lead-free petrol has successfully removed one source of airborne lead contamination.

The hazards of waterborne lead have also long been recognised in Scotland and have resulted in efforts to remove lead plumbing from older houses and the removal of lead pipework from the water distribution network by the water authorities. The introduction of new limits for acceptable lead levels in drinking water as a result of revised drinking water regulations will see a progressive reduction from the present 50 microgrammes per litre to 25 micro-grammes in 2003 then 10 microgrammes in 2013.

The discovery of a new source of waterborne lead contamination in new housing in 1999 resulted in a major study in 2000 commissioned and funded by SEHD, and undertaken by SCIEH to quantify the extent of the problem.

The results of the study confirmed that excess lead levels, compatible with the use of leaded solder, were present in 15% of all the new homes sampled. The proportion of new homes affected was highly dependent on the age of the house with over 30% of the houses built in the year 2000 having an excess lead level compared to 10% for houses built in 1997. This was taken to imply a gradual reduction in the level of detectable lead from the houses with aging rather than evidence suggesting that the use off leaded solder was actually increasing with time.

The significance of the study was that although many of the levels detected were mildly elevated, some were very high and over three times the current regulatory level of 50 microgrammes per litre. Some 2.4% of all the houses sampled had a kitchen tap with a lead level above the new proposed regulatory level of 10 microgrammes per litre. New housing is particularly favoured by young families with babies and young children, the very group who are most at risk from lead exposure. The risk of finding an excess lead exposure increased with the size of house such that two or more bedroomed houses had a progressively higher risk than single bedroom properties.

The study identified the problem that, in contravention of 1987 Water Bylaws, illegal lead solder was in wide-spread use throughout Scotland. The Scottish Executive initiated measures to address the problem including altering the Water Bylaw legislation to increase the penalties for an offence and raising awareness of the problem among the building and plumbing industries. The SEHD also mounted a publicity campaign promoting the message of safe use of drinking water and produced a leaflet with advice for householders on avoiding the risks of waterborne lead exposure.

Chapter Six

Strategies for Improving Health and Health Care

- **Public Health Initiatives**
- **The Changing Shape of Health Care**

Introduction

Scotland's health is improving overall as in the rest of the UK and Western Europe. But far too many Scottish people suffer premature death from preventable diseases and far too many suffer ill health often for much of their lives. There are major differences in health and life expectancy between the most affluent and most deprived in our society.

In some areas, Scotland's health shows encouraging improvements over the last century. Some of the major killers from infectious disease of the 20th century have all but disappeared. Infant mortality is at the lowest level ever recorded. Targets for reducing mortality from coronary heart disease and cancer have been met. However it is of concern that mortality from these conditions remain among the highest in Europe, and new, more demanding targets have been set aimed at continuing to reduce mortality.

Other, important challenges remain. Suicide rates in young men have steadily increased over the last decade, especially among the most deprived. For young people, smoking rates among teenagers have shown little improvement. Teenage pregnancy rates are among the highest in Western Europe and have changed little over the past ten years and the diet of Scottish children remains a cause for concern. For older people, behaviours, which would encourage healthy ageing, such as regular physical activity, are not widespread. Finally for those living in deprived areas of Scotland, little progress has been made to date in addressing the unacceptable health inequalities that are present in our society today.

Our National Health: a plan for action, a plan for change was published in 2000. It makes firm commitments to improve health and reduce inequalities in health in Scotland. The steps being taken to do this are discussed throughout this Chapter. Strategies for improving health are set out under 2 mains headings:

- Public Health Initiatives
- The Changing Face of Health Care.

Public Health Initiatives

The Public Health White Paper "Towards a Healthier Scotland", published in 1999, set out the public health agenda aimed in particular at tackling cancer and heart disease and improving the health of children and young people. It called for action at 3 levels:

- Life circumstances – improving life circumstances that impact on health, eg social inclusion, jobs, income, housing, education and environment.
- Lifestyles – tackling lifestyles that lead to illness and early death, eg poor diet, lack of exercise, tobacco, alcohol and drug misuse.
- Action on specific health topics – direct action to tackle preventable diseases, eg cancer and coronary heart disease and improve health, eg child health.

The White Paper also set out plans for:

- improving joint working between the many agencies that can help improve Scotland's health,
- 4 major health demonstration projects,
  - Starting Well;
  - Healthy Respect;
  - Heart of Scotland;
  - Cancer Challenge;
- extended work on public health research and monitoring.

The rest of this section gives some examples of progress towards this agenda in 2000.

Life Circumstances

Improving people's life circumstances is an essential foundation for improving health and reducing health inequalities. This focus of attention more than any other reminds us that public health involves concerted action across a broad front by all sectors of society. The Scottish Executive's overarching strategy to promote social justice is fundamental to improving life circumstances, and much of the effort involved falls outwith the immediate scope of this report.

Community planning is a key development involving joint working between Local Authorities and Health Boards. As the report from Argyll and Clyde illustrates, local councils working with Health Boards have started to make health improvement a corporate goal and are using community planning to improve circumstances in which people live. The Report from Argyll and Clyde also gives examples of how social inclusion partnerships are playing their parts in the broad public health effort.

The Health Education Board for Scotland (HEBS) recognises that an important part of people's life circumstances is the extent to which there are health educational and wider health promoting influences wherever people live, learn, work, spend leisure time and seek help. This is one of the important reasons for HEBS centring its programmes on building health promotion in a sustainable way into a range of community settings and sectors, supported by resources on priority health and lifestyle topics. Action in this regard in 2000 included:

- funding and other support for the Voluntary Sector Health Network, launched during the year;
- continued commissioning of the Community Health Exchange – CHEX – a network providing much-needed support to local community development and health workers and offers training, advice and a chance to link up with one another;
- further development of health education and promotion in schools – for example, the HEBS-commissioned *Confidence to Learn* package was in use in 30 of the 32 Scottish local authorities. This very popular resource helps teachers to improve the quality of health education in the classroom and put the wider health promoting school concept into practice;
- The *Working Backs Scotland* initiative involved HEBS in a partnership of over 20 organisations including the Health & Safety Executive and the STUC, tackling one of the most common workplace problems through promoting prevention and effective management of back pain.

Learning and development are increasingly recognised as central to modern life and to improving life prospects. During 2000 HEBS increased the amount and profile of its activity in this regard, to help people from many different walks of life to develop skills as health promoters. The *Promoting Health* short course was once again a mainstay of HEBS learning and development work, and an excellent example of successful collaborative training – with trained trainers in 14 of the 15 health board areas delivering the course to a wide range of professionals. By the end of the year HEBS were well on the way towards adding an *Introduction to Health Promotion* course to the Learning Centre part of the website, HEBSWEB (www.hebs.scot.nhs.uk).

Another important strand in fostering healthier life circumstances is the partnership between SE, HEBS, Health Boards, COSLA, local councils, the voluntary sector, mass media and others to stimulate a "pro health" culture. During 2000 this involved a range of high profile initiatives, a number of which are referred to in later sections of this chapter. A good example of national-local collaboration was the partnership between HEBS, Greater Glasgow Health Board, Glasgow City Council and the *Evening Times* that resulted in a health supplement that went out to the newspaper's readership of over 150,000.

Improved Lifestyles

Work in 2000 to tackle lifestyles that lead to illness and early death is set out below:

Smoking

The White Paper "*Smoking Kills*" published in 1988 set out 3 aims:

– To reduce smoking in children in young people;

– To help adults give up smoking, especially the most disadvantaged;

– To help pregnant women give up smoking.

To achieve these aims, targets have been set.

Targets

- **The national target to reduce smoking in Scots adults from an average of 35% to 33% by 2005 has already been met, although it is too early to say whether this will be sustained. The target to further reduce adult smoking to 31% by 2010 remains (See Chapter 3).**
- **There is a target to reduce the proportion of pregnant women smoking to 23% by 2005 and 20% by 2010 (See Chapter 4).**
- **There is a target to reduce the percentage of schoolchildren aged 12-15 who smoke to 11% by 2010 (see Chapter 4).**

To meet these targets action is aimed at:

– helping people not to start smoking;
– helping people to give up smoking.

Some examples are given below:

- The Health Improvement Fund (HIF) has enabled HEBS to step up its health promotion. The funding to HEBS in 2000 was directed mainly towards child and family health, young people and tobacco. Various new initiatives were developed including the media work described below.

HEBS biggest hit of the year was the pop video-style advertisement featuring the fictitious girl band Stinx and highlighting in sound and vision how smoking can undermine glamour and fitness. Launched in December 2000, it showed real signs of capturing young people's attention in an unprecedented way. Some examples of spontaneous feedback from young people are given below:

Male – "The song is brilliant. I love it so much. I hope it is in the shops soon so I can buy it. It's also very encouraging because I used to be a smoker myself but since I have seen the advert I have decided to quit with willpower and your song. Thanks a bunch guys!!!!"

Female – "I just wanted to say that the Stinx advert is great and that it was what made me stop (and keeps reminding me to stay stopped) at 21 (after 6 years of smoking)."

- With Scottish Executive support, HEBS and ASH jointly published *Smoking Cessation Guidelines for Scotland*, which will help sister NHSScotland organisations to take forward the new drive to develop services to help smokers to quit.
- Nicotine Replacement Therapy is now available on prescription. Backed up by smoking cessation support services, it is hoped more people will be able to give up smoking. An example of Smoking Cessation Activity targeted at low income smokers and pregnant women is given in the report from Tayside.

Alcohol Misuse

The Scottish Health Survey shows that:

- Since 1995 there as been an increase in alcohol consumption among women aged 16-64: the proportion exceeding 14 units a week has increased from 13% to 15%.
- Among men aged 16-64 alcohol consumption showed little change over this period: the proportion of men exceeding 21 units a week was 33% in both 1995 and 1998.

Targets

- **The Year 2000 target was a 20% reduction in adults exceeding weekly limits. This will not be met as excess drinking is on the increase especially in women.**
- **The current targets are:**
  - **to reduce the incidence of adults exceeding weekly limits from 33% to 31% for men between 1995 and 2005 and to 29% by 2010; and from 13% to 12% for women between 1995 and 2005 and to 11% by 2010.**
  - **For young people, to reduce the frequency and level of drinking from 20% of 12-15 year olds to 18% between 1995 and 2005 and to 16% by 2010.**

In December 2000 the Scottish Executive announced plans to undertake a lengthy and inclusive consultative process leading to the development and publication of a new Plan of Acton on Alcohol Misuse. Consultations began in early February 2001 and ran until the end of June. Publication of the plan is expected in December.

The Executive has also set up a Committee to review all aspects of liquor licensing law and practice in Scotland. The Committee met for the first time in August and it is anticipated the review will take about 18 months.

Drug Misuse

Drugs Strategy

- The Scottish Executive's forward drug strategy, *Tackling Drugs in Scotland: Action in Partnership* was published in 1999. It is a wide-ranging programme of action in the form of national objectives and related action priorities, under the four key themes of young people, communities, treatment and availability.
- One of the Scotland's objectives under the "treatment", aim is to reduce the incidence of injecting, sharing and polydrug misuse among misusers. To this end, SEHD are also enhancing as appropriate the availability of needle exchange schemes and of Hepatitis B vaccination in the community and in prisons.
- In May 2000, the Executive launched the Drugs Action Plan, which sets out action to curb the drugs problem in Scotland, and plans in support of the field across the 4 pillars of the strategy.
- For the future, a new £1m drug package over 3 years was announced in February 2001 to fund the drug action plan.

Drugs Misuse Communications Group

- The Group has been set up to meet the commitment in the drugs strategy that "*a new Drug Misuse Communications Group will advise on communications, including local and national publicity campaigns and drug education materials*". The commitment to establishing the Group was reaffirmed in the Scottish Executive's Drug Action Plan.

Role of Drug Action Teams

- Under the strategy, the Drug Action Teams (DATs) are the focal point for local action on drug misuse, with strong support from the centre.
- Comprise representatives from all key agencies involved in tackling drug misuse locally, including local authorities, police, health service, prisons and voluntary sector organisations.
- There are 22 DATs based on either health board or local authority lines.

Injecting

Injecting figures have risen, year on year, from 33% in 1995/96 to 39% in 1999/2000. Thirty-nine percent of new problem drug misusers seen by services and notified to the Scottish Drug Misuse Database (SDMD) reported injecting "in the last month". (SDMD 1999/2000).

A target has been set to:

- **Reduce the proportion of drug misusers who inject, by 20% by 2005.**

Injecting behaviour is known to carry the risk of serious infection. This challenging target recognises the importance of minimising these risks both to drug users and to the communities in which they live. The proposed reduction in the proportion of injecting drug users, by 20% by 2005, would bring the figure back to the levels reported in the mid-nineties.

Sharing

It is known that:

- 34% of new problem drug users who had injected drugs "in the previous month" reported sharing needles and syringes "in the previous month". (Scottish Drug Misuse Database 1999/2000)
- 62% of injecting drug users who had a named HIV test were hepatitis C antibody positive. (SCIEH Survey 1997).

A target has been set to:

- **Reduce the proportion of injecting drug users sharing needles and syringes by 20% by 2005, and reduce the percentage of injecting drug users testing antibody positive for hepatitis C, by 20% by 2005.**

This target addresses one of the key objectives in the national strategy in relation to treatment "to reduce the health risks to individuals and communities from drug misuse, and reduce related infectious diseases". The targets are consistent with the recent SNAP report on hepatitis C and the HIV Health Promotion and Prevention Strategy Review Report described earlier in Chapter 5. A reduction of 20% would bring the figure back to the levels reported in the mid-1990s.

Implementation

- The Executive, DATs and agencies will be expected to commit to such targets across the four pillars of the strategy.
- DATs are to develop local targets reflecting local circumstances.
- In line with the other more drug-related targets, these targets will be monitored regularly through the DATs corporate action plans.
- Evaluation procedures will be built into the planning of action by the Executive to judge whether required outcomes consistent with the strategy are being achieved.

Diet

A national dietary coordinator is to be appointed in 2001 to give impetus to implementing the Scottish Diet Action Plan. This sets national targets to be achieved by 2005 including:

- doubling the average consumption of fruit and vegetables;
- reducing the proportion of total fat and saturated fat by over 5%; and
- doubling the consumption of oily fish.

Physical Activity

A National Physical Activity Task Force will be established in 2001 aimed at increasing regular physical activity across all age groups.

Action on specific health topics and Priority Groups

Children

- The Starting Well Demonstration Project to develop and disseminate best practice in supporting children's health has been started as described in Chapter 4 in the section on children. The Starting Well demonstration project includes dental and oral health and hygiene in its remit and links with other initiatives.
- With funding from the Health Improvement Fund, HEBS embarked on devising a new child and family health campaign, including two new TV advertisements on listening to children and their first-ever TV advertisement promoting breastfeeding.

