

The 2002 Report of the Director of Public Health

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Foreword



This year I have chosen the health and wellbeing of older people as the main theme of my Annual Report. The World Health Organisation's stated goal of "adding years to life and life to years" encapsulates the principle which underpins many of the chapters in this report. The number of older people is increasing in our population, due to improvements in life expectancy. This has resulted from a combination of factors such as improved nutrition, better housing and environmental conditions, safer working conditions, and improvements in healthcare,

including better control of communicable diseases. In 1925 the average life expectancy for men in Northern Ireland was 55 years, and for women 56 years. Nowadays the average life expectancy for men has increased to 75 years, and for women to 80 years (source: NISRA). The increase in the number of older people has important implications for the planning of many services, not only health and social services, but also, for example, housing.

As well as living longer, people are also living longer in relatively good health. People in their seventies and eighties today are more like people in their sixties in the early 1900's. Despite this, negative attitudes toward older people are all too common, and tend to be reinforced by inaccurate stereotypes of older people which are sometimes depicted in the media. Attitudes towards older people and ageing need to change, and it is important to realise that the majority of older people are independent, in fairly good health, optimistic, socially active, and provide a positive contribution to society. We also need to recognise that older people are not a uniform group, but have diverse needs as individuals.

My report highlights a number of innovative projects which have been developed to improve the quality of life for older people. The success of these schemes highlights the importance of good cooperation and working relationships between various agencies, and the Northern Neighbourhood's Health Action Zone has had an important role in developing and contributing to some of this work.

The health of older people and younger people can be maintained and further improved through physical activity, good nutrition and healthy lifestyle choices such as reduction in smoking. These measures can also help to reduce the risk of falls and fractures, which can have a devastating impact on the lives of older people.

Good mental health is just as important as good physical health, and this applies to all age groups. However, unlike younger people, the most common serious mental health problem in old age is due to an organic condition (i.e. one that results from an identifiable brain malfunction such as dementia). Older people also have a slightly greater risk of depression than younger people, and it is important that depression is

recognised and treated, as unlike dementia, the effects of depression are reversible. As the numbers of older people in the population increase, it is essential that an appropriate range of mental health services are developed, both general and specialised services within the community and in hospitals.

It is well recognised that the family and informal community networks have a vital role to play in maintaining the health and wellbeing of older people, and their ability to live independently in the community. Much care for older people is provided by informal carers. This has recently been recognised by the Regional Strategy "Valuing Carers" which is now being implemented locally. My report also points to the crucial role of primary care (including pharmacy and dentistry) in meeting the needs of older people. It is important to appreciate that the majority of older people live within the community, and only a small proportion at any time are in residential care or in hospital. The growing numbers of older people in the population will undoubtedly increase the need for primary care and community services.

As ever, my report contains a chapter on communicable diseases. Despite the great success of vaccination programmes for a number of diseases, there is a need for ongoing vigilance, as the more recent emergence of the SARS virus highlights. (More on SARS in my next annual report).

The HPSS is facing an unprecedented number of changes to the way the service is organised and delivered. Currently, for example, there is a Review of the Public Administration underway and this is likely to lead to significant changes in the way in which the Health Service is administered. There is also a Review of the Public Health Function in Northern Ireland being undertaken. This will not only address issues relating to public health medicine but also consider relationships with other organisations, services and disciplines involved in the delivery of public health. It is, however, critical that departments of Public Health continue to be of sufficient size to allow for the provision of a service that can provide appropriate health protection (particularly in the light of concerns about bioterrorism), allow for specialisation and sub-specialisation and facilitate high quality training of doctors and specialists in public health.

One of the new challenges for the service is to deliver on the statutory duty of quality which has been placed on Trusts, Boards and some special agencies. Under that duty of quality, the Board must apply Clinical and Social Care Governance principles to all services it provides or commissions. Quality of service has always been a key priority for the HPSS, but now we will need to demonstrate more explicitly, how we are delivering on this agenda.

I trust you will enjoy reading my report, and hope that it will give you a flavour of the wide and diverse range of work which is undertaken within my department.

There is, however, one issue about which there is no dispute, the addressing of which would significantly improve the health of the population. This, is, in fact the addressing of the issue of the effect of the current smoking epidemic.

I would therefore issue a challenge to all those of influence to unite behind a call for a ban on smoking in public places.

Professor John Watson BA MB
FFPHM FRCP

Director of Public Health

Communicable Disease Control

INTRODUCTION

Communicable disease surveillance requires the routine collection, analysis and dissemination of all data that may be relevant for the prevention and control of a public health problem. Today, within the Northern Board area, this process of surveillance relies upon collaboration with many different organisations such as Environmental Health, the Water Service, local Health Trusts and the Veterinary Service, all of whom should be acknowledged for their co-operation.

Of course, surveillance does not just refer to the monitoring of diseases, and Public Health also collects, analyses and disseminates information on other programmes, such as the childhood immunisation programme. Vaccination has been one of the triumphs of preventive medicine and continued uptake is required to prevent the resurgence of preventable infectious diseases.

Despite this, there are still some communicable diseases such as Tuberculosis (TB), E Coli 0157 and Meningococcal infection that pose a continuing public health problem.

LESSONS FROM HISTORY

Perhaps the most famous example of public health action was when John Snow, a London Doctor in the early 19th century, identified the Broad Street pump as the source of the cholera outbreak. Snow's action in removing the handle of the pump in 1854 has entered the realms of public health legend and illustrates the importance of decisive action to protect the health of the public. A less fortunate example is the cholera outbreak in Ireland in 1848/49, described in Cecil Woodham-Smith's account of the Irish Famine, *The Great Hunger*¹. On that occasion, a man returned to Belfast in December 1848 from Edinburgh, which was in the throes of a cholera epidemic. The cholera outbreak subsequently spread to workhouses and other institutions throughout Ireland resulting in many deaths.

TUBERCULOSIS (TB)

There were 21 cases of Tuberculosis (TB) reported in the Northern Board area during 2002, compared with 18 cases in 2001. Fifteen of the cases were classified as pulmonary and six as non-pulmonary. Tuberculosis here is predominantly a disease affecting

older people and recent data suggests that more than half of cases in N. Ireland are over 65 years of age². Nationally, the number of cases has been increasing and there has been some concern surrounding the emergence of multi-drug resistant TB, which highlights the need for early identification and effective treatment of cases and routine screening of close contacts.

The incidence of TB here has decreased dramatically in the past 50 years and it is difficult for us to fully appreciate the fear and concern evoked by TB in previous generations. In 1920, there were approximately 2,500 deaths from TB in N. Ireland, accounting for 12% of all deaths³. The impact of the provision of successful control measures against TB in the 1940s is illustrated by the dramatic decline in the number of deaths due to TB in the subsequent years. There were 932 deaths from TB in N. Ireland in 1948 decreasing to 105 deaths in 1961, which was less than 1% of all deaths⁴.

The history of TB from the identification of the Tubercle bacillus by Koch in 1882, the discovery of effective antibiotic treatment in the

1940s and the emergence of multi-drug resistant TB in the 1990s show what can be achieved and what can go wrong in our efforts to control a disease.

E COLI 0157

The number of cases diagnosed with E Coli 0157 infection has decreased further from 20 in 2001 to seven in 2002. E Coli 0157 causes a severe gastrointestinal illness and can have medical complications, so this reduction in cases is welcome.

MENINGOCOCCAL INFECTION

During 2002, 38 cases of suspected meningococcal infection were reported, and in 28 cases this was confirmed by laboratory testing. Twenty cases were identified as Group B; three as Group C and five confirmed as meningococcal infection although no grouping was obtained. This continues the low incidence of Group C meningococcal infection that has been the pattern since the introduction of Men C vaccine.

OUTBREAKS

During 2002, there were 34 outbreaks of vomiting and diarrhoea in residential-type institutions in the Northern Board. Most of these institutions were for the elderly, and these outbreaks probably reflected what was an ongoing situation in the general population.

The total number of beds in nursing homes, residential homes and statutory facilities registered with the Registration and Inspection Unit in the Northern Board area for the year ending March 2003 was 3,638. The total number of residents affected by gastroenteritis in these outbreaks reported by these institutions was 571.

Most of these episodes of illness were viral gastroenteritis. The most commonly identified cause was Small Round Structured Virus (SRSV), although often no cause was identified.

Infection with SRSV usually causes an illness lasting 12-60 hours, with abdominal cramps, vomiting and/or diarrhoea. The infection is easily spread from person-to-person or from contaminated food or water.

Immunity occurs after infection, but may only last a few months so an institution could be re-infected at a later date.

SCABIES

Scabies outbreaks can also occur within institutions. This is a skin condition, caused by infestation by a parasitic mite called *Sarcoptes scabiei*. The mite lives by burrowing into the skin of its host, who then develops an allergic reaction to its products. This allergy causes an itchy rash to develop which is generally concentrated on fingers, wrists, forearms, armpits, around the waist, on the buttocks and insides of legs although can be generalised.

Transmission of the infestation is usually by prolonged skin-to-skin contact with an infected person.

A diagnosis of scabies relies upon demonstration of the mites, their eggs or faeces. However, in practice this can be difficult and usually the diagnosis is made on the basis of clinical assessment.

Treatment relies upon the appropriate application of a scabicide lotion, which should be

carefully applied according to the instructions. All close contacts and members of the household of the person with scabies, even if they have no symptoms, should be treated at the same time as the case. Usually a second treatment 7 days later is also recommended. Unfortunately the itch and rash may persist for up to 4 weeks but this does not mean that the treatment has been ineffective (provided that it has been correctly applied) and the treatment should not be re-applied.

VACCINATION PROGRAMMES

Childhood vaccination

The overall uptake of childhood vaccinations in the Northern Board area in 2002 was over 95% for Diphtheria, Tetanus, Polio, Pertussis, Hib and Men C. The success of vaccination means that most younger people will not have had direct experience of diseases such as Diphtheria, Tetanus, Polio or Whooping Cough. However, people who recall the era prior to effective vaccination programmes will be familiar with the ravages caused by Diphtheria, Polio and Whooping cough.

The overall uptake of MMR (Measles, Mumps and Rubella) among children reaching their second birthday during 2002 was 91.5%. The uptake was highest in Ballymoney, Coleraine, Larne and Magherafelt (94%). Uptake rates were lowest in Antrim (88%) and Newtownabbey (89%). Unfortunately there was a worrying decrease in MMR uptake at the end of 2002. By the end of the year, nearly 600 children in the Northern Board area had not received their first dose of MMR vaccine by the time of their second birthday. The uptake rates of MMR for each district council area in the Northern Board are represented in Figures 1.1 to 1.10.

Ongoing co-operative efforts between general practice, the Health Trusts and the Board have contributed to the good overall uptake rates. However there is a risk that if rates of immunisations such as MMR fall, there could be an outbreak of disease.

Diphtheria

Diphtheria is an infection of the nose, mouth and throat which constricts the air passages. The introduction of Diphtheria vaccine in 1940s resulted in a dramatic decline in the incidence

of Diphtheria, with 1,394 cases reported in N. Ireland during 1944 falling to 194 in 1949⁵. It is rare now in countries with well-established vaccination programmes, although there was a large outbreak in Russia in the 1990's due to a failure of their vaccination programme. The case fatality rate is 5-10%.

Tetanus

Tetanus causes painful muscle contractions, especially of the neck and jaw. Infection is caused when the spores, which can be found in the soil, are introduced into the body via a cut. There continue to be a few cases notified each year among susceptible individuals. There is no natural immunity to Tetanus and protection depends on vaccination. The case fatality rate is 10%.

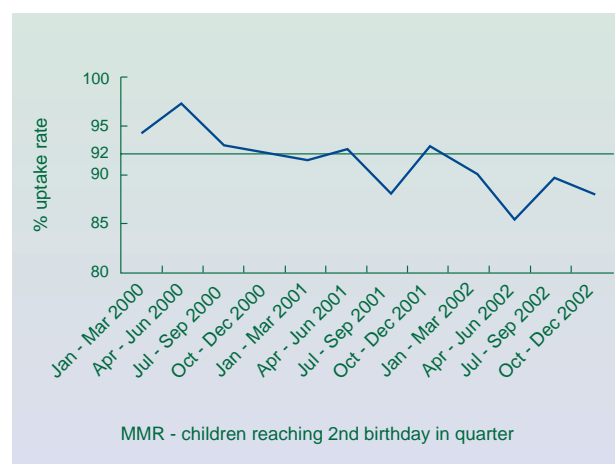
Whooping Cough

This is an illness that starts with a temperature and a cough, which can become severe with prolonged attacks of coughing. The bouts of coughing are usually ended by a 'whoop' or by vomiting. The reported case fatality is 1 per 1000.

Polio

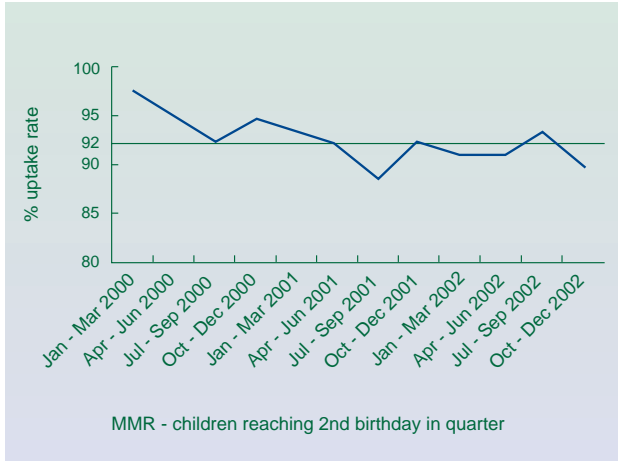
Polio is caused by infection with the Polio virus and can result in a form of meningitis or permanent paralysis. In 1947, a major epidemic of Polio occurred in N. Ireland with 266 confirmed cases and 25 registered deaths⁵. The World Health Organisation has set the target of the global eradication of Polio through vaccination and the European Region has been declared polio free.

Figure 1.1 MMR Uptake Rate for Antrim 2000 - 2002



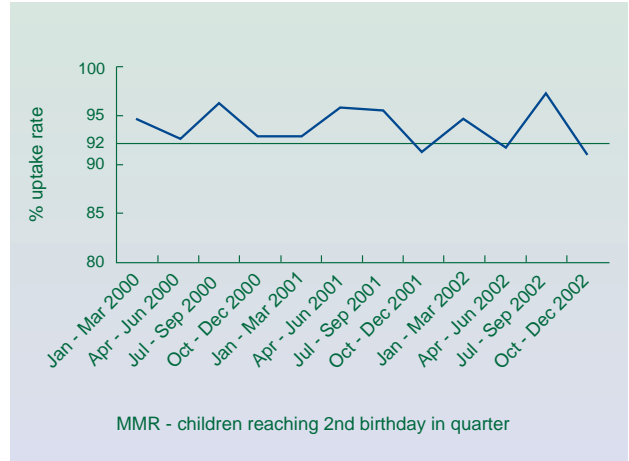
Source: Child Health System

Figure 1.2 MMR Uptake Rate for Ballymena 2000 - 2002



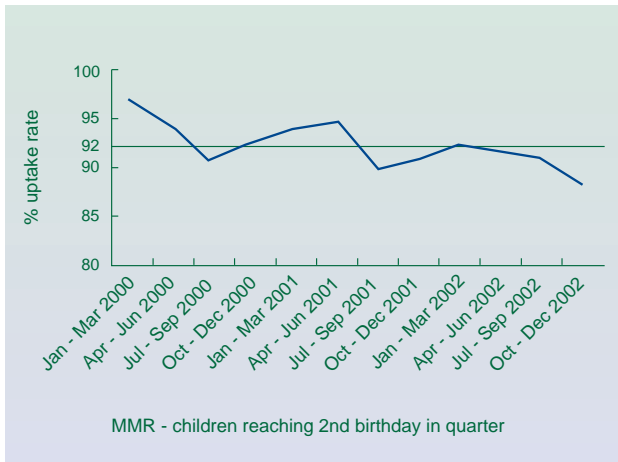
Source: Child Health System

Figure 1.3 MMR Uptake Rate for Ballymoney 2000 - 2002



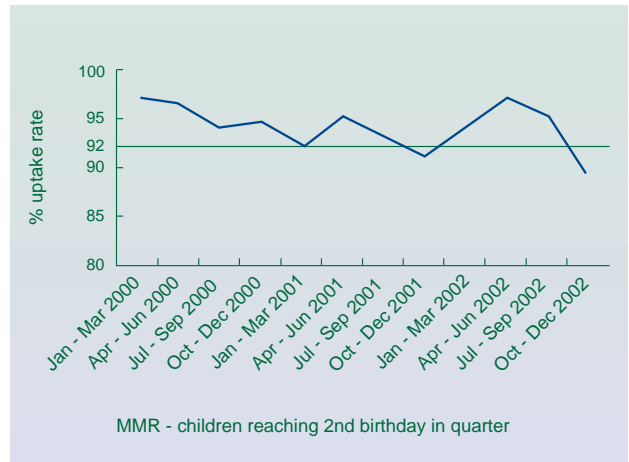
Source: Child Health System

Figure 1.4 MMR Uptake Rate for Carrickfergus 2000 - 2002



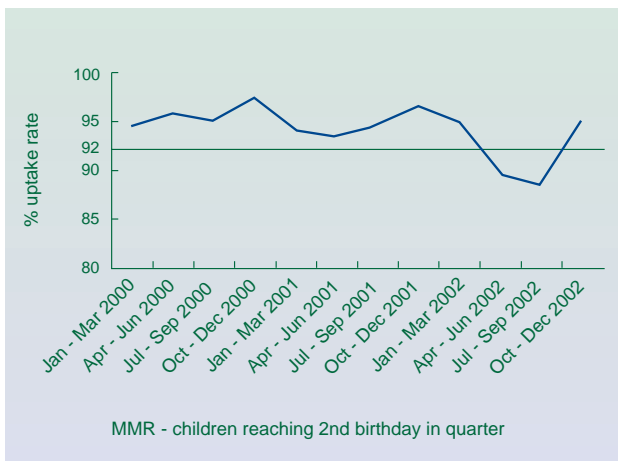
Source: Child Health System

Figure 1.5 MMR Uptake Rate for Coleraine 2000 - 2002



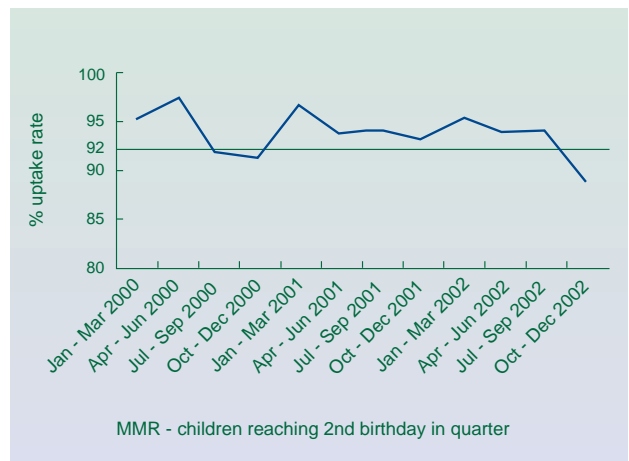
Source: Child Health System

Figure 1.6 MMR Uptake Rate for Cookstown 2000 - 2002



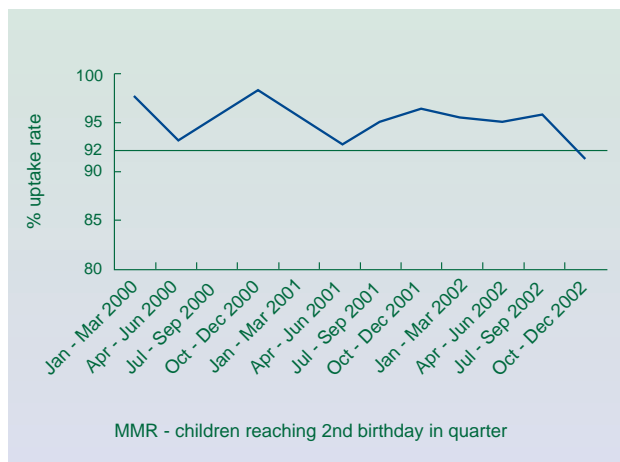
Source: Child Health System

Figure 1.7 MMR Uptake Rate for Larne 2000 - 2002



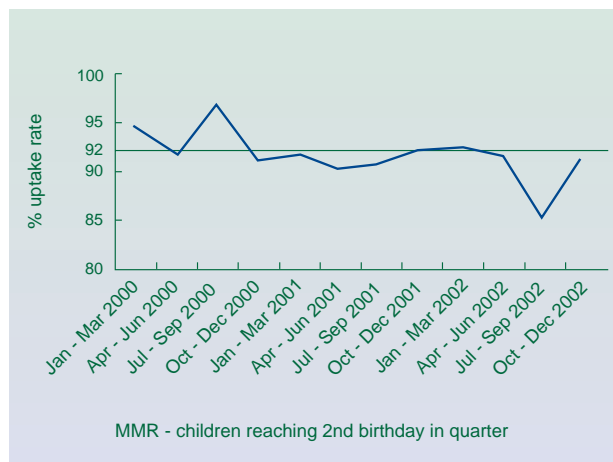
Source: Child Health System

Figure 1.8 MMR Uptake Rate for Magherafelt 2000 - 2002



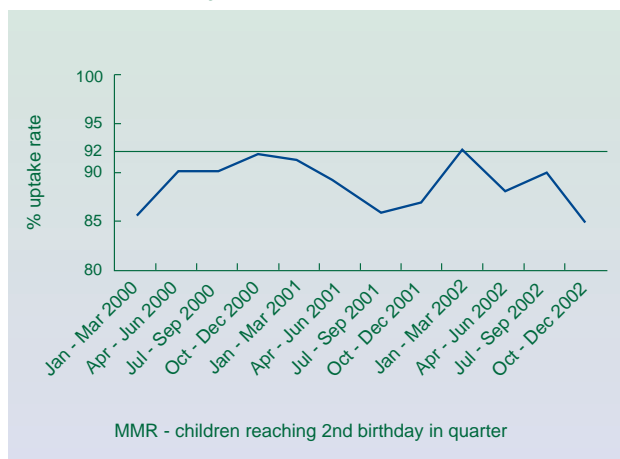
Source: Child Health System

Figure 1.9 MMR Uptake Rate for Moyle 2000 - 2002



Source: Child Health System

Figure 1.10 MMR Uptake Rate for Newtownabbey 2000 - 2002



Source: Child Health System

Haemophilus Influenza B (Hib)

