



Chapter 7 Protecting the Public from Infection

Introduction

It is important that the health of the public is protected from infection, as far as is possible. There are a number of ways through which this is achieved. Immunisation is very effective in preventing certain infections, for example, each winter the influenza vaccine is offered to people over 65 years and those with certain medical conditions. Also, as many people now travel to parts of the world, where the risk of certain infections is quite high, they should ensure that they are immunised against infections common in those locations, for example, hepatitis A and B, typhoid and tetanus. They should also take preventive measures against infections such as malaria.

There are also a number of potential sources of infections against which the Health Service and others take action to minimise the risk of the public acquiring an infection. Examples include blood safety and healthcare acquired infection.

Childhood Immunisation

All children in Northern Ireland are routinely immunised against a number of serious childhood diseases (Table 7(i)). As a result of our high uptake levels of vaccinations most of these diseases have become very rare. However they are still common in other parts of the world and, with increased travel to foreign countries, could be brought back and affect children who have not been vaccinated.

The two public health interventions that have had the greatest impact on the world's health are **clean water** and **vaccines**.
WHO

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Table 7(i) Routine childhood immunisation programme

When to Immunise	Diseases Vaccine Protects Against	How it is Given
2, 3 and 4 months old	Diphtheria, tetanus, pertussis (whooping cough), polio and Hib	One injection
	Meningitis C	One injection
Around 15 months old	Measles, mumps and rubella	One injection
3 to 5 years old	Diphtheria, tetanus, pertussis (whooping cough) and polio	One injection
	Measles, mumps and rubella	One injection
10 to 14 years old (and sometimes shortly after birth)	Tuberculosis (BCG vaccine)	Skin test, then one injection, if needed
14 to 18 years old	Tetanus, diphtheria and polio	One injection

In September 2004 some changes were made to the vaccines used in the routine Childhood Immunisation Programme. These changes were as follows:

- Until September 2004 immunisation against Polio was given in the form of drops (Oral Polio Vaccine). This vaccine provided good community protection as well as individual protection against Polio. However it did carry a very rare risk of vaccine-associated polio. Because the risk of Polio

infection in the UK is now so very low, and because Polio has been eliminated from large parts of the world due to the success of immunisation, a switch has been made from live Oral Polio Vaccine to Inactivated (killed) Polio Vaccine (IPV) which provides effective protection for individuals.

- A different Pertussis Vaccine is now available. It offers at least the same level of protection as the previous vaccine but is associated with fewer minor reactions particularly at the infection site (eg redness and swelling).
- For over 60 years a minuscule amount of thiomersal (mercury) has been used to help preserve vaccines. However it is not used in the new vaccines and hence they satisfy the overall international aim of reducing the exposure of children to mercury from avoidable sources.

These new vaccines provide protection against the same diseases as the old ones. They are also given to children at the same age as the previous vaccines.

Influenza

Influenza is an acute viral infection which can cause chills, fever, coughing, muscle pain and headaches. It is highly infectious and can spread rapidly in the community. Normal healthy people who get influenza recover in about seven days, however certain people are at risk of complications of flu such as the elderly and those with certain medical conditions. All of these people are offered annual immunisation to protect them against influenza. Northern Ireland delivers a very successful annual Influenza Immunisation Programme with very high vaccine uptake rates. In the autumn of 2004, 73% of all people over 65 years were immunised.

www.dhsspsni.gov.uk

www.immunisation.nhs.uk

www.mmrthefacts.nhs.uk



Influenza Pandemic

An Influenza Pandemic refers to a situation where there has been world-wide spread of influenza with epidemics in many countries. A pandemic of influenza is usually caused by a new influenza virus which can infect humans, spreads from person to person, and spreads widely. This is because there will be no natural immunity to the infection and because it is a new virus there will be no vaccine. There have been a number of previous pandemics, for example:

- 1918/1919 – Spanish Flu (23% of the UK population ill).
- 1957/1958 – Asian Flu (17% of the UK population ill)
- 1968/1969 – Hong Kong Flu (8% of the UK population ill).

Since 2003 there have been ongoing outbreaks of the highly pathogenic (infectious) Avian Influenza in poultry in Asia. This infection has spread from poultry to humans causing a severe illness with a high death rate. To date there has only been a small number of cases where Avian Influenza has spread from human to human. As yet there is no vaccine for it. The World Health Organisation (WHO) is concerned that the current outbreaks of Avian Influenza raise the possibility of an influenza pandemic. All countries are now making plans to deal with a pandemic in case it occurs. If Northern Ireland had a pandemic it could last up to five months, affect all age groups, and cause a significant number of deaths. It would also have a major impact on the workload in hospitals and primary care.

The four UK Health Departments are actively working with other Government Departments to ensure that there are plans in place to deal with a pandemic should it occur. In the event of a pandemic, it is unlikely that vaccines or anti-viral treatments will be available initially, containment will therefore rely on good infection control measures in hospitals and the community. Although it would have the highest

impact on the health service, other areas such as schools and colleges, food supplies, the economy, transport and public order may also be affected.

The UK Influenza Pandemic Plan is available at www.dh.gov.uk and the Northern Ireland Plan is available on the Department's website. They will be regularly updated.

Prevention and Control of Healthcare Acquired Infections

The prevention and control of infections, which are acquired in healthcare settings such as hospitals, has become an important public health issue over the last number of years. A number of events during 2003/04 highlighted the need to develop a comprehensive strategic approach to control in this area. Events included the emergence of infections such as SARS; the problems in relation to decontamination of endoscopes in Northern Ireland; concerns about MRSA (Methicillin Resistant Staphylococcus Aureus) infections in hospitals; and concerns about the cleanliness of hospitals.

In April 2004 the Department issued Controls Assurance Standards for Infection Control. These are clear standards for all hospitals to achieve in order to improve the control of infection in hospital and prevent patients acquiring infections during their stay. All hospitals are currently implementing these standards.

CONTROLS ASSURANCE STANDARD

There should be an organisation wide hand hygiene policy and a mechanism to ensure that effective implementation of it is in place.

One infection which has concerned both health professionals and the public is MRSA. Staphylococcus Aureus is a bacteria that is commonly found on human skin and areas such as the nostrils. It can cause infection if there is an opportunity for it to enter the body, for example, an illness which affects the skin, a wound infection, a urinary tract infection, pneumonia, or bloodstream infection. MRSA is difficult to treat because fewer antibiotics are effective against it. There are however clear methods for preventing the transmission of MRSA in hospital. The most important of these is careful attention to hand washing by hospital staff. Members of the public and family members of affected patients also have a role to play in observing good hygiene practices to prevent the transmission of infection to patients.



Recognising the importance of healthcare acquired infections, the Chief Medical Officer has established a Group to develop a Strategy for the Prevention and Control of Healthcare Acquired Infections in the province. This Group started its work in December 2004 and it is hoped that a draft strategy will be available for consultation in April 2005.