Young People

- The Healthy Respect Demonstration Project has been started in Lothian and is described further in Chapter 7 in the report from Lothian. Its aim is to develop best practice in promotion of sexual health and prevention of unwanted teenage pregnancies, building on the principles of the SNAP overview of teenage pregnancy in Scotland.

- Another initiative is the young people's health and information project drop in centre in Dundee known as "*The Corner*" which is described in the Tayside Report.
- The HEBS *Think About It* campaign for young people continued to run during 2000 setting individual television advertisements on:
  - smoking;
  - alcohol misuse;
  - drug misuse;
  - sexual health and relationships;

under the overarching positive mental health theme of empowered decision making.

Clinical Priorities: Heart Disease, Cancer and Mental Health

- Heart Disease, Cancer and Mental Health are leading priorities for NHS Scotland and have already been discussed in Chapter 3.
- The HEBS *Big 3* campaign was on air throughout the year, encouraging adults to take small but important steps to prevent heart disease, cancer and strokes. During the year new *Top Tips* advertisements on smoking, healthy eating and physical activity were added to the existing elements.
- "The Heart of Scotland" Demonstration Project "*Have a Heart Paisley*" has been set up to develop an intersectoral community-based approach to prevention of heart disease, recognising many measures will help reduce cancer and stroke. This is discussed further in Chapter 7 the report from Argyll and Clyde.
- A demonstration screening project in "*the Cancer Challenge*" has been started to test the feasibility of a national screening programme for colorectal cancer. This is discussed further in Chapter 7 in the report from Tayside.
- Projects to address the mental health needs of looked after children have been described in Chapter 4.

THE REVIEW OF THE PUBLIC HEALTH FUNCTION

In December of 1999, the previous Chief Medical Officer, Sir David Carter, published his Review of the Public Health Function. Its remit was to "reassess the role, relationships and locus of public health medicine and public health dentistry to ensure the optimal use of all available resources in the drive to safeguard and improve Scotland's health".

In developing his report and, during 2000, disseminating its findings to a wide variety of groups, there is a ready appreciation that the task to strengthen the Public Health Function is urgent and immediate, and encompasses the roles of many disciplines.

The Review has been widely welcomed by a variety of interests and stakeholders. Many meetings and seminars around the country have achieved visibility and a greater understanding of the Public Health endeavour, and an appreciation that only some determinants of health can be influenced directly by the health sector and health professionals.

Partnership Working

An Implementation Group was formed to see through the recommendations of the Review during 2000. It met several times:

- first, to define the various tasks;
- second, to examine particular functions and disciplines;
- and third, to assign lead responsibilities and an implementation plan.

A conspicuous achievement has been a survey of Scottish Local Authorities under the auspices of CoSLA which sought to gauge interest and commitment to the Public Health agenda. The paper which has resulted commits Local Authorities to developing as Public Health organisations and has received widespread endorsement at national and regional level. CoSLA is now embarking on further work to develop the Public Health role and the Executive has reaffirmed its support in *Our National Health: a plan for action, a plan for change*, with funding to help CoSLA develop public health awareness among senior officials and elected members.

Health Boards as Public Health Organisations

Further work was carried out between the Health Department and Health Boards. A joint paper identified ways in which Health Boards could fulfil their role in health improvement. This work has been incorporated in *Our National Health*. Further work will be required both to define governance of the Public Health Function and indicators of successful performance of health-orientated organisations in their drive to improve health across Scotland. This is being taken forward in the development of a new Performance and Accountability Framework for NHSScotland to be published in September 2001.

Networks

Three networks were proposed in the Review, and several others already exist. For instance, the Scottish Needs Assessment Programme (SNAP) continued its programme of work and will now come under the banner of the Public Health Institute. SNAP has again been influential in strategic health development on a range of subjects. The network of Communicable Disease/Environmental Health Professionals have proposed a programme of work. There has been a steady development of ideas and plans for two other network areas, namely Health Impact Assessment and the Northern Network focusing on Grampian, the Highlands and Islands.

Education, Training and the Workforce

Of all the Review's recommendations, this has proved the most challenging. A series of meetings in Scotland, involving many disciplines and stages of development of the Public Health Workforce, has made clear the need for action.

The SEHD has collaborated with the other UK Health Departments in the three-year Tripartite project which seeks to develop national standards for specialist public health practice, establish systems of accreditation, shape pathways for career development, and support service and organisational development. This project will also oversee the parallel development of the establishment of a Register for Public Health Specialists, specifically for those who do not have a medical or dental qualification.

Two projects in Scotland took occupational standards and applied them to health boards and LHCCs. The first project sought to identify ways in which health boards can further develop as public health organisations, and the second defined the role of the public health facilitator.

These projects, and the wider work of the tripartite group, and local groups in Scotland, aim to secure the quality of public health practice, underpinning the drive to improve health across Scotland.

Information, Communication and Research

Following a programme of meetings to explain the Review's content, and the development of further means of communication, much of the focus of work under this title has turned to health information. The challenge is to match the task of health improvement by informing its progress. Scotland is fortunate in having a world-leading information resource on health. The challenge as identified in the Review is to transform health data into information and, in turn, intelligence on health improvement strategy and as pointers to new challenges which face us. The Public Health Institute of Scotland has agreed to lead under two principal themes of information and evidence for action, and will develop this theme of the Review.

2000 has seen a series of actions and interventions to support implementation of the Review of the Public Health Function. Sir David Carter's Review now has a formidable partner in *Nursing for Health*, the Chief Nursing Officer's Review of the contribution of Nurses, Midwives and Health Visitors to improving the public's health. These two documents together offer exciting opportunities to transform Scotland's ability to make a difference to the health of this country.

THE PUBLIC HEALTH INSTITUTE OF SCOTLAND

The Public Health Institute of Scotland (PHIS) opened in January 2001. In the previous autumn, Professor Phil Hanlon was appointed as its first Director and took up post in premises in Glasgow, co-located with the Scottish Centre for Infection and Environmental Health. Both organisations belong within the Common Services Agency of NHS Scotland. A Partner's Council has met twice to act as a sounding board and source of advice to the Director.

The Institute's remit is:

"To protect and improve the health of the people of Scotland by working with relevant agencies and organisations to increase our understanding of the determinants of health and ill health, help to formulate public health policy, and increase the effectiveness of the public health endeavour."

The Institute's main role is to facilitate and increase the impact of the collective endeavours of the public health community within Scotland. To deliver its goals, the Institute will marshal the knowledge and skills of a great many people around Scotland, and further afield. The tasks it sets itself will be achieved by facilitating activities within the public health community as a whole. It will do this by employing a small core of public health project managers who will develop existing networks and support the creation of new ones to ensure that resources and skills are shared, unnecessary duplication is avoided and specialist expertise is provided in a more uniform manner.

Health policy for Scotland has been set out through two White Papers – "*Designed to Care*" and "*Towards a Healthier Scotland*" and, more recently, the National Plan "*Our National Health – a plan for action, a plan for change*". The Public Health Institute will play a key role in enabling the public health community in Scotland to deliver this agenda.

The Main Components of the Institute's Programme

The work programme for PHIS will be divided into three broad components:

1) Information – creating and utilising a holistic public health database.

2) Evidence/knowledge – creating and utilising the public health evidence and knowledge base.

3) People – developing the public health human resource.

Information – Creating and Utilising a Holistic Public Health Database

Understanding the multiple and interactive determinants of health needs complex information management. A study has been conducted to assess the feasibility of compiling a database of routine data on:

- physical environment;
- social environment;
- health related behaviour etc.

This study concluded that it would be practical to bring together disparate sources of information to use at national, regional and local levels to understand the determinants of health and to inform programmes and planning.

Evidence/Knowledge – Creating and Using the Public Health Evidence and Knowledge Base

The Scottish Needs Assessment Programme will be expanded to focus on the priorities set out in the Scottish Health Plan.

A number of specific projects are being planned to explore how Scottish Executive policy can be operationalised to bring improvements in health. A survey will be undertaken to ascertain what a cross section of the Scottish population would see as "the possible Scotland". This work will also explore what individuals are prepared to do to help create a healthier Scotland and what they expect from public institutions. The results of this research will feed into public health policy development.

Health impact assessment was highlighted in the White Paper "*Towards a Healthier Scotland*" and the Institute will facilitate the development of a network to provide a source of expertise in its development and implementation. This will link various centres of expertise in a programme of work.

The Institute will also create a network of relevant and interested individuals who will oversee a project to assess the needs of ethnic minority groups and provide support to the new unified boards.

There are many issues to do with health related behaviour, life skills and interventions targeted at individuals and there are a large number of individuals and organisations already working in these areas. The Institute will network with these groups. Some work is already planned:

- collaboration with HEBS and ASH to highlight at constituency and local authority level the number of deaths associated with tobacco, the best estimate of smoking prevalence and the availability of smoke free environments and services to promote smoking cessation;
- the production of a number of needs assessment reports on specific topics such as autistic spectrum disorder and audiology services.

Developing the Public Health Human Resource

To achieve the policy objectives set out in "*Our National Health*", Scotland will require a skilled, multidisciplinary workforce able to deliver all the competencies for public health. Action is required to increase the public health skills of a large number of professional groups. An example is the 85 new Public Health Practitioners who are currently being appointed to local health care cooperatives. This new cadre of workers will be learning many lessons which will be disseminated throughout Scotland. The Institute will be working with this new group to ensure that they are equipped with the skills they require to make a success of these exciting new posts.

The Institute aims also to provide a training, career and accreditation structure for all the public health disciplines to create similar opportunities to those currently available to medical and dental practitioners.

The above describes an ambitious agenda for the first year. This will be focused on "*early win*" projects and progress on longer term goals such as increasing our understanding of the determinants of health, achieving greater cohesion in the processes involved in training for public health professionals and coordinating the collective efforts of the public health community in Scotland.

The Changing Shape of Health Care

A number of key health policy documents have been published over the past 3 years in Scotland.

- *Designed to Care* (1997) indicated the beginning of an era of patient focused service built on partnership.
- The *Acute Services Review* (1998) recommended that the development of Managed Clinical Networks, working across traditional professional and geographical boundaries, to achieve equitable provision of clinical services throughout Scotland while ensuring high quality standards.
- The Public Health White Paper *Towards a Healthier Scotland* (1999) launched major new initiatives such as the Health Demonstration Projects, aimed at driving down cancer and coronary heart disease rates and improving the health of children and young people.

In December 2000 *Our National Health, A plan for action, a plan for change* signalled the intention to move from an era of policy development to delivery of change. The aim is the rebuilding of a truly **national** health service in Scotland, working in partnership with patients, carers and staff, and focused on reducing inequalities in health, across the country.

As a result of recent technological and therapeutic advances, traditional patterns of healthcare delivery are now being transformed in many clinical areas. The following sections cover these in some detail under the broad (and often overlapping) headings of:

- access to services;
- provision and quality of services;
- utilisation of services; and
- new developments.

Under each heading examples are given of initiatives to improve health and health care delivery for the clinical priorities, cancer, CHD, mental health and the priority groups, young and older people and cross cutting issues.

ACCESS TO SERVICES

Designed Healthcare

Extending access to services is a key priority for NHSScotland and fundamental to The Designed Healthcare initiative, set up in January 1997. This is now supporting over 50 redesign pilot projects at various stages of implementation. The earlier pilots are now demonstrating the potential that exists for major improvements in the patient journey. The aim is to redesign services from the patient's perspective, allowing patients and users to be involved actively in the process. A whole systems approach is used, which makes the best use of the skills of the healthcare team, challenges traditional ways of working and aims to improve the responsiveness and quality of care, as well as reducing waiting times.

The following examples highlight some of the benefits which result from service redesign.

Better access to Cancer Services

Lothian

The redesign of the breast outpatient clinic in the Western General Hospital has allowed the introduction of a one stop clinic for patients with breast lumps. Laboratory and imaging results are available on the same day as the patient attends the clinic.

Grampian

The introduction of a one stop colorectal service has reduced the mean waiting time from 19 to 4 weeks and the number of hospital visits from 4 to 1. 50% of all patients are able to be reassured and discharged at the first visit.

Better access to services for Coronary Heart Disease and Stroke

Greater Glasgow

A joint acute/primary care initiative in total stroke care, has enabled the development of a single dedicated stroke unit, where previously patients were managed across 12 wards. A one stop TIA clinic has also been introduced. Referral guidelines have been developed for management of stroke and access mechanisms to acute care (agreed by primary care) are now being implemented. The percentage of patients having a CT scan during the acute episode has risen from 80% to 94%, and the mean waiting time for a CT scan is down from 7.5 to 3 days.

Better access to Mental Health Services

Borders

A primary care based initiative involving the development of an integrated care pathway for mentally ill patients has reduced the readmission rate at 28 days to 9%. Patients are actively involved in planning their care, and key patient information is gathered only once as part of the pathway. There has been an associated 24% reduction in use of inpatient beds.

Better access to Child Health Services

Dumfries and Galloway

The redesign of paediatric outpatient services with the combined child health service (a joint acute/primary care initiative) has resulted in a reduced waiting time to see the paediatrician for enuresis services from 12 weeks to 3 weeks. There has been an associated reduction in inpatient admissions in this patient group with a consequential 25% reduction in bed occupancy.

Better access to services for Older People

Ayrshire and Arran

The one stop cataract surgery service in this area has been very successful in reducing the total length of time waited for diagnosis and treatment, from 12 months to one month. The service involves direct optometrist referral to the ophthalmology clinic, with postoperative review also carried out by the optometrist. Streamlining of the service has reduced inter-agency visits from 7 to 3 and the number of hospital visits has been reduced from 4 to 1.

The partnership approach and structured methodology which characterises the *Designed Healthcare* initiative are keys to its success. To promulgate good ideas a systematic approach is taken by *Designed Healthcare* to allow the sharing of best practice across Scotland. This is achieved through the Scottish Design Network, established in March 1997, which now includes 25 Trusts and 11 Health Boards. The Network allows Trusts to share lessons learned, and feedback on progress with practical examples of problems encountered, and how these were overcome. *Our National Health, A plan for action, a plan for change*, underlined the need for successes in one part of Scotland to be rolled out across the country. The Plan also indicated that every unified NHS Board will be expected to set out a programme of service redesign.

Local Healthcare Cooperatives (LHCCs)

Designed to Care defined LHCCs as "*voluntary organisations of GPs which will strengthen and support practices in delivering care to their local communities*". LHCCs have made very considerable progress since the White Paper was published, with the vast majority of GPs voluntarily becoming members of the cooperatives. There are now almost 80 LHCCs across Scotland, covering a range of populations, and with diverse organisational structures and cultures, but linked by the common thread of commitment to local working.