Infection with *Haemophilus influenzae* can result in a form of meningitis, septicaemia or epiglottitis. Prior to the vaccine against this disease, it was estimated that one in every 600 children developed some form of invasive Hib disease before their fifth birthday and there was a 4-5% mortality rate.

Meningococcal C

This is one type of meningococcal infection that can result in meningitis or septicaemia. Prior to the introduction of this vaccine, group C infection accounted for one third of all meningococcal infections. Overall mortality rate from meningococcal infection is 7-8%.

Measles

Measles infection causes conjunctivitis, cough, fever and a rash however, complications arise in one in 15 cases. The complications include ear problems, chest problems and encephalitis. Encephalitis occurs in one in 5000 cases and has a mortality of 15%, with 20-40% of survivors suffering neurological problems. The recent outbreaks of measles in Dublin and London serve to remind us of the danger posed by a fall in uptake of MMR.

Mumps

Mumps is a viral illness, which causes swelling in the neck and face. Complications arising from this infection include meningitis, encephalitis and inflammation of the pancreas.

Rubella

Rubella causes a rash, fever and swelling in the lymph nodes, but the infection in pregnant women can lead to Congenital Rubella Syndrome causing damage to the foetus.

INFLUENZA VACCINATION PROGRAMME 2002/2003

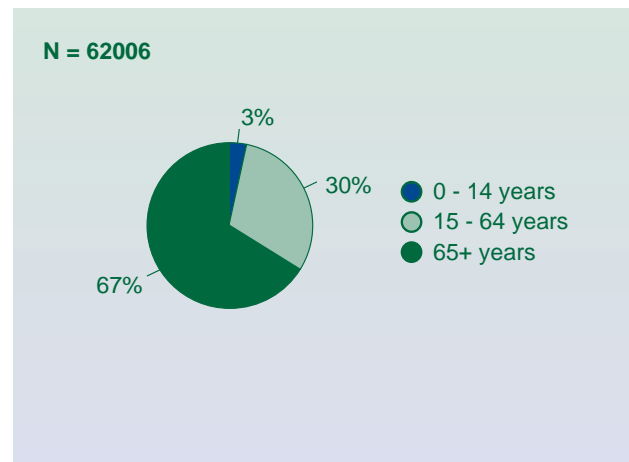
Influenza causes an acute viral chest infection with fever, headache and muscle aches. It is recognised that influenza has caused recurrent epidemics of respiratory illness every few years for at least the past 400 years. The last severe epidemic occurred in England in 1989/90 and resulted in an estimated additional 25,000 deaths.

Influenza vaccination is recommended for everyone aged 65 years and over, those with certain risk conditions and those living in

long stay residential accommodation, such as Nursing Homes.

The 2002/03 Flu Vaccination campaign showed a 72% uptake rate among those aged 65 years and over (DHSSPS target was 70%) and 66% among those with risk conditions (DHSSPS target was 60%). The vaccination uptake by different age groups is shown in Figure 1.11.

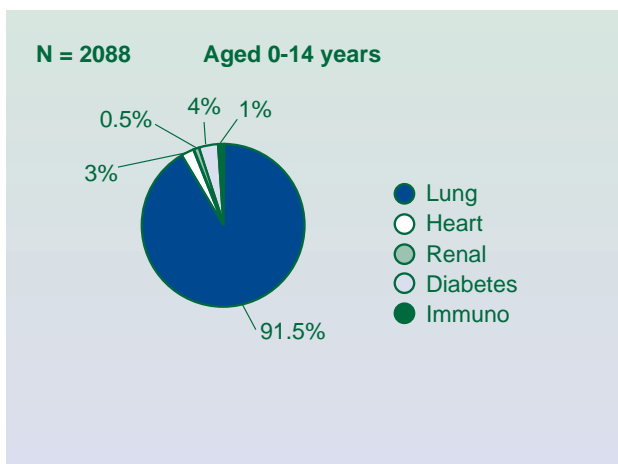
Figure 1.11 Influenza Vaccinations by age group 2002/2003



Source: Family Practitioner Unit, NHSSB

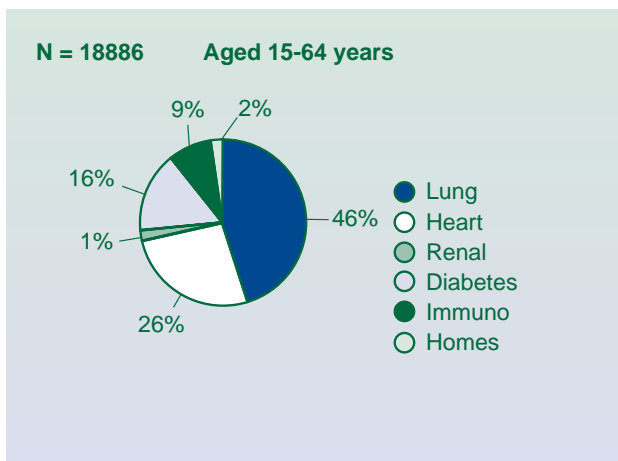
The percentages of those vaccinated with the different risk conditions in the age groups 0-14 years and 15-64 years are shown Figures 1.12 and 1.13.

Figure 1.12 Risk Conditions for Influenza Vaccination 2002/2003



Source: Family Practitioner Unit, NHSSB

Figure 1.13 Risk Conditions for Influenza Vaccination 2002/2003



Source: Family Practitioner Unit, NHSSB

Pneumococcal infection is an important cause of disease, especially in the very young or those with other at risk conditions, such as heart, lung or liver disease. It is more common in the over 65 year olds and is the most commonly acquired

pneumonia in the community. In 2002/2003, Pneumococcal vaccination was offered to people aged 65 years and over in addition to those with an at risk condition. Unlike Flu vaccine, Pneumococcal vaccination does not need to be repeated every year.

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5. Ulster Yearbook 1950. Belfast: HMSO; 1951

Improving Quality of Life for Older People

Quality of life for older people is largely determined by the maintenance of good function and independence¹. Often this is related to factors beyond the control of the Health and Social Services. Investing for Health², the regional strategy for promoting health and social wellbeing, points out that quality of life may be governed by any number of issues, including how the physical and social environment impacts on an older person's health and wellbeing. The strategy stresses the need for action across all sectors of society if we are to reduce inequalities in health and improve quality of life.

There are many initiatives to promote good function and independence being implemented by the community, voluntary and statutory sectors throughout the Northern Health and Social Services Board area. These include the development of good housing, effective planning, actions to prevent injury, promote mental health, physical activity and healthy eating to name but a few.

This chapter will highlight a number of interventions which contribute to improved quality of life by allowing older people to remain safe and well

in their own homes. The interventions relate to personal safety, energy efficient homes and transport.

PERSONAL SAFETY

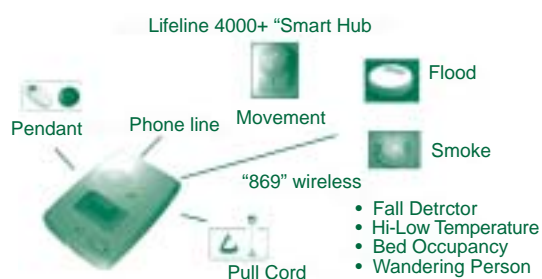
Injuries, particularly those caused by falls, can be a major reason for loss of function. About a third of people aged 65 and over fall at least once each year. Most injuries happen at home. A number of actions to promote personal safety in the home are being undertaken by many of the agencies who have come together to form the Northern Investing for Health Partnership (NIHP).

The Telecare Pilot Project

One example of a personal safety scheme is the Telecare Pilot Project (TPP), which is being implemented by the Northern Neighbourhoods Health Action Zone (NNHAZ). FoldHelp is the lead partner in this pilot project. Other members of the project's steering group include representatives from the Northern Ireland Housing Executive, Homefirst Community Health and Social Services Trust, Causeway Health and Social Services Trust, the Northern Health and Social Services Board and the NNHAZ.

The scheme involves an assessment of personal safety and security needs followed by the provision of “smart” technology packages to improve safety and promote peace of mind for older people. The full package includes a Lifeline 4000 Unit linked directly to Careline, an emergency alert pendant, pull cords in the key rooms of the home, flood detectors, smoke alarm and motion sensors (these can also be used as a burglar alarm) (Figure 2.1).

Figure 2.1 Telecare Equipment



Professional Careline Advisors (Figure 2.2) provide reassuring personal contact and can co-ordinate and arrange for an appropriate response from neighbours, family, friends or the relevant housing, social care or health service provider. To date, 101 units have been installed across seven NNHAZ areas, with further referrals and assessments under way in the rest of the Health Action Zone.

Figure 2.2 A Professional Careline Advisor



In the evaluation, which has been very positive, the different participants involved in this scheme have identified some of the benefits of multi-disciplinary working. From the voluntary sector perspective, the links forged with housing and with health and social care providers enable more effective communication and better tailoring of services to meet the identified needs of older people. Health and social care professionals have found that involvement in the pilot has facilitated the sharing of information on best practice and moreover the pilot has facilitated the early provision of equipment to enable individuals to live as independently as possible for as long as possible in a safer environment.

Figure 2.3 Positive response

The evaluation of the pilot highlighted comments from some of the people who have benefited from the scheme. One recipient, an elderly lady who had been frightened of being alone in her own home reported, “I can sleep better at night and can come home during the day knowing no-one has been in my house. I feel so much better”.

CAUSEWAY VULNERABLE ISOLATED PEOPLE PROJECT

An initiative which aims to support those who are isolated is the Causeway Vulnerable Isolated People Project (CVIPP), see also Chapter 6 (page 45). This project identifies vulnerable isolated people and provides them with the support and information they require to protect themselves and their property. The project covers the areas of Ballymoney, Moyle and Coleraine and involves many agencies (see Figure 2.4.)

Figure 2.4 Agencies involved in the Causeway Vulnerable Isolated People Project



This scheme also includes Homesafe, an interactive exhibition on safety in the home and personal safety.

The CVIPP has secured funding from Causeway Local Health and Social Care Group, Causeway Health and Social Services Trust and Ballymoney Borough Council to develop a security equipment scheme which will be launched in the near future. The equipment includes a door viewer, proximity alarm, door chain and personal alarms.

HOME SAFETY CHECK SCHEME

The needs of the very young and older people are being addressed by an innovative Northern Neighbourhoods Health Action Zone project, which is being co-ordinated by the Child Accident Prevention

Trust. Other participating agencies include the Antrim and Larne Borough Councils, Community Empowerment Larne, Rathenraw Community Development Project, Northern Group Systems, Homefirst Community Health and Social Services Trust and the Northern Ireland Housing Executive.

Figure 2.5 The Home Safety Check Scheme



The project, which is being developed in the Lynn Road area of Larne and Rathenraw in Antrim, combines child accident prevention with accident prevention for older people. Checks are carried out by trained teams of volunteers.

Working in pairs, volunteers visit older people in their homes and carry out a room by room safety assessment using a specially adapted checklist (Figure 2.5). The aim is to identify conditions in the home which could lead to a fall. Depending on the outcome of the assessment, the volunteers list the safety equipment needed and this is provided free of charge to older people.

A particular advantage of this scheme is that the volunteers include older people themselves, an often over-looked resource for society³.

Various referrals may also follow on from the assessment. For example, where an older person is identified as having difficulty in managing medicines they may be referred to a local pharmacist who will carry out a medicines review for them. Alternatively, an older person having difficulty walking may be referred to the Podiatry service, while others experiencing mobility problems can be referred to the Occupational Therapy service or, if appropriate, to the Northern Ireland Housing Executive for housing adaptations.

ENERGY EFFICIENT HOMES

Inadequate home heating places many older people at risk of respiratory disease, hypothermia and other cold related illnesses. Throughout the Northern Health and Social Services Board area a number of organizations are actively promoting energy efficiency as one means of ensuring warmer homes. The Northern Ireland Housing Executive (NIHE), in conjunction with the NIE Energy Efficiency Programme, the Energy Saving Trust, Phoenix Natural Gas and the Department of Social Development

(Figure 2.6) are funding a range of warm home schemes. These include:

Figure 2.6 Agencies involved in the Warm Home Schemes



- Heat Smart - a scheme which offers a free independent heating advice service for NIHE tenants. In addition, a home visiting service is provided offering help with operating a heating system and giving information on energy efficiency;
- No Age to Golden Age – an energy efficiency and home safety scheme aimed at various groups, including those over 60 years in receipt of benefit;
- Warm Home Scheme – aimed at owner/occupiers and private rented sector tenants. Through this scheme, a range of energy efficient measures may be available, such as cavity wall insulation, loft insulation, hot water tank jacket, upgrading heating systems;
- Antrim Rural Energy Saving Scheme – targeted at

owner/occupiers and private rented sector tenants who are over 60 and not in receipt of benefits. Residents must also live in a rural area. Qualifiers will be entitled to a choice of energy efficient measures at a reduced price.

TRANSPORT

Location of housing, access to friends and relatives and social facilities play an important role in maintaining health and good function for older people (Figure 2.7).

Figure 2.7 Reasons for community transport schemes - rural isolation and social exclusion



For many, accessible, affordable transport is essential if they are to remain active, independent, participate in society and enjoy a good quality of life.

Community transport schemes

A number of multi-agency transport schemes have been set up in the Mid-Ulster, Cookstown, Coleraine and North Antrim areas with the aim of combating rural isolation and social exclusion by providing accessible and affordable transport for groups and individuals who find it difficult to access conventional means of transport. These Community Transport Schemes offer a range of services, including minibus and social car schemes. The services are provided by appropriately trained volunteers from the local community. Minibus driver training is provided by the Minibus Driver Awareness Scheme (MIDAS). Training in helping passengers on and off (Passenger Assisted Training) and Basic First Aid are also offered to volunteer drivers. The support of local communities is essential in order to ensure the continued success of these transport schemes.

FUTURE PLANNING

Although many of the activities described in this chapter pre-date Investing for Health, they exemplify the Investing for Health spirit and themes of partnership working, community involvement and targeting disadvantage.

Figure 2.8 Health Improvement Plan for the Northern Investing for Health Partnership



It is encouraging to note that many of the agencies engaged in these projects to improve the quality of life for older people have now come together as the Northern Investing for Health Partnership and to plan jointly how best to tackle the wide range of factors which affect health and wellbeing. The Northern Health Improvement Plan 2003-2008⁴ (Figure 2.8) sets out the actions which the NifHP intends to take over the coming years to improve health and wellbeing and reduce health inequalities.

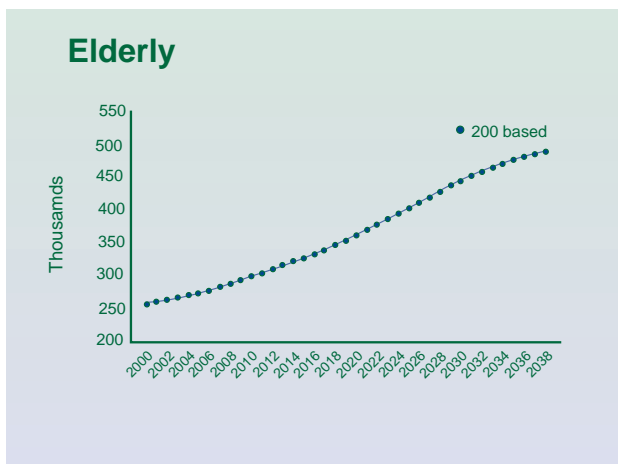
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Mental Health and Ageing

This report focuses on the health of older people. Quite rightly the physical health of our older people is of great importance. Older people remaining physically active and healthy for as long as possible is a major public health issue especially as the proportion of older people in our population may be expected to increase significantly over time as Figure 3.1 shows¹.

Figure 3.1: Increasing population of elderly



However a mentally healthy old age is just as important as physical concerns. Indeed poor mental health in old age will inevitably contribute to physical deterioration. Therefore mental health problems in old age should be treated as vigorously as physical health problems in that age group, and mental health problems in younger people.

A review of services for older people with mental health problems in the NHSSB area will take place in 2003/04. This chapter therefore focuses on the nature and extent of mental health issues for older people and the nature of the service required to meet their needs.

MENTAL HEALTH PROBLEMS IN OLDER PEOPLE

It is estimated that between ten and twenty percent of older people suffer from serious mental health problems². As with all age groups the mental health problems encountered may be divided into two broad groups – organic and functional. Organic conditions are those that may be identified as directly resulting from identifiable brain malfunction such as Alzheimer's disease. Functional conditions are those that cannot be attributed to simple structural abnormalities of the brain such as depression³. Unlike younger people, the most common serious mental health problem in old age is an organic condition. However, functional mental illnesses, particularly depression, are frequently seen in older people.

THE EXTENT OF THE PROBLEM IN THE NHSSB AREA

Organic conditions

Dementia, a disorder in which progressive destruction of brain cells leads to increasingly severe decline in memory, thinking, and reasoning, is the most common organic condition seen in old age. Over 50% of all dementing conditions in older people are the result of Alzheimer’s disease. The remainder are conditions such as cerebrovascular dementia (20%) and Lewy Body Dementia (20%).