SARS planning in Northern Ireland

The Severe Acute Respiratory Syndrome (SARS) was first recognised in March 2003 but probably had its origins in the Guangdong Province, China in November 2002. Between March and July 2003, over 8,000 probable cases and 774 deaths of SARS were reported from 26 countries. While much has been learned about the disease, including its causation by a new coronavirus (SARS-CoV), which is believed to have crossed the species barrier from animals to humans, our knowledge about SARS remains limited.

On 5 July 2003, the World Health Organization (WHO) reported that the last human chain transmission of SARS had been broken. Since then there have been four occasions when SARS has reappeared. Three of these incidents were attributed



to breaches in laboratory biosafety. The fourth incident, in Guangdong province, China, was attributed to exposure to animals or environmental sources.

The return of SARS remains a possibility. WHO has asked for all countries to remain vigilant, assess their risk and maintain the capacity to detect and respond to the re-emergence of SARS should it occur.

In recognition of the importance of being prepared for a SARS outbreak, the Northern Ireland SARS Taskforce was established in June 2003. Its remit was to ensure that the Health and Personal Social Services (HPSS) would be in position to respond positively to any future outbreak of SARS here. The Taskforce has developed the regional interim SARS contingency plan which provides detailed guidance for the HPSS and describes actions that would be taken at different alert levels should SARS re-emerge. In order to ensure a co-ordinated UK response, the plan is consistent with plans developed elsewhere in the UK. It is available at: www.sarsni.gov.uk

The Taskforce developed training materials on SARS covering infection control and use of personal protective equipment. This material, available in video and CD ROM format, has been distributed widely within the HPSS.

It is clear from the experiences in Hong Kong and Toronto, that a challenge to the health and social care system, like a major SARS outbreak, emphasises the need for strong public health leadership and infrastructure.

Blood Safety

Blood transfusion is a very important form of treatment. Every day patients in hospitals need blood transfusions, often as a life saving treatment, for example following trauma or during major surgery. It is, of course, important that the product is safe and the procedures around transfusion are rigorous to

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ensure the right patient gets the right blood and that they are monitored for any reaction or side effects. In each case the risks of receiving blood need to be considered against the risks of not receiving it.

Over recent years a number of steps have been taken to improve the safety of blood and blood products, and blood transfusion practice. The aim is to:

- Ensure that blood and blood products are used most appropriately;
- Improve the safety of blood transfusion practice;
- Improve the safety of the blood products by minimising the risk of transmission of blood borne infections.

In addition to the above measures, the Department of Health Social Services and Public Safety announced, in March 2004, that people who have received blood transfusions in the UK since 1980 will, in future, not be accepted as blood donors. This precautionary step will reduce the possible risk of variant CJD being transmitted by a blood transfusion and follows the announcement in December 2003 that a man in England, who died from variant CJD, may have been infected through a blood transfusion. This new step was introduced throughout the United Kingdom and took effect on 5 April 2004.

In 2004, a new service was developed to improve blood transfusion practice in hospital. New staff, known as haemovigilance practitioners, have been appointed across Northern Ireland. Their role is to educate staff, audit transfusion practice, monitor the use of blood and develop and disseminate transfusion guidelines. This will be an important element in improving patient safety and will also result in the more effective use of blood.



Chapter 8 Quality Improvements in Health

Introduction

Since the late 1990s there has been a growing emphasis on ensuring the quality of healthcare that patients receive. The Department of Health, Social Services and Public Safety (DHSSPS) document “Best Practice Best Care”, published in 2002, set out the proposals for a system to ensure continuous improvement in the quality of health and social care. This system is termed ‘Clinical and Social Care Governance’. A fundamental element of this approach is the duty of quality that is now placed on health and social care organisations. This chapter looks at a number of initiatives that have a direct influence on the quality of health and social care.

Quality of Staff

A key element in ensuring a high quality service is the quality of staff who provide that service. There are three important aspects to ensuring the quality of staff:

- The number of staff;
- Their level of competence;
- How effectively they work together to ensure a high quality patient experience.

Number of staff

Since 2001 the DHSSPS has been determining staffing requirements through a series of workforce planning exercises. These planning exercises cover all groups of staff

employed in the health and social services, including medical, nursing, technical, scientific and clerical groups. In the case of the medical workforce, its initial review was completed in March 2003 with summary findings published in February 2004. It highlighted the need to significantly increase the numbers of consultants and general practitioners and also identified a number of areas requiring prompt action. Two areas of particular importance were:

1. The Need to Increase the Number of Graduates from the Medical School

A review of the medical school has been undertaken. It recommended that the annual intake of medical students should increase to 250. Capital development required to accommodate this number is underway. As an interim measure, the intake of medical students has been increased to the maximum possible within the facilities available.

2. The Need to Increase the Number of Specialist Medical Trainees

Specialist medical trainees are those doctors training towards consultant status. Although the number had been increasing throughout the late 1990s it has been accelerated as a result of the review. Between 2000 and 2004, the number of specialist medical trainees increased by 40%, to its current level of 490. This will go some way to producing the increased number of consultants needed in the future.

Effective team work

In addition to increasing staff numbers, there is a need for all health and social care staff to adapt their role to meet patients' needs and the requirements of a changing service. Increasingly, this is only possible through effective team



working where there is clarity of roles with each member recognising the value of their colleagues' contributions.

Initiatives, such as increasing staff numbers, changing ways of working and role development, aimed at reducing junior doctors' hours of work, have been ongoing from the early 1990s. They have resulted in significant change to the way services are provided, particularly in the evening and throughout the night. The application of the European Working Time Directive to junior doctors, in August 2004, has required a further radical approach to the provision of care throughout the 24-hour period. The reduction in the hours of work of junior doctors will in itself provide quality improvement. It also will mean changes for nursing staff and other health professionals. Entirely new roles, such as the medical emergency assistant, have also been developed.

MEDICAL EMERGENCY ASSISTANTS

Medical emergency assistants can undertake a wide range of tasks that previously were done by junior doctors, for example taking blood, putting up intravenous drips and recording ECGs (heart tracings). They receive targeted training specific to their role and have become a vital and valued part of the health care team. Their appointment means that junior doctors are able to spend more time with patients than previously, they can manage their workload better and are able to attend to duties that otherwise they would not have had time to do. Patient satisfaction with these arrangements is very high, they appreciate the high level of skill, excellent communication and an un-hurried approach by the assistants. With this approach, a high percentage of tasks are completed far more promptly than in the past with obvious consequences for quality of patient care. To date only one Trust in Northern Ireland has appointed medical emergency assistants.