The LHCC Best Practice Group was established in May 2000 with the remit of identifying good practice in relation to partnership working. The Group has also been asked to identify examples of service improvement and to make proposals for strengthening the influence of LHCCs in all aspects of service design, planning and delivery. Ninety percent of the contact that people have with the NHS is through primary care, and by definition the majority of these contacts will be with services provided within LHCCs. It is therefore appropriate to strengthen the role of LHCCs in service delivery. *Our National Health, A plan for action, a plan for change* noted the importance of services being designed and delivered as close to patients and communities as possible, and ack-nowledged the key role LHCCs have to play in achieving this. The report of the Best Practice Group expected early in 2001, will help to develop the Executive's strategy for LHCC development.

NHS 24

NHS 24 was launched at a conference in May 2000, following detailed discussions with representatives of GP out-of-hours services. NHS 24 will set up and operate a new service to provide the people of Scotland with nurse led advice, through a network of contact centres. NHS 24 will be a distinctly Scottish service and will provide:

- confidential, reliable and consistent telephone based assessment of symptoms by nurses;
- information to the public on health and healthcare services;
- quick, efficient and appropriate access to health and healthcare services in Scotland;
- 24 hour support to the public on healthcare, 365 days a year.

The service will be accessed via a national telephone number, although in the longer term the aim is to provide public access through a number of channels, including an online service.

Since May 2000, the Health Department has carried out an extensive consultation process with service organisations, professional bodies and patient representatives. The Department has also

organised 3 national seminars, and numerous local events, to allow further discussion of the proposals.

A Project Director was appointed to NHS 24 in October 2000. The first task is to work with NHS colleagues and consultants to develop a detailed service design and implementation plan, with a timetable for the roll out of the new service.

One Stop Clinics

The Scottish Executive policy of establishing one stop clinics where all tests are carried out in a single visit, and results and diagnosis, where possible, are available the same day, is now being realised. To date there are over 200 such clinics in Scotland, covering a vast range of clinical areas. A patient referred to a one-stop clinic will typically receive a specialist consultation, undergo the appropriate diagnostic tests, receive results and undergo treatment where necessary. Where immediate treatment is not feasible, the patient should be given an appointment to attend for treatment at a future date, before they leave the clinic.

A good example of this kind of initiative is the one stop minor surgery clinic which has been established in Brechin, Angus, within a community hospital, for the diagnosis and treatment of minor lesions. The service is provided close to the patient's home, removing the need for multiple visits to an acute hospital. The clinic is run by a consultant plastic surgeon, while the minor surgery list runs consecutively, conducted by a local GP. The clinic is very popular with patients and provides an opportunity for integrated working between hospital and community based medical staff. Approximately 240 patients are now being treated annually in this clinic without being added to the waiting list. The initiative is now being extended to other parts of Fife.

Improved access to services such as those described above, requires optimum use of existing staff, often through multidisciplinary team working and role extension, particularly of nurses. These issues are considered in greater detail in the section covering New Developments.

PROVISION AND QUALITY OF SERVICES

Managed Clinical Networks

The Acute Services Review described the concept of Managed Clinical Networks (MCNs) to work across professional and geographical boundaries. A subsequent MEL outlined the core principles which should underpin all MCNs. The concept is now becoming a reality with the establishment of increasing numbers of networks across Scotland, some national, others local.

Some examples of managed clinical networks are described under the headings Cancer, CHD/ Stroke, young and older people and others.

Cancer

Pilot Managed Clinical Networks in Palliative Care

During the year, the Department invited proposals for pilot Managed Clinical Networks with particular reference to the management of pain. Palliative care has long been recognised as particularly suitable for a MCN approach, because it is delivered in a broad range of care settings by a wide spectrum of health care professionals. There has traditionally been a strong patient voice. The

publication at much the same time as the SIGN *Guideline on Control of Pain in Patients with Cancer* helped provide the evidence base, though the HDL inviting bids made clear that they should relate to all chronic and progressive conditions.

The Department was greatly encouraged by the geographical and professional breadth of the proposals received, as well as the uniform enthusiasm for the concept of MCNs as a means of improving general standards of palliative care throughout Scotland. The considerable assistance of the Scottish Partnership Agency for Palliative and Cancer Care has been invaluable in taking forward this initiative.

Coronary Heart Disease and Stroke

Managed Clinical Network Pilot for Coronary Heart Disease in Dumfries and Galloway

The first local Managed Clinical Network for CHD began to be piloted in Dumfries and Galloway in July 2000 and considerable progress is being made. The aim is to establish a functional network by April 2001 and to evaluate its impact on services, processes and outcomes and carry out an economic appraisal. The pilot is already providing answers to a number of generic questions about the practical workings of Managed Clinical Networks. These include: clarifying the clinical governance arrangements, public involvement, and the degree of financial and administrative support required. The pilot will produce templates and documentation of value to the rest of NHSScotland, which will include clear pathways, protocols and public information documents.

The project, led by Dr Chris Baker, a member of the CHD Task Force, has been taken forward by 5 Working Groups, each looking at a range of issues. Membership of the Working Groups has been drawn from local people from all backgrounds – professional and lay. The Scottish School of Primary Care will lead the evaluation process in partnership with the Working Groups, the Crichton University Campus and a health economist from Aberdeen University. The aim is to roll out emerging lessons from this pilot network across Scotland. The development of the pilot CHD Managed Clinical Network is the first step to achieving the intention set out for CHD in *Our National Health, A plan for action, a plan for change,* that Managed Clinical Networks will be developed at local level for investigation and diagnosis of CHD, linked to a national network for intervention.

Managed Clinical Network for Stroke Neurology: Pilot Demonstration Project

A demonstration Managed Clinical Network for Stroke Neurology is being taken forward by clinicians based at the Institute of Neurological Sciences (INS), South Glasgow University Hospitals NHS Trust and Law Hospital, Lanarkshire Acute Hospitals NHS Trust. The overall aim of the pilot is to formalise the neurological input to stroke services across the Lanarkshire region. The MCN is led by a neurovascular team based at the INS, including neurology, neuroradiology and neurosurgery staff.

The Network will promote collaboration among the many people involved in delivering services at various points of the pathway including:

- health promotion and primary prevention;
- acute investigation and treatment of patients with transient ischaemic attack;
- acute hospital treatment for disabling stroke and secondary prevention. Teleradiology links will help select patients suitable for rapid transfer from the Lanarkshire acute hospitals to the INS. The pilot is being evaluated over a 3-year period.

Managed Clinical Network for Vascular Services: Pilot Demonstration Project

Good progress is being made towards providing an integrated regional vascular service across Lanarkshire through this demonstration Managed Clinical Network, which will meet the dual aims of achieving high quality care and of providing appropriate local access. Generic lessons are beginning to emerge, particularly in the areas of network management, and accountability. These will be disseminated to allow other areas of the country to benefit from Lanarkshire's experience in setting up this MCN. The demonstration site (which is being evaluated over a 3-year period) will also provide guidance on the development of other similar Networks.

The Young

National Managed Clinical Network for Cleft Lip and Palate

The treatment of cleft lip and palate in Scotland has been organised by Scottish Association for Lip and Palate (SCALP) since 1989. This has been a national multidisciplinary effort involving a broad range of health professionals.

A national Managed Clinical Network (CLEFTSiS), has now been developed, building on the foundations of SCALP, to provide a planned and coordinated system for delivering better quality patient care, through a single Scottish service delivered from many sites. Two recent reports (the CSAG and Scottish Needs Assessment Programme reports on Cleft Lip and Palate Management) have given added impetus to a process of change in treatment.

The key aims of CLEFTSiS are:

- To improve outcomes of care by concentrating the clinical caseload in the hands of a smaller number of surgeons treating primary clefts in Scotland, with the ultimate aim of reducing to a maximum of 3 surgeons undertaking this work. When the project started early in 2000, there were 6 surgeons performing primary cleft surgery in Scotland. Since the establishment of the network the number of surgeons treating primary cleft lip palate children in Scotland has reduced to 4.
- To coordinate more efficient organisation of patient care nearer to home, and to ensure that all of the Specialty Groups cooperate in the management of patients to standards agreed with the Clinical Standards Board for Scotland.
- To monitor the performance of network participants against these standards. This is particularly challenging in the area of cleft lip and palate because the final outcome of multidisciplinary care, initiated in infancy, cannot be fully assessed until adulthood. The network has already established a framework of standards and audit mechanisms to take forward this important work.

National Managed Clinical Network for Home Parenteral Nutrition

Home Parenteral Nutrition (HPN) is an established but expensive treatment for patients who suffer from profound intestinal failure. With good management HPN provides a reasonable quality of life without the need for continuing inpatient care and with a low incidence of complications. At any given time, there are 50-70 patients receiving HPN in Scotland.

The network was established to address marked variations in the practice of HPN across the country. There was, for example, no standardisation of selection criteria, and there were differences in the number of patients receiving treatment between regions. Management protocols and arrangements

for training, monitoring and emergency medical advice differed between centres. Standardisation of equipment was lacking and there were different methods for the supply of both nutrients and equipment. Moreover, treatment related complications were common in some centres leading to increased patient morbidity and treatment related costs.

A National Managed Clinical Network was therefore proposed by clinicians providing the HPN service to ensure:

- equity of access
- adoption of best practice with standard equipment and management protocols throughout the country
- delivery of the service via the local hospital supported by the network
- audit and research
- improved opportunities for teaching and training
- more efficient use of resources.

Approval in principle was given by the Health Department in August 2000 for National Services Division to work with Trusts involved in providing this service, to establish a National Managed Clinical Network for Home Parenteral Nutrition.

A lead clinician has now been identified at Ninewells Hospital and Medical School, Dundee. A network coordinator is in post and relevant clinicians throughout Scotland have formed an executive group for the Network, with multi-site and multi-professional representation. Progress is being made towards establishing a database. The network has developed quality standards which are awaiting approval from the Clinical Standards Board for Scotland.

Other Local Managed Clinical Networks

A number of local MCNs are beginning to appear in other areas. One example is that of a Managed Clinical Network in ENT which crosses the Fife/Tayside boundary. This is being combined with a process of service redesign, and the arrangement has already enhanced teaching and treatment opportunities, and encouraged strong lines of communication, with obvious benefits for patients. The report from Tayside (Chapter 7) describes a managed clinical network for diabetes.

Improved Clinical Leadership

Clinical leadership is required at all levels in NHSScotland to ensure that initiatives such as Designed Healthcare and Managed Clinical Networks get off the ground. Programmes such as "*Quality Through Leadership*", a continuous improvement programme based on culture change, are being adopted in some areas as a means to this end.

In Lothian the Acute Trust has developed Clinical Improvement Programmes (CLIPs) within each Directorate. These are multidisciplinary and have defined leadership and resources to take forward clinical quality improvement, based on rapid cycle (3 months) clinical audit, including analysis of complaints and litigation, patient feedback from detailed questionnaires, local R & D, and guided by national priorities. This work is now being reported regularly to the Trust Clinical Governance Committee.

Quality initiatives such as that described above require the availability of robust data, and in many cases this is limited by the availability of clinical IT systems on offer, and the fact that investment in staff and technology to support quality improvement programmes in NHSScotland lags far behind resources devoted to other areas, for example finance. Greater investment will be needed to develop reliable audit parameters from **routinely** collected data, to ensure quality. The Clinical Standards Board for Scotland will continue to be a major lever for change in this area, with its requirement for robust data against which the performance of services can be assessed. In this context, one of the core principles of Managed Clinical Networks is that they develop a quality assurance programme acceptable to the Clinical Standards Board for Scotland.

Clinical Standards Board for Scotland

The Clinical Standards Board for Scotland (CSBS) was established as a special Health Board in April 1999. The Board's task is to develop and run a national system of quality assurance and accreditation of clinical services, with the aim of improving health care and promoting public confidence in NHSScotland.

The Board published a Quality Assurance and Accreditation Manual in August 2000 setting out how it will accomplish its core tasks of setting standards, conducting peer review of performance against these standards, and reporting the findings, at each stage working closely with NHS staff and with patients and the public.

Simultaneously, the Board has developed standards for its first 6 reviews covering:

- secondary prevention following acute myocardial infarction;
- 4 cancers (breast, colorectal, lung and ovarian); and
- schizophrenia.

During autumn 2000 these standards were finalised following wide consultation and a number of pilot review visits. Roadshows were held in each Health Board area to publicise the Board's work and to provide initial training for the healthcare professionals and members of the public nominated to be reviewers. The substantive review programme commenced in November 2000 starting with coronary heart disease and with the others scheduled to begin early in 2001.

The Board also developed and piloted a set of generic standards relating to safe and effective clinical care and to patient focus, to assist all its standard setting groups and to support Health Boards and Trusts in taking forward clinical governance. For primary care services, it has endorsed practice accreditation as the way forward and started to work with Primary Care Trusts and the Island Health Boards to roll this out to all general medical practices.

Our National Health endorsed the general approach being developed by the Board, and signalled that its reports would be a key component in the new Performance and Accountability Framework for NHSScotland. It also extended the Board's remit to include service standards on infection control, cleanliness, food and other matters.

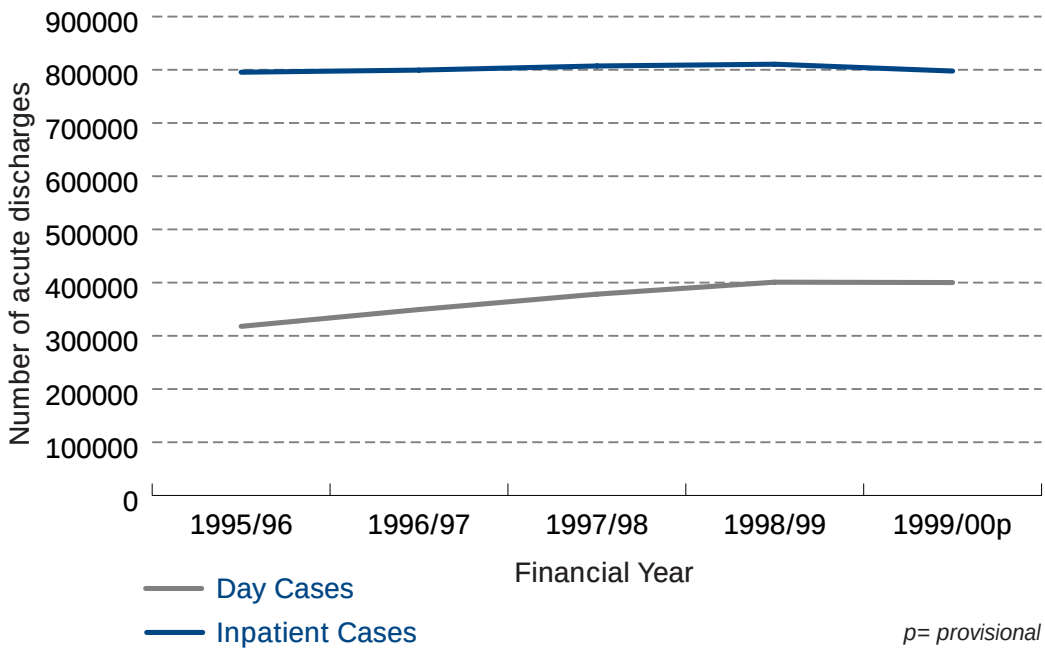
UTILISATION OF SERVICES

There have been fundamental changes, not only in the patterns of NHS service delivery over the past several years, but also in the way that services are utilised.