Symptoms of Alzheimer’s disease typically begin with difficulty

remembering new information. The condition then progresses to greater and greater disruption in memory, reasoning, judgment, and personality⁴.

Estimates have been made of the number of people in the population suffering from dementia⁵. Assuming that 55% of all dementias are Alzheimers and 60% of Alzheimer’s disease may be classed as mild to moderate cases, we may get estimated numbers for the NHSSB area (Table 3.1). Knowledge of the numbers of mild to moderate cases is important as drugs have become available, which in selected cases will slow down the progression of the disease⁶.

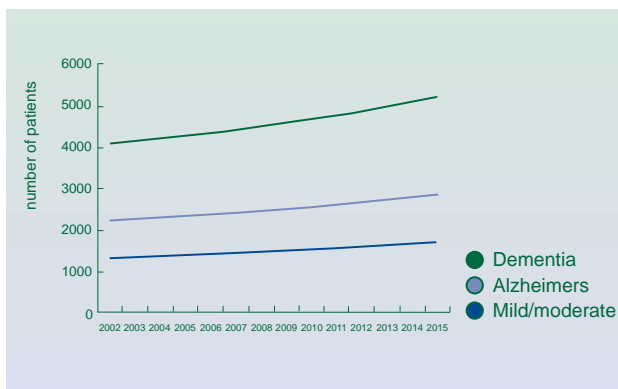
TABLE 3.1 Estimated prevalence of Dementia, Alzheimer’s disease and mild/moderate Alzheimer’s disease in NHSSB area (based on 2001 mid year population estimates)⁷

Age Group	Northern Health & Social Services Board Population (427,000 people)					
	Population	Prevalence of Dementia (rate per 100 people)		Estimated prevalence of Dementia	Estimated prevalence of Alzheimer’s	Estimated prevalence of mild to moderate Alzheimer’s disease
		Male	Female			
45-64	95907	0.06	0.06	58	32	19
65-69	16989	2.2	1.1	276	152	91
70-74	14747	4.6	3.9	621	341	205
75-79	11800	5.0	6.7	708	389	234
80-84	7662	12.1	13.5	994	547	328
85+	5689	21.5	26.2	1420	781	468
Total 45+	152794			4077	2242	1345

Note: As there is no exact figure for the number of people with dementia in the NHSSB area the table extrapolates data from studies conducted elsewhere. Estimates using other sources may give higher or lower figures.

From the above figures it can be seen that there are already large numbers of people suffering Alzheimer's disease and other types of dementia in the Northern Board area. With an ageing population these numbers are going to increase. Figure 3.2 shows that within the next decade the numbers of people with dementia will increase to over 5,000.

Figure 3.2 Trends in Dementia and Alzheimers disease NHSSB Area 2002/2015



Source: Northern Ireland Statistics and Research Agency

Functional conditions

Depression is the most common functional mental health problem seen in people aged over 65 who have no previous history of severe mental illness. People aged over 65 seem to have a slightly greater risk of depression than younger people. This risk increases with age and becomes much higher in people over 85 years. It can be difficult to

recognise depression in older people because they often focus on physical problems such as low energy or difficulty in sleeping. Depression can also be confused with the effects of other health problems, which are more common in older people and these problems in themselves may cause depression. It is important that health care workers and carers of older people are alert to the possibility of depression. In older people depression is less likely to 'lift' without help, particularly if they are severely depressed. This may explain why older depressed people have a high suicide rate, particularly men over the age of 75 years⁸. Treatment of depression in old age is particularly important, because unlike dementia, its effects are reversible.

The prevalence of depression among people aged over 65 is 15% in the general community, 25% in general practice patients, and 30% in residential homes⁹. This would equate to over 8,000 people in the NHSSB area.

Less commonly, older people suffer from conditions resulting in severe disruption of behaviour, perception and understanding (psychotic disorders). The prevalence of these

disorders among people aged over 65 in the community is 1%⁹ (around 600 people in the NHSSB area). Most psychotic conditions in older people are seen in those with pre-existing severe mental illnesses such as schizophrenia and major depression who survive beyond the age of 65. They require ongoing and continual treatment for these chronic mental health problems throughout their lives – their need for mental health services does not diminish with advancing age. In addition they will face all the other problems of the rest of the ageing population.

COMMUNITY AND INPATIENT SERVICES

The needs of older people with mental health problems should be met by a range of services both generic and specialized within the community and in hospitals. The overall aim must be that “older people who have mental health problems have access to integrated mental health services ... to ensure effective diagnosis, treatment and support for them and for their carers”¹⁰.

Most older people with mental health problems are living in the community and cared for by their families and/or

friends. Their first line of support is the primary care team. This ensures continuity of care, for both their physical and mental health needs. The primary care team must be able to refer to a comprehensive and integrated old age mental health service when further opinions and advice are needed or for direct specialist care.

The multidisciplinary specialist service in old age psychiatry should include a range of professionals such as doctors, nurses, psychologists, occupational therapists, physiotherapists, social workers and secretarial staff who should meet regularly to coordinate and discuss new referrals and current caseload. The team should have an identified leader. Initial assessments should wherever possible be in the patient’s home; family members and the primary care team should be involved. The assessment should result in the formulation of a care plan and follow-up arrangements with clear objectives, defined responsibilities for multidisciplinary team members and the primary care team (usually with a single designated ‘key worker’). This should include the provision of support, information and advice to carers.

In order for the specialist service to work effectively, a range of resources needs to be available and accessible:

- an acute in-patient unit
- rehabilitation, day care, respite facilities
- a range of residential care for people no longer able to live in their own homes
- reciprocal availability of advice between psychiatry of older people and general medical and geriatric medicine
- links with community facilities (e.g. day centres and support groups for carers as well as for patients themselves)¹¹

The text box below lists the essential functions of such a service:

- Assessment of needs
- Community support (such as home help)
- Sitting services (respite)
- Day care (respite)
- Residential care (respite, permanent)
- Medical assessment
- Management of physical illness
- Diagnosis and explanation
- Emotional support of carers

A MENTALLY HEALTHY OLD AGE

It could be argued that we are living in an ageist society. In this atmosphere it is not surprising that mental health problems in older people can be wrongly regarded as the inevitable consequence of ageing. Northern Ireland Equality legislation ensures that there is a statutory safeguard against age-based discrimination in the provision of services. The recent publication of the Northern Ireland Mental Health Promotion Strategy¹² also makes it clear that good mental health is not just for people aged under 65. However, there is a responsibility on all of us whether working in the health and social services, patients, carers or in positions of power and influence elsewhere to ensure that the development of these services is given the priority it deserves, if only for the selfish reason that one day we may have need of them ourselves.

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A Quality Service - It's a Journey, Not a Destination

“Never mind the quality, feel the width”

Many of us who use, or work in the National Health Service can identify with the feeling that the service can appear to be more about quantity and activity than quality and good outcomes. We spend a lot of time measuring activity, but only a little time measuring quality. Yet quality is a core business in organisations and individuals that want to improve their performance.

“Quality is never an accident; it is always the result of intelligent effort”

John Ruskin

Through primary research, guidelines, service frameworks and other standards documents, we know what quality looks like, and as customers and patients, we know what a quality service feels like. However, making quality a reality in everyday practice will depend in large part on clinical and managerial leaders who understand the value of making quality a priority for the organisation.

WHY MEASURE QUALITY?

It is easy to underestimate the value of measuring quality. Within busy workloads, too often quality is seen as a burden, an additional activity, as something that takes us away from real work. How many audit meetings really generate a crowd? How many quality improvement projects are oversubscribed with staff ready to make changes for improvement? Yet that's what happens in organisations that understand the value of measuring quality.

By measuring quality, those organisations:

1. Stimulate improvement

No matter where you start, you can always improve. Our natural tendency is to think that we already perform well and have little room for improvement. By contrast, organisations and individuals who excel are never satisfied with their performance and instead, look to learn and improve continuously.

2. Demonstrate improvement

Under clinical governance and a statutory duty of quality from April 1 2003, telling people we're good is not

going to be enough. We will need to demonstrate quality and improvement quantitatively and qualitatively. In their clinical governance reviews in England and Wales, the Commission for Health Improvement (CHI) asks for evidence of improvement. In their reviews so far, CHI has found that many healthcare organisations do not routinely or systematically use information to improve performance.

3. Improve staff morale

People like winners. We also like to work for successful organisations. When organisations improve their performance, it is extremely important to staff morale that those improvements are recognised and publicised. Success breeds success and even small early improvements can create a momentum for much greater change.

4. Build customer confidence

In the health service, customers include patients, general practitioners as the main referral source of much elective and acute work, commissioners as major sources of funding, and policymakers as overall strategic drivers. Each of these customers will respond positively to organisations that demonstrate

improvement. Commissioners and policymakers could really foster quality improvement by moving, at least in part, to an improvement-based approach to funding. In an improvement-based approach, improvement would precede funding so that providers who take the initiative and show improvement would receive additional funding for further service development.

5. Demonstrate public accountability

As a tax-funded service with finite resources, we need to show that the National Health Service provides a quality service and value for money. Taxpayers deserve no less. At the same time, clinical staff, managers and commissioners will say that there is more monitoring and accountability than ever. That brings us back to the opening quote – never mind the quality of the monitoring, feel how much is being done.

WHAT SHOULD WE MEASURE TO DEMONSTRATE QUALITY?

“What gets measured gets done”

The measures we choose to demonstrate quality are extremely important as that is where we will

focus our improvement efforts. If we choose the 'wrong' quality indicators, it follows that we will spend a lot of energy and resources improving in the 'wrong' areas, or alternatively, spread improvement efforts across too many projects and fail to deliver real improvement in any. The most effective approach is likely to be a limited number of quality indicators that reflect the core business of what the health service is about – providing timely, appropriate, evidence-based care to patients.

Exactly what those core quality indicators should be is open for debate – a debate we should have in Northern Ireland sooner rather than later. There is no shortage of candidate indicators, but if we think of the core business of the health service, we might consider quality indicators under three areas:

Clinical

Did the patient receive recommended treatment? National Service Frameworks, guidance from the National Institute for Clinical Excellence (NICE), professional associations and many other organisations provide much in the way of evidence-based

recommended treatment. From these, it is relatively straightforward to develop clinical quality indicators that examine whether or not the patient received that treatment. The challenge will be to limit the number of indicators to a manageable core set starting perhaps with high volume, high cost and high risk procedures.

Operational

Did the patient receive timely treatment in the appropriate setting? A core set of the most important operational quality indicators should enable providers to monitor and improve patient flow through the system from primary to secondary care and back again. This whole-systems approach, accompanied by change for improvement, should mean that each patient is treated at the right time in the right place by the right person.

User experience

Did the patient feel they received a quality service? While clinical and operational indicators assess professional standards of quality, indicators of patient/user experience can give a quite different perspective. Recommended timely care may not

feel like a quality service to a patient if for example, treatment options were not discussed, or if the patient felt staff were abrupt or uncaring.

In assessing quality, we must therefore take an holistic view and develop and measure indicators that reflect all three areas – clinical, operational and user experience.

PROCESS, OUTCOME AND BALANCING INDICATORS

In developing clinical, operational and user experience quality indicators, it is important to consider the advantages and disadvantages of process and outcome indicators.

A process indicator measures performance at one step of a care pathway, for example, in management of patients with acute myocardial infarction (AMI), a process indicator might be ‘the percentage of eligible patients who received a beta-blocker.’ The advantage of process indicators is that they:

- Directly relate to the care given and are therefore under the control of staff providing care. Frontline staff can then see the impact of changes they make – the impact is not dependent on

external factors beyond their control

- Are evidence-based. If we know that a particular treatment improves morbidity, mortality, readmission rates or other outcomes, we do not need to measure the outcome. Instead, we can assume that if the treatment is given, the known outcome benefits will follow
- Do not need to take account of case mix. This follows on from the previous point and is a major advantage of process indicators. One of the main criticisms of performance league tables using outcome indicators is that the risk-adjustment methodologies may not adequately adjust for case mix differences between providers. If risk-adjustment is inadequate, then comparisons between one provider and another are unfair and misleading. Process indicators avoid the need for risk-adjustment by creating a homogenous group of patients at the outset. Using the example of beta-blocker use in acute myocardial infarction, all patients with specified co-morbidities, contraindications, or other reasons for not prescribing a beta-blocker, are excluded from the

original pool of AMI patients. That leaves a more homogeneous group of AMI patients who were eligible to receive a beta-blocker. The indicator is then calculated as the percentage of those patients who actually did receive a beta-blocker.

By contrast, an outcome indicator measures the outcome of a care pathway, for example 'in-hospital mortality rate for acute myocardial infarction.' Outcome indicators are easier to measure than process indicators as the data is more readily available through existing information systems. However, they are more removed from the point of care, more susceptible to external factors and have to be risk -adjusted for case-mix differences.

Balancing indicators guard against an inadvertent negative effect of improvement in another area. For example, a project to improve patient flow through secondary inpatient care, might lead to discharge from hospital before the patient is clinically ready. We can guard against this inadvertent negative effect by monitoring readmission rates and taking corrective action as necessary.

The relative merits of process, outcome and balancing indicators

should lead us to a set of core quality indicators for health and social services in Northern Ireland. However, we should take care not to make the mistake of measuring what we can rather than measuring what is meaningful.

Measurement alone is not enough. Measurement is only a tool in quality improvement, not an end in itself.

"You cannot fatten a cow by weighing it"

Palestinian proverb

Measurement must be accompanied by change and improvement and there are many effective quality improvement methods that could be applied to improve our health and social services in Northern Ireland and the NHSSB. Shewart, Deming, Juran were among the founding fathers of quality improvement methods. Most recent healthcare examples of quality improvement initiatives include the Institute for Healthcare Improvement in Boston, USA, the U.S. National Healthcare Quality Improvement Programme, the NHS Modernisation Agency and the NHS clinical and social care governance agenda.

CLINICAL GOVERNANCE AND QUALITY IMPROVEMENT

Locally, the clinical and social care governance agenda placed a statutory duty of quality on Trusts, Boards and some special Agencies from April 1 2003. Under that duty of quality, the NHSSB must 'adopt clinical and social care governance principles to all services the Board provides or commissions' (Governance in the HPSS, Circular HSS(PPM) 10/2002). Under the Circular, Boards and other HPSS organisations are 'accountable for continuously improving the quality of their services and safeguarding high standards of care and treatment'. In essence, clinical and social care governance is about continuous quality improvement and organisations wanting to review and improve their services.

In response to the Circular, the NHSSB has:

- Completed a baseline assessment of its existing clinical and social care governance arrangements
- Developed an action plan to strengthen those arrangements
- Agreed its own internal programme of quality

improvement projects to be completed over the next 12 months

- Proposed a regional quality improvement programme to continuously improve the quality of services commissioned.

The Board will report progress on internal quality improvement and on improvement in services commissioned in its annual report on Clinical and Social Care Governance.

QUALITY IMPROVEMENT IN PRACTICES

Using stroke care as an example, we can see how quality improvement principles can help us develop a high quality stroke service, building on existing services to improve care for all patients who suffer a stroke.

Quality improvement culture

A quality improvement culture is one where the multidisciplinary staff that provide care, review and improve their performance continuously. It is akin to the approach in many industries where frontline staff continuously review the quality of their work and product. In the health service we have audit and protocols and requirements for continuous

professional development, but we do not yet have a widespread culture of multidisciplinary and regular review of care provided. Stroke services have a strong multidisciplinary tradition and would be well placed to introduce a collaborative team approach to regular review of performance on quality indicators, and agreement on ideas to improve care.

Standards

The first step in improving a service is to review existing standards and guidelines for high quality stroke services, including prevention (see Figure 4.1).

Figure 4.1 Good Practice Standard for Stroke Services

- Royal College of Physicians National Clinical Guidelines for Stroke
- National Service Framework on Services for Older People
- CREST Consensus Guidance on the Management of Acute Stroke
- National Sentinel Audits of Stroke

From these standards, the team could develop clinical, operational

and user experience quality indicators (see Figure 4.2 for examples). A regional clinical and social care governance support team could assist this process.

Figure 4.2 Examples of Quality Indicators in Stroke Care

Clinical

- In GP practice, % hypertensive patients with BP <140/90
- Among smokers admitted with stroke, % received smoking cessation advice
- Among eligible patients admitted with ischaemic stroke, % prescribed aspirin

Operational

- Among patients admitted with stroke, % assessed by multidisciplinary team within days
- Among patients admitted with stroke, % received CT scan within 24 hours
- Among patients admitted with stroke, median length of stay

User Experience

- User experience among patients admitted with stroke or their carers, % rating service as good or excellent

Baseline measurement

Once the quality indicators for stroke care are agreed, the team would conduct baseline data collection and calculation of baseline indicator rates. The Institute for Healthcare Improvement recommends that measurement should take only 10% of the project's time – the emphasis is on improvement rather than measurement, so 'good enough' measurement is sufficient.

Change to improve

Ideas on how to improve stroke services can come from the team itself, stroke teams in other centres, the NHS Modernisation Agency, the regional clinical and social care governance support team, or other sources. It takes some work to collate good change ideas, so support to the team and collaboration with other stroke teams can be very valuable at this stage. The Institute for Healthcare Improvement and the NHS Modernisation Agency have successfully addressed the support needs of improvement teams through their collaborative models.

The stroke team tries the change ideas it thinks might work, tests those on a small scale, keeps and expands

the ideas that improve the service and eliminates the ideas that do not. Through small-scale testing, the team can save a lot of time by avoiding widespread implementation of ideas that do not work in practice. Similarly, the service improves incrementally as they find and expand ideas that do work.

Demonstrating improvement

As changes lead to improvement, the stroke team can see the impact of their efforts on their quality indicator rates and can share those with as wide an audience as they wish, from patients, to managers, to commissioners and policymakers. They can use the improvement to make the case for service expansion, building on their success and the improvements made.

Developing services

In reviewing the service they provide, the team may see a need to change the structure of the service. Stroke units have been shown to improve mortality and function among patients who suffer a stroke¹. In their culture of quality improvement and in their whole-systems approach, the stroke team in the hospital, may propose:

- Stroke units as part of a network of stroke services with agreed care pathways to ensure patients get access to the service they need in the appropriate setting
- Stronger links with primary care, for example, direct GP access to 24-hour blood pressure monitoring, teleconsultations with general practitioners to discuss individual patient cases, frequent telephone conferencing and web-based educational events for general practitioners or primary care nurse practitioners, rapid assessment service for patients with suspected transient ischaemic attacks, enhanced community services that would support stroke survivors to live in their own homes or in a supported living environment.

CAN WE AFFORD QUALITY ?

Quality takes time – staff time to review practice, make changes, measure and report improvement. It is continuous and the resource requirement should not be underestimated. However, it is also something that we cannot afford not to do. Nothing costs as much as poor quality work. When a patient does not receive the right treatment in the right

way at the right time by the right person, it leads to extra consultations, investigations, admissions, delayed discharges, longer waiting times – patients and staff carry the cost.

We already support audit, study leave and continuous professional development. If those activities can be directed toward focused quality improvement projects in the most common care pathways, we could do a lot to improve care within existing resources. There are also small but important changes that could be made at no or minimal cost, particularly in the way we interact with patients. An approachable, friendly, helpful member of staff goes a long way toward meeting the patient's expectations of quality care.

In moving the clinical and social care governance agenda forward, we might learn from the Roman dramatist Seneca 5BC-65AD, who said, "It is quality rather than quantity that matters". A few carefully selected quality improvement projects across the HPSS, supported regionally, with opportunities for shared learning, would increase our chances of achieving real improvement in patient care.