Hospital at Night

The Hospital at Night is a new approach to ensuring effective clinical care is provided in hospital during the out-of-hours period. The Hospital at Night model proposes that the hospital has one or more multi-disciplinary teams working at night. Between the team members they will have the full range of skills and competencies to meet patient's immediate needs. The composition of a team is centred on its ability to deliver a service, appropriate to the potential demands placed on it, rather than particular grades or tiers of doctors and other staff represented in a pre-determined fashion. This model is used in some regions of the UK. Information gathered from over 20,000 clinical episodes gives a very clear picture of what happens in hospitals during the out of hours period and provides strong support for a competency based, multi-disciplinary approach to staff in hospital at night. The information also signals opportunities:

- For non-medical staff to take on a proportion of the work traditionally done by doctors at night;
- To move a significant proportion of the work at night into the extended day;
- To reduce unnecessary duplication of work.

Preliminary evaluation of this model has also found that the quality of patient care at night is improved as a result of:

- An improved risk assessment and prioritisation of work to match patient needs;
- Patients are seen by better trained, more senior staff who are fresh, not tired doctors;
- Better co-ordinated care between specialties and between medical, nursing and other staff.

There are also significant benefits for staff as team working decreases the sense of isolation, improves working relationships and morale and enhances competency levels. The results of patients' surveys have been very positive.

Modernising Medical Careers

For many years problems have been acknowledged in the Senior House Officer (SHO) grade. They have not benefited from a substantial or coherent investment in their professional development, unlike other groups of medical staff.

As a consequence, the Chief Medical Officer of England, Professor Sir Liam Donaldson, set out proposals in “Unfinished Business” for reform of the SHO grade. Following consultation it was recognized that change to a single medical grade in isolation would be inappropriate. The resulting policy, “Modernizing Medical Careers” sets out a programme of reform throughout all of medical training.

The aim is to ensure that the training, whether for a hospital doctor or a general practitioner, will produce a high-quality, well-trained and accredited doctor who can deliver the care and treatment patients need in the modern service. Medical training needs to take account of the training and development of other health service staff and prepare doctors to work in multi-professional settings. Shared learning and cross-professional training should also be employed where necessary. All postgraduate medical training should be organized in structured programmes with progress monitored against clear curricula. In general, assessment should be competency-based.



FOUNDATION PROGRAMMES

In meeting the objective of a broad-based training, two year Foundation Programmes are being established for medical graduates in 2005. At the end of the first year of the Foundation Programme, trainees must be able to demonstrate the learning outcomes required for full

registration. These will be set against the attributes in Good Medical Practice, which shape the structure for the appraisal of doctors:

- Good clinical care;
- Maintaining good medical practice;
- Effective relations with patients;
- Effective working with colleagues;
- The ability to teach and to train;
- Probity;
- Health.

There will continue to be an assessment of learning at the end of the year and before full registration is granted. The second year of the Foundation Programme will aim to give trainees basic practical skills and competencies in medicine including clinical skills, effective relationships with patients, communication and team working.

Networks

These reforms in training will enable staff to deliver care in the changing work environments, including in the new concept of networks.

Historically many health services were provided by professionals working independently, for example many single-handed general practitioners and small hospitals functioned very separately from one another. In today's health service, professionals working together in larger groups have greater options for communication.

These changes in the way the Health Service works and the potential of a partnership approach to improve the quality of healthcare has led to the development of 'Managed Clinical Networks'. Managed Clinical Networks (MCNs) have been



defined as “linked groups of health professionals and organisations from mainly secondary and tertiary care, working in a co-ordinated manner, unconstrained by existing professional and Health Board boundaries to ensure equitable provision of high quality clinically effective services”. The principles of a MCN include:

- Patient involvement and representation;
- Management arrangements in place – not just an informal network;
- Quality assurance programme in place;
- Workforce issues addressed to allow staff to be deployed across traditional health service boundaries;
- Evaluation: MCNs need to assess outcomes and produce reports.

In Northern Ireland, at local level, a number of networks have been or are being established. The Northern Ireland Cancer Network (NICaN), established in February 2004, is the first working example of a formal regional network. More information about this network is given in Chapter 5.

There are real advantages to MCNs as they can provide a structure that aids seamless delivery of care to patients, wherever they are. Networks do so by achieving an integrated approach to patient care at all levels.

Quality in Primary Care

The emphasis on quality improvement and new ways of working extends into the area of primary care. With the introduction of a new contract for general medical practitioners, a greater emphasis has been placed on quality improvement over a wide range of services. The new contract is designed to bring about a range of improvements in primary care, providing benefits to general practitioners, other

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healthcare professionals, the health service in general and most importantly to patients. Benefits include:

- Improved access to services for local people through Health and Social Services Boards commissioning services closer to home;
- Fairer funding, based on the needs of patients in the local community;
- GPs being able to manage their workloads by allowing them to opt out of providing some services, for example out of hours;
- Better management of chronic diseases through a new framework of rewards to practices in recognition of improvements and clinical standards;
- Improved organisational standards through rewarding practices which provide better records, more effective communication with patients and undertake patient surveys.

The new GP Contract

A number of significant changes are being introduced as a result of the new GP contract. Some of these are detailed below.

- *Out of Hours Services*
GP practices are able to opt out of providing out of hours care. The responsibility for ensuring such services are provided will rest with Health and Social Services Boards. Boards are responsible for working with others in designing and ensuring delivery of new arrangements. This involves hospitals, community facilities and general practitioners.



- *Information Management technology*
The new contract brings substantial investment into the provision and maintenance in computer systems for general practice. The investment in computer systems will bring about a range of improvements including disease registers, call/recall systems and the monitoring of services provided to patients.
- *Focus on Quality*
A significant proportion of additional finance, tied to the new contract, rewards practices for providing higher quality services. The clinical areas targeted are stroke, hypertension, diabetes, chronic obstructive airways pulmonary disease, epilepsy, cancer, mental health and asthma. The new contract provides incentives for practices to enhance the services they provide in these clinical areas.
- *Patient Experience*
Incentives are in place for practices to meet standards in relation to organisational factors such as better records and information about patients, education and training, and practice and medicines management. Practices are encouraged to use accredited questionnaires to gain patient views and make appropriate improvements. Providing feedback to patients on such questionnaires is also encouraged.
- *Range of services provided*
Under the new contract practices must provide essential services. These services will be provided for people who are sick or perceive themselves to be sick with conditions from which recovery is generally expected, chronic disease management and general management of patients who are terminally ill.

Practices are expected to provide additional services, covering cervical screening, contraceptive services, vaccination and immunisation, child health surveillance, maternity services and some minor surgery procedures.

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Health and Social Services Boards must also commission a range of enhanced services. These enhanced services may be commissioned from GP practices or from elsewhere and a practice will not have to provide any of the enhanced services unless it wishes to do so.

These are examples of the wide range of enhancements in the quality of service provision that the public can expect. At the core of all these initiatives is the creation of an environment that fosters continuous improvement based on patient needs. Critical to the continued success of these developments is the continued recruitment, retention and development of staff who will work in partnership with patients and other carers in a mutually supportive way.