Figure 6.1 illustrates trends in inpatient and day cases treated in the acute sector over the past 5 years. Inpatient cases are in a relatively "*steady state*" at around 800,000 per annum. Day cases on the other hand show a significant increase of greater than 20% over the same period.

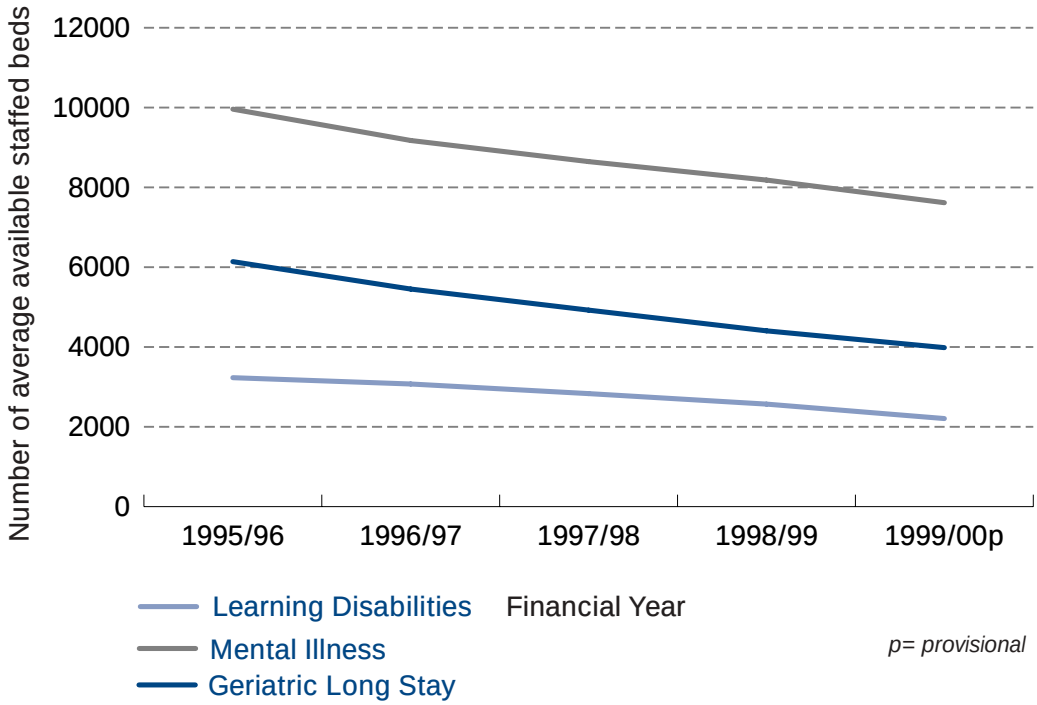
Day case treatment provides obvious clinical benefits, allowing patients to return home as early as possible, and avoiding potential unwelcome complications such as hospital acquired infection. It also optimises use of NHS facilities. The provision of 24 hour facilities in some Trusts allows an overnight stay for day case patients operated on later in the day, and ensures maximum use is made of day case facilities. Advances in anaesthesia and surgical techniques have led to a general shortening of recovery times, and earlier discharge.

Figure 6.1: The number of in-patient and day cases treated in acute specialities in Scottish Hospitals



The shift from long stay institutional care to care in the community is reflected in **Figure 6.2**. This shows a steady year on year decline in the number of available beds for geriatric long-stay, mental illness and learning disabilities.

Figure 6.2: The number of average available staffed beds in Scottish Hospitals in geriatic long stay, mental illness and learning disabilities



Emergency admissions and outpatient referrals continue to increase steadily. The vast majority of referrals are considered entirely appropriate. Against this background there is increasing interest in the concept of intermediate care and the part it might have to play in managing such demand. With the maturation of LHCCs the debate in this area is likely to become more focussed.

Figure 6.3 shows modest rises in the number of hip and knee replacements over the past 5 years. The increase for cataract surgery is much more dramatic, reflecting not only the ageing population, but also increased availability of day case facilities, allowing greater throughput of cases.

Figure 6.3: Number of selected principal operations performed in Scottish Hospitals

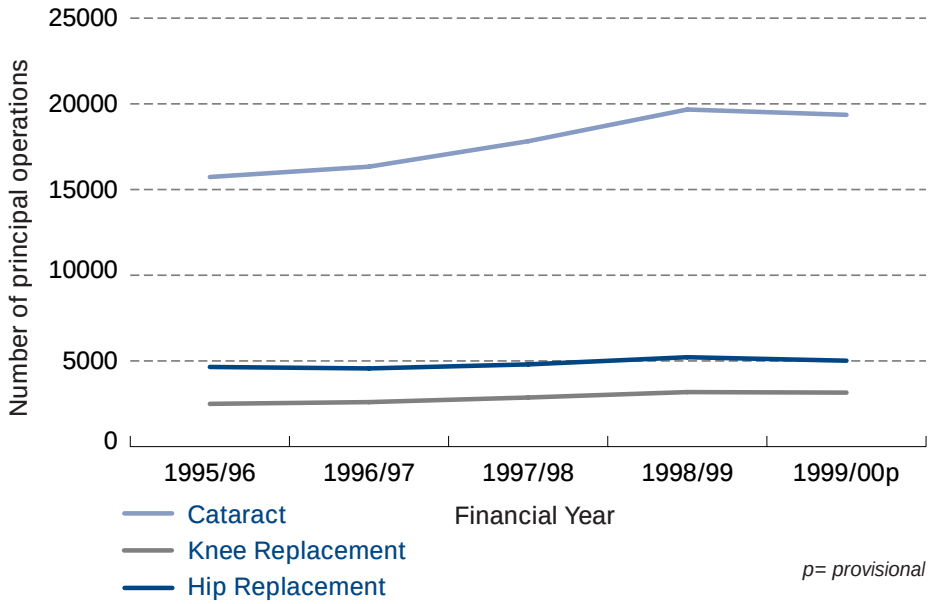
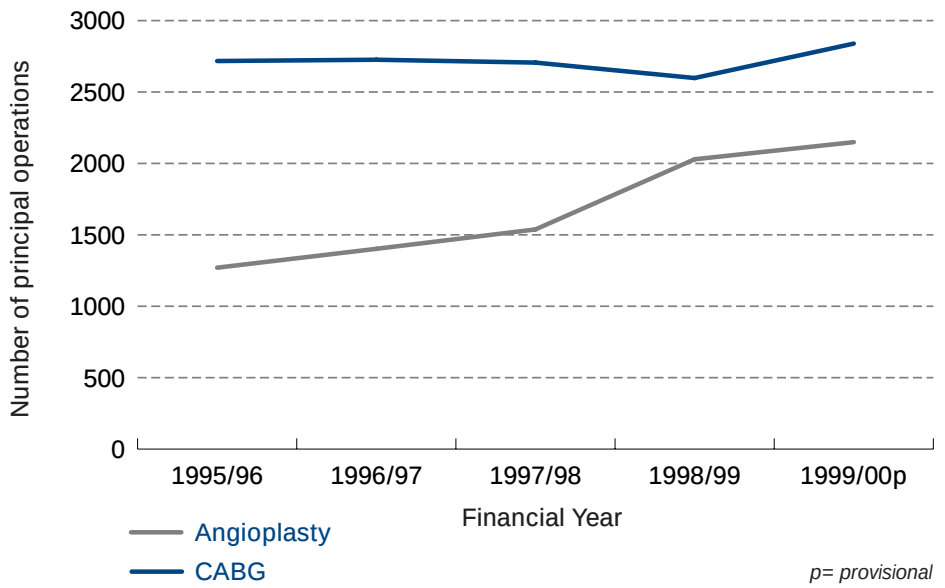


Figure 6.4 illustrates another important shift in service utilisation in the area of CHD. CABG numbers have increased modestly over the past 5 years, but the number of angioplasties undertaken over the same period has almost doubled. This trend looks set to continue with emerging evidence that angioplasty with stenting offers the same degree of protection against death, stroke and myocardial infarction as CABG. The technique is cost effective, but is associated with a greater need for repeated revascularisation.

Figure 6.4: Number of CABGs and angioplastied performed in Scottish Hospitals as principal operation



Delayed discharges remain a significant factor in the acute sector, restricting the availability of medical beds for acute admissions, and resulting in delays for elective surgery during peaks of emergency medical admissions. Effective discharge planning is key to reducing this problem to a minimum. Developments such as the Rapid Response Teams which have been set up in some areas of the country provide support for patients at home, and allow early discharge from hospital. Some initiatives track patients from admission to hospital to ensure that there are no delays in investigations and treatments which would delay discharge. The provision of rehabilitation at home, particularly for frail elderly patients, can not only achieve earlier discharge, but can also reduce hospital readmission in many cases. The hallmark of most of these initiatives is multidisciplinary and multiagency working.

NEW DEVELOPMENTS

Development of new medical and surgical techniques

Coronary Heart Disease and Stroke

Many changes in patterns of service delivery and utilisation have resulted from the development of new medical and surgical techniques such as use of stents in coronary angioplasty, mentioned in the previous section. Also, relevant in this area is the use of troponins in patients with chest pain which allows identification of a higher proportion than previously of patients at high risk of sudden death. These patients are now increasingly being treated by emergency angioplasty and stenting. Troponins are also being used particularly in A & E, as a means of determining which patients with chest pain require admission, and those who can safely be discharged home. Previously most patients with chest pain required admission for at least 24 hours to exclude acute myocardial infarction.

Deep Vein Thrombosis

Another area where management has been totally transformed is that of deep vein thrombosis. In the past, such patients required admission for heparinisation followed by warfarinisation, requiring an average inpatient stay of a week to 10 days. With the introduction of low molecular weight heparin, which can be given by subcutaneous injection once a day, such patients can now be managed entirely as outpatients. In many instances they are trained to give the heparin injection themselves and only have to attend the hospital for monitoring until their warfarin dose is stabilised.

More hospitals

The current NHSScotland Hospital Building Programme includes 6 new facilities and the extension of 2 existing facilities (Glasgow Royal Infirmary and Western General Hospital, Edinburgh). These new buildings have been designed to accommodate the kind of new developments outlined in this section, and are summarised in **Table 6.1**.

Table 6.1 NHSScotland Hospital Building Programme

Project	Value	Planned Opening Date
1. New Royal Infirmary of Edinburgh New major acute and teaching hospital on greenfieldsite in south east Edinburgh adjacent to new University of Edinburgh Medical School development.	£180m (PFI)	Spring 2003 (After completion of second phase)
2. Wishaw General Hospital New district general hospital at Netherton replacing Law Hospital.	£100m (PFI)	June 2001
3. Hairmyres Hospital New district general hospital on Hairmyres site at East Kilbride replacing services presently provided at Hairmyres and Stonehouse Hospitals.	£68m (PFI)	April 2001
4. East Ayrshire Community Hospital New community hospital in Cumnock with a 24-bed GP unit, outpatient services, 24 day hospital places and 50 continuing and respite care places.	£9m (PFI)	August 2000 ***(Open)***
5. Glasgow Royal Infirmary Development of new maternity, plastics and emergency receiving centre.	£52m (Publicly Funded)	Late 2001 (After completion of second phase)
6. Western General Hospital, Edinburgh Development of a new ward and theatre block.	£47m (Publicly Funded)	September 2001
7. Southern Isles Community Hospital New 29-bed community hospital at Balivanich, Benbecula.	£7m (Publicly Funded)	April 2001
8. Aberdeen Children's Hospital New children's hospital.	£22m (Publicly Funded – Capital Receipts)	2003

New Ways of Working – Multi professional working

The relentless upward trend in health service activity is taking place against a background of clinical, and in particular medical, manpower shortages in many areas. The need to use all clinical staff optimally has resulted in some tasks, previously carried out by doctors or nurses, being taken over by other members of staff. The appointment of phlebotomists across the NHS is a good example of this kind of development. In other areas, more radical thinking is resulting in role extension for clinical, particularly nursing, staff.

Examples of multidisciplinary working are given below:

Specialist Nurse for Coronary Heart Disease in Fife

Dunfermline LHCC in Fife is employing a specialist nurse to work with practices in primary and secondary prevention of coronary heart disease. The nurse supervises the maintenance of registers, works with GPs, practice nurses and on her own to provide clinics in all practices in an area of high deprivation. Scotland's CHD Plan, will reinforce the need for effective primary and secondary prevention. Other LHCCs may wish to give consideration to the model of service delivery being adopted in this area in Fife.

Consultant Midwife in Greater Glasgow

The North Glasgow Trust appointed its first Consultant Midwife on 1 July 2000. This is an innovative new post intended to ensure that senior midwives remain in clinical practice. The key objectives of the post are to:

- develop primary care based models of midwifery care and to improve access and information for women and families;
- develop the public health role in midwifery practice;
- facilitate effective integration of maternity care and improve interdisciplinary working at the acute/primary care interface.

The postholder is working collaboratively with GPs, health visitors, obstetricians and midwives to establish a community-based maternity and health promotion in Shettleston, one of the most socio-economically deprived areas in Europe. A multi-disciplinary approach to health promotion and education is being developed.

Nurse-led services for Oncology

A number of role extension initiatives are under way at the Beatson Oncology Centre:

- A nurse-led service which aims to reduce the number of patients requiring inpatient admission for chemotherapy treatment. The project, which will be piloted for a year, involves the insertion of a Peripherally inserted Central Catheter (PiCC). The chemotherapy can be administered through this catheter which avoids the risks associated with short-term peripheral cannulae of dislodgement or leakage. The expectation is that patients managed in this way will have increased independence, spend much less time within the hospital and have an improved quality of life, with day case attendance at hospital and continued treatment in their home setting. The insertion of a PiCC line will be particularly beneficial for those patients who travel long distances.