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Attitudes Towards Older People and Ageing

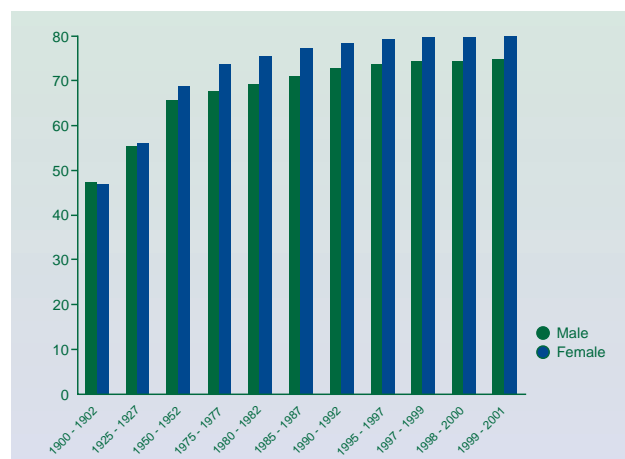
OLD IS NEW

Large numbers of people living long and healthy lives is a new phenomenon. It is so new that attitudes towards, and beliefs about, old age have not kept pace with these changes and tend to reflect the perceptions of a different era. Perhaps this is not so surprising when we consider that it was only during the latter part of the 20th century that human life expectancy exceeded 70 years (Figure 5.1). Homo sapiens, 50,000 years ago, could expect to live to their late 30s or perhaps early 40s. Even in the early 1900s the average age at death was around 50 years, due to the high infant mortality. Then, and for most of the last century, adult life for the majority of people consisted of working and rearing children, with relatively few people surviving beyond retirement, which was the entry-point to old age.

The increase in longevity is the result of social and scientific advances, which have also reduced infant mortality, leading to smaller families. This has produced the demographic revolution that developed countries around the world are experiencing with populations consisting of fewer children and more older people.

As well as living longer, people are also living longer in relatively good health. In general, dependency and frailty are occurring later in life. This is known as the “compression of morbidity”¹. Throughout the past century there has been an improvement in the health of people at all ages. Successive generations have therefore entered their sixties in a better state of health than their predecessors. People in their sixties today are fitter and healthier than people in their sixties 100 years ago. People in their seventies and eighties today are more like people in their sixties in the early 1900s. There has been a slowing of the ageing process in the population. These changes in age structure, health and longevity, as well as changing work patterns, are changing the nature, and reality, of old age.

Figure 5.1 Graph showing life expectancy at birth in Northern Ireland 1900-2001



Source: Northern Ireland Statistics and Research Agency

STAGES AND AGES

At different times and in different societies there have been markedly different views and attitudes about old age. In ancient Egypt and ancient Greece there was pride in longevity and family solidarity. Old age warranted respect and honour, perhaps because it was relatively rare. Age was associated with wisdom. This desirable feature of old age has led to numerous myths of long-lived populations. One such example is the Abkhasians of current Azerbaijan. These people were reputed to live very long lives. However, age exaggeration was common among the Abkhasians, as the status of elder was highly prized². It was made possible because such populations lacked reliable birth records and parents & children often had the same name allowing children to assume the identity of their parents.

However, even in societies that valued longevity, there was some ambivalence towards old age. One of the earliest known medical papyri on ageing was written around 1600 BC. It describes a treatment for transforming an old man into a youth³. Other writings around this

time describe the physical afflictions of older age.

Today negative attitudes towards older people are all too common⁴. They are deeply ingrained within our society and have been so for a long time. In Shakespeare's "As You Like It", Jaques describes the seven ages of man in his "All the world's a stage" speech. These roughly correspond to the biblical life expectancy of seven decades, or three score years and ten. In the sixth age man is described as a pantaloon (a foolish old man). The seventh age is "second childishness and mere oblivion. Sans teeth, sans eyes, sans taste, sans everything."

Such attitudes have resulted in the language used to describe old age and older people becoming pejorative. Terms such as old, elderly and pensioner are all value laden. While the word old is defined as advanced in years, it is also defined as the opposite of young or new and even, belonging to an earlier period. Older people are very much of the present and older societies are the future.

These negative stereotypes continue to be reinforced by the portrayal of older people in the media. Research

Table 5.1 Portrayal of different age groups in television programmes

Age Group	Shown as they are in real life	
	55+ yrs %	Total sample (all age categories) %
15-19	51	46
20-24	58	56
25-34	70	72
35-44	74	76
45-54	68	73
55-64	59	66
65-74	47	54
75+	45	49

Source: Quest⁵

findings show that about half of older viewers think their age group is not portrayed realistically on television. Indeed, as shown in Table 5.1, all age groups believed that older people were misrepresented on television. In addition over 70% of older people believe that programme makers ignore the views of older people⁵.

Negative stereotypes affect not only our attitudes towards older people but also our expectations of old age. Society's limited expectations of older people and old age contribute to infirmity and dependence. They undermine the self-esteem of older people and undervalue their contribution to society, which leads to marginalisation, misunderstanding and exclusion. They are also wrong.

As well as being value laden many of the terms used in discussing older people are defined in terms of chronological age. In the health service older people are usually defined as being aged 65 and over, but this is an arbitrary distinction related to pensionable age. The United Nations defines older people as being over the age of 50 (which corresponds roughly to the third age described below). Chronological age is an unreliable indicator of functional ability or health status. It has therefore been suggested that descriptive stages of life should be used instead⁶. These stages are:

- the First Age - the age of childhood and socialisation;
- the Second Age - the age of paid work and family-raising;

- the Third Age - the age of active independent life beyond work and parenting; and
- the Fourth Age - the age of eventual dependence.

As noted previously the fourth age is occurring later in life than in the past.

Sticks and stones

Names may not cause physical pain but they can relay powerful messages, both positive and negative. They can also cause considerable psychological and social harm to individuals and to groups of people. It is, therefore,

important to know what older people themselves would prefer to be called.

Table 5.2 shows that, among the 5,000 people aged 60 and over from 12 European countries who were asked, the vote was split between “older people” and “senior citizens”⁷. In the UK and Ireland a clear majority of people favoured the term senior citizens, with only a small minority wanting to be referred to as older people. Although this was the term favoured by the majority in Greece, Luxembourg, Portugal and Spain. In Denmark the majority wanted to be called elderly.

Table 5.2 Which of the following ways of describing people aged 60 and over is the one you prefer to be used?

Country	Elderly	Older People	Senior Citizens	Retired	The Old/ Aged/ Old Age People	60 Plus	Golden Aged/ years/ oldies	Pensioners	Others	Don't know
EC 12	6.6	27.4	30.9	15.0	10.6	1.1	0.2	1.1	5.5	1.6
Belgium	7.7	18.1	31.5	32.6	0.0	4.7	0.0	0.0	0.0	5.4
Denmark	49.5	3.9	18.5	24.5	0.0	0.0	0.0	0.0	3.4	0.2
France	4.0	24.8	21.5	26.5	21.1	0.0	0.7	0.0	1.0	0.4
Germany	3.5	35.0	44.7	13.1	0.9	0.0	0.0	0.0	0.7	2.1
Greece	15.1	34.2	14.7	17.6	4.7	0.0	0.0	0.0	11.8	1.9
Ireland	12.3	9.0	41.9	14.4	4.5	0.0	5.1	9.3	0.0	3.5
Italy	2.4	30.9	21.1	9.1	36.5	0.0	0.0	0.0	0.0	0.0
Luxembourg	3.3	62.8	15.7	18.2	0.0	0.0	0.0	0.0	0.0	0.0
Netherlands	23.9	10.8	13.0	5.5	18.7	24.5	0.0	0.0	1.6	1.9
Portugal	7.4	52.4	21.7	13.3	0.0	0.0	0.0	0.0	1.9	3.3
Spain	13.3	55.1	14.5	7.8	0.3	0.0	0.0	0.2	8.0	0.8
UK	4.3	4.3	45.2	14.7	0.8	0.0	0.0	5.8	22.9	2.8

Source: 37th Eurobarometer Survey 1992⁷

ACTIVE AGEING

The vast majority of older people live independent, active lives. They also provide important contributions to society as a whole e.g. through active citizenship, providing care for spouses or older relatives, participating in voluntary work and contributing to economic activity by child minding or by working themselves. Some older people in the Board area have referred to themselves as SWELS (Seniors With Energetic LifeStyles).

In Northern Ireland there are 223,325 people aged 65 and over. Less than 9,500 of these older people live in a residential or nursing home. This means that more than 95% of older people are living in the community. A couple of recent surveys help to throw some light on the characteristics of those older people living in the community in Northern

Table 5.3 : Internet access and ownership of mobile phones

Age Group	Internet Access	Mobile Phone Ownership
50-59	31	55
60-69	10	33
70+	3	11
All	35	59

Source: Continuous Household Survey 2001/02⁸

Ireland. These are the Continuous Household Survey 2001/02 and the Household Panel Survey 2001/02.

The Continuous Household Survey provides a regular source of information on a wide range of social and economic issues in Northern Ireland. It has been running since 1983. The Survey is based on a random sample of 4,500 domestic addresses. Interviews are sought with all adults aged 16 and over in the selected households. The most recent survey was carried out during 2001/02. It included 868 people aged 65 and over⁸. Table 5.3 shows that over one third of people in their 50s have individual access to the internet, 10% of people in their 60s have such access and 3% of people aged 70 and over have internet access. Mobile phones are owned by 55% of people in their 50s, 33% of people in their 60s and 11% of people aged 70 and over.

It also reveals that 87% of older people (aged 65 and over) are happy on their own at home, over 80% do not suffer from dizzy spells or falls in places they know well, 90% do not have any mental health problems and 93% have no problems communicating with others (Table 5.4).

Table 5.4 General wellbeing among adults aged 65 and over

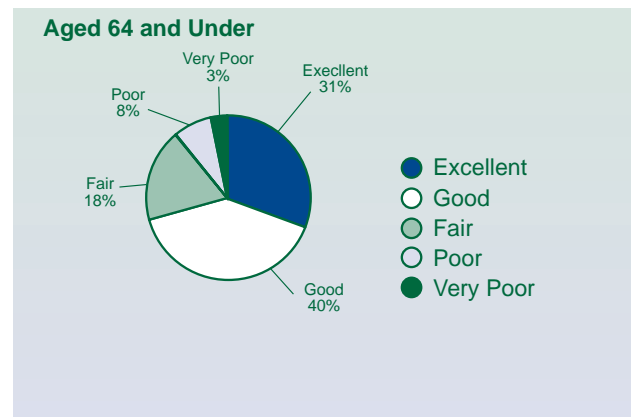
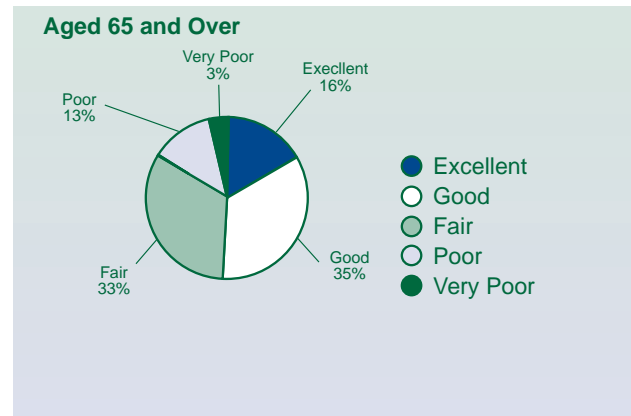
General Wellbeing	Yes%	No %
Happy on own at home	87	13
Suffer from dizzy spells	18	82
Fall / stumble in familiar places	19	81
Mental health problems	10	90
Problems communicating	7	93

Source: Continuous Household Survey 2001/02⁸

Similar results were obtained from another survey of Northern Ireland households. The Northern Ireland Household Panel Survey involves around 2,000 households throughout the province. This survey started in October 2001 and the data presented below relate to this first wave of the survey. These same households have already been revisited in the second wave and will continue to be followed up over time. The Survey includes a total of 3,458 people, of whom 602 are aged 65 and over. It showed that 84% of people aged 65 and over stated that their health was excellent, good or fair. In this age group only 16% rated their health as poor or very poor. The equivalent figures for people aged 64 and under were 89% and 11% (see Figure 5.2).

There is a strong association between self reported general health and mortality and self assessment of health appears to be a good measure of current physical health⁹.

Figure 5.2 : Compared to people of your own age, how would you say your health has been over the past 12 months



Source: Northern Ireland Household Panel Survey 2001/02¹⁰

Table 5.5 shows that the vast majority of people aged 65 and over living in the community can manage everyday tasks unaided. Nearly 84%

can usually manage to get up and down stairs or steps unaided, 98% can get around the house unaided, 96.5% can get into and out of bed unaided and 82% can usually manage to go out of doors and walk down the road. Of the 602 people aged 65 and over questioned in this survey 18% (111) were registered as a disabled person. For people aged 64 and under the figure was 7.6% (215 people).

The Household Panel Survey also revealed that a similar percentage of

older people and younger people are interested in politics (40%). Perhaps of more interest is the fact that 49% of people aged 65 and over stated that they were members of a variety of organisations, including political parties, environmental groups, Neighbourhood Watch, sports clubs and women's groups. This level of activity was the same as the level reported in those aged 64 and under. As well as being socially aware and socially active, Table 5.6 shows that older people ARE more likely to interact with their neighbours.

Table 5.5 Ability of people aged 65 and over to perform certain daily tasks (total number questioned = 602)

Task	Unaided %	With Help %	Not at All %
Get up and down stairs	83.7	10.6	5.6
Get around house	98.0	1.5	0.5
Get in/out of bed	96.5	3.3	0.2
Walk Down Road	82.1	8.8	9.1

Source: Northern Ireland Household Panel Survey 2001/02¹⁰

Table 5.6 How often do you talk to any of your neighbours?

Frequency of talking to neighbours	Aged 64 and under (n = 2660)	Aged 65 and over (n = 596)
On most days	34.4 %	48.3%
Once or twice a week	39.0%	35.7%
Once or twice a month	15.8%	8.6%
Less than once a month	6.4%	5.2%
Never	4.5%	2.2%

Source: Northern Ireland Household Panel Survey 2001/02¹⁰

POSITIVE AGEING

Of course none of the above should diminish the very real health and social care problems that many older people have. Ill health and disability increase with age and we should not deny this. Table 5.7 shows that amongst a group of relatively healthy older people, 61% state that their health sometimes or often prevents them doing what they want to do. The figure for younger age groups is 29.2%. The health and social care needs of older people must be identified and action taken to address them. A lack of appropriate preventive,

supportive and rehabilitation services will result in older people becoming dependent and disabled when it could have been avoided. In order to better meet the needs of older people the Northern Health & Social Services Board published “Ringing the Changes” a Strategy for Older People in 2002¹¹. This strategy makes 54 recommendations for action across a wide range of issues and services, including advocacy and empowerment, health promotion, community and primary care, hospital care, rehabilitation, dementia and palliative care.

Table 5.7 How often do the following statements apply to you?

Statement	Percentage of People Responding Often or Sometimes	
	64 and under	65 and over
My age prevents me from doing the things I would like to	33.2	74.7
My health prevents me from doing the things I want to	29.2	61
Shortage of money stops me from doing the things I want to	68.5	44.7
I look forward to each day	94.0	95.2
I feel life is full of opportunities	83.8	76.4
I feel the future looks good for me	86.9	78.4

Source: Northern Ireland Household Panel Survey 2001/02¹⁰

Table 5.7 also shows just how optimistic and positive most older people are. Over 95% look forward to each day, 76% feel life is full of opportunities and 78% feel the future looks good. It also suggests that fewer older people are prevented from doing what they want because of a shortage of money. This optimistic outlook seems to be combined with a relatively low level of stress.

Figure 5.8 : Percentage stating they had suffered little or no stress in the last year by age and sex



Source: Northern Ireland Health and Wellbeing Survey 1997¹²

As Figure 5.8 reveals the youngest and the oldest age groups seem to

experience the least stress. In the 65-74 age group 73% of men and 62% of women experience little or no stress. The comparable figures for those aged 75 and over are 81% and 70%. The highest stress levels are the age group 45 to 54 years.

Older people tend to have certain common characteristics e.g. people who live long tend to have moderate and flexible attitudes toward life. This undoubtedly helps to combat stress and improve health and wellbeing. However, we need to remember that older people are not a uniform group. They have diverse needs and come from different ethnic, social and cultural backgrounds. Above all, older people are individuals.

CONCLUSION

The nature of old age is changing and it is changing rapidly. The picture of older populations that emerges from more recent research (of which only a very small selection has been included in this chapter) is quite different from the picture many of us imagine. In general older people today are independent, in fairly good health, optimistic, socially active and provide a positive contribution to society. This is a far cry from the image of the frail, dependent older

person that for many is synonymous with getting older. Society as a whole needs to change its perception of older people. We need to adopt, and encourage in others, positive attitudes towards maturity and old age. This means being optimistic as well as realistic. Such attitudes need to be cultivated throughout life.

Within the area of health and personal social services we need to facilitate these changes in attitudes and beliefs. The Board's Strategy for Older People will, hopefully, act as a catalyst for such change locally. It will also lead to the development of better preventive, supportive and rehabilitation services that will allow more older people to remain independent and active for longer.

The Health and Personal Social Services also needs to work in partnership with a range of other agencies to change attitudes and provide supportive services. An important mechanism for doing this will be through the Northern Investing for Health Partnership, which I described in my annual report last year. The purpose of this Partnership is to take action to improve the health and wellbeing of the population as a whole and in particular to reduce health inequalities.

The focus of public health has, for over a century, been on younger age groups e.g. on reducing infant mortality and improving child health and the health of mothers. These efforts have been well rewarded, have contributed to the increases in life expectancy and need to continue. However, we also need to more actively consider public health initiatives that will positively impact on older people and older populations. The first area to consider is how best to improve and deliver preventive services for older people to, for example reduce accidents, improve living conditions and promote independence. The second area to consider is how preventive services can ensure that future cohorts of people enter old age in the best possible state of health and fitness i.e. to take a life span view. This is particularly relevant in light of the increasing incidence of obesity amongst younger age groups.

Politicians, policy makers and those making decisions about resource allocations need to take account of the changing nature of old age and plan accordingly. In this context it is encouraging to note the Government's intention to develop a

strategy for older people in Northern Ireland. This should incorporate the United Nations principles for older persons¹³, which states that:

“Older persons should be treated fairly regardless of age, gender, racial or ethnic background, disability or other status, and be valued independently of their economic contribution.”

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Health Promotion and Older People

There is a clear case for promoting the health of older people, not only because of the benefits for the health and wellbeing of the growing number of older people, but also because of the economic and wider social benefits to society that result from a healthy older age.

The aim of health promotion for older people is to

- Promote health and wellbeing
- Improve quality of life
- Prevent or delay disability

Quality of life for older people is principally due to maintaining good function and independence. This results from chronic disease prevention, maintaining physical and mental activity and healthy lifestyles, and effective health and social services¹. A great deal of disease in old age is preventable and health promotion can also help those with chronic conditions to remain active and independent for longer.

DETERMINANTS OF HEALTH AND WELLBEING

For many people, the effects of poverty, poor housing, poor education, poor diet, dangerous, low paid and insecure employment,

discrimination, civil unrest, violence and bereavement continue into older age, so that the impact of deprivation and disadvantage have a continuing impact on health status and life expectancy². There is evidence also that older people experiencing deprivation are at greater risk of death, entering institutional care and suffering disability^{3,4}. Social isolation and loneliness are known to impact on the life expectancy of older people and to increase the likelihood of admission to a nursing home^{5,6}.

HEALTH PROMOTION: BENEFITS AND INITIATIVES

There is a growing body of evidence to show that health promotion has a significant role in healthy ageing.

Physical activity

Physical activity has been shown to strongly predict successful ageing and prevent frailty⁷. Regular physical activity can improve balance, muscle and bone strength, flexibility, heart and lung function and help to prevent falls and accidents among older people. It can also reduce the risk of developing or dying from heart disease, diabetes, osteoporosis, high blood pressure, stroke and some

forms of cancer. In addition physical activity has been found to be effective in promoting mental health both in residential and community settings.