Appendix 1

TABLE 1A

Northern Ireland: Sex and Age Distribution of Population and Percentage of Total Population in Each Age Group (2003)

Age Group (Years)	Persons	% Age	Males	% Age	Females	% Age
0-14	361,200	21.2	185,400	22.3	175,800	20.2
15-64	1,111,300	65.3	552,000	66.3	559,300	64.3
65+	230,100	13.5	95,400	11.5	134,700	15.5
0-4	110,600	6.5	56,800	6.8	53,800	6.2
5-9	121,200	7.1	62,300	7.5	58,800	6.8
10-14	129,400	7.6	66,300	8.0	63,100	7.3
15-19	133,300	7.8	68,400	8.2	64,900	7.5
20-24	112,800	6.6	57,600	6.9	55,200	7.5
25-29	108,000	6.3	53,500	6.4	54,500	6.3
30-34	124,700	7.3	61,400	7.4	63,300	7.3
35-39	131,100	7.7	64,500	7.7	66,500	7.6
40-44	122,500	7.2	59,900	7.2	62,700	7.2
45-49	108,300	6.4	54,000	6.5	54,300	6.2
50-54	98,100	5.8	48,900	5.9	49,300	5.7
55-59	94,200	5.5	46,100	5.5	48,100	5.5
60-64	78,200	4.6	37,800	4.5	40,400	4.6
65-69	67,500	4.0	31,700	3.8	35,700	4.1
70-74	58,400	3.4	25,700	3.1	32,700	3.8
75-79	47,500	2.8	19,300	2.3	28,200	3.2
80+	56,800	3.3	18,600	2.3	38,100	4.4
Total	1,702,600	100.0	832,800	100.0	869,800	100.0

Source: Northern Ireland Statistics and Research Agency (NISRA)

Footnote: Figures are rounded to the nearest 100 and therefore may not equal the stated total due to rounding.

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TABLE 1B

Northern Ireland: Mid Year Population Estimate 2003 By Board

Age	Sex	Eastern	Northern	Southern	Western	N Ireland
< 1	M	4,100	2,700	2,200	2,000	11,000
	F	3,700	2,700	2,200	1,900	10,500
1-4	M	16,400	11,600	9,400	8,300	45,800
	F	15,700	10,900	8,800	7,900	43,400
5-9	M	22,700	15,600	12,500	11,400	62,300
	F	21,600	14,900	11,600	10,800	58,800
10-14	M	24,600	16,400	13,400	11,900	66,300
	F	23,600	15,700	12,400	11,500	63,100
15-19	M	25,800	16,700	13,100	12,700	68,400
	F	25,500	15,600	12,000	11,800	64,900
20-24	M	23,100	13,300	10,700	10,500	57,600
	F	23,100	12,900	10,100	9,100	55,200
25-29	M	20,400	13,200	10,200	9,700	53,500
	F	21,300	13,300	10,200	9,700	54,500
30-34	M	22,500	16,300	11,900	10,700	61,400
	F	24,000	16,400	12,000	11,000	63,300
35-39	M	24,300	16,900	12,400	10,900	64,500
	F	26,200	17,300	12,200	10,900	66,500
40-44	M	22,900	15,500	11,500	10,000	59,900
	F	25,300	15,800	11,400	10,200	62,700
45-49	M	20,600	14,000	10,300	9,200	54,000
	F	21,700	13,900	9,800	8,900	54,300
50-54	M	18,700	12,900	9,100	8,200	48,900
	F	19,300	12,900	9,000	8,100	49,300
55-59	M	18,200	12,200	8,300	7,300	46,100
	F	19,400	12,200	8,700	7,400	48,100
60-64	M	14,900	10,200	6,800	5,800	37,800
	F	16,200	11,000	7,200	6,100	40,400
65-69	M	12,600	8,400	5,800	4,900	31,700
	F	14,800	9,400	6,400	5,200	35,700
70-74	M	10,500	6,900	4,500	3,800	25,700
	F	14,200	8,200	5,700	4,500	32,700
75-79	M	8,100	5,100	3,400	2,800	19,300
	F	12,500	7,000	4,800	3,900	28,200
80-84	M	5,300	3,100	2,000	1,700	12,100
	F	9,500	5,300	3,500	2,800	21,100
85+	M	2,900	1,700	1,100	900	6,500
	F	8,000	4,200	2,600	2,200	17,000
Total	M	318,600	212,800	158,500	142,900	832,800
	F	345,300	220,000	160,600	143,900	869,800

Source: Northern Ireland Statistics and Research Agency (NISRA)

Footnote: Figures are rounded to the nearest 100 and therefore may not equal the stated total due to rounding.



TABLE 2A

Population Projections for Northern Ireland (Males)*

Age Group (Years)	2009	2014
0-14	172,000	165,000
15-64	570,000	576,000
65+	109,000	125,000
0-4	54,000	54,000
5-9	56,000	55,000
10-14	62,000	56,000
15-19	65,000	61,000
20-24	67,000	63,000
25-29	58,000	65,000
30-34	52,000	57,000
35-39	59,000	51,000
40-44	63,000	58,000
45-49	60,000	62,000
50-54	54,000	59,000
55-59	48,000	52,000
60-64	44,000	46,000
65-69	37,000	41,000
70-74	29,000	33,000
75-79	21,000	24,000
80-84	14,000	15,000
85-89	7,000	8,000
90+	2,000	3,000
TOTAL	851,000	866,000

Source: NISRA

*Based on 2003 mid year population estimates.

Footnote: The sum of the age groups may not equal the stated total as each group has been rounded separately.

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TABLE 2B

Population Projections for Northern Ireland (Females)*

Age Group (Years)	2009	2014
0-14	165,000	159,000
15-64	580,000	588,000
65+	144,000	159,000
0-4	52,000	52,000
5-9	54,000	53,000
10-14	59,000	54,000
15-19	62,000	58,000
20-24	62,000	59,000
25-29	58,000	63,000
30-34	55,000	59,000
35-39	63,000	55,000
40-44	66,000	63,000
45-49	64,000	66,000
50-54	55,000	63,000
55-59	49,000	55,000
60-64	47,000	47,000
65-69	40,000	45,000
70-74	34,000	37,000
75-79	28,000	30,000
80-84	22,000	23,000
85-89	14,000	15,000
90+	6,000	8,000
TOTAL	889,000	905,000

Source: NISRA

*Based on 2003 mid year population estimates.

Footnote: The sum of the age groups may not equal the stated total as each group has been rounded separately.