There will also be greater scope for improving communication and interdependence between the Cancer Centre and the community. Although PiCC services have been introduced on a small scale in other parts of Scotland, the Beatson initiative is the first to offer it to such a large number of patients.

- A team of radiographers and the outpatient sister are receiving formal training in the review of patients receiving radiotherapy after lumpectomy or mastectomy with resulting reduction of waiting times at busy breast clinics. Consideration is now being given to extending non-medical review to patients receiving radiotherapy for gynaecological and urological tumours.
- Radiographers have been trained to run a patient helpline to provide additional help and guidance which patients feel they need during a course of radiotherapy. Following completion of treatment, many patients continue to need advice and discuss issues of the treatment, preferably with the professional who has been involved directly or indirectly. This new helpline allows patients to seek such advice, outwith the setting of a busy treatment unit.

New Roles for Pharmacists

The role of pharmacists is now being critically examined with a view to formalising and extending it in some areas. For example, pharmacists have an increasing role to play in ensuring patient compliance with drug treatment, which is obviously of particular importance in areas such as the secondary prevention of coronary heart disease. Pharmacists can ensure that patients take their aspirin and other relevant drugs. In addition, they are well placed to refer patients back to their general practitioner for consideration of, or review of, antianginal therapy as appropriate.

Pharmacist-led patient monitoring in Fife

More and more patients on long-term warfarin are now being managed totally in primary care, and not necessarily by general practitioners. In Fife a pilot scheme has developed monitoring of anticoagulant therapy by pharmacists who also review and discuss medication. This should lead to improved quality control, and will obviously free resources from hospital clinics, general practitioners and practice nurses.

Our National Health indicated that current model schemes for pharmaceutical care in the community will be extended to include chronic conditions. Support will be given to arrangements to allow pharmacists to prescribe a broader range of medicines, conduct medication reviews and monitor certain treatments. The intention is also to improve provision of repeat medication and support this by developing electronic transmission of prescriptions and better information exchange.

Better Patient/User Involvement

Working in partnership with patients, carers and the wider public to improve health is now widely accepted as the way forward for NHSScotland. *Designed to Care* stressed the importance of patient and public involvement in service delivery and evaluation. Patient and voluntary sector involvement are 2 of the core principles underpinning the Managed Clinical Network concept. More recently, *Our National Health, A plan for action, a plan for change* has reinforced the need to involve patients and their carers at every step of the patient journey. There are numerous examples of new developments where this approach is reaping benefit.

A project in an LHCC in Glasgow in a deprived housing scheme uses a questionnaire survey and focus group. The findings are fed back to all LHCC members and disseminated to the local community. As a result of feedback, the LHCC has taken action on 2 specific problems relating to access. Another project in Glasgow sought the views of service users in the area of learning disability. Individual clients and carers were interviewed, the information analysed and collated, and follow-up action taken based on this evaluation.

Reorganisation of Services

Integration of Paediatric Cardiac Surgery and Interventional Cardiology at Yorkhill

In July 2000, Scottish paediatric cardiac surgery services, which had formerly been located on 2 sites in the Royal Hospitals for Sick Children in Edinburgh and Glasgow, were integrated into a single service centred on the Royal Hospital for Sick Children at Yorkhill, Glasgow. The concentration of this important and complex work in a single inpatient centre offers a service of greater critical mass, carrying out some 275 operations per year. A team comprising 2 consultant surgeons together with other skilled colleagues is now in place and taking the essential high quality multidisciplinary approach necessary in this area. (The aim ultimately is to appoint a third consultant.) The integration will ensure that the service reaps other benefits associated with its concentration on one site, including improved audit activity and equity of access to highly specialised diagnostic and clinical support facilities such as MRI scanning, haemofiltration and Extracorporeal Membrane Oxygenation (ECMO).

As a result of integration of paediatric cardiac surgery, the majority of paediatric interventional cardiology has also been centred on Yorkhill. Professional consensus dictates that many interventional procedures should only be carried out on a site with cardiac surgery backup, on grounds of patient safety. The facilities for interventional cardiology at Yorkhill are available to all paediatric cardiologists in Scotland, including those based in Edinburgh. Paediatric interventional cardiology will be a designated national service with effect from April 2001 in recognition of its close association, in clinical and operational terms, with the national paediatric cardiac surgery service.

National Demonstration Projects

The Public Health White Paper *Towards a Healthier Scotland* announced the setting up of 4 national demonstration projects:

- *Starting Well;*
- *Healthy Respect;*
- *the Heart of Scotland* (now renamed *Have a Heart Paisley*); and
- *the Cancer Challenge.*

All 4 projects, which will be evaluated over a 3-year period, are now up and running. A total of £15m has been allocated to the first three projects with separate funding for the Cancer Challenge.

Starting Well

This project, already referred to earlier in the section on Young People, aims to demonstrate that child health can be improved by a programme of activities which supports families and provides them with access to enhanced, community-based resources. It is led by Glasgow Healthy City Partnership (representing a range of statutory, voluntary and academic interests). The project involves a programme of intensive home-based health visiting, lay worker support and community development. The focus is on parenting issues, and the provision of a strengthened network of community-based support services for children and their parents. Family health plans will be developed and mutually agreed with health visitors, lay workers and individual families. The plans will contain goals for family and child health, including lifestyle issues and specific attempts to influence these.

Healthy Respect

The *Healthy Respect* demonstration project aims to reduce unplanned teenage pregnancies and sexually transmitted infections by helping young people in Lothian develop a positive attitude to their own sexuality and that of others, and a healthy respect for their partners. *Healthy Respect* seeks to build on the existing evidence base on teenage sexuality and comprises 12 inter-related components.

***Healthy Respect* will work in a variety of settings and target all young people as well as several priority groups for which sexual health is particularly important – including young people in care, young men, marginalised young people and parents. *Healthy Respect* partners include local authorities, family planning, genitourinary medicine, the school health service, family doctors, local health care cooperatives and voluntary organisations. It is described further in the Report from Lothian.**

Have a Heart Paisley

Have a Heart Paisley **is a multiagency, multisector, multisetting project which seeks to reduce heart disease at an individual, risk factor and population level. The project is taking a community based approach, relying heavily on locality networks which have been developed in Paisley. The project covers primary as well as secondary prevention of heart disease and involves both primary and secondary care based healthcare teams. The overarching aim of the project is to prevent heart disease from developing, to delay progression of existing disease and to ensure access to appropriate care once symptoms have developed. It is described further in the report from Argyll and Clyde.**

Initiatives in these areas are not limited to the nationally funded demonstration projects. Particularly in the area of CHD, other areas, notably Lanarkshire and the Borders, are developing their own primary prevention demonstration projects with the same community based, multiprofessional and multisectoral approach.

Cancer

"*The Cancer Challenge*" will establish the feasibility and acceptability of colorectal cancer screening. Three Scottish sites are participating in a UK wide feasibility study into the establishment of a national screening programme. This initiative is described further in the Report from Tayside.

Chapter Seven

Health in the Regions

- **Argyll and Clyde**
- **Tayside**
- **Lothian**

Report from Argyll and Clyde Health Board

(A Report by Dr Lesley Wilkie, Director of Public Health)

In 2000, Argyll and Clyde Health Board adopted a more proactive approach to the Director of Public Health Annual Report with a focus on several national priority topics. A profile of life circumstances and health data was compiled for each of our 5 partner local authorities with key public health issues highlighted for each. A concentrated dissemination process involved presenting the Annual Report to the members of our 5 councils and 3 Trust Boards, with a multi agency workshop in each locality to discuss the local implications. This new approach recognised the public health role of local authorities and the involvement of the Health Board in community planning.

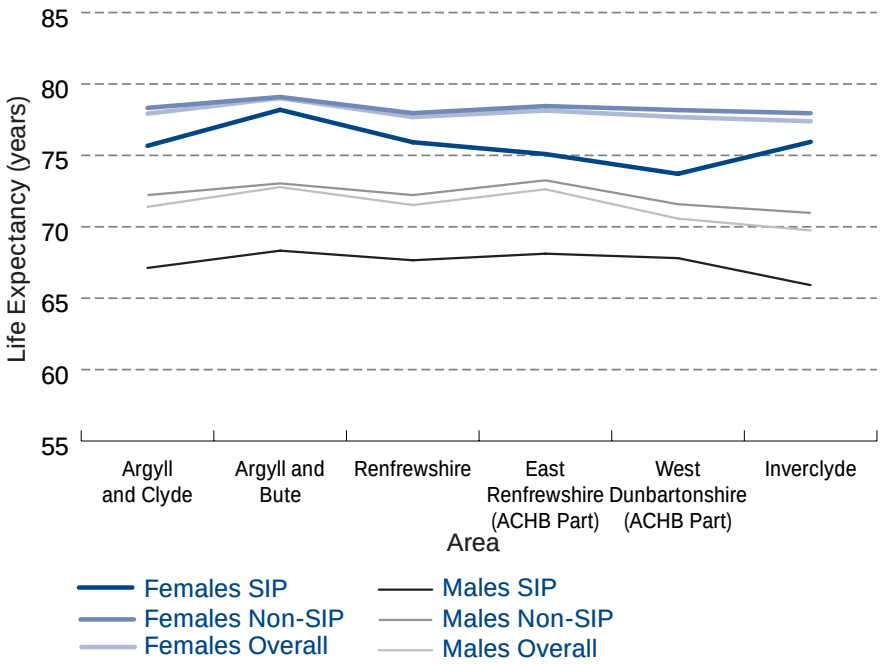
Several new areas of work emerged in 2000 and are described.

Tackling Inequalities in Health

The multi-agency Health Inequalities Steering Group produced a report called *Closing the Gap: Tackling Inequalities within Argyll and Clyde* which documents the measurable inequalities in health throughout the Board area and identifies actions to address these.

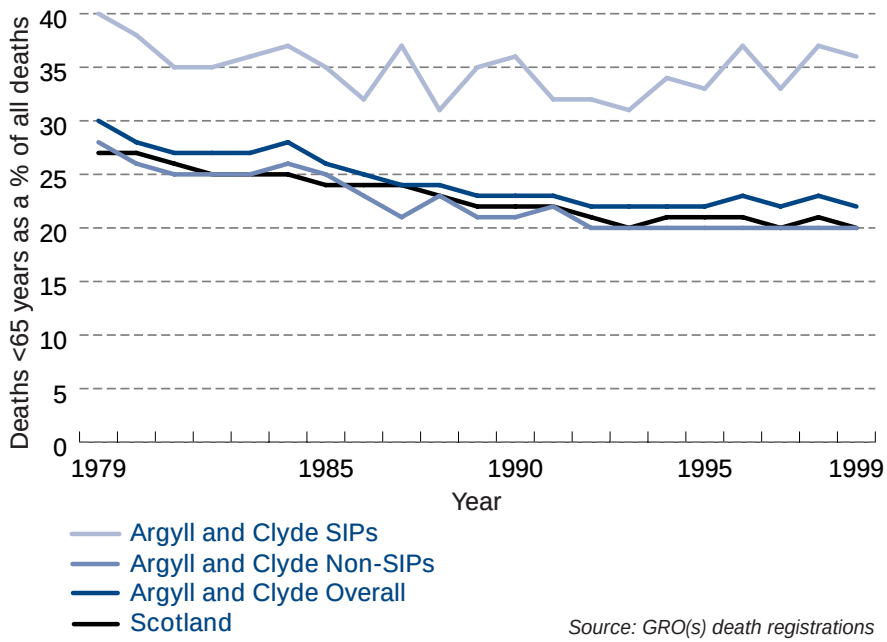
Figures 7.1 and **7.2** demonstrate the inequalities in health in Argyll and Clyde by comparing life expectancy and death rates in under 65s between social inclusion partnership (SIP) areas and non SIP areas.

Figure 7.1: Average life expectancy at birth, by sex, Social Inclusion Partnership (SIP) and non-SIP area: Argyll and Clyde and its five council areas 1995-1999



Source: GRO(s) 1995-1999 death registrations and 1997 CHI population

Figure 7.2: Deaths under 65 years as a percentage of all deaths, Argyll and Clyde residents, all causes 1979-1999



Source: GRO(s) death registrations

Commitment to tackling inequalities is being sought in local community plans and local health plans, as is the involvement of local healthcare cooperatives. Health programme groups such as the Coronary Heart Disease/ Stroke Steering Group, Cancer Steering Group and Oral Health Steering Group have been tasked with taking action to tackle specific inequalities and set targets for reducing them. The Steering Group are committed to focusing on two groups of particularly vulnerable people, the homeless and children looked after by the local authorities.

There are 5 Social Inclusion Partnerships (SIPs) within Argyll and Clyde which have developed differently in response to the specific needs of their areas. All seek to address aspects of life and well-being which affect health by involving a wide range of agencies and community representatives.

For example, the West Dunbartonshire SIP provides:

- **a lunch club open to all;**
- **an evening use facility;**
- **a parent and toddler group;**
- **breakfast for rough sleepers;**
- **a breakfast club for school children;**
- **links with the job action team;**
- **a club for older people; and**
- **links with local learning works.**

There are 2 pathfinder projects, in other parts of the Health Board Area one in Auchenback (Barrhead) and another for young people in Inverclyde. The latter works closely with the Inverclyde Youth Council and healthy living centre planning group to tackle inequalities in young people's health.

Coronary Heart Disease and Stroke

Coronary heart disease and stroke together account for more than 2,100 deaths every year in Argyll and Clyde. This represents more than 40% of all deaths in our area. Deaths from coronary heart disease and stroke are much more common in Argyll and Clyde than they are in Scotland as a whole. People who live in our area are 10% more likely to die from stroke and 8% more likely to die from coronary heart disease than elsewhere in Scotland. This means that we have more than 150 deaths from coronary heart disease or stroke each year than we would have if Scottish death rates applied locally. Reducing deaths from coronary heart disease and stroke is therefore a major local clinical priority for Argyll and Clyde Health Board.

Rates of deaths vary between council areas in Argyll and Clyde. Inverclyde has the highest overall death rate from coronary heart disease, followed by West Dunbartonshire and Renfrewshire councils. The death rates from stroke are highest in the Inverclyde and Renfrewshire council areas. All of these high rates are associated with the raised levels of socio-economic deprivation of these areas.

Our local clinical priority is consistent with the White Paper *Towards a Healthier Scotland*. The white paper set a target of reducing Scotland's rates of deaths from coronary heart disease and stroke by 50% by the year 2010, compared with their 1995 levels.

It is possible to use falling trends in death rates over the last twenty years, from coronary heart disease and stroke to estimate future rates. If past trends continue, Argyll and Clyde will fail to achieve its White Paper coronary heart disease and stroke headline targets. We will probably achieve a 50% reduction in stroke death rates by 2015, and reach a 50% reduction in coronary heart disease death rates in 2020.