Research shows that a large proportion of people aged over 50 are sedentary (take less than half an hour of moderate intensity physical activity per week) and that only a small number take the levels of activity recommended for improving health (half an hour on at least five occasions per week). In the NHSSB area the Northern Physical Activity Partnership (NPAP) has identified older people as one of its main target groups. This inter sector partnership has representatives from local councils, HPSS Trusts, NHSSB and NEELB. The partners work together to develop and coordinate programmes to increase the level of participation in physical activity across the Boards' area.

“Actively Ageing Well” is a five year intervention focusing on the development of sustainable physical activity programmes with older people through community and older peoples' organisations. Age Concern developed the programme and the NPAP has formed a partnership with

them to offer this programme in the NHSSB area.

During 2002 nine older persons groups, including two networks, from across the NHSSB area participated in the Actively Ageing Well programme. Each group participated in a six-week physical activity programme, tailored to meet the needs and interests of the individual groups. In addition, all groups were offered training in committee skills and first aid. Members of the groups were also able to sample a range of activities, including Tai Chi and ballroom dancing, at an activity day held in the Antrim Forum. By bringing older people together this programme not only encourages physical activity but also reduces the risks of social isolation and loneliness for those participating.

Evidence shows that even for those who are frail or have limited mobility physical activity can be beneficial. Most nursing and residential homes across the NHSSB area have been invited to send staff on a two day chair based physical activity course organised by the Northern Partnership for Physical Activity. Approximately 100 members of staff have benefited from this training,

which will be updated on a regular basis.

Three fitness instructors and two health promotion officers attended training for trainer's courses in the delivery of chair-based exercises. One of these courses was a Chair Based Exercise Leadership Course, which is accredited by Leicester College. This course was then piloted with staff from two nursing homes. If the evaluation is positive this course will be offered to other nursing homes across the NHSSB area.

Walking for Health is an initiative of the British Heart Foundation and the Countryside Agency. The initiative aims to improve the health and fitness of more than a million people, especially those who do little exercise or who live in areas of poor health.

As part of this initiative over 150 people have trained as volunteer walk leaders within the NHSSB area resulting in many new local walking groups. Many of the volunteer walk leaders are aged 50+ years.

In Ballymena 60-70 people aged 50+ regularly attend weekly walks throughout the Borough Council area. The evaluation of this scheme

has revealed the numerous benefits of walking in relation to health and social wellbeing.

Nutrition

Nutrition can be a significant issue for older people and poor nutrition is recognised as a potential risk factor for falls and injuries. Older people may be at greater risk of poor nutrition as a result of lower income, social isolation, depression and dementia. In addition, disease or drugs may interfere with appetite and poor oral health may make eating or chewing difficult. In general evidence shows that as people get older they eat less well and men have been found to be at greater risk of nutritional deficiencies⁸.

Eating and Health, a Regional Food and Nutrition Strategy identified older people on low income as being a priority group.

The NHSSB Food and Nutrition Guidelines for Staff and the Nutrition Guidelines and Menu Checklist for Nursing and Residential Homes for Older People are currently being implemented throughout the Boards area. Both of these documents include actions to address the need

for nutritional supplements and the provision of nutritionally balanced meals and snacks for those in residential and nursing homes.

Smoking

Older people who continue to smoke are at increased risk of death, stroke, heart attacks, cataracts, respiratory and mobility problems. Giving up smoking at any age gives immediate health benefits.

In response to the Tobacco Kills White Paper⁹ and the draft Five Year Tobacco Action Plan¹⁰ specialist smoking cessation support services are being developed in a range of primary, secondary and community settings across the NHSSB area. Brief Opportunistic Advice has been shown to be effective in supporting smoking cessation and training in using this approach is being offered across the NHSSB area. It is intended that all HPSS clients will be asked about their smoking status and offered brief opportunistic advice and information on specialist services where appropriate. This approach is supportive of the recommendations in “Ringing the Changes A Strategy for Older People”¹¹, launched by NHSSB in December 2002.

Safety schemes

Older people are at increased risk of sustaining accidental injuries, both in the home and outside, which often result in poor health, disability and death. As already mentioned, physical activity and improved nutrition can help to reduce the risk of injury. Home safety schemes can also contribute to risk reduction and current schemes within the Northern Board area have largely been outlined in Chapter 2, including Causeway Vulnerable Isolated People (CVIP), a scheme designed to protect VIPs, their property and improve quality of life and wellbeing, and No Age to Golden Age, a Causeway initiative concerned with energy efficiency.

A further home safety scheme is that piloted by Homefirst Trust in the mid Ulster Area, working with older peoples’ groups. Older people applied via their local group for safety equipment that included bath mats, low energy bulbs and smoke alarms. This was a pilot scheme that was evaluated positively. Many of the older people welcomed not only the provision of the equipment but also the contact with local older persons groups.

THE WAY AHEAD

The NHSSB strategy for older people, *Ring the Changes*, was launched in December 2002. The strategy recognises that health promotion is everyone's business and one of the recommendations was for the appointment of two dedicated health promotion officers for older people. If funding becomes available for these posts there would be additional support for those staff who have a health promotion role and an increase in initiatives targeting older people. This would support existing work and enable the development of new programmes, taking account of new strategies such as Promoting Mental Health and Home Accident Prevention, where older people are specifically identified as a target group.

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Falls

Falls are common events in the lives of older people and can result in a range of adverse outcomes ranging from minor bruises (non injurious falls) to fractures (injurious falls), disability, dependence and death. Hip fracture is the most common serious injury related to falls in older people.

Whilst most falls do not result in serious injury the consequences for an individual of falling or not being able to get up after a fall can include:

- Psychological problems, for example, a fear of falling and loss of confidence in being able to move about safely
- Loss of mobility leading to social isolation and depression
- Increase in dependence and disability
- Hypothermia
- Pressure-related injury
- Infection

A fall can also precipitate admission to long term care as data indicates that 50% of people can no longer live independently after an osteoporotic fracture. The fear of falling can also exact a significant limitation on activities of daily living for the older person.

The issue of falls has assumed a high profile in recent years due to the increasing numbers of elderly people in the population and the high costs they incur in terms of quality of life¹ and to the health and social services². Figures from the National Service Framework for Older People (England, 2001) indicate that hip fractures result in an annual cost to the NHS of around £1.7 billion for England³. Of this, 45% of the cost is for acute care, 50% for social care and long term hospitalisation and 5% for drugs and follow up.

Overall falls can be said to be a major cause of disability and the leading cause of mortality due to injury in older people aged over 75 in the UK⁴. Over 400,000⁵ older people in England attend A&E Departments following an accident⁶. A recent survey of 16 Accident and Emergency departments in Northern Ireland found that 41.4% of accidents occurred inside the home⁷. Of these accidents, 66% actually occurred inside the home whilst 34% occurred directly outside the home i.e. in the garden, yard, driveway, steps etc. In 1999 the Royal Society for the Prevention of Accidents (RoSPA) identified constructional features in

homes as the single largest contributor to accidents in the home with a number being linked to wall/floor furnishings and coverings.

Data from the Home Accident Prevention Strategy⁷ also reveal that almost half of those injured as a result of a fall were aged less than 10 years or over 65 years. In 2000, 15 deaths in those aged 65 years and over were attributable to accidents involving a fall in the home. The strategy has therefore set a target to *'reduce the number of falls in older people resulting in an admission to hospital by 10% by 2008'*. It is anticipated that this will be achieved through policy development, improved public awareness, improved training and accident information. Partnership working across all sectors with expertise and resources to influence effective home accident prevention will be required as other agencies also have a key role to play in falls prevention. This includes for example, local councils who have a responsibility to ensure that pavements are kept clear and in good repair and that there is adequate street lighting.

Methodological difficulties account for the lack of agreement on risk

factors for falls. However, the following are recognised potential risk factors for falls and injuries:

- Poor nutritional status - in particular Vitamin D and calcium deficiency
- Environmental hazards - including loose carpets, baths without handles, poor lighting, unsafe stairways, ill fitting shoes and thick sole shoes (while there is some evidence that footwear which is thinner and harder mid sole produces better balance than thicker, trainer type shoes, more research is needed in this area)⁸.
- Medication - certain prescribed drugs including anti-depressants and hypnotics, sedatives, tranquilizers, diuretics and laxatives
- Lack of exercise - this is associated with weak muscles, poor balance and increased bone loss and
- Age related changes and medical conditions - poor vision and cognitive impairment may account for some increase in falls.

However it is not clear to what extent these are independent risk factors⁸.

Standard six of the National Service Framework (NSF) for Older People

(England, 2001) is devoted to the prevention and management of falls should they occur. These standards are based upon the available evidence and recognised good practice and were adopted by the Programme of Care Planning team for Older People at the Board when developing “Ringing the Changes: A Strategy for Older People” (December, 2002)⁹.

In relation to the prevention of falls and their impact the document identifies three key areas as outlined below:

- Prevention including the prevention and treatment of osteoporosis
- Improvements in the diagnosis, care and treatment of those who have fallen, and
- Rehabilitation and long term support

PREVENTION

Preventing falls in frail older people will save lives and decrease disability. It is recognised that older people who have fallen are at risk of falling again. Preventing falls in older people therefore depends on identifying those most at risk of falling

and coordinating appropriate preventative action^{10,11}. Many older people who fall do not seek medical help but they may be identified as being at risk through the presence of a number of factors e.g. visual impairment or taking four or more medications. Risk factors in the home may, as already indicated, include poor lighting, (particularly on stairs) or loose carpets or rugs.

Falls in later life can also be a symptom of a previous unidentified health problem which needs to be identified and managed e.g. osteoporosis. Osteoporosis is a condition characterised by a reduction in bone mass and density which increases the risk of a fracture when an older person falls. Such fractures occur most commonly in the hip, spine and wrist whilst vertebral fractures due to osteoporosis can cause loss of height, curvature of the spine and chronic back pain. One in three women and one in twelve men over the age of 50 are affected by osteoporosis and almost half of all women experience an osteoporotic fracture by the time they reach the age of 70¹². Up to 14,000 people a year die in the UK as a result of an osteoporotic hip fracture¹³.

The prevention and management of osteoporosis can have a significant effect on both the numbers and the costs associated with fractures¹⁴. Identifying those at high risk of developing osteoporosis and offering appropriate advice and treatment could reduce the number and severity of fractures in the long term^{15,16}. Risk factors for osteoporosis include:

- Previous fragility fracture
- Prolonged corticosteroid therapy
- Hysterectomy, premature menopause or history of amenorrhoea (not treated to reduce the risk of osteoporosis)
- Risk factors e.g. liver or thyroid disease, malabsorption, alcoholism, rheumatoid arthritis and male hypogonadism
- Family history of osteoporosis (including maternal hip fracture)
- Low body mass
- Smoking

Osteoporosis may also be identified through DXA bone mineral scans or radiographic evidence. It is recommended that anyone with a positive diagnosis of osteoporosis should receive advice on adequate nutrition, the need for regular weight

bearing exercise, smoking cessation and the avoidance of alcohol. Other interventions such as hormone replacement therapy or calcium or Vitamin D supplements may also be prescribed where appropriate.

The NSF for Older People recommends that older people who have sustained a fall should, with their consent, be referred to a specialist falls service where a specialist assessment should be carried out in collaboration with primary and social care professionals^{17,18}. Any such assessment should identify risk factors associated with the older person's health as well as their environment. Such assessments should be backed up with appropriate interventions and these may include the diagnosis and treatment of any underlying medical problems¹⁹, rehabilitation, repairs/adaptations to the home, equipment to help improve safety in the home and social care support.

There is evidence to show that hip protectors are effective in reducing hip fracture risk^{20,21} but a lack of compliance and the unacceptability of hip protectors to older people has been highlighted as a major difficulty, limiting the usefulness of these

fracture prevention aids²⁰. However a recent Cochrane Review concluded that hip protectors were effective in nursing home residents. Further research is being undertaken to establish the effectiveness of hip protectors in community dwelling populations and it is recommended that until these results are available, hip protectors should be limited to nursing home populations or populations with marked cognitive impairment.

Public Health strategies have a key role to play in helping to reduce the incidence and impact of falls in older people, by enabling older people to stay fit, well and independent for as long as possible²².

The main strategies of relevance in the prevention of falls and in reducing the impact of a fall, are physical activity, nutrition, and smoking cessation (see Chapter 6). Physical exercise, even for very frail older people can help strength, mobility and balance, and can reduce the risk of falling²³. Being either overweight or underweight can have a detrimental effect on an older person's health and wellbeing, for example, amongst older women increased risk of hip fracture has

been associated with extreme thinness. The promotion of healthy eating (including adequate intake of calcium)²⁴ is important and any advice should relate to existing diets and meal patterns and be tailored to the knowledge and understanding of older people. It is important to note that the healthy eating message may have changed over the life of the older person and should be presented in a manner that is likely to engage older people.

Older people who continue to smoke are at an increased risk of mobility problems that may contribute to falls. As discussed in Chapter 6, specialist smoking cessation support services are being developed in a range of community, primary and secondary care settings within the NHSSB area.

REHABILITATION

A review of trends in rehabilitation policy²⁵ commissioned jointly by the Audit Commission and the King's Fund, concluded that 'there is widespread confusion about the meaning of rehabilitation, making it difficult at times to distinguish it from other forms of care and support'. This review observed that rehabilitation is 'often a function of services, not

necessarily a service in its own right'. Many older people will need rehabilitation after a fall whether they have been treated in hospital or remain at home. Early mobilisation as part of a total package of multidisciplinary care, promotes independence and reduces the risk of complications²⁶. The aim of rehabilitation is therefore to maximise an older person's independence and enable them to carry out their normal activities of daily living and social participation.

A further review 'Effective Practice in Rehabilitation'²⁷ stated that the *'more one can achieve coordination of diverse inputs through a systematic approach, protocol or team delivery, the more effective the rehabilitation may be'*.

The NSF for Older People (2001) states that to be effective, rehabilitation must be responsive to the wishes of older people, involve a number of agencies and disciplines, be available when required and work towards identified outcomes. A combination of clinical, therapeutic and social interventions may be needed to address an older person's health and social care needs and to reduce the risk of further falls²⁸.

The Audit Commission has made a number of recommendations regarding the rehabilitation of older people with a hip fracture²⁹. These include the need for:

- Standard assessment procedures to be used
- Target times for mobilisation, with arrangements for maximising mobility and independence in hospital
- A formal multidisciplinary approach
- A named individual responsible for planning and reviewing individual's progress
- Therapists to visit trauma wards daily
- A range of rehabilitation options to match individual needs, from those who are likely to recover quickly to those who will require longer term support and
- Appropriate discharge arrangements

CONCLUSIONS

Taking account of all of these factors the NHSSB has recommended that service providers develop a specialist falls service. Provision of such a service would facilitate assessments

of risk to be carried out on those older people who have already fallen (whether they have sustained a fracture or not), or on those who have been identified as being at a high risk of falling. Following assessment, appropriate interventions can then be put in place. The Board's strategy for older people recommends that such a service be closely linked to primary and community care services, the residential and nursing home sector, the fracture and orthogeriatric service, other rehabilitation services and injury prevention services.

Recognising the need to promote the health and wellbeing of older people the Board has recommended the appointment of dedicated health promotion officers to facilitate health and social care professionals and others. The strategy for older people also recommends the training of relevant community staff on the importance of good nutrition for older people.

Accepting that health and social services does not have sole responsibility for falls prevention, the Board will continue to work with the Northern Investing for Health Partnership to take action to prevent falls and other injuries to older people.

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Health Policy for Older People



Margaret McLaughlin

(photo courtesy Belfast Telegraph)

On 17th September 2003, Margaret McLaughlin, Northern Ireland's oldest person died at the age of 108 years, just three weeks short of her 109th birthday. The Portrush woman was born in the same year that Gladstone resigned as Prime Minister, was nine when the Wright brothers flew for the first time and seventeen when the Titanic sank. Modestly, when asked last year about the secret of her longevity, she replied "It's the Lord's secret". Other than the skilled care she required after breaking her hip (when she was just 100), we may ponder how much impact health services had on her unusual survival. On most days she rose early to make her own breakfast and occasionally nip out to the shops, but she seldom missed attending Ballywillan Presbyterian Church.

Although a mere slip of a girl compared to Jeanne Calment, the French woman who lived until the age of 122 years, what does each of

their stories tell us about our preparedness for the changing demography that our society faces?

THE RISING TIDE



We live in an ageing society. Since the Second World War the number of people over 65 years old has doubled. Nearly all the developed European countries have completed a demographic transition that has involved a substantial fall in both fertility and mortality until, for over a dozen of these countries, there is now a negative rate of natural increase (births minus deaths). While adult mortality has continued to decline, the ageing of the population will, at least for perhaps another 30 years, gain pace not necessarily because of further declines in adult mortality, but as the baby boom generation of the 1960s reaches pensionable age.

However, the aged population has itself been ageing, with growing numbers of persons at the oldest ages, 85 years and above. Currently these folk make up approximately 20

percent of the aged population. Their numbers are growing fast and this will have important policy implications.

ADDING LIFE TO OUR YEARS

Though life expectancy at birth advanced dramatically over the last 100 years, the life expectancy at age 65 gained probably no more than a couple of years in the last quarter of the 20th century. But what is more important for the health of the nation is the quality of those years. Clearly, welfare provision will need to be made for those whose lives may be spent in pain or with disability. Demographers and policy planners have thus begun to pay less attention to crude life expectancy and instead derive a measure called “healthy” life expectancy, or more precisely, Disability Free Life Expectancy (DFLE).

To do so, what is required is a measure of the prevalence of limiting long-standing illness or disability in each age group. We get such information from population surveys or from the census. Essentially the method of DFLE calculation involves partitioning life expectancy into years with and without disability. Knowing the balance of these two for

subgroups of the population will be important if we are to set and monitor sensible health policy targets. The ability and necessity to “intervene” to cater for the ageing population will depend on the extent to which DFLE and LE advance together.

The two most likely scenarios are the “receding horizon” model where the onset and progress of disability is postponed to precisely the same extent as death itself and the “compressed morbidity” scenario, where both disability and death are postponed but the former more than the latter. Most of us, as individuals and as a society would rather that any morbidity (ill-health) that we experience at the end of our lives was as short as possible. Unfortunately this cannot be anticipated for all of the commoner chronic conditions. For example, the reduction of death rates from myocardial infarction over the last 30 years, has certainly contributed to gains in life expectancy. However, many people who survive a coronary are left with a weakened heart and are susceptible to heart failure. So while primary prevention has had some success, our cardiology services and our services for older people will need to make much more

Table 8.1 Expectation of life without ill-health at birth and at age 65 years

AT BIRTH	MALE			FEMALE		
	L.E.	D.F.L.E	D.F.L.E/L.E	L.E.	D.F.L.E	D.F.L.E/L.E
V. Affluent	74.3	66.0	89%	79.2	68.9	87%
Affluent	73.1	63.9	87%	78.5	67.5	86%
Average	72.2	62.1	86%	78.1	66.5	85%
Deprived	71.4	60.9	85%	77.3	64.9	84%
V .Deprived	69.0	57.6	83%	75.4	62.2	82%
AT AGE 65	MALE			FEMALE		
	L.E.	D.F.L.E	D.F.L.E/L.E	L.E.	D.F.L.E	D.F.L.E/L.E
V. Affluent	14.5	9.2	64%	16.9	10.1	60%
Affluent	13.7	8.5	62%	16.6	9.6	58%
Average	13.5	7.9	59%	16.6	9.2	55%
Deprived	13.1	7.6	58%	16.2	8.8	54%
V .Deprived	12.1	6.5	54%	15.2	7.8	51%

LE: Life Expectancy; DFLE: Disability-Free Life Expectancy

provision for rehabilitation to ensure that patient's morbidity is minimised.