TABLE 2C

Population Projections for Northern Ireland (Males and Females)*

Age Group (Years)	2009	2014
0-14	337,000	324,000
15-64	1,150,000	1,163,000
65+	253,000	284,000
0-4	106,000	106,000
5-9	110,000	107,000
10-14	120,000	111,000
15-19	127,000	119,000
20-24	129,000	122,000
25-29	116,000	128,000
30-34	106,000	116,000
35-39	122,000	106,000
40-44	129,000	121,000
45-49	124,000	128,000
50-54	109,000	122,000
55-59	97,000	107,000
60-64	91,000	94,000
65-69	76,000	87,000
70-74	62,000	70,000
75-79	49,000	54,000
80-84	36,000	38,000
85-89	20,000	23,000
90+	9,000	12,000
TOTAL	1,741,000	1,771,000

Source: NISRA

*Based on 2003 mid year population estimates.

Footnote: The sum of the age groups may not equal the stated total as each group has been rounded separately.

Report of the Chief Medical Officer

TABLE 3

Births (Live, Still and Total) and Birth Rates in Northern Ireland 1988-2003

Year	Live Births	Still Births	Total	Birth Rate Per 1,000 Population
1988	27,514	137	27,651	17.4
1989	25,831	133	25,964	16.3
1990	26,251	115	26,366	16.5
1991	26,028	123	26,151	16.3
1992	25,354	124 (117)	25,478	15.7
1993	24,722	128 (102)	24,850	15.2
1994	24,098	153 (126)	24,251	14.8
1995	23,693	145 (108)	23,838	14.5
1996	24,382	153 (114)	24,535	14.8
1997	24,087	131 (99)	24,218	14.5
1998	23,668	122 (89)	23,790	14.2
1999	22,957	132 (105)	23,089	13.8
2000	21,512	93 (70)	21,605	12.8
2001	21,962	112 (88)	22,074	13.1
2002	21,385	122 (97)	21,507	12.7
2003	21,648	108 (83)	21,756	12.8

Source: NISRA

Footnote: Births to women living outside Northern Ireland are excluded.

The definition of a stillbirth changed 1.10.92 and now includes all babies born dead after 24 weeks gestation.

The bracketed figure is the number of stillbirths that would have resulted using the old definition of a stillbirth, ie a baby born dead after 28 weeks gestation.



TABLE 4A

Births (Live, Still and Total) and Birth Rates by Health and Social Services Board in Northern Ireland in 2003

<i>Board</i>	<i>Live Births</i>	<i>Still Births</i>	<i>Total</i>	<i>Birth Rate Per 1,000 Population</i>
<i>Eastern</i>	8,011	32 (23)	8,043	12.1
<i>Northern</i>	5,335	23 (18)	5,358	12.4
<i>Southern</i>	4,469	30 (20)	4,499	14.1
<i>Western</i>	3,833	23 (22)	3,856	13.4
<i>NI*</i>	21,648	108 (83)	21,756	12.8

Source: NISRA

**Excludes births to women living outside Northern Ireland.*

Footnote: *The definition of a stillbirth changed 1.10.92 and now includes all babies born dead after 24 weeks gestation.*

The bracketed figure is the number of stillbirths that would have resulted using the old definition of a stillbirth, ie a baby born dead after 28 weeks gestation.

Report of the Chief Medical Officer

TABLE 4B

Northern Ireland Births (Live, Still and Total) by District Council of Residence of Mother - 2003

<i>District Council</i>	<i>Live Births</i>	<i>Still Births</i>	<i>Total</i>
Eastern Board			
<i>Ards</i>	882	3	885
<i>Belfast</i>	3327	16	3343
<i>Castlereagh</i>	727	3	730
<i>Down</i>	851	2	853
<i>Lisburn</i>	1367	8	1375
<i>North Down</i>	857	0	857
Northern Board			
<i>Antrim</i>	708	10	718
<i>Ballymena</i>	735	3	738
<i>Ballymoney</i>	344	3	347
<i>Carrickfergus</i>	456	0	456
<i>Coleraine</i>	621	1	622
<i>Cookstown</i>	411	0	411
<i>Larne</i>	344	1	345
<i>Magherafelt</i>	562	1	563
<i>Moyle</i>	198	1	199
<i>Newtownabbey</i>	956	3	959
Southern Board			
<i>Armagh</i>	765	3	768
<i>Banbridge</i>	6437	4	6441
<i>Craigavon</i>	1073	13	1086
<i>Dungannon</i>	652	3	655
<i>Newry and Mourne</i>	1336	7	1343
Western Board			
<i>Fermanagh</i>	710	3	713
<i>Limavady</i>	468	5	473
<i>Derry</i>	1504	10	1514
<i>Omagh</i>	645	3	648
<i>Strabane</i>	506	2	508
<i>Outside NI</i>	407	0	407

Source: NISRA



TABLE 5A

Fertility Rates 1995-2003 (Women Aged 15-49) Northern Ireland

Age Group	1995	1996	1997	1998	1999	2000	2001	2002	2003
15-19	23.4	25.7	26.4	27.8	28.6	25.6	23.9	23.3	22.9
20-24	73.5	73.8	71.1	69.6	70.6	66.0	67.5	66.0	65.5
25-29	129.1	129.4	124.2	119.0	112.3	103.9	105.1	102.9	106.8
30-34	102.7	108.3	109.2	108.4	105.6	100.4	106.0	104.2	107.0
35-39	45.5	45.4	46.6	47.2	46.1	46.2	48.0	48.2	50.2
40-44	8.4	8.4	8.8	8.2	8.9	8.5	9.1	9.2	9.5
45-49	0.4	0.4	0.3	0.4	0.4	0.3	0.6	0.5	0.3
Total period fertility rate	1.92	1.96	1.93	1.90	1.86	1.75	1.80	1.77	1.81

Source: Derived from NISRA statistics on registered live births and population estimates.

TABLE 5B

Age Specific Fertility Rates 2003 For Women in Northern Ireland by Health and Social Services Board

Age Group	EHSSB	NHSSB	SHSSB	WHSSB	N Ireland
15-19	27.0	20.1	19.3	21.2	22.9
20-24	62.1	69.2	64.3	70.4	65.5
25-29	93.1	112.2	127.3	107.5	106.8
30-34	98.8	104.6	123.6	110.3	107.0
35-39	49.3	45.5	55.1	54.5	50.2
40-44	10.0	8.5	10.5	8.9	9.5
45-49	0.2	0.2	0.7	0.6	0.3
Total period fertility rate	1.70	1.80	2.00	1.87	1.81

Source: Derived from NISRA statistics on registered live births and population estimates.