The *Clinical Outcome Indicators* report of the Clinical Resource and Audit Group (CRAG) showed that:

- patients in our hospitals have a good record of recovery 30 days after their admissions for myocardial infarctions.
- our stroke survival rates were less than expected, based on Scottish national figures.

The stroke survival rates suggest that there is room to improve our hospitals' management of patients with strokes. The Royal College of Physicians and Surgeons of Glasgow national *Report on the Organisation of Services for Stroke Patients* confirmed this by showing that stroke patients in Argyll and Clyde do not have access to many services accepted as best practice. Argyll and Clyde Health Board is now implementing a strategy for improving stroke services aimed at achieving good standards of practice to improve outcomes for patients with strokes.

Prevention: National Demonstration Project: "Have a Heart Paisley".

The Health Board is part of the multi-agency group that has developed and is now implementing the health demonstration project for heart disease prevention known as Have a Heart Paisley project. It is firmly based on the principles expressed in *Our National Health: a plan for action, a plan for change*. Have a Heart Paisley aims to tackle the underlying inequalities in health in Paisley. In doing this, it will provide evidence for further policy development for coronary heart disease prevention across Scotland.

Partnership Opportunities for Health

Have a Heart Paisley is working in partnership with a range of organisations who are already committed to reducing inequalities in health. Have a Heart Paisley will support and extend existing actions.

Table 7.1 shows just a few examples where concentrated effort and partnership will lead to greater opportunities for sustainable health.

Health Inequalities

Have a Heart Paisley will make a unique contribution to reducing health inequalities over and above the isolated activities of its partner agencies as:

- Over £1 million has been earmarked specifically for community projects. Other components of Have a Heart Paisley are also designed to support community development. Most of the project ideas come from community groups serving SIP areas.

- Assistance is offered to community groups throughout, so factors like literacy or computer skills are not barriers to involvement. Most projects include an element of training and skill transfer. On completion a report will be prepared so further funding can be sought. Supportive training will be arranged.
- There are a number of health-related activities across different settings (schools, neighbourhoods, workplace and community) which are specifically designed to address health inequalities and access.
- There will be a series of projects done in partnership with SIP funded organisations thereby increasing the number and range of activities. This is a particularly useful for projects where there are both SIP and Non-SIP participants e.g. schools.
- The Healthy Eating Strategy will focus on access to fruit and vegetables in low income communities and explore ways of reducing fat in eating establishments used by this group.

Table 7.1

Area of concern	**Contribution by partnership**
Smoking • Important risk factor for CHD • Higher smoking rates in low-income communities • Requires a consistent health promotion message	• Community-based projects with stress reduction components in a supportive environment • Additional counsellors available at hospital, clinic and community level • Organised local events • Initiatives at workplaces
High-risk or vulnerable groups • CHD patients • Community care clients • At-risk individuals	• Integrated Health Promoting Health Service • Individually-based rehabilitation care • Referral to suitable community-based projects • One stop cardiac clinics • Effective data usage to audit and improve care • Additional resources for community-care clients
Population-based strategies • Making healthy choices easier • All ages and settings • Encourages community involvement	• Substantial uptake of the Scottish Healthy Choice Award • Provide free “exercise” opportunities • Associated learning and development activities • Supportive community-based projects • Use of radio and other local media • Health Promoting Schools • Development of a Paisley Heart Award

Children's Health

Several examples are given of activity over the past year directed at improving children's health:

- multi-agency work with a focus on vulnerable children
- developing a combined child health service
- working towards national targets for children.

Multi-Agency Activity to Meet the Needs of Vulnerable Children

Children of particular concern are those with special needs, those in need of protection, those looked after by local authorities, and families with very young children in need of intensive support. The boardwide multi disciplinary Special Needs Working Group is developing a strategy to better meet the needs of these children and their families and feeds into local authority children's services planning mechanisms. Parents have been actively involved.

A report on *Improving the Health of Looked after Children in Argyll and Clyde* was compiled and distributed widely throughout the Board area. *Wellwise* is an Innovation Fund for Children's Services project to improve the health of looked after children which commenced in June 2000. A development officer is working successfully to improve health service access for these young people who are at high risk of poor social, educational and health outcomes. Two specific achievements of the project have been:

- the initiation of a dedicated medical assessment service for looked after children in the Renfrewshire and East Renfrewshire Council areas; and
- the attachment of health visitors to children's units in these areas.

Implementation of the *National Guidance for Health Professionals on Child Protection* published in 2000 is being taken forward by a multidisciplinary health group which links into the five local child protection committees. Significant progress has been made through the appointment of a specialist child protection advisor for Renfrewshire and Inverclyde and an increase to fulltime for the child protection advisor in Lomond and Argyll. The training needs for health service employees in child protection have been identified and programmes commenced to meet these and contributions are being made to multiagency training.

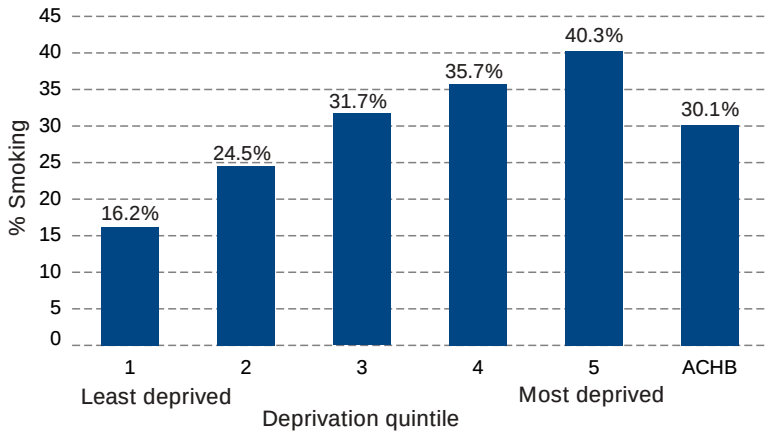
Combined Child Health Service

A project manager was appointed in December 1999 to promote the development of a combined child health service within Argyll and Clyde. The multi disciplinary project board has subgroups identifying and addressing the needs of children with autism and hearing impairment. The hospital at home project funded by the Innovation Fund for Children's Services is developing a community based service for children with complex and continuing needs in the Lomond area. Training through the Diana Initiative has led to the appointment of a community paediatric nurse in Renfrewshire and Inverclyde areas. Work has also been in progress to develop services for children with cystic fibrosis, linking to West of Scotland work to develop a managed clinical network for children affected by this condition.

Working Towards National Targets

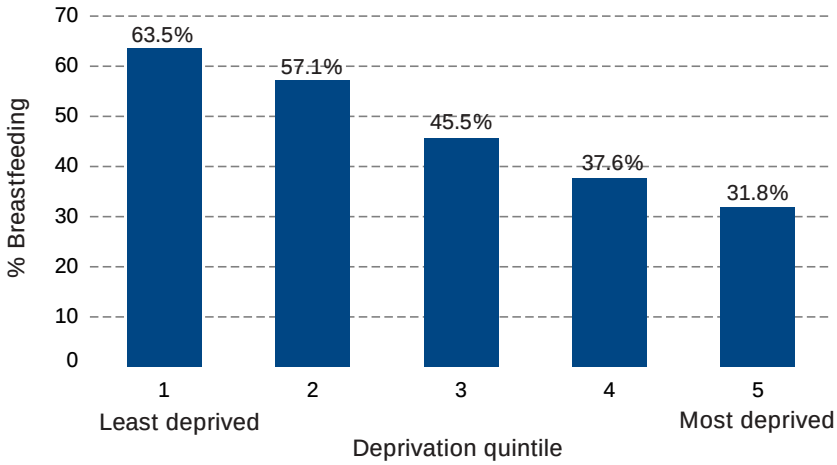
Meeting the national children's health targets is extremely challenging in Argyll and Clyde where there is evidence of inequalities in child health associated with socio-economic status. **Figures 7.3** and **7.4** illustrate examples of this.

Figure 7.3: Percentage of women smoking at booking by deprivation quintile 1995-1999, ACHB



Source: SMR2
Notes: Includes live and still births.
Missing data excluded.

Figure 7.4: Mothers breastfeeding on discharge by deprivation quintile 1997-1999, ACHB



Source: SMR2
Notes: Where feeding intention known and applicable
In the case of multiple births only the first baby is considered here.

Innovative work continues to promote physical activity, good nutrition, sexual health and breast feeding and to reduce smoking, alcohol and illegal drug use among young people.

Young people have been actively involved in most of these initiatives and some of this features in the Walk the Talk initiative launched by the Scottish Executive in November 2000.

Developing Meaningful Public Involvement

Ensuring that patients, the public and communities have a real voice in shaping services and initiatives designed to improve their health continues to challenge many that work in the NHS.

The initiatives described below illustrate 2 of the ways in which we are developing more effective ways of enabling those affected by decisions to have a greater degree of influence. Both examples:

- Target people who are at significant risk of being excluded and marginalised.
- Are multi-agency initiatives, integrated as part of the core work.
- Feature ongoing dialogue rather than as a one-off exercise with a "tick box mentality".

Combining Theatre with Consultation

In partnership with local authorities, Theatre Forum events were held in October 2000 to ensure that older peoples needs and priorities were truly at the heart of a joint strategy for older people, "New for Old": Increasing the Range of Life Choice for Older People in Argyll and Clyde.

Through audience participation and the use of professional actors those responsible for health and social care services were able to hear first hand what people think of local services, what they value and what improvements would make a difference.

Argyll & Clyde Allies Network (Mental Health)

Allies in Change is a national programme to promote the involvement of people with mental health problems and their carers. A network as a means for extending involvement in the field of mental health arose from a series of "Allies in Change" local events which have acted as a catalyst for local action.

The Argyll and Clyde Allies Network is open to anyone with an interest in driving forward this agenda, irrespective of whether they are a service user, a carer or a professional. Strong alliances are already being forged between people in an effort to work together to improve mental health and wellbeing. This contrasts with the sometimes polarised situation of "us and them" which can occur when user/carer groups campaign for better services. Collaboration based on mutual respect is at the heart of our network as is involving people in ways that are meaningful and reflect people's interests and experience.

Plans for the forthcoming year include enabling the network to exploit the potential offered by information and communication technology and recruit development workers. Both will help us overcome organisational and geographical barriers to participation, thereby increasing the dialogue between professionals and those either affected by mental health problems or caring for those who are.

Report from Tayside Health Board: Working Together to Promote Public Health in Tayside

(A Report by Dr Drew Walker, Director of Public Health)

Introduction

Public health in Tayside is rising on to the agenda of local health organisations, with our local authority colleagues showing an increasing interest in public health partnership working in the year 2000. In addition, our local Primary Care Trust has shown some initiative in addressing the health inequalities agenda. Significant progress has been made on the public health front, and the following is a summary of some of the areas of work undertaken by, or involving, the Public Health Directorate.

Children and Young People

The Corner

The young peoples health and information project drop-in centre in Dundee, known as '*The Corner*', provides a range of services tailored to meet the specific needs of young people. For example, there has been a pilot clinic to provide advice, screening and testing for sexually transmitted infections following the identification of low levels of knowledge amongst young people about sexually transmitted infections and a lack of awareness of where to access help. Most young people indicated that they would be more likely to access help if they could do so within a user friendly environment such as "*The Corner*". The service is currently being evaluated to determine whether it is popular with young people and can lead to higher uptake of this type of service.

The youth advocacy project at "*The Corner*" has trained 9 young people who in turn are offering training to health and other professionals on how to make services more user friendly for young people by giving them a greater understanding of the needs and issues faced by young people. Uptake of the training by health professionals has been encouraging so far.

Training For Primary School Teachers

We recognise that there are some sensitive health promotion issues that need to be raised with primary school children and our Health Promotion Centre, in collaboration with other agencies, has been offering educational programmes for primary school teachers on subjects such as "sexuality and relationships" and "drugs and alcohol". These approaches are based on a "whole school" and "health promoting school" approach with a view to enhancing understanding and ultimately equipping young people to make informed choices.

Health Services for Young People

A key health task is making services more appropriate and accessible to young people through partnership working and the involvement of young people themselves, to ensure that their voice is

heard and that we "get it right". For example, drop-in services for young people have been developed, including emergency contraception from casualty departments and a Saturday afternoon drop-in centre at a local health centre.

Young Carers

Young carers have been defined as people below the age of 18 who are affected by the illness or disability of a family member, and who provide care and support to that family member. Recent research has identified 45 young carers within Dundee. Our work locally recognises that the psycho-social effects on young carers of providing care can be many and serious. Difficulties include isolation, bullying, establishing relationships, lack of time for work or play and finding work as adults, in addition to the fear of families splitting up and the avoidance of stigma associated with mental illness.

A partnership involving a wide range of local agencies has set out to identify young carers, link them to support networks, promote positive lifestyles and social relationships, reduce social exclusion and change attitudes in the wider public sphere. The partnership is currently raising awareness amongst professionals and with the public via the media, publicity materials and events, and a needs assessment and resource pack for young carers are being developed.

Child and Adolescent Mental Health Service

Up to 25% of children and young people experience mental health problems, with 7-10% having moderate to severe problems and 2% having problems described as disabling. In Tayside, between 8,000 and 19,000 children could be expected to have a mental health problem at any one time, and the prevalence of these appears to be increasing, particularly in relation to depression, self-harm, conduct disorders, eating disorders and substance misuse. A needs assessment is underway which will collect epidemiological and demographic information, detail current services and describe service users, seek the views of service providers, referrers to the service and service users and carers, and review the literature on models of care and treatment effectiveness. This work will be completed by the end of 2001.

Health Promotion

Health promotion activities undertaken in Tayside, cover health protection, disease prevention and health education. Programmes address, to a varying extent, issues to do with lifestyle and life circumstances and the primary, secondary and tertiary prevention of specific disease conditions. An overarching approach of reducing health inequalities and addressing social inclusion is increasingly adopted. Examples covering smoking, drugs, healthy workplace and advocacy services are given below

Smoking

The White Paper "Smoking Kills" set out three clear objectives:

- To reduce smoking among children and young people;
- To help adults – especially the most disadvantaged – to give up smoking;
- To offer practical help to pregnant women who smoke.

In 1999 the Board received central funding to support additional smoking cessation services and for the provision of free nicotine replacement therapy for those least able to afford it. Smoking cessation activity is now at its highest level ever in Tayside as a result of a partnership between the Public Health Directorate, both Trusts and the four Tayside LHCCs. Initial priority was given to training, with nearly

200 staff participating over the first nine months of the project. The aim was to enable primary care staff to work more effectively with smokers wishing to quit, either in groups or by providing individual counselling. In addition, a 24 hour telephone helpline has been established which directs callers to local services within a guaranteed response time. The full range of services will be subject to careful audit which will track individuals from their first contact, through classes or counselling, and thereafter for three month and twelve month smoking outcome.