Table 8.1 illustrates the DFLE estimates for men and women in affluent and deprived communities in Northern Ireland. What is apparent from this data is that people in upper social classes can expect to have longer lives and experience lower prevalence rates of disability than the less privileged and that though women (compared to men) will have both longer lives and more disability-free years, a slightly greater proportion of their life expectancy will be with disability.

Clearly, when we set targets for our health services, we need to bear in mind that attempts to eliminate some diseases (or their "lethality"), like coronary thrombosis (heart attacks), may extend our life expectancy but lead to a relative expansion of morbidity (i.e. living longer with a failing heart). On the other hand, if we were to eliminate "non-fatal" diseases (or their consequences) through preventive measures, total life expectancy might remain unchanged but with fewer years spent with disability.

USE IT OR LOSE IT

We began our chapter by noting the remarkable life of Margaret McLaughlin. In 2003, we mark the fiftieth anniversary of the discovery by James Watson (born 1928) and Francis Crick (born 1916) of the molecular structure of DNA. Roughly speaking, it is also 50 years since the evidence began to appear convincing that smoking was a major cause of lung cancer and heart disease. In that respect, we owe gratitude to British epidemiologist, Sir Richard Doll (born 1912).

Figure 8.1 Three Senior Citizens



James Watson

Francis Crick

Richard Doll

All three of these senior citizens, to greater or lesser extents are still active. What do their achievements tell us? Certainly we now know much more about how damage to our genetic code in our DNA is associated with the ageing process and that, up to a point, ageing is a genetic process. Indeed, Professor Doll once remarked that if we **all** smoked, we would be led to the

conclusion that getting lung cancer was down to our particular genetic susceptibility.

Similarly, despite the unquestionable contribution of certain genes to the pathological processes, for most chronic diseases of ageing (such as cognitive decline, osteoporosis and heart failure) there is much that we can do to change the distribution of risk factors that will affect the age of onset and thence the distribution of disease and disability in the population. The life of Mrs McLaughlin and indeed those of the scientists illustrated in Figure 8.1 speak as much as their scientific discoveries: the importance of education, gainful employment (and a sense of worth), staying physically and mentally active for as long as possible and not succumbing to dangerous habits such as smoking or excess alcohol.

Clearly, in planning for the future, we will continue to need high quality health services and enthusiastic public health practitioners. But making provision for our ageing population will not be their sole preserve. It is an endeavour that truly needs joined-up thinking throughout the life-course. We will need to

design a “society” that promotes health and social capital, by, for example, promoting health lifestyles and supportive families. One only need listen to the current debate surrounding pensions provision to realise that demographers, social scientists, economists and, of course, our politicians will all play a vital role.

Homefirst Community Dental Service

A common finding is that increasingly more elderly people are keeping more of their own natural teeth. By 2028 it is predicted that no one under 65 years of age will be without teeth.

Older people now comprise the biggest patient treatment category in Homefirst Community Trust. Patients are treated both in the clinic environment and a significant number will be seen on a domiciliary basis in their own home where this has been assessed as necessary.

In 1996 a Senior Community Dentist with specific responsibility for developing dental services for the elderly trust wide was appointed in Homefirst Community Trust. The remit of this post was to raise awareness of the oral health needs of elderly people and to work with carers, other professionals and outside agencies to assess need and deliver services in relation to need.

To identify baseline levels of oral health of elderly people in the Northern Health and Social Services Board a major research project was conducted in 1999, and reported in 2000¹. This work was commissioned by the Director of Dental Services at the Northern Board and conducted in partnership with Homefirst

Community Dental Service, Department of Public Health Medicine at the Northern Board and the University of Newcastle upon Tyne. The recommendations resulting from this research highlighted the need for improved patient awareness on oral health issues, more accessible patient information and health promotion.

Subsequently, this has facilitated the inclusion of a number of oral health recommendations in the Northern Health and Social Services Board Eldercare Strategy (2003-05).

Research has shown that elderly people living in 'cared for facilities' i.e. residential/nursing homes and hospital environments are likely to present with the very worst oral health.

Within Homefirst this sub group of the elderly population were chosen as a target group for oral health promotion/education initiatives. An innovative multiprofessional oral health care training program was developed in Homefirst Community Dental Service in partnership with Abbeylands and Edenmore, (Newtownabbey) and Moneymore Private Nursing Homes (formerly of the Sandown group). This initiative

was designed to increase nursing and care staff awareness of the issues relating to oral health for older people 'looked after' and resident in their facilities. The key features of the programme included: -

- Practical 'hands on' training for all nursing and care staff.
- Production of oral health policy for the nursing home.
- A new oral health assessment tool.
- Training of on site oral health coordinators.

To date the programme has trained 80 nursing/residential home staff who had basic oral health training, 11 staff had additional training and are now nominated oral health coordinators for their nursing home. One major consideration of this programme has been to build in sustainability and the oral health coordinators have been an essential component in delivery of this objective.

CURRENT INITIATIVES

A further initiative, which has rolled out from this programme, has been developmental work with NVQ Assessors. A modified program (based on the Sandown initiative)

was designed and delivered to a small group of Northern Board NVQ Assessors. These staff assess the oral hygiene element of the personal care and grooming module of NVQ Care Level 2. In addition links with the Northern Board NVQ Management Centre have been established to further this work.

The Community Dental Service in Homefirst was delighted to be asked to present the work being developed within the Trust in relation to the elderly at a recent Regional Symposium organised by the Northern Ireland Community Dental Service Study Group on Elderly Oral Health and this afforded us the opportunity to share good practice with both community dentists and general dental practitioners regionally.

New developments currently being worked on are guidelines for the elderly in Nursing/Residential homes receiving 'soft' and or 'fortified', potentially cariogenic diets. This is a joint initiative with Community Dieticians and Community Dental staff from Causeway, Homefirst and United Hospitals.

Alternative ways of partnership working are currently being explored with Voluntary Housing Associations as a means of readily accessing another sector of the elderly population.

Proposals have now been submitted to NHSSB to develop the oral health care training programme for nursing homes across the trust.

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Primary Care

Primary Care covers a broad area of healthcare provision in the community and is a collective name for the work of independent contractors providing services for the HPSS - general practitioners, pharmacists, optometrists and dentists. Community Trusts complement this work through their management of community nursing and allied health professionals.

In our ageing population the care of older persons makes ever increasing demands on the resources available to all the main Primary Care providers. Chronic diseases account for over 70% of health spending and the majority of service users suffering from conditions such as ischaemic heart disease, diabetes, heart failure and stroke, are in the older age groups.

NEW GP CONTRACT

The recognition by the Department of Health in England that increasing the focus on the effective management of chronic diseases in the community will reduce pressure on the overstretched hospital sector by avoiding hospital admissions, coincided with a desire by general

practitioners to develop new contractual arrangements.

During 2002 intensive negotiations took place between the NHS Confederation (representing the Government) and the British Medical Association, with a goal of finalising a new GP contract by May 2003.

This new contract will radically alter the way GPs work and organise their practices and how patients receive services. For the first time ever, providers within a national health service will work to achieve agreed clinical and organisational quality standards and be incentivised to strive for continuous quality improvement.

Proposed new developments include:

- A Quality and Outcomes Framework placing a major emphasis on the need for GPs to structure their care of those with chronic diseases with treatment plans and regular review.
- Improved information management with electronic coding of health information as a first step towards the development of an Electronic Health Record, based in Primary

Care but appropriately accessible by other professionals within the HPSS.

- Responsibility for the care of patients outside normal surgery hours will transfer from GPs to Health Boards.
- A more integrated approach to commissioning services in primary, secondary and community care, will increase the range of referral options available to frontline health professionals through the development of general practitioners with specialist skills, working in the community either in Intermediate Care facilities or Diagnostic and Treatment centres.

If final arrangements keep to schedule the new contract will be implemented in April 2004, preceded by a communications programme designed to ensure that the public are consulted and kept fully aware of all new developments.

PRACTICE ACCREDITATION

The drive to improve the quality of services provided through GP practices led the Family Practitioner Unit to form a partnership with the

Royal College of General Practitioners(NI) in supporting a number of practices in undergoing assessment through two quality schemes, the RCGP Practice Accreditation Scheme and the Quality Practice Award.

To date seven practices have achieved the PAS award and one, Ballyclare Medical Practice, has received both the high level Quality Practice Award and the Chartermark. We congratulate all of them.

LOCAL HEALTH AND SOCIAL CARE GROUPS (LHSCGS)

Four LHSCGs were established in the Northern Board in June 2002.

- East Antrim
- Antrim/Ballymena
- Mid-Ulster
- Causeway

Established with the twin objectives of improving the health of the population in their locality and reducing health inequalities, most Primary Care professional groups are represented on their management boards, although to date general practitioners have chosen not to engage with the Groups.

Commissioning services and developing Primary Care are high on their agenda of duties and during their first nine months of existence these enthusiastic groups of health professionals have been addressing the needs of their local populations through detailed Primary Care Investment Plans, now available on the Northern Board's website: www.n-i.nhs.uk/nhssb.

LHSCGs have already begun to address the care of older people through a number of initiatives including:

- Gathering local evidence of need amongst the older population as a basis for the effective use of scarce resources
- Extra funding to reduce hospital waiting lists
- Providing resources to GP practices to maintain chronic disease services established under GP fundholding arrangements
- Supporting new and innovative projects through Primary Care development funds

We wish them well on this exciting new journey.

SUPPORTING INFRASTRUCTURE

If older people are to enjoy the benefits of new community based services it is essential that facilities are user friendly and compliant with existing disability and health and safety legislation.

In 2002 the Northern Board's Family Practitioner Unit secured £200k to assist GP practices with the provision of much needed items such as access ramps, chair lifts, improved signage, loop systems, textphones and moving text boards for the hearing impaired.

The new GP contract and the Northern Ireland GP Modernisation Project support the development of paperless practices with networked electronic information flows and the availability to Primary Care staff of worldwide health information resources through the web. In 2002 the Northern Board invested heavily in Primary Care Information Management and Technology (IM&T) and will continue to do so on the basis that a population approach to Primary Care will ensure that resources are targeted effectively.

HEALTH PROMOTION

Smoking cessation schemes continue to work effectively in GP practices and pharmacies and complement the work detailed in the Board's Tobacco Action Plan.

Physical Activity: traditionally our older population has regarded leisure centres as places where young people gather to indulge in vigorous exercise. Happily in the Northern Board area this is no longer the case. Collaborative working between the Health Boards, Trusts, Education and Library Boards and District Councils through the Northern Partnership for Physical Activity, has secured funding for:

- Walking groups
- Tailored exercise programmes

Based in the leisure centres of our ten District Councils, GPs can refer elderly patients to trained leisure staff who will ensure that clients can exercise safely in a welcoming and friendly environment.

PHARMACY

Polypharmacy has long been a problem for older people who can find themselves trying to cope with a host of different medications at a time

when their sensory faculties may be failing. During 2002 the Northern Board funded and managed a number of projects to deal with this increasing problem:

Medicines Management enables pharmacists to work closely with GPs in identifying and reviewing the care of elderly patients taking high numbers of medications. Education and explanation reduces risk and enables a more rational approach to therapy.

Locality Prescribing Advisers have continued to assist GP practices across the Board's area in developing safe and economical prescribing practices. The Northern Board Formulary facilitates prescribers in working consistently using drugs recognised for their quality.

Hoarding of unused medication is a problem for all service users but especially for the elderly living alone. The Why Waste It campaign enabled community pharmacists to deal with unused drugs no longer required, and the return of 'bucket loads' of drugs for destruction has produced a safer home environment for grandparents and grandchildren alike.

This is an exciting time for everyone involved in the provision of Primary Care services with real signs that Primary Care will finally take its place at the heart of the health service.

Ballymena Low Vision Clinic

INTRODUCTION

Over the last few years, much emphasis has been placed on making low vision services more accessible to people with a visual impairment. On 6th March 2002, an outreach low vision clinic commenced in Braid Valley Hospital, Ballymena. Patients attending the clinic report that this local clinic is much more convenient than having to travel to the RVH or Altnagelvin to avail of services, as was previously the case.

Recent publications by the LVSCG¹, DHSS(NI)² and the College of Optometrists³ have also recommended that low vision services are multiprofessional. The Ballymena clinic is staffed by a senior optometrist from the RVH and a senior rehabilitation worker from Homefirst Trust. Most patients have been previously seen by an ophthalmologist for diagnosis and if appropriate, management of ocular pathology. In some cases, support may also be required from a social worker. The utilisation of all these professionals ensures patients have access to a much more comprehensive service. The smooth running of the service is also down to

the support and assistance of nursing and clerical staff at Braid Valley Hospital.

CLINIC REPORT

Over the last 11 months, 202 patients have been seen during the course of 42 clinics; 136 of these patients were attending for initial assessment and the remaining 66 for review appointments. Only 8 patients had previous contact with a low vision clinic. Referrals were received not only from ophthalmologists and GP's but also from optometrists and rehabilitation workers.

The majority of patients attending clinics were over 75 years of age. It is hardly surprising therefore that 54% of the primary pathology was Age-Related Macular Degeneration (AMD), which is the commonest cause of visual impairment in the elderly population in the UK. Other patients suffered from diabetic retinopathy (17%), glaucoma (7%) and myopic degeneration (3.5%). About 50% of patients attending clinics are registered as blind or partially sighted.

All patients seen at the clinic have their spectacles checked to ensure

they are wearing an up-to-date refractive correction. A range of optical low vision aids have been supplied of varying designs and magnification levels to allow patients to carry out tasks such as reading their mail or extracts from the newspaper and seeing price labels in shops. Non-optical aids such as writing aids and talking clocks are also available for demonstration.

The advice given to patients is extensive and addresses their reported difficulties. It includes information on lighting and glare avoidance, daily living skills and mobility issues. Training is provided on the utilisation of residual vision and low vision aid usage.

As well as having a clinic appointment, 25% of patients were referred to a community based rehabilitation worker for a home based assessment and follow up. Feedback from patients would indicate that these home visits are extremely beneficial and highly valued by the patients who receive them.

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Core Tables

INTRODUCTION

The Department of Health and Social Services for Northern Ireland and the four Health and Social Services Boards have jointly agreed on a set of standard tables which will be produced for each Board and the Province. The relevant tables will appear every year in the Annual Report of each Director of Public Health and in the Chief Medical Officer's Report on the health of Northern Ireland.

This year there have been important changes made to the core table data for the following reasons:

- Data from the 2001 Census has been used by the Northern Ireland Statistics and Research Agency (NISRA) to retrospectively revise mid year estimates of population from 1992 to 2000. This will result in different rates per population than previously published. In addition the population projections previously published based on 1998 mid year estimates of population have been updated to reflect population projections based on the 2001 mid year estimates.

- 2001 data relating to deaths has been coded for the first time using the International Classification of Disease (ICD) 10 codes. Previous years data recorded using ICD 9 has been translated to ICD 10 coding to enable comparisons and analyses of trends.
- In addition, NISRA are now using updated postcode software which, when applied to previously published births and deaths data, resulted in a number of births and deaths being re-designated to different Health Board areas.

As a result of the above revisions, the figures published in this year's tables may differ from those previously published.

The aims of the core tables are two-fold. Firstly, these tables are composed of important summary information which will enable continuous monitoring of health and population trends to be carried out for each part of Northern Ireland. Secondly, the rates given are directly comparable between Boards as they have all been calculated to agreed standards. This should assist anyone wishing to compare trends across Northern Ireland.

MAJOR TRENDS

Births

The total number of births to women in the Northern Board has increased slightly from 2000; however there has been an overall decline over the last ten years. These figures are also reflected in the total period fertility rate. Fertility rates have increased for all age groups over 25 years and have only fallen in one age group 20-24; teenage fertility rates remain the same as the previous year. The greatest increase in fertility rates occurred in the 30-34 age group this was mainly due to a greater increase in the number of births (4.9%) than the number of females in the population (0.2%) for this age group.

Trends in mortality

There have been increases in perinatal, neonatal, post-neonatal and infant death rates. However, it should be noted that as the number of deaths are low, a relatively small increase in the number could have a large effect on rates. Nevertheless, the causes of these deaths will be closely monitored.

The standardised mortality ratio (S.M.R.) allows Board and Northern

Ireland death rates to be directly compared, with Northern Ireland always having a ratio of 100. For children aged 1-14 years the actual number of deaths from all causes and from accidents for the Northern Board have not changed from the period 1995-1999, while the S.M.R.s have increased slightly. However, it is still encouraging to note, the standardised mortality ratios for NHSSB for both all causes and accidents is the lowest of the four Boards. Nevertheless, childhood accidents remains a priority area for the Northern Board therefore, continued coordinated effort is required by all those who have a role to play in further reducing these figures.

Fortunately, the decline in ischaemic heart disease (IHD) death rate continues for males. There has also been a slight decrease for females since 2000 although the female IHD rate tends to fluctuate yearly. There has been a reduction in death rates from stroke for males and an increase for females. The death rate for respiratory disease has greatly decreased for males since 2000 while the 2001 rate for females remains much the same. There has

been a slight increase in death rates from all types of cancers reported in Table 9a for males. While on the whole cancer death rates have reduced for females with only stomach and cervix cancers rates staying the same as the previous year. However, it should be noted that there are year-on-year fluctuations and there is a need to look at trends over a number of years.

Overall mortality rates have continued to fall, so that life expectancy at birth in Northern Ireland is now 74.8 years for men and 79.8 years for women.

IMMUNISATION

Apart from MMR, vaccination uptake levels in the Northern Board's area for 2001 remain similar to those of 2000 (average 95-96%) with a slightly higher rate for Diphtheria (97.5%). The MMR vaccination rate has decreased since 2000 leaving it slightly below the target of 92%. Uptake rates will continue to be monitored at locality level.

LIST OF TABLES

Table 1(a)

Estimated population of the Northern Health and Social Services Board (NHSSB) by age and sex, 2001.
Source: Northern Ireland Statistics and Research Agency (NISRA).

Table 1(b)

Estimated population of District Council Areas 2001 within the NHSSB area by age band.
Source: NISRA.

Table 2(a)

Population projections for the NHSSB for the years 2007 and 2012 (thousands).
Source: NISRA.

Table 2(b)

Population projections for District Council Areas of the NHSSB for the years 2007 and 2012 (thousands)
Source: NISRA

Table 3

Births (live, still and total) and birth rates to maternal residents of the NHSSB, 1987 - 2001.
Source: NISRA

Table 4

Total births to maternal residents in each District Council area of the NHSSB, 1987 - 2001.

Source: NISRA

Table 5

Age-specific fertility rates for NHSSB women aged 15 to 49 years, 1991 - 2001.

Source: NISRA.

Table 6(a)

Notified live births to NHSSB maternal residents by birthweight, 1995 - 2001.

Source: Child Health System, NHSSB.

Table 6(b)

Notified still births to NHSSB maternal residents by birthweight, 1995 - 2001.

Source: Child Health System, NHSSB.

Table 7

Infant and perinatal mortality in the NHSSB. Numbers of deaths and mortality rates 1987 - 2001.

Source: NISRA.

Table 8

Standardised mortality ratios for children aged 1-14 years within Health Board area, 1997 - 2001

Source: NISRA

Table 9(a)

Directly standardised death rates for selected major causes of death, age 15-74 years, NHSSB, 1993 - 2001.

Source: NISRA

Table 9(b)

Age standardised death rates 1993 - 2001 (standardised to European population) for selected major causes of death, age 15-74 years, NHSSB.

Source: NISRA.

Table 10(a)

Mortality by cause in the NHSSB, 2001.

Source: NISRA.

Table 10(b)

Potential years of life lost in NHSSB by cause of death (between ages 1 and 75 years), 2001.

Source: NISRA.

Table 11

Expectancy of life in Northern Ireland at birth, 1 and 65 years of age, 1900 - 2001.

Source: NISRA.