TABLE 6A
Notified Live Births by Weight at Birth in Northern Ireland (1997-2003)

Birth Weight (gms)	1997	1998	1999	2000	2001	2002	2003
Under 1,000	100 (0.4)	107 (0.4)	87 (0.4)	96 (0.4)	89 (0.4)	104 (0.5)	109 (0.5)
1,000-1,499	158 (0.7)	158 (0.7)	132 (0.6)	155 (0.7)	145 (0.7)	151 (0.7)	141 (0.6)
1,500-1,999	279 (1.2)	285 (1.2)	322 (1.4)	279 (1.3)	299 (1.4)	281 (1.3)	238 (1.1)
2,000-2,499	855 (3.6)	821 (3.4)	879 (3.8)	783 (3.6)	775 (3.6)	809 (3.8)	801 (3.7)
Premature total	1,392 (5.8)	1,371 (5.7)	1,420 (6.2)	1,313 (6.0)	1,308 (6.0)	1,345 (6.3)	1,289 (5.9)
2,500-2,999	3,209 (13.3)	3,201 (13.4)	3,151 (13.7)	2,808 (12.9)	2,954 (13.6)	2,838 (13.2)	2,863 (13.2)
3,000-3,499	8,318 (34.6)	8,202 (34.4)	7,909 (34.4)	7,215 (33.2)	7,451 (34.2)	7,341 (34.2)	7,426 (34.2)
3,500-3,999	7,719 (32.1)	7,749 (32.5)	7,295 (31.7)	7,214 (33.2)	7,061 (32.4)	6,993 (32.6)	7,136 (32.8)
4,000-4,499	2,866 (11.9)	2,811 (11.8)	2,707 (11.8)	2,636 (12.1)	2,517 (11.6)	2,448 (11.4)	2,567 (11.8)
4,500 and over	528 (2.2)	521 (2.2)	510 (2.2)	523 (2.4)	500 (2.3)	490 (2.3)	458 (2.1)
Not recorded	7 (0.03)	5 (0.02)	1 (0.0)	1 (0.0)	0 (0.0)	1 (0.0)	1 (0.0)
Grand Total	24,039 (100.0)	23,860 (100.0)	22,993 (100.0)	21,710 (100.0)	21,791 (100.0)	21,450 (100.0)	21,740 (100.0)

Figures within brackets show the number of births of that particular type and birth weight expressed as a percentage of total number of births of that type in that year.

Source: Child Health System, Area Health Boards

TABLE 6B

Notified Still Births by Weight at Birth in Northern Ireland (1997-2003)

Birth Weight (gms)	1997	1998	1999	2000	2001	2002	2003
Under 1,000	43 (32.6)	39 (29.5)	34 (25.6)	27 (28.4)	31 (27.4)	33 (28.0)	35 (31.5)
1,000-1,499	11 (8.3)	18 (13.6)	14 (10.5)	10 (10.5)	14 (12.4)	25 (21.2)	11 (9.9)
1,500-1,999	24 (18.2)	16 (12.1)	19 (14.3)	8 (8.4)	14 (12.4)	11 (9.3)	11 (9.9)
2,000-2,499	19 (14.4)	17 (12.9)	21 (15.8)	16 (16.8)	12 (10.6)	16 (13.6)	17 (15.3)
Premature total	97 (73.5)	90 (68.2)	88 (66.1)	61 (64.2)	71 (62.8)	85 (72.0)	74 (66.7)
2,500-2,999	10 (7.6)	14 (10.6)	16 (12.0)	13 (13.7)	15 (13.3)	11 (9.3)	14 (12.6)
3,000-3,499	13 (9.8)	16 (12.1)	14 (10.5)	10 (10.5)	13 (11.5)	10 (8.5)	13 (11.7)
3,500-3,999	9 (6.8)	7 (5.3)	13 (9.8)	8 (8.4)	8 (7.1)	7 (5.9)	6 (5.4)
4,000-4,499	1 (0.8)	1 (0.8)	1 (0.8)	1 (1.1)	3 (2.7)	5 (4.2)	2 (1.8)
4,500 and over	1 (0.8)	0 (0.0)	0 (0.0)	2 (2.1)	2 (1.8)	0 (0.0)	1 (0.9)
Not recorded	1 (0.8)	4 (3.0)	1 (0.8)	1 (1.1)	1 (0.9)	0 (0.0)	1 (0.9)
Grand Total	132 (100.0)	132 (100.0)	133 (100.0)	95 (100.0)	113 (100.0)	118 (100.0)	111 (100.0)

Figures within brackets show the number of births of that particular type and birth weight expressed as a percentage of total number of births of that type in that year.

Source: Child Health System, Area Health Boards



Report of the Chief Medical Officer

TABLE 7A

Perinatal Mortality in Northern Ireland 1988-2003

Year	Number	Rate
1988	259	9.3
1989	214	8.2
1990	202	7.6
1991	222	8.4
1992	212 (205)	8.2
1993	220 (193)	8.8
1994	236 (209)	9.7
1995	250 (213)	10.4
1996	232 (193)	9.4
1997	211 (179)	8.6
1998	195 (162)	8.1
1999	233 (206)	10.0
2000	157 (134)	7.2
2001	187 (163)	8.4
2002	191 (166)	8.7
2003	177 (152)	8.1

Source: NISRA

Footnote:

The definition of a stillbirth changed 1.10.92 and now includes all babies born dead after 24 weeks' gestation.

The bracketed figure is the number of stillbirths that would have resulted using the old definition of a stillbirth: i.e. a baby born dead after 28 weeks' gestation.



TABLE 7B

Neonatal Mortality in Northern Ireland 1988-2003

Year	Number	Rate
1988	149	5.4
1989	104	4.0
1990	106	4.0
1991	121	4.6
1992	104	4.1
1993	123	4.9
1994	101	4.2
1995	131	5.5
1996	92	3.7
1997	102	4.2
1998	93	3.9
1999	112	4.8
2000	82	3.8
2001	98	4.4
2002	73	3.4
2003	87	4.0

Source: NISRA

Report of the Chief Medical Officer

TABLE 7C

Post-neonatal Mortality in Northern Ireland 1988-2003

Year	Number	Rate
1988	99	3.6
1989	76	2.9
1990	92	3.5
1991	73	2.8
1992	49	1.9
1993	53	2.1
1994	46	1.9
1995	38	1.6
1996	50	2.0
1997	35	1.4
1998	41	1.7
1999	36	1.6
2000	27	1.2
2001	36	1.6
2002	27	1.2
2003	28	1.3

Source: NISRA



TABLE 7D

Infant Mortality in Northern Ireland 1988-2003

Year	Number	Rate
1988	248	8.9
1989	180	6.9
1990	198	7.5
1991	194	7.4
1992	153	6.0
1993	176	7.1
1994	147	6.1
1995	169	7.1
1996	142	5.8
1997	137	5.6
1998	134	5.6
1999	148	6.4
2000	109	5.0
2001	134	6.0
2002	100	4.6
2003	115	5.3

Source: NISRA

Report of the Chief Medical Officer

TABLE 8

Childhood Mortality (Age 1-14) for each Health and Social Services Board 1999-2003 (Total Number of Deaths and Standardised Mortality Ratios)

<i>Board</i>	<i>All Causes</i>		<i>Accidents (ICD V00-X59)</i>	
	<i>Deaths</i>	<i>S.M.R.</i>	<i>Deaths</i>	<i>S.M.R.</i>
<i>EHSSB</i>	122	110	32	104
<i>NHSSB</i>	65	85	19	90
<i>SHSSB</i>	51	84	13	77
<i>WHSSB</i>	660	119	20	131
<i>N Ireland</i>	304	100	84	100