Cessation services are also offered during pregnancy and to people receiving cardiac rehabilitation and are being made available within the secondary care sector, for example in diabetic clinics. Carbon monoxide monitors are available in all general practices, many community pharmacies and consideration is being given to extending provision of monitors to hospitals and schools.

Future development of services includes increasing efforts to address smoking among young people. This continues to be a challenging agenda, given the apparent low levels of motivation to stop.

Illegal Drug Use

An important aspect of the services provided for illegal drug users is the contribution of community pharmacists through their involvement in needle exchange schemes and in the supervision and dispensing of methadone in a shared care scheme.

There are 13 needle exchange sites based in pharmacies across Tayside in addition to provision from the Harm Reduction Centre. Evidence suggests that clients will travel up to 5 miles in rural areas, but only up to 2 miles in urban areas for these services. The sites are therefore widely distributed and use of the service has steadily increased.

National guidelines emphasize that prescribing of methadone for illegal drug users should be seen as an enhancement to other psychological, social and medical interventions. Clients require supervision, at least in the early stages of their involvement with the service. Supervised self-administration of methadone is a system whereby clients identify their local or preferred community pharmacist. The pharmacist agrees to supervise the consumption of methadone in the pharmacy to ensure the correct dose is taken daily and that “leakage” of “street methadone” is minimised. There are particular problems for young clients, those with chaotic lifestyles, those on high doses and new clients, who are all prescribed methadone through specialist services in the first instance. As they progress, care may pass over to the general practitioner. Overall, the amount of methadone being prescribed continues to rise, reflecting the prevalence of illegal drug use in Tayside. The costs of methadone alone have risen from £15,000 over a 3 month period in 1994 up to over £35,000 over a similar period in 2000.

Scotland’s Health at Work

The year 2000 saw significant development of the Scotland’s Health at Work (SHAW) Scheme across the Tayside area. SHAW is designed to encourage, support and reward good health promotion practice in workplaces throughout Scotland and it is now the main focus of the Tayside workplace health promotion programme.

Since its launch in Tayside in 1996, the scheme has proved popular with local employing organisations by providing a much-needed guiding framework, as well as an incentive, for employers to develop programmes to promote the health of their staff. Of the 34 organisations now registered, 18 have achieved a Bronze Award, 9 a Silver Award and in October 2000, Tayside’s first Gold Award was presented to Angus Council, the first local authority in Scotland to achieve that status.

Regular events are held locally to encourage and support companies, such as briefing sessions, an awards dinner and a variety of training activities with a particular emphasis on alcohol/drugs policy development and associated training and education for staff.

Advocacy Services for Disadvantaged Sectors of the Population

Advocacy on behalf of disadvantaged sectors of the population has been described as "a way to enable people to make informed choices about, and to remain in control of, their own care". Advocacy helps people gain access to information, to understand options open to them and to make their views and wishes known.

During 1999/2000 a review of advocacy services in Tayside was undertaken. The review evaluated the 3 independent advocacy services jointly funded by the Health Board and the local authorities and undertook a survey of advocacy services provided by voluntary organisations. In addition an assessment of the needs of vulnerable groups and an audit of the use of advocacy made by people using acute health services in part of Tayside were undertaken.

The review made a number of recommendations aimed at improving independent advocacy services including: clear eligibility criteria for access to advocacy; partnership approach in the development of services; an advocacy service managed network; quality standards for advocacy; and the adoption of best practice based on national guidance.

Screening for Cancer

Colorectal Cancer Screening

Colorectal cancer is the second most common cancer with around 300 new cases and 150 deaths in Tayside each year, and research indicates that screening can reduce colorectal cancer mortality.

National Demonstration Project – Colorectal Cancer

Screening began in Tayside in April 2000 as one of three Scottish sites participating in a UK-wide feasibility study into the establishment of a national screening programme for early detection of colorectal cancer. The key challenge of this demonstration project is to establish the feasibility and acceptability of colorectal screening, with emphasis on a high quality service, fully informed consent and rigorous independent evaluation.

Screening is being offered to people between the ages of 50-69 years, with the potential of a 15% reduction in mortality, earlier cancer detection and potentially the need for less radical treatment, and increased awareness of colorectal cancer among the population with potentially earlier presentation of disease.

The principle of informed choice will be central to the pilot, so individuals participating will also need to be aware of the limitations of the screening programme.

The implications for clinical services are likely to be the treatment of higher numbers of colorectal cancers, target waiting times for colonoscopy and greater pressure on the services provided for the investigation and treatment of symptomatic disease.

The pilot has taken a collaborative approach with the direct involvement of clinical staff along with administrative, public health (including health promotion), and primary care staff, as well as patient groups and the media.

Breast Screening

On average 228 breast cancer registrations and 112 deaths were recorded in Tayside each year between 1985 and 1994 although survival rates are improving with 75% five year survival now being achieved in Scotland.

A major initiative over the past year has been the integration of the screening service in Ninewells Hospital with the service for symptomatic women, but it will be a priority to ensure that the screening service is not adversely affected as a result of the pressures of the symptomatic service.

Uptake of the service in Tayside is 77% with a high cancer detection rate which compares favourably with other parts of the UK.

Cervical Screening

Through the success of the Tayside cervical screening programme, Tayside recorded its lowest ever number of new cases and of deaths from cervical cancer in 1999, with rates well below the Scottish average. Eighty-five percent of eligible women have had a smear in the previous 5.5 years, although there is a need to improve current levels of coverage, particularly in younger women.

Tayside will be participating fully in the national standardisation of call-recall systems and processes as the key to the development of a truly national system, which follows on from a review which found that across Scotland call-recall and follow-up arrangements were fragmented and inconsistent.

Other priorities for improvement in the coming years are to reduce unsatisfactory smear rates, consolidate fail-safe procedures and expand prospective audit. Additionally there is a need to review the information leaflets and letters used in the programme and to ensure that overall the Tayside programme continues to comply fully with national guidance and standards. Ultimately success also depends on the active participation of women themselves so the Tayside partnership model will be further developed and strengthened in future.

Older People: *Addressing the Pharmaceutical Needs of Frail, Older People*

A pilot scheme in part of Tayside enables older individuals, identified by local professionals, to be visited at home by their local community pharmacist who will identify and document their medication problems and work with patients, carers, general practitioners and social work services to resolve them. As well as being a good example of inter-agency working, this pilot project, if positively evaluated, could lead to the development of similar schemes in other parts of Tayside for a group of vulnerable people who have difficulty getting to a pharmacy.

Chronic Diseases: *Medicines Monitoring Unit (MEMO)*

This unit, initially established to focus on drug safety, has expanded to include the development of unique research databases for the study of chronic diseases. This has taken advantage of the full implementation of the Community Health Index number in Tayside since 1989 and has provided a platform for population-based databases on diabetes and heart disease. Recent examples of important public health outcomes from this research have covered:

- changes in the labelling of prescription medicines that increase the risk of road traffic accidents;
- demonstration that unstable diabetes in young adults is primarily a behavioural rather than a biological problem;
- work on social deprivation and the outcome of diabetes and cardiovascular disease;
- issues concerned with community antibiotic prescribing and drug resistance.

A Managed Clinical Network for Diabetes

The Tayside Regional Diabetes Network has been established to provide a fully integrated clinical diabetic service through collaboration, structured development and on-going, rigorous evaluation.

About 9,000 people in Tayside have diabetes, which is associated with significant morbidity and mortality, about 10% of all acute sector bed occupancy and major resource implications. There is good evidence that through multi-disciplinary, integrated care across the primary and secondary health care sectors that good diabetic care reduces the risk of complications.

Built upon the foundation of the Community Health Index, the Diabetes Audit and Research in Tayside (DARTS) collaboration has created a regional diabetes register and an electronic patient management system, with the involvement of patient groups, primary and secondary care (including podiatry, dietetics and specialist nurses) and public health, to ensure integrated equitable care, evidence-based evaluation of clinical practice, professionally-led clinical governance, direct patient involvement in service planning and structured evaluation.

Priorities for the coming years are to expand the eye screening service, implement and audit the foot stratification protocol and implement an effective co-ordinated approach to cardio-vascular disease prevention and treatment in people with diabetes.

Public Health/Primary Care

A major public health focus in primary care has been the establishment of LHCC processes of health needs assessment. We have worked with the LHCCs to ensure that these processes address the particular challenge of ensuring ownership by all of the multidisciplinary staff who work within the LHCC. Increasingly LHCCs also need to ensure that their needs assessment work is relevant within the multiagency context in which primary care health services are delivered.

Collaborative processes of health needs assessment, involving LHCC staff with local authority representatives Public Health, Local Health Council members and representatives of the voluntary sector, are now well established in three of our LHCCs. Work to date has:

- informed the selection of priorities at LHCC level;
- led to improving the care of patients with leg ulcers through a staff training programme introducing new treatment regimes;
- helped a local community to take a systematic approach to addressing inequalities in health;
- piloted a process for public involvement in the LHCC.

A particularly exciting development has been the strengthening of our Tayside Primary Care/Public Health Clinical Network. Through 2000, we have been able to conduct a series of workshops across Tayside focusing on the development of the contribution of nurses to the public health function. This has proved an excellent basis for developing the new public health practitioner posts in each of our LHCCs.

Communicable Diseases

Tuberculosis

Tayside remains a relatively low incidence area for tuberculosis. Three of the cases notified during the year were found to have a large number of close contacts requiring screening. One of these required a special clinic to enable nursery school children to be rapidly screened over the festive

period. In addition, improvements have been made to the detection of tuberculosis in residents of hostels for homeless people, and in overseas school and undergraduate students.

Infection Control

Private nursing homes can be a significant source of communicable disease problems, including gastro-intestinal infection. Consequently, our Directorate has instituted a programme of education on infection control for link nurses from local homes to increase the level of knowledge and evidence-based practice amongst staff.

In addition, to address communicable disease control in the primary care setting, educational programmes have been arranged for primary health care staff on topics such as HIV infection, viral hepatitis, MRSA, head louse infection, childhood immunisation and travel health.

HIV/AIDS

The incidence of newly reported HIV infection has been consistently low since the peak 15 years ago which predominantly affected injecting drug users. Recent infections are now also affecting gay men and heterosexuals. A recent review of HIV health promotion and prevention services has resulted in a more strategic and equitable approach to prevention and has addressed some existing gaps in the service.

This review was also driven by a major reduction in funding for HIV health promotion and prevention in Tayside and a need to review and strengthen the Boards monitoring arrangements for funded activities.

The review has led to a broader range of HIV prevention services being developed, targeting all of the nationally recommended groups for HIV health promotion and prevention. This represents a significant move away from services which were previously mainly centred in the Dundee area and targeted on injecting drug users. Services are now increasingly Tayside wide and also focus on men on who have sex with men and on young people. This has included the support of a young gay and lesbian youth group and a confidential helpline. Additionally, a new post has been developed in Perth prison to identify vulnerable prisoners at risk of injecting drugs and developing strategies for prevention.

Our Directorate has also undertaken a review of HIV treatment and care, along with social care support services, which is currently undergoing consultation. Following this, reconfigured services should more closely reflect the current local epidemiology of HIV infection.

Communicable Disease Outbreaks

Two outbreaks of viral gastroenteritis associated with hotel functions were investigated and person-to-person spread was confirmed.

Environmental Health

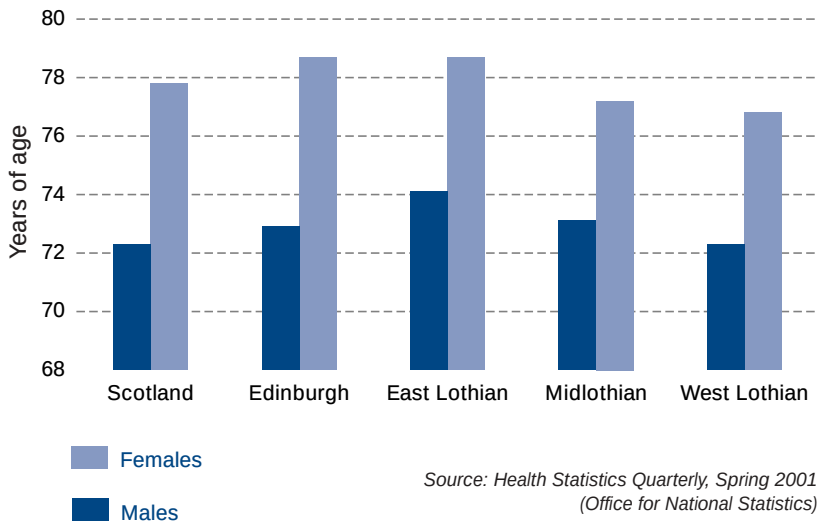
Epidemiological investigation into the old Baldovie incinerator in Dundee continued in 1996, including a soil sampling study analysing for a range of contaminates including heavy metals, dioxins and other organic pollutants. This showed no evidence of gross pollution, and concluded that a large health study of the effects of past pollution was not warranted. However, a recent French study showed clustering of certain forms of cancer close to a municipal incinerator similar to the Baldovie incinerator (which closed in 1996) so a disease-mapping exercise for certain forms of cancer will now be undertaken to examine whether similar clustering has occurred here.

Lothian Health Board: Action and Change to Achieve Better Health

(A Report by Dr Peter Donnelly, Director of Public Health and Vice President FPHM.) Dr Donnelly wishes to acknowledge the contribution of Phil Mackie and Linda Semple in helping prepare this report.

Lothian faces an important challenge: the challenge of rebutting the popular misconception of Lothian as consistently affluent, healthy and well-provided for. It is the challenge of getting beneath what many perceive as our position high up the Scottish league table with regard to health status and tackling the very real problems that exist. (**Figure 7.5**)

Figure 7.5: Life expectancy at birth in 1995-1997 by sex and local authority area



Source: Health Statistics Quarterly, Spring 2001 (Office for National Statistics)

Under the umbrella of improving the health of the population of Lothian, the job of the Director of Public Health & Health Policy falls within three areas:

- Firstly, the pursuit of excellence in fulfilment of statutory functions in the key areas of communicable disease control, environmental health, child protection, mental health legislation and data protection.
- Secondly, the provision of, and acting as the route for, independent medical and epidemiological advice to NHS Lothian and our four partner Local Authorities.
- Thirdly, providing leadership in producing improvements in the health of the resident population of Lothian through the assessment and exploration of local health needs, rigorous appraisal of appropriate interventions, production of policy recommendations and the monitoring and evaluation of outcomes.