Table 12

Notifications of Infectious Diseases in the NHSSB, 1987 - 2002.

Source: Information Services Department, NHSSB.

Table 13

Immunisation rates for the NHSSB. Percentage uptake, 1991 - 2002.

Source: Child Health System, NHSSB.

Table 14(a)

Notifications of selected congenital abnormalities. Number and incidence per 1000 total births in the NHSSB, 1987 - 2001.

Source: Department of Medical Genetics, The Queen's University of Belfast. Child Health System, NHSSB.

Table 14(b)

Prevalence of Down's Syndrome at birth by maternal age group per 1000 total births in the NHSSB, 1997 - 2001 aggregate.

Source: Department of Medical Genetics, The Queen's University of Belfast. Child Health System, NHSSB.

Table 1(a)**Estimated population for the Northern Health and Social Services Board 2001 by age and sex**

AGE	PERSONS	% in each age group	MALES	% in each age group	FEMALES	% in each age group
0-4	28,900	6.7	14,900	7.1	14,000	6.4
5-9	30,400	7.1	15,500	7.4	14,800	6.8
10-14	32,500	7.6	16,700	7.9	15,900	7.3
15-19	31,300	7.3	15,900	7.6	15,400	7.1
20-24	26,700	6.2	13,400	6.4	13,300	6.1
25-29	28,900	6.8	14,400	6.8	14,600	6.7
30-34	33,300	7.8	16,600	7.9	16,700	7.7
35-39	33,500	7.8	16,500	7.9	16,900	7.8
40-44	30,000	7.0	14,900	7.1	15,200	6.9
45-49	26,700	6.2	13,600	6.5	13,200	6.0
50-54	25,700	6.0	12,700	6.1	13,000	5.9
55-59	23,800	5.6	11,700	5.6	12,100	5.5
60-64	19,700	4.6	9,400	4.5	10,300	4.7
65-69	17,000	4.0	8,100	3.8	8,900	4.1
70-74	14,700	3.4	6,500	3.1	8,200	3.8
75-79	11,800	2.8	4,900	2.3	6,900	3.2
80+	13,400	3.1	4,400	2.1	9,000	4.1
0-14	91,800	21.4	47,100	22.4	44,700	20.5
15-64	279,600	65.3	139,000	66.2	140,600	64.4
65+	56,900	13.3	23,900	11.4	33,000	15.1
All Ages	428,200	100.0	209,900	100.0	218,300	100.0

SOURCE: Northern Ireland Statistics and Research Agency (NISRA)

FOOTNOTE: Population estimates are only reliable when rounded to the nearest hundred
Totals of rows/columns may not add up due to rounding

Table 1(b)
Estimated population of District Council Areas 2001 within the Northern Health and Social Services Board by age band

AGE	Antrim	B'mena	B'money	C'fergus	Coleraine	Cookstown	Larne	M'felt	Moyle	N'abbeey
0-4	3,600	3,800	1,900	2,400	3,700	2,400	1,900	3,000	1,100	5,100
5-9	3,700	4,000	1,900	2,700	3,800	2,600	2,100	3,200	1,100	5,500
10-14	3,600	4,300	2,200	2,800	4,100	2,900	2,300	3,400	1,300	5,600
15-19	3,400	4,200	2,000	2,600	4,100	2,800	2,100	3,200	1,300	5,500
20-24	3,100	3,400	1,600	2,200	4,000	2,200	1,500	2,700	900	5,000
25-29	3,800	3,800	1,900	2,400	3,500	2,300	1,800	3,100	1,000	5,400
30-34	4,300	4,600	2,200	3,000	4,000	2,300	2,300	3,200	1,100	6,200
35-39	4,100	4,400	2,100	3,300	4,200	2,400	2,500	2,900	1,100	6,400
40-44	3,300	4,000	1,800	2,900	4,000	2,200	2,400	2,600	1,100	5,800
45-49	3,000	3,900	1,600	2,400	3,500	2,000	1,900	2,300	1,100	5,000
50-54	2,900	3,700	1,500	2,200	3,400	1,900	2,000	2,100	1,000	4,900
55-59	2,700	3,500	1,500	2,100	3,100	1,700	1,900	1,900	900	4,500
60-64	2,100	2,900	1,200	1,700	2,800	1,300	1,500	1,500	800	3,800
65-69	1,600	2,500	1,000	1,500	2,400	1,100	1,400	1,400	700	3,400
70-74	1,300	2,200	1,000	1,300	2,000	1,000	1,200	1,200	600	3,200
75-79	1,000	1,800	800	1,100	1,700	800	900	900	500	2,400
80-84	700	1,100	500	700	1,100	500	700	700	300	1,400
85+	500	900	300	500	800	400	500	400	300	1,000
0-14	10,900	12,100	6,000	7,900	11,600	7,900	6,300	9,600	3,500	16,200
15-64	32,700	38,400	17,400	24,800	36,600	21,100	19,900	25,500	10,300	52,500
65+	5,100	8,500	3,600	5,100	8,000	3,800	4,700	4,600	2,400	11,400
TOTAL	48,800	58,800	27,000	37,700	56,400	32,700	30,800	39,900	16,000	80,100

SOURCE: Northern Ireland Statistics and Research Agency

FOOTNOTE: NISRA require that all published figures at District Council level are rounded to the nearest hundred
 Totals of rows/columns may not add up due to rounding

Table 2(a)

Population projections for the Northern Health and Social Services Board for the years 2007 and 2012 (thousands)

AGE	MALES		FEMALES		PERSONS	
	2007	2012	2007	2012	2007	2012
0-4	13	13	13	13	26	26
5-9	14	14	14	13	28	27
10-14	16	15	15	14	31	28
15-19	17	15	15	15	32	30
20-24	16	16	15	14	30	30
25-29	15	16	14	15	29	31
30-34	16	15	15	15	31	30
35-39	18	16	17	15	35	32
40-44	17	17	17	17	34	35
45-49	15	17	15	17	30	34
50-54	13	15	13	15	27	30
55-59	12	13	13	13	25	26
60-64	12	12	12	12	24	24
65-69	9	11	10	12	19	22
70-74	7	8	9	9	16	17
75+	10	12	17	18	27	30
0-14	44	41	42	39	85	81
15-64	150	151	147	149	297	300
65+	27	31	35	39	62	70
TOTAL	220	224	224	227	444	451

SOURCE: Demographic and Methodology Branch, Northern Ireland Statistics and Research Agency

NOTES: Projections shown are based on 2000 mid year estimates.
Totals of rows/columns may not add up due to rounding

Table 2(b)

Population projections for District Council Area of the Northern Health and Social Services Board for the Years 2007 and 2012 (thousands)

District Council	2007				2012			
	0-14	15-64	65+	Total	0-14	15-64	65+	Total
Antrim	12	37	6	54	11	37	7	56
Ballymena	11	40	9	60	10	40	10	61
Ballymoney	6	18	4	28	6	19	4	28
Carrickfergus	8	28	6	41	7	29	6	42
Coleraine	11	38	9	58	10	38	10	58
Cookstown	5	21	4	31	5	21	5	31
Larne	5	21	5	31	5	21	6	31
Magherafelt	10	27	5	41	10	28	5	43
Moyle	3	11	2	16	3	11	3	16
Newtownabbey	16	56	12	84	14	57	14	85
NHSSB Total	87	297	62	444	81	301	70	451

SOURCE: Demographic and Methodology Branch, Northern Ireland Statistics and Research Agency

NOTES: Projections shown are based on 2000 mid year estimates
Totals of rows/columns may not add up due to rounding

Table 3**Births (Live, Still and Total) and birth rates to maternal residents of the Northern Health and Social Services Board 1987 - 2001**

YEAR	LIVE BIRTHS	STILL BIRTHS	TOTAL BIRTHS	BIRTH RATE/ 1000 POPULATION
1987	6,629	31	6,660	17.0
1988	6,374	33	6,407	16.3
1989	6,181	35	6,216	15.7
1990	6,189	23	6,212	15.6
1991	6,032	36	6,068	15.2
1992	6,064	29 (26)	6,093	15.0
1993	5,930	38 (33)	5,968	14.6
1994	5,894	35 (29)	5,929	14.4
1995	5,759	32 (24)	5,791	14.0
1996	5,895	32 (26)	5,927	14.2
1997	5,897	44 (32)	5,941	14.2
1998	5,774	33 (22)	5,807	13.8
1999	5,626	33 (28)	5,659	13.4
2000	5,303	22 (16)	5,325	12.5
2001	5,413	29 (22)	5,442	12.7

SOURCE: Northern Ireland Statistics and Research Agency

NOTES: From 1/10/92, definition of stillbirth includes loss of foetus from 24 weeks onwards. The figure in brackets indicates the number of still births according to the previous definition of loss of foetus from 28 weeks. All rates are worked out on the rebased population figures from 1992 to 2001

Births by Health Board have also been revised back to 1992 by looking at the postcode of the mother to assign the Health Board via the Central Postcode Directory

Table 4
Total births to maternal residents in each District Council Area of the Northern Health and Social Services Board 1987-2001

DISTRICT COUNCIL	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Antrim	838	778	779	723	734	736	761	790	742	799	778	754	776	685	732
Ballymena	1041	873	872	836	789	813	846	786	763	819	779	754	756	731	724
Ballymoney	375	390	372	410	355	373	336	342	345	335	358	357	345	321	368
Carrickfergus	462	512	524	506	518	551	539	531	499	528	474	516	483	466	460
Coleraine	792	731	777	775	718	748	709	740	760	722	743	767	705	646	640
Cookstown	524	572	533	499	492	542	529	486	519	479	480	483	452	430	461
Larne	408	455	404	389	435	398	404	374	381	421	427	383	386	340	335
Magherafelt	672	704	642	654	626	610	584	643	608	584	620	576	581	573	568
Moyle	265	227	219	219	227	200	192	192	164	199	218	169	211	186	198
Newtownabbey	1283	1165	1094	1201	1174	1122	1068	1045	1010	1041	1064	1048	964	947	956
BOARD TOTAL	6660	6407	6216	6212	6068	6093	5968	5929	5791	5927	5941	5807	5659	5325	5442
<i>Births to non-NI residents</i>	6	7	8	7	6	5	6	3	6	3	3	3	4	4	5

SOURCE: Northern Ireland Statistics and Research Agency

FOOTNOTES: From 1/10/92 stillbirth includes loss of foetus from 24 weeks onwards All rates are worked out on the rebased population figures from 1992 to 2001

Births by Health Board have also been revised back to 1992 by looking at the postcode of the mother to assign the Health Board via the Central Postcode Directory

Table 5**Age-specific fertility rates for Northern Health and Social Services Board women aged 15-49 years 1991-2001**

AGE GROUP	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
15-19	25.3	26.9	25.7	25.0	20.2	22.9	24.9	25.9	27.1	22.7	22.7
20-24	89.7	87.0	79.2	72.0	74.5	73.4	71.8	65.5	69.5	66.1	65.0
25-29	143.1	140.5	133.9	127.5	127.6	126.9	122.1	122.1	113.8	107.6	108.6
30-34	97.7	97.6	97.8	104.8	100.3	101.3	104.9	104.1	104.2	97.5	102.0
35-39	38.7	37.6	40.2	43.1	39.2	43.6	45.5	44.7	40.2	42.8	45.6
40-44	7.2	8.2	7.1	6.6	7.4	7.2	7.4	7.0	9.0	8.1	8.5
45-49	0.3	0.2	0.4	0.4	0.3	0.8	0.2	0.2	0.2	0.2	0.6

Rate is per 1000 women for specified age bands.

Total Period Fertility Rate

TOTAL PERIOD FERTILITY	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	2.01	1.99	1.92	1.90	1.85	1.88	1.88	1.85	1.82	1.73	1.77

For total period fertility rate the rate is per woman.

SOURCE: Northern Ireland Statistics and Research Agency

FOOTNOTE: All rates are worked out on the rebased population figures from 1992 to 2001

Births by Health Board have also been revised back to 1992 by looking at the postcode of the mother to assign the Health Board via the Central Postcode Directory

DEFINITION OF FERTILITY RATES**Age-Specific Fertility Rate**

The number of live births to a specified age group per 1000 women of the same age group.

Total Period Fertility Rate

This is the sum of the age-specific fertility rates and measures the average number of live-born children per woman which would occur if the current age-specific fertility rates applied over the entire 30 years of the reproductive span.

Table 6(a)**Notified live births to Northern Health and Social Services Board maternal residents by birthweight, 1995-2001**

BIRTH WEIGHT (GMS)	1995		1996		1997		1998		1999		2000		2001	
	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%
<1000	19	0.3	20	0.3	20	0.3	17	0.3	21	0.4	32	0.6	23	0.4
1000-2499	313	5.4	304	5.2	311	5.3	272	4.7	300	5.3	290	5.4	252	4.7
>2500	5440	94.2	5554	94.5	5540	94.3	5453	95.0	5357	94.3	5015	94.0	5094	94.9
NOT KNOWN	0	0.0	0	0.0	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	5772	100	5878	100	5873	100	5742	100	5678	100	5337	100	5369	100

Table 6(b)**Notified still births to Northern Health and Social Services Board maternal residents by birthweight, 1995-2001**

BIRTH WEIGHT (GMS)	1995		1996		1997		1998		1999		2000		2001	
	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%	N ^o	%
<1000	11	33.3	9	29.0	17	37.0	11	32.4	8	25.0	7	29.2	9	32.1
1000-2499	11	33.3	14	45.2	12	26.1	15	44.1	14	43.8	8	33.3	12	42.9
>2500	11	33.3	8	25.8	17	37.0	8	23.5	10	31.3	9	37.5	7	25.0
NOT KNOWN	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	33	100	31	100	46	100	34	100	32	100	24	100	28	100

SOURCE: Child Health System, NHSSB

FOOTNOTE: Percentage figures are subject to rounding errors

Table 7**Infant and perinatal mortality in the Northern Health and Social Services Board Numbers of deaths and mortality rates 1987-2001**

YEAR	PERINATAL		NEONATAL		POST-NEONATAL		INFANT	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
1987	46	6.9	17	2.6	21	3.2	38	5.7
1988	56	8.7	32	5.0	21	3.3	53	8.3
1989	55	8.8	32	5.2	19	3.1	51	8.2
1990	44	7.1	26	4.2	16	2.6	42	6.8
1991	62	10.2	30	5.0	16	2.6	46	7.6
1992	46 (43)	7.6 (7.1)	21	3.5	9	1.5	30	5.0
1993	52 (49)	8.7 (8.2)	21	3.5	14	2.4	35	5.9
1994	58 (51)	9.8 (8.6)	27	4.6	12	2.0	39	6.6
1995	49 (41)	8.5 (7.1)	23	4.0	9	1.6	32	5.6
1996	47 (40)	7.9 (6.8)	19	3.2	13	2.2	32	5.4
1997	60 (48)	10.2 (8.2)	23	3.9	8	1.4	31	5.3
1998	49 (38)	8.5 (6.6)	24	4.2	12	2.1	36	6.3
1999	50 (45)	8.9 (8.0)	20	3.6	5	0.9	25	4.5
2000	34 (28)	6.4 (5.3)	19	3.6	6	1.1	25	4.7
2001	48 (41)	8.8 (7.5)	25	4.6	8	1.5	33	6.1

SOURCE: Northern Ireland Statistics and Research Agency

All rates are worked out on the rebased population figures from 1992 to 2001

Births and deaths by Health Board have also been revised back to 1992 by looking at the postcode of the mother/postcode of the deceased to assign the Health Board via the Central Postcode Directory
 Infant mortality rates are calculated by dividing the number of infant deaths by the total births (resident and non-resident)

DEFINITIONS OF MORTALITY RATES IN INFANCY

PERINATAL MORTALITY RATE Stillbirths & deaths in the first week per 1000 total births. From 1st October 1992 stillbirth includes loss of foetus from 24 weeks onward. The figure in brackets indicates the number and rate according to the previous definition, i.e. loss of foetus from 28 weeks onwards.

NEONATAL MORTALITY RATE Deaths in the first 4 weeks per 1000 live births.

POST-NEONATAL MORTALITY RATE Deaths between 4 weeks and one year per 1000 live births.

INFANT MORTALITY RATE Deaths in the first year per 1000 live births.

Table 8**Standardised mortality ratios for children aged 1-14 years within Health Board area 1997-2001**

HEALTH BOARD	ALL CAUSES (1997-2001)		ACCIDENTS (ICD* E800-E949)/(V00-X58) (1997-2001)	
	Deaths	S.M.R.	Deaths	S.M.R.
EHSSB	112	95	36	97
NHSSB	68	89	19	79
SHSSB	58	95	16	83
WHSSB	75	130	28	153
N.IRELAND	313	100	99	100

SOURCE: Northern Ireland Statistics and Research Agency

FOOTNOTE: *ICD = International Classification of Diseases (10th Revision).

Table 9(a)

Directly standardised death rates 1993 - 2001 for selected major causes of death, age 15-74 years Northern Health and Social Services Board

(i) Male

Condition	ICD CODE	1993	1994	1995	1996	1997	1998	1999	2000	2001
All Causes		707.3	713.2	651.1	655.8	617.4	595.9	619.8	550.6	543.2
CA Stomach	C16	10.3	16.3	8.8	12.4	9.2	14.7	6.1	9.4	10.5
CA Colon	C18	18.7	18.7	24.0	19.5	9.3	14.7	14.6	13.6	15.3
CA Rectum	C19-21	11.1	9.6	8.8	8.8	4.3	3.6	7.5	5.4	6.0
CA Lung	C33-34	60.8	59.3	58.8	58.0	47.2	43.1	48.6	48.4	49.4
IHD	120-125	244.8	233.5	215.3	206.0	196.9	195.9	186.2	143.3	142.3
CVD	160-169	43.6	44.4	45.6	27.4	42.1	37.4	42.1	34.1	23.7
All Respiratory	J00-J99	68.3	53.9	53.4	51.2	48.9	58.0	57.9	54.1	40.1
All Genito-Urinary	N00-N99	9.0	5.2	3.6	6.6	2.2	2.9	6.3	6.2	7.4
Road Traffic Accidents	V01-V79	19.6	18.2	12.8	15.8	17.7	17.9	16.7	15.9	10.5
Suicide and Self Inflicted Injuries	X60-X84	18.4	16.5	12.7	15.0	11.7	14.0	11.8	16.5	15.7

(ii) Female

Condition	ICD CODE	1993	1994	1995	1996	1997	1998	1999	2000	2001
All causes		419.9	389.3	394.1	374.1	366.8	375.3	350.5	322.4	337.8
CA Stomach	C16	5.2	3.3	3.3	7.0	3.1	6.8	4.3	4.8	4.8
CA Colon	C18	14.0	14.0	13.5	12.2	12.9	11.7	7.3	9.8	7.8
CA Rectum	C19-21	5.8	2.7	3.1	4.5	3.3	3.1	3.2	6.6	3.6
CA Lung	C33-34	22.3	19.3	23.9	28.2	19.5	28.4	20.5	28.4	23.8
CA Breast	C50	45.8	37.4	34.4	35.2	27.1	42.2	30.8	31.7	26.6
CA Cervix	C53	5.4	1.9	2.1	5.1	2.5	3.8	3.2	4.4	4.4
IHD	120-125	100.7	85.1	102.4	74.3	83.7	62.3	59.4	62.0	57.2
CVD	160-169	26.8	42.1	32.9	34.2	28.5	27.5	34.8	17.4	24.8
All Respiratory	J00-J99	42.7	25.4	41.0	37.6	29.6	40.5	41.1	31.4	31.7
All Genito-Urinary	N00-N99	3.2	3.1	4.0	3.6	5.7	1.9	1.2	2.4	2.4
Road Traffic Accidents	V01-V79	4.5	5.7	2.0	2.6	5.8	8.0	3.2	4.3	1.9
Suicide and Self Inflicted Injuries	X60-X84	4.1	5.5	5.4	3.3	1.3	0.7	2.0	4.6	1.9

SOURCE: Derived from Registrar General Northern Ireland (NISRA) Mortality Statistics and Home population estimates

FOOTNOTE: ICD = International Classification of Diseases (10th Revision).
All rates are standardised to the revised 2001 mid year estimate
Rates are per 100,000 population.