Source: NISRA

Footnote: ICD = International Classification of Diseases (10th Revision)



TABLE 9A

**Standardised Death Rates Northern Ireland 1994-2003
Selected Causes of death, age 15-74 years NI**

	ICD Code	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Male condition											
All causes		731.4	718.1	689.6	675.5	655.0	644.6	599.5	575.2	578.4	543.2
Cancer of stomach	C16	15.9	11.7	12.4	11.7	14.9	12.3	11.6	10.5	8.9	9.2
Cancer of colon	C18	18.4	18.9	16.8	13.7	17.2	14.4	15.0	13.8	14.9	17.2
Cancer of rectum	C19-C21	7.2	5.8	7.3	5.4	7.3	5.9	5.7	6.5	4.4	9.5
Cancer of lung	C33-C34	67.3	61.7	65.5	60.0	55.5	56.4	53.0	56.1	54.5	49.0
Ischaemic heart disease	I20-I25	235.0	234.1	211.7	205.6	188.0	179.7	154.5	140.9	134.1	120.6
Cerebrovascular disease	I60-I69	48.3	42.1	39.9	43.0	41.3	39.4	29.6	27.5	34.0	30.2
Respiratory diseases	J00-J99	61.4	62.8	69.3	62.9	62.7	68.5	64.8	46.5	41.4	52.6
Genito-Urinary diseases	N00-N99	5.8	4.7	6.0	4.5	4.6	5.0	5.3	5.7	5.9	4.5
Road traffic accidents	V01-V80 V87, V89, Y85	14.6	14.6	13.6	15.8	12.8	14.5	16.1	16.1	15.7	13.6
Suicide	X60-X84, Y87.0	16.9	14.4	16.3	15.5	15.6	16.6	21.4	19.3	21.2	16.6
Female condition											
All causes		426.7	422.2	405.7	381.7	371.6	374.0	370.0	346.3	343.6	328.9
Cancer of stomach	C16	4.8	4.9	6.7	3.6	6.7	4.5	5.4	5.2	4.5	3.8
Cancer of colon	C18	13.4	12.6	11.1	12.3	10.3	10.0	11.4	7.4	7.1	9.3
Cancer of rectum	C19-C21	3.4	3.4	4.0	4.1	4.4	2.4	3.6	3.7	4.0	6.2
Cancer of lung	C33-C34	25.5	28.9	28.4	26.4	30.1	26.2	32.3	27.2	28.1	26.7
Cancer of breast	C50	37.8	37.9	33.5	27.8	32.2	30.1	31.1	31.1	26.5	25.1
Cancer of cervix	C53	4.6	2.7	5.8	3.4	3.6	4.2	3.9	3.0	2.6	3.2
Ischaemic heart disease	I20-I25	96.4	95.2	81.8	74.9	68.8	65.0	57.3	54.3	49.8	40.7
Cerebrovascular disease	I60-I69	37.8	35.4	31.4	29.9	28.7	29.8	24.6	23.9	25.7	19.9
Respiratory diseases	J00-J99	40.2	47.6	46.9	39.5	42.1	49.3	47.7	31.1	33.9	33.7
Genito-Urinary diseases	N00-N99	5.2	5.2	4.4	4.8	4.2	3.8	2.7	4.1	5.3	4.1
Road traffic accidents	V01-V80 V87, V89, Y85	6.0	5.0	3.9	4.8	3.7	3.3	3.8	4.2	4.1	3.3
Suicide	X60-X84, Y87.0	4.8	5.0	4.2	4.0	5.1	2.8	5.1	3.5	4.4	4.5

Source: Derived from NISRA Mortality Statistics and home population estimates

NB: Rates are per 100,000 population

All rates standardised to the 2001 home mid year estimate

Report of the Chief Medical Officer

TABLE 9B

**Standardised Death Rates Northern Ireland 1994-2003 (Using European Standard)
Selected Causes of death, age 15-74 years NI**

	ICD Code	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Male condition											
All causes		734.3	719.9	689.1	677.5	657.3	645.0	601.1	576.3	581.5	543.4
Cancer of stomach	C16	16.1	11.6	12.4	11.9	15.3	12.4	11.7	10.6	8.8	9.4
Cancer of colon	C18	18.7	19.2	16.8	13.8	17.2	14.3	15.1	14.0	14.9	17.5
Cancer of rectum	C19-C21	7.3	6.0	7.4	5.7	7.4	6.1	5.8	6.6	4.5	9.8
Cancer of lung	C33-C34	67.7	62.2	65.7	60.3	55.5	56.3	52.9	56.1	54.9	49.1
Ischaemic heart disease	I20-I25	237.3	235.4	211.7	207.1	189.3	181.5	155.5	141.9	135.3	121.2
Cerebrovascular disease	I60-I69	47.6	41.7	39.5	42.8	41.3	38.7	29.3	27.3	33.1	29.9
Respiratory diseases	J00-J99	60.6	62.0	68.3	62.1	61.6	66.8	63.6	46.0	41.0	51.5
Genito-Urinary diseases	N00-N99	5.7	4.7	5.9	4.2	4.4	4.8	5.1	5.6	5.9	4.6
Road traffic accidents	V01-V80 V87, V89, Y85	14.4	14.4	13.3	15.5	12.6	14.2	15.8	15.6	15.3	13.4
Suicide	X60-X84, Y87.0	16.7	14.2	16.2	15.4	15.4	16.2	20.9	18.9	21.0	16.5
Female condition											
All causes		429.9	424.2	407.8	384.1	372.7	376.5	372.3	347.1	345.5	330.1
Cancer of stomach	C16	4.9	5.0	6.9	3.4	6.7	4.5	5.4	5.1	4.4	3.8
Cancer of colon	C18	13.7	12.9	11.5	12.4	10.3	10.0	11.5	7.3	7.2	9.5
Cancer of rectum	C19-C21	3.4	3.6	4.0	4.3	4.4	2.5	3.7	3.7	4.2	6.4
Cancer of lung	C33-C34	25.9	29.6	29.0	26.5	30.1	26.9	32.5	27.4	28.5	26.9
Cancer of breast	C50	39.7	39.6	34.7	28.9	33.6	31.2	32.5	32.3	27.3	26.0
Cancer of cervix	C53	4.8	2.8	5.8	3.5	3.7	4.2	4.2	3.1	2.7	3.3
Ischaemic heart disease	I20-I25	95.8	94.2	80.7	73.9	68.4	64.5	56.6	53.3	49.2	40.3
Cerebrovascular disease	I60-I69	37.3	34.8	31.1	29.6	28.3	29.7	24.7	23.8	25.6	19.8
Respiratory diseases	J00-J99	39.8	47.2	46.6	38.9	41.4	48.9	47.7	30.7	33.9	33.2
Genito-Urinary diseases	N00-N99	5.1	5.3	4.4	4.8	4.2	3.8	2.5	4.1	5.2	4.1
Road traffic accidents	V01-V80 V87, V89, Y85	5.9	4.9	3.8	4.8	3.6	3.2	3.8	4.0	4.0	3.2
Suicide	X60-X84, Y87.0	4.9	5.0	4.3	4.1	5.0	2.7	5.1	3.5	4.4	4.5