We now have a robust and innovative framework within which to develop and improve the health of the people of Lothian. In particular, *Our National Health; A Plan for Action, A Plan for Change* (Scottish Executive, Department of Health, 2000) addresses the health priorities of Scotland as a whole, focusing on reducing inequalities in health and improving access to healthcare service. In addition, other documents provide some of the tools to help progress these aims. The *Review of the Public Health Function* (Scottish Executive, Department of Health, 2000) and *Nursing for Health: A Review of the Contribution of Nurses, Midwives & Health Visitors to the Improving the Public's Health* (Scottish Executive, Department of Health, 2001) have provided radical and exciting models of the multidisciplinary practice of Public Health.

One of the most important potential new tools we have is the Managed Public Health Network. The concept of Managed Clinical Networks has been progressing in Scotland since its recommendation in Designed to Care (Scottish Office, Department of Health 1998) and successful networks in areas such as Cancer are already operating. This has been reinforced with the publication of Nursing for Health which firmly places the public health role of all community nurses within such networks.

Children's services

Lothian identified two areas where multi-agency managed public health networks are needed. *Our National Health* recognised that the development of comprehensive, integrated children's services is a national priority. The formal linking of health improvement for children to the promotion of social justice creates specific challenges for maintaining and promoting the public's health. For example, initiatives such as *Sure Start Scotland,* the early education and childcare partnerships, the development of new community schools and the Children's Services Development Fund require effective partnerships to be in place which can:

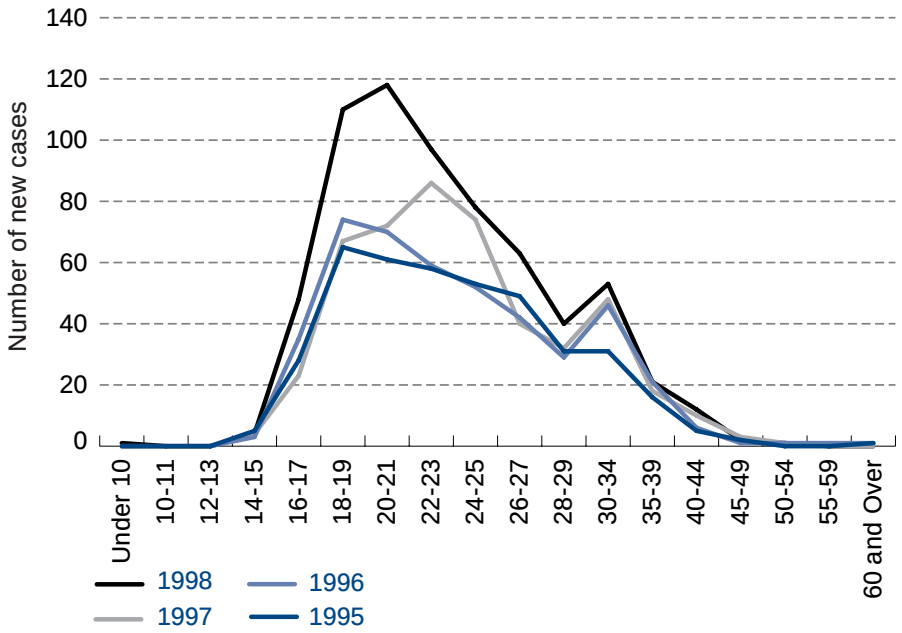
- ensure that an appropriate strategic direction for health improvement interventions can be set for LHCCs, Local Authorities and the Health Board as a whole;
- ensure that services are supporting populations which are capable of sustaining the effectiveness and quality of those services;
- ensure that local service delivery meets local needs without compromising overall equity of access to services;
- ensure that proposed developments in the capacity and capabilities of the public health workforce – especially in relation to the new LHCC public health facilitators and public health nurses – will support change rather than become an end in themselves.

For Lothian, developing comprehensive strategies has the added complexity created by a public sector geography which will see a unified Health Board covering three NHS Trusts and eight Local Health Care Co-operatives as well as relating to the four Local Authorities which make up the Lothians.

Young People – Tackling Teenage Pregnancy

Areas within Lothian some of the highest levels of teenage pregnancy in Scotland. We are also, along with other areas of the country, seeing a worrying increase in the reported incidence of Chlamydia Trachomatis, a sexually-transmitted disease which, whilst not fatal, can have significant health outcomes for women, including Pelvic Inflammatory Disease and infertility. Chlamydia's effects on men, who may remain asymptomatic, are less researched. (**Figure 7.6**)

Figure 7.6: Chlamydia in Lothian 1995-1998



Healthy Respect Demonstration Project

Lothian has been chosen to lead a National Demonstration Project, Healthy Respect, which will, utilising a wide range of initiatives involving partner organisations, service users, teachers and young people, aim to demonstrate those which are transferable into other areas to tackle many of the issues around good sexual health and personal respect. At the end of the three year period for which we have existing funding, we would hope that the entire picture of sexual health in Lothian will have been redrawn. In particular, we wish to address high levels of teenage pregnancy without increasing the levels of terminations, and reduce the incidence of all Sexually Transmitted Diseases while raising young people's self-confidence and self-awareness. At the end of the project, we expect not only that services and access to them will have improved, but that awareness of the issues will have increased and that all young people, wherever they live in Lothian, will feel they have access to the help, support and services that they need in whatever setting is right for them.

Mental Health

Mental Health is also a priority in *Our National Health.* Here the existing framework for mental health services in Scotland, linked to the recommendations from the Millan Committee to revise and consolidate mental health legislation in Scotland, creates a similar set of challenges, such as the proposal to put in place arrangements for individuals in the community under compulsory treatment orders. Delivering effective services for people with mental health care needs in the community is of paramount importance. However, a balance must be achieved between minimising the potential risk

to the public posed by such community care arrangements and protecting the rights of people with mental health care needs. In order to achieve these outcomes, further developing the public health role of community psychiatric nurses and their social services counterparts will be essential.

We also need to ensure that effective arrangements which support the operation of the mental health legislation are central to such community situations. A small but important (and near invisible) role of the Director of Public Health, (a hangover from the days of the Chief Administrative Medical Officer) has been in the discharge of those sections of the Mental Health (Scotland) Act (1984) relating to the approving the competency of designated medical practitioners to make assessments of the mental state of individuals. Obviously this will need to continue.

However, one of the consequences of the modernisation of mental health services has been the consolidation of psychiatric services across larger geographic areas which can cover more than one Health Board area. In the case of Lothian, out of hours psychiatric services are being supported by specialist registrars in psychiatry who are employed on a southeast Scotland basis. Collaborative working is needed across Lothian, Fife and the Borders to ensure that arrangements to provide specialist expertise are robust. More locally,co-operative arrangements within LHCCs to provide out of hours general medical services can also create challenges to ensuring the requirements of the mental health act can be met. In a time of welcome patient empowerment and increasing medico-legal activity, getting this type of function right is critical. It also demonstrates the continued and increasing importance of knowledge of the legislation and the statutory basis of Public Health practice.

In both of these two areas effective public health networks are going to be needed. Such networks need to exist on a national and sub-national level, ensuring that the national and regional public health function are working effectively. Good links to the Public Health Institute for Scotland will need to be developed. Networks across LHCCs and Local Authorities must be forged to ensure that the local public health function is effective in promoting and protecting the public's health. A further practical example, and one which occupies much more of our time, is that of Communicable Disease control. Excellent cross boundary and cross agency relationships exist between our Local Authority colleagues and the public health department.

Heart Disease, Stroke and Cancer

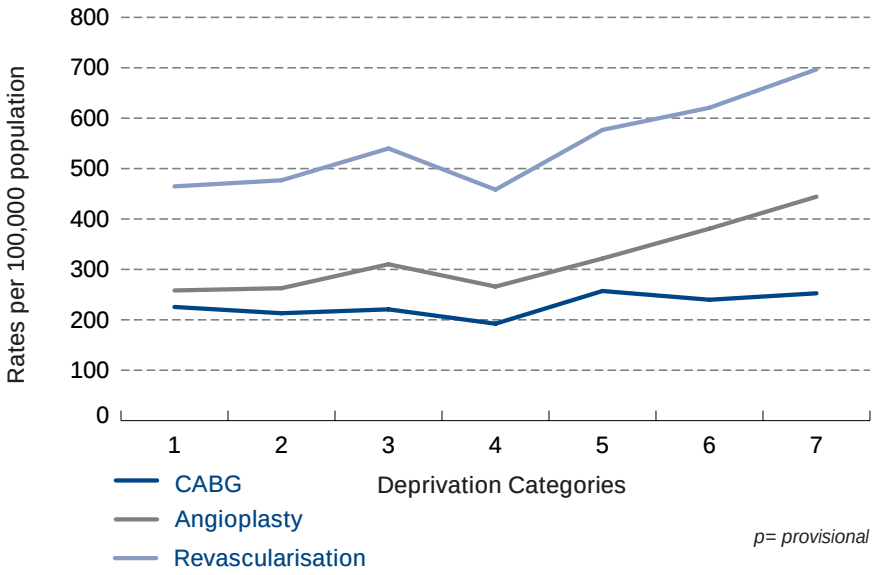
Like most of us working in the NHS in Scotland, we in Lothian are committed to tackling the "Big 3" killers: heart disease, stroke and cancer – and we are particularly keen that the current differentials in survival between the affluent areas of our communities and the more deprived are reduced considerably. But we also feel that simply promising to meet a number of "targets" in relation to addressing inequalities in these areas is not necessarily the most helpful or effective way of tackling these major problems.

For example, Lothian has been assumed to be failing to meet the required number of Coronary Artery Bypass Grafts (CABGs) for our population size. We recently carried out an analysis that looked at rates for both CABG and angioplasty (PTCA) and analysed them using a weighted population for Lothian which took into account our relative levels of deprivation compared to Scotland as a whole. The results were fascinating: not only were we actually exceeding the "targets" when both types of coronary revascularisation were taken into account, but we were reaching comparatively more of our deprived populations where traditionally access to such procedures had been perceived as poor. (**Table 7.1** and **Figure 7.7**)

Table 7.1: Performance against targets

	Per million				
	Lothian 99/00 Operative Rate	**Scotland Target**	**Scotland Proposed Target**	**Proposed Target Adjusted for Need**	**Performance**
CABG	411.05	616	750	615	Under
Angioplasty	774.57	–	750	615	Over
CABG+Angioplasty = Revascularisation	1185.61	–	1500	1230	On Target

Figure 7.7: Five-year cumulative rates per 100,000 population by Deprivation Category. CABG and Angioplasty Procedures



The lesson we learned from this is that, while we realise target-setting is operationally necessary in NHS Scotland for performance management and for showing the public that we are making a difference in key areas, the targets must be locally-sensitive and agreed in advance with all the stakeholders and must have sound principles underlying their baselines and measurement. Our initiative in this areas appears to have been welcomed centrally and has been fed into the policy formulation process.

Tackling Inequalities

This work also highlighted one of the other key problems we face in Lothian. We are perceived to have a relatively high level of affluence – mainly due to the position of Edinburgh as the nation's capital but people forget that Lothian comprises four very different Local Authority Areas, each with its own very specific problems and challenges.

- A farm worker living on the minimum wage in a remote and rural part of East Lothian where there is little or no public transport is not classed as "deprived" by any of the traditional measures – but his access to a specialist clinic might be difficult.
- A 55-year-old worker in "Silicon Glen" in West Lothian who has struggled with bronchitis from a previous job and is about to become redundant may be classed as "average" for the moment – but a Motorola can happen almost overnight and our routinely collected data on deprivation from the 2001 Census will not be available until 2003: much will have happened in three years.
- A pregnant 15 year old in Midlothian may not be able to travel on her own to services provided by the Local Health Care Co-operative.

Even in the "affluent" City of Edinburgh, recent research has shown that levels of smoking amongst adults in some of the more deprived areas are running at more than 50% – compared with the Scottish average of 21% recorded in the last *Scottish Health Survey* (Scottish Office, Department of Health 1988).

Local Partnerships

All of these anecdotes emphasise the importance of working together with local people and other organisations in the private sector, voluntary organisations, and our four local authority partners to ensure that our planning processes get it right for Lothian residents at a local level. Sometimes this means listening to and acting upon feedback from local people which may not be "evidence-based". It is difficult to conduct a scientifically rigorous trial to find out how people feel about the area in which they live before and after a specific intervention. Asking residents of a deprived area what their priorities are may uncover the fact that they are very different from those set by local authorities or NHS Lothian. We are prepared to move towards a participatory system of planning where Lothian residents' experience of their life circumstances, their "Social Capital", has as much impact on decisions taken as a Public Health analysis of the routine data. After all, we accept that in some situations clinicians making decisions based on experience and knowledge may be more effective than rigidly following guidelines.

We in the NHS know the limitations and strengths of the routine data and information we use to inform our decision-making but we are possibly not as good as we might be at explaining the processes more widely. One key area where this has happened successfully is in the managed entry of new drugs and other therapies. In Lothian we have run a system for some years where a Drug Evaluation Panel (DEP), which is a sub-committee of the statutory Area Drugs and Therapeutics Committee, comes together to assess the evidence for prescribing new therapies (mostly drugs) in Primary and/or Hospital settings. The importance of having such a system nationwide in order to combat so-called "postcode prescribing", has been acknowledged with the setting up of the Health Technology Board for Scotland (HTBS) and its sister body the National Institute for Clinical Excellence (NICE) in England and Wales. These organisations aim to carry out a number of major appraisals annually the results of which will be disseminated widely across the UK for local implementation on an advisory basis.

But we know that this kind of evaluation can never be an exact science – there will always be disagreements and disputes over the effectiveness (and cost-effectiveness) of a new treatment regime or therapeutic intervention. One of the successes of the system in NHS Lothian however is that the DEP includes members from all stakeholders within the system and takes its submissions from specialist clinicians who are working directly with patients. It is also a timely and time-saving system – HTBS and NICE will probably produce no more than twenty appraisals in each year on which the local DEP will take a local view but much speedier decisions may often be needed than those the national bodies can deliver. As examples, the Lothian DEP has, in the last three years, reported on Viagra, Beta Interferon for Multiple Sclerosis and Zyban for smoking cessation long before any national guidance was released. This seems to me another key area in which local level guidance and management is essential. Our success in this area may be helpful to those planning the welcome Drug and Therapeutics Committee Scottish Consortium.

Summary

To summarise, Lothian is focusing attention clearly on the challenges we all face in addressing issues of social exclusion, health inequalities and social justice. *Health for All* is an idea that we have promoted in the NHS for many years and the concepts behind it merge seamlessly with work being done in other arenas – such as housing, the environment and employment – to ensure that we are all working towards improving the health status and quality of life of people in Lothian.