ABBREVIATIONS: CA = Cancer
IHD = Ischaemic Heart Disease
CVD = Cerebrovascular Disease

Table 9 (b)

Age standardised death rates 1993 - 2001 (Standardised to European Population) for selected causes of death, age 15-74 years Northern Health and Social Services Board

(i) Male

Condition	ICD CODE	1993	1994	1995	1996	1997	1998	1999	2000	2001
All Causes		710.4	709.5	653.7	652.3	617.7	597.5	620.3	555.1	545.3
CA Stomach	C16	10.7	16.4	8.6	12.1	9.5	14.9	6.5	9.7	11.0
CA Colon	C18	19.1	18.3	24.2	19.4	9.3	14.9	14.6	13.6	15.4
CA Rectum	C19-21	11.2	9.9	9.3	8.8	4.4	3.5	7.6	5.5	6.1
CA Lung	C33-34	61.5	59.6	58.8	58.0	47.9	42.8	48.5	48.6	49.6
IHD	120-125	247.7	232.7	216.4	204.3	197.3	197.3	188.3	145.8	142.7
CVD	160-169	42.4	43.2	45.1	27.0	42.2	37.3	41.0	34.0	23.0
All Respiratory	J00-J99	68.0	53.3	53.4	50.6	47.9	56.8	55.9	53.7	40.1
All Genito-Urinary	N00-N99	8.9	5.1	3.6	6.5	2.0	2.7	6.2	6.1	7.3
Road Traffic Accidents	V01-V79	19.4	17.8	12.5	15.5	17.1	17.6	16.4	15.8	10.2
Suicide and Self Inflicted Injuries	X60-X84	18.4	16.2	12.7	14.9	11.5	13.6	11.6	16.4	15.2

(ii) Female

Condition	ICD CODE	1993	1994	1995	1996	1997	1998	1999	2000	2001
All causes		424.9	390.7	395.0	377.0	366.3	377.2	352.9	323.4	337.8
CA Stomach	C16	5.2	3.2	3.4	7.1	2.9	6.7	4.3	4.7	4.8
CA Colon	C18	13.9	14.5	13.9	12.6	12.7	11.6	7.4	10.1	7.7
CA Rectum	C19-21	5.8	2.9	3.0	4.4	3.7	3.1	3.1	6.5	3.7
CA Lung	C33-34	22.9	19.5	23.6	29.1	19.7	28.4	21.1	28.5	23.2
CA Breast	C50	49.0	39.2	35.9	36.1	27.6	44.2	31.8	33.3	27.0
CA Cervix	C53	5.6	1.9	2.2	5.0	2.6	3.6	3.2	4.8	4.5
IHD	120-125	100.3	84.4	101.5	73.9	82.6	61.5	58.9	60.8	56.2
CVD	160-169	26.5	41.7	31.9	33.7	27.9	27.5	34.5	17.3	24.8
All Respiratory	J00-J99	42.4	25.2	40.4	37.6	28.8	39.5	40.7	30.9	31.5
All Genito-Urinary	N00-N99	3.1	3.0	4.4	3.4	6.0	1.8	1.1	2.3	2.7
Road Traffic Accidents	V01-V79	4.6	5.4	2.3	2.5	5.9	8.1	3.1	4.1	1.9
Suicide and Self Inflicted Injuries	X60-X84	4.4	5.6	5.5	3.4	1.2	0.7	1.8	4.7	1.8

SOURCE: Derived from Registrar General Northern Ireland (NISRA) Mortality Statistics and Home population estimates

FOOTNOTE: ICD = International Classification of Diseases (10th Revision). All rates are standardised to the European population figures Rates are per 100,000 population.

ABBREVIATIONS: CA = Cancer
IHD = Ischaemic Heart Disease
CVD = Cerebrovascular Disease

Table 10(a)
Mortality by cause in the Northern Health and Social Services Board 2001

Condition	ICD CODE	Total Deaths		Number of Deaths by Age Group					
		Males	Females	Male			Female		
				0-14	15-74	75+	0-14	15-74	75+
ALL CAUSES		1711	1779	32	817	862	15	561	1203
Infectious Diseases	A00-B99	11	12	1	7	3	0	4	8
Cancer of Stomach	C16	24	19	0	16	8	0	8	11
Cancer of Colon	C18	35	36	0	23	12	0	13	23
Cancer of Rectum	C19-C21	21	17	0	9	12	0	6	11
Cancer of Pancreas	C25	19	22	0	9	10	0	15	7
Cancer of Lung	C33-C34	121	56	0	74	47	0	40	16
Cancer of Breast	C50	0	72	0	0	0	0	44	28
Cancer of Cervix	C53	0	10	0	0	0	0	7	3
Cancer of Ovary	C56	0	28	0	0	0	0	19	9
Cancer of Prostate	C61	55	0	0	18	37	0	0	0
Leukaemia	C91-C95	8	11	1	4	3	0	6	5
Other Cancers	Rem C00-C97	215	159	1	139	75	0	73	86
Benign Neoplasms	D10-D36	1	3	0	0	1	0	1	2
Diabetes Mellitus	E10-E14	14	21	0	7	7	0	8	13
Other Metabolic Diseases	Rem E00-E90	4	7	0	3	1	0	0	7
Diseases of the blood and immune system	D50-D89	3	6	0	0	3	0	2	4
Mental Disorders	F00-F99	28	45	0	14	14	0	7	38
Multiple Sclerosis	G35	3	7	0	3	0	0	5	2
Other Nervous System Diseases	Rem G00-G99	41	54	0	17	24	0	12	42
Rheumatic Fever	I00-I02	0	0	0	0	0	0	0	0
Chronic Rheumatic Heart Disease	I05-I09	0	5	0	0	0	0	1	4
Hypertensive Disease	I10-I15	5	11	0	2	3	0	3	8
Ischaemic Heart Disease	I20-I25	428	357	0	213	215	0	96	261
Other forms of heart disease	I30-I52	74	81	0	17	57	0	16	65
Cerebrovascular Disease	I60-I69	134	229	0	35	99	0	41	188
Diseases of arteries, arterioles and capillaries	I70-I79	35	30	0	17	18	0	4	26
Respiratory Diseases	J00-J99	217	270	2	60	155	1	53	216
Peptic Ulcer	K25-K28	9	15	0	6	3	0	7	8
Chronic Liver Disease	K70, K73-K74	22	13	0	18	4	0	11	2
Other Digestive Diseases	Rem K00-K93	21	44	0	11	10	0	14	30
Diseases of the genitourinary system	N00-N99	28	26	1	11	16	0	4	22
Pregnancy, childbirth and the puerperium	O00-O99	0	0	0	0	0	0	0	0
Skin and Musculoskeletal Disease	L00-L99, M00-M99	7	25	0	3	4	0	7	18
Congenital Anomalies	Q00-Q99	11	4	8	3	0	3	1	0
Perinatal Conditions	P00-P96	10	6	10	0	0	6	0	0
Ill-Defined Causes	R00-R99	5	5	1	2	2	1	2	2
Motor Vehicle Traffic Accidents	V01-V79	19	4	1	16	2	1	3	0
Accidental Falls	W00-W19	4	2	0	3	1	0	1	1
Other Accidents	Rem V00-X59	13	29	0	9	4	1	8	20
Suicide and Self Inflicted Injury	X60-X84	25	3	0	24	1	0	3	0
Homicide and Other Traumatic Deaths	X85-Y98	8	6	3	5	0	1	5	0
Other Causes of Death	Rem A00-Y98	33	29	3	19	11	1	11	17

SOURCE: Northern Ireland Statistics and Research Agency

FOOTNOTE: *ICD = International Classification of Diseases (10th Revision).

Table 10(b)

Potential years of life lost (PYLL) between 1 and 75 years Northern Health and Social Services Board 2001

Condition	ICD Number	MALES		FEMALES		PERSONS	
		Deaths	PYLL	Deaths	PYLL	Deaths	PYLL
ALL CAUSES		827	12332	565	7452	1392	19784
Infectious Diseases	A00-B99	7	65	4	30	11	95
Cancer of Stomach	C16	16	230	8	100	24	330
Cancer of Colon	C18	23	275	13	145	36	420
Cancer of Rectum	C19-C21	9	105	6	60	15	165
Cancer of Pancreas	C25	9	95	15	145	24	240
Cancer of Lung	C33-C34	74	840	40	320	114	1160
Cancer of Breast	C50	0	0	44	680	44	680
Cancer of Cervix	C53	0	0	7	215	7	215
Cancer of Ovary	C56	0	0	19	305	19	305
Cancer of Prostate	C61	18	120	0	0	18	120
Leukaemia	C91-C95	5	95	6	150	11	245
Other Cancers	Rem C00-C97	140	2080	73	1015	213	3095
Benign Neoplasms	D10-D36	0	0	1	55	1	55
Diabetes Mellitus	E10-E14	7	75	8	100	15	175
Other Metabolic Diseases	Rem E00-E90	3	35	0	0	3	35
Diseases of the blood and immune system	D50-D89	0	0	2	10	2	10
Mental Disorders	F00-F99	14	430	7	105	21	535
Multiple Sclerosis	G35	3	45	5	75	8	120
Other Nervous System Diseases	Rem G00-G99	17	265	12	80	29	345
Rheumatic Fever	I00-I02	0	0	0	0	0	0
Chronic Rheumatic Heart Disease	I05-I09	0	0	1	15	1	15
Hypertensive Disease	I10-I15	2	30	3	35	5	65
Ischaemic Heart Disease	I20-I25	213	2375	96	800	309	3175
Other forms of heart disease	I30-I52	17	235	16	170	33	405
Cerebrovascular Disease	I60-I69	35	325	41	585	76	910
Diseases of arteries, arterioles and capillaries	I70-I79	17	135	4	30	21	165
Respiratory Diseases	J00-J99	60	790	54	620	114	1410
Peptic Ulcer	K25-K28	6	70	7	45	13	115
Chronic Liver Disease	K70, K73-K74	18	330	11	235	29	565
Other Digestive Diseases	Rem K00-K93	11	95	14	150	25	245
Diseases of the genitourinary system	N00-N99	12	200	4	70	16	270
Pregnancy, childbirth and the puerperium	O00-O99	0	0	0	0	0	0
Skin and Musculoskeletal Disease	L00-L99, M00-M99	3	55	7	75	10	130
Congenital Anomalies	Q00-Q99	5	202	1	15	6	217
Perinatal Conditions	P00-P96	0	0	1	72	1	72
Ill-Defined Causes	R00-R99	2	70	2	30	4	100
		0		0		0	
Motor Vehicle Traffic Accidents	V01-V79	17	565	3	85	20	650
Accidental Falls	W00-W19	3	45	1	35	4	80
Other Accidents	Rem V00-X59	9	305	9	285	18	590
Suicide and Self Inflicted Injury	X60-X84	24	1030	3	65	27	1095
Homicide and Other Traumatic Deaths	X85-Y98	8	380	6	270	14	650
Other Causes of Death	Rem A00-Y98	20	340	11	175	31	515

SOURCE: Northern Ireland Statistics and Research Agency

FOOTNOTE: *ICD = International Classification of Diseases (10th Revision).

Table 11
Expectancy of life in Northern Ireland at birth, age 1 and age 65 years, 1900-2001

YEAR	AT BIRTH		AT ONE YEAR		AT 65 YEARS	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
1900-02	47.1	46.7	#	#	10.5	10.4
1925-27	55.4	56.1	59.9	59.5	11.9	12.7
1950-52	65.5	68.8	67.5	70.3	12.1	13.5
1975-77	67.5	73.8	67.9	74.1	11.8	15.3
1980-82	69.2	75.5	69.2	75.4	12.5	16.3
1985-87	70.9	77.1	70.6	76.8	13.2	16.9
1990-92	72.6	78.5	72.1	78.0	14.0	18.0
1995-97	73.9	79.3	73.4	78.8	14.6	18.3
1997-99	74.3	79.6	73.8	79.0	14.9	18.4
1999-2001	74.8	79.8	74.3	79.2	15.3	18.5

- figures not available

SOURCE: General Register Office, Northern Ireland Statistics and Research Agency

FOOTNOTE: Due to a revision of Mid Year Population Estimates in 1999, the figures since 1980 have been revised and do not reflect those published previously.

Table 12

Notifications of infectious diseases in the Northern Health and Social Services Board 1987-2002

DISEASE	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Acute Encephalitis	0	0	0	0	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Acute Meningitis	30	29	22	19*	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Acute Encephalitis/ Meningitis-Bacterial#	These conditions were not notifiable in this format prior to 16th April 1990 (previously they were grouped as either Acute Encephalitis of Acute Meningitis)															
Acute Encephalitis/ Meningitis Viral#	11	7	4	4	5	3	4	10	9	5	5	5	1	1	1	1
Chickenpox**	-	-	-	886	1258	2575	2248	1604	1446	2030	1692	1631	1320	1562	1427	1454
Cholera	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Dysentery	2	6	57	4	10	27	91	16	19	21	21	5	3	6	8	2
Food Poisoning	145	104	119	175	196	218	221	226	380	506	425	782	605	701	25	18
Gastroenteritis <2yrs	130	150	194	205	271	260	314	210	302	243	268	306	242	222	151	135
Infective Hepatitis	68	40	22	7	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Hepatitis A	These conditions were not notifiable in this format prior to 16th April 1990 (previously they were grouped as under "Infective Hepatitis")															
Hepatitis B	0	3	1	3	1	2	2	7	1	4	1	1	2	4	1	2
Hepatitis Unspecified Viral	28	9	11	20	13	2	3	2	3	1	5	1	1	0	3	0
Legionnaires Disease	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2
Leptospirosis**	-	-	-	1	1	1	1	2	0	1	0	0	0	0	0	0
Malaria**	-	-	-	1	1	1	3	0	0	3	4	1	3	3	3	0
Measles	226	278	406	73	91	71	73	148	64	39	28	28	28	28	25	24
Meningococcal Septicaemia#	-	-	-	0	5	4	6	10	16	8	16	23	46	43	25	24
Mumps***	-	118	275	60	61	38	30	29	22	16	23	25	34	435	59	28
Paratyphoid Fever	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Rubella***	-	38	152	127	69	94	114	113	71	44	18	21	16	14	8	10
Scarlet Fever	79	122	182	258	194	158	178	144	123	122	94	140	93	86	67	50
Tetanus	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Tuberculosis (Pulmonary)	8	9	14	17	13	14	13	14	10	11	9	8	6	9	10	15
Tuberculosis (Non-Pulmonary)	3	3	1	12	5	3	9	2	7	9	5	3	6	18	8	3
Typhoid Fever	0	0	0	1	0	0	1	0	0	0	0	2	0	0	0	0
Typhus	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Whooping Cough	148	37	192	76	65	40	27	36	27	27	19	20	22	16	13	13
TOTAL	839	934	1636	1989	2305	3552	3402	2618	2528	3114	2655	3018	2457	3154	1847	1786

SOURCE: Information Services Department, NHSSB

FOOTNOTES: * First quarter data only - no longer available since 16.04.90

** Only notifiable from 16.4.90, \$ No longer notifiable from 17.4.90

*** Only notifiable from 1.10.88, # Figures from 1990-1993 have been revised from previous reports
The following diseases are notifiable but no cases were notified during the above period; Anthrax, Cholera, Diptheria, Plague, Poliomyelitis (Acute), Rabies, Relapsing Fever, Smallpox, Viral Haemorrhagic Fevers and Yellow Fever.

Table 13**Immunisation rates for the Northern Health and Social Services Board Percentage uptake 1991-2002**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
DIPHTHERIA	97.5	96.8	96.5	94.2	96.0	96.9	96.1	95.8	95.8	96.6	96.0	97.5
TETANUS	97.5	96.8	96.5	94.2	96.0	96.9	96.1	95.8	95.9	96.6	95.9	95.9
PERTUSSIS	91.3	92.7	93.9	92.6	94.9	95.4	95.1	95.0	95.4	96.0	95.4	95.5
POLIO	97.6	96.8	96.8	94.3	96.0	96.8	96.0	95.8	95.9	96.5	95.5	95.6
H.I.B.	-	-	-	94.1	95.9	96.7	96.0	95.8	96.0	96.5	95.6	95.8
MEASLES/M.M.R.	95.4	96.4	96.6	95.5	95.2	96.3	93.6	92.0	92.3	94.2	92.3	91.5
RUBELLA	97.1	97.8	97.8	\$	\$	\$	\$	\$	\$	\$	\$	\$
MENINGITIS C	-	-	-	-	-	-	-	-	-	-	-	95.6

SOURCE: Child Health System, NHSSB

FOOTNOTES:

Figures from 1990 are based on children residing in the Northern Board area, those prior to 1990 were based on live births to NHSSB residents and excluded children who moved into the area.

Up to 1992 uptake rates, other than those for rubella, show the percentage of children who completed a course of vaccination by the end of the year in which they became 2 years of age.

1989-1993 uptake rates for rubella show the percentage of 1st form school girls in that year who were vaccinated up to the end of the year.

1993-1995 figures for diphtheria, tetanus, polio, whooping cough and Hib use a 3 month cohort based on children at 12 months of age.

1989-1995 figures for MMR use a 3 month cohort based on children at 24 months of age.

1996-2000 for diphtheria, tetanus, polio, whooping and Hib cover statistics were used and uptake is at 12 months of age.

Hib was introduced 1st October 1992.

\$ As a result of the MMR campaign which began in November 1994 it is unnecessary to monitor rubella separately since 94/95.

Meningitis C vaccine was introduced December 1999

Table 14(a)

Notifications of selected congenital abnormalities in Northern Health and Social Services Board Number and Incidence per 1000 total births 1987 - 2001

YEAR	ANENCEPHALUS		HYDROCEPHALUS		SPINA BIFIDA		DOWN'S SYNDROME	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
1987	4	0.60	2	0.30	10	1.50	9	0.35
1988	2	0.31	3	0.47	5	0.78	6	0.94
1989	0	0.00	1	0.16	5	0.80	9	1.45
1990	1	0.16	4	0.64	5	0.80	10	1.61
1991	1	0.16	5	0.82	6	0.99	13	2.14
1992	0	0.00	5	0.82	3	0.49	7	1.15
1993	1	0.17	3	0.50	4	0.67	7	1.18
1994	1	0.17	1	0.17	4	0.68	4	0.68
1995	0	0.00	3	0.52	2	0.35	2	0.35
1996	0	0.00	1	0.17	3	0.51	12	2.02
1997	1	0.17	6	1.00	2	0.34	10	1.70
1998	2	0.35	0	0.00	2	0.35	14	2.42
1999	2	0.36	3	0.53	1	0.18	7	1.24
2000	0	0.00	7	1.32	1	0.19	6	1.13
2001	1	0.18	2	0.37	6	1.11	9	1.66

SOURCE: 1986-1988 Department of Medical Genetics, Queen's University Belfast
1989 - 2001 Child Health System, NHSSB

FOOTNOTE: Rates were calculated using registered births as the denominator

Table 14(b)**Prevalence of Down's Syndrome at birth by maternal age group Northern Health and Social Services Board 1997 - 2001 aggregate**

MATERNAL AGE	NUMBER	RATE
15-19	2	1.07
20-24	4	0.87
25-29	9	1.02
30-34	8	0.93
35-39	18	5.11
40-44	4	6.98
45-49	1	47.60

SOURCE: Department of Medical Genetics, Queen's University Belfast; Child Health System, NHSSB

FOOTNOTE: Rates were calculated using registered births as the denominator
Rates are per 1000 births