Source: Derived from NISRA Mortality Statistics and home population estimates

NB: Rates are per 100,000 population

All rates standardised to the European Standard population



TABLE 9C

Age Standardised Death Rates for Selected Causes per 100,000 population (age 15-74) for each Health and Social Services Board and for Northern Ireland - 2003

	<i>EHSSB</i>	<i>NHSSB</i>	<i>SHSSB</i>	<i>WHSSB</i>	<i>N Ireland</i>
Males					
<i>All Causes</i>	558.8	504.1	539.7	577.4	543.2
<i>Cancer of Stomach</i>	9.3	7.0	12.0	9.8	9.2
<i>Cancer of Colon</i>	19.8	10.2	19.6	19.8	17.2
<i>Cancer of Rectum</i>	9.1	11.6	12.0	4.5	9.5
<i>Cancer of Lung</i>	55.9	40.5	45.2	50.2	49.0
<i>Ischaemic heart disease</i>	119.2	106.1	134.6	133.1	120.6
<i>Cerebrovascular disease</i>	31.2	30.0	24.6	34.7	30.2
<i>Respiratory disease</i>	52.7	53.6	49.0	55.1	52.6
<i>Genito-Urinary disease</i>	4.7	1.9	6.5	6.2	4.5
<i>Road traffic accidents</i>	14.2	13.6	13.9	12.5	13.6
<i>Suicide</i>	17.8	16.0	18.2	13.1	16.6
Females					
<i>All causes</i>	351.1	310.7	313.5	320.9	328.9
<i>Cancer of Stomach</i>	4.4	2.3	4.2	4.0	3.8
<i>Cancer of Colon</i>	8.8	9.9	11.8	7.1	9.3
<i>Cancer of Rectum</i>	6.4	6.3	7.6	4.1	6.2
<i>Cancer of Lung</i>	33.5	17.9	19.4	31.7	26.7
<i>Cancer of Breast</i>	23.5	28.7	25.5	21.8	25.1
<i>Cancer of Cervix</i>	2.4	4.6	3.4	3.0	3.2
<i>Ischaemic heart disease</i>	39.8	38.7	43.7	43.1	40.7
<i>Cerebrovascular disease</i>	23.0	20.4	11.8	20.7	19.9
<i>Respiratory disease</i>	36.3	33.0	28.6	35.2	33.7
<i>Genito-Urinary disease</i>	4.1	2.9	2.6	8.2	4.1
<i>Road traffic accidents</i>	1.3	3.3	4.4	6.8	3.3
<i>Suicide</i>	5.4	3.3	3.5	5.8	4.5

Source: Derived from NISRA Mortality Statistics and home population estimates.

All rates standardised to the revised 2001 home mid year estimate.

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TABLE 9D

European Age Standardised Death Rates for Selected Causes per 100,000 population (age 15-74) for each Health and Social Services Board and for Northern Ireland - 2003

	<i>EHSSB</i>	<i>NHSSB</i>	<i>SHSSB</i>	<i>WHSSB</i>	<i>N Ireland</i>
Males					
<i>All Causes</i>	560.8	504.4	538.8	574.1	543.4
<i>Cancer of Stomach</i>	9.5	7.1	12.4	9.9	9.4
<i>Cancer of Colon</i>	20.4	10.2	19.9	19.8	17.5
<i>Cancer of Rectum</i>	9.7	11.6	12.4	4.4	9.8
<i>Cancer of Lung</i>	55.8	40.1	46.7	50.2	49.1
<i>Ischaemic heart disease</i>	120.1	108.2	133.1	132.4	121.2
<i>Cerebrovascular disease</i>	30.8	30.1	24.4	33.9	29.9
<i>Respiratory disease</i>	51.8	52.4	48.5	53.7	51.5
<i>Genito-Urinary disease</i>	13.9	1.9	6.3	6.5	4.6
<i>Road traffic accidents</i>	17.8	13.1	13.8	12.8	13.4
<i>Suicide</i>	22.0	15.7	18.1	13.0	16.5
Females					
<i>All causes</i>	354.0	311.3	314.3	319.6	330.1
<i>Cancer of Stomach</i>	4.4	2.4	4.2	4.3	3.8
<i>Cancer of Colon</i>	8.9	10.0	11.9	7.4	9.5
<i>Cancer of Rectum</i>	6.8	6.4	7.8	4.2	6.4
<i>Cancer of Lung</i>	33.5	18.5	19.9	31.6	26.9
<i>Cancer of Breast</i>	24.3	30.0	26.4	22.5	26.0
<i>Cancer of Cervix</i>	2.4	4.7	3.4	3.0	3.3
<i>Ischaemic heart disease</i>	39.3	38.7	43.0	42.5	40.3
<i>Cerebrovascular disease</i>	22.9	20.7	11.6	19.9	19.8
<i>Respiratory disease</i>	36.2	32.5	27.9	33.6	33.2
<i>Genito-Urinary disease</i>	4.3	2.7	2.9	8.0	4.1
<i>Road traffic accidents</i>	1.2	3.2	4.4	6.6	3.2
<i>Suicide</i>	5.3	3.1	3.5	6.2	4.5

Source: Derived from NISRA Mortality Statistics and home population estimates.

All rates standardised to European Standard population.



TABLE 10

Potential Years of Life Lost (PYLL) - Northern Ireland 2003

Disease Category (ICD Code)	PYLL	Deaths 1-4 Yrs	Deaths 5-14 Yrs	Deaths 15-24 Yrs	Deaths 25-34 Yrs	Deaths 35-44 Yrs	Deaths 45-54 Yrs	Deaths 55-64 Yrs	Deaths 65-74 Yrs
Males									
All causes	48057	11	24	91	94	197	361	817	1659
Carcinoma of stomach (C16)	645	0	0	0	0	1	7	20	27
Carcinoma of colon (C18)	1130	0	0	0	0	1	11	37	53
Carcinoma of lung (C33-C34)	2915	0	0	0	0	3	25	88	173
Cancer of lymphoid haematopoietic and related tissue (C81-C96)	1150	0	1	1	3	8	5	18	44
Ischaemic heart disease (120-125)	8450	0	0	0	1	39	84	199	391
Cerebrovascular disease (160-169)	1835	0	0	2	2	3	11	46	113
Pneumonia and influenza (J10-J18)	897	1	1	0	0	2	3	23	54
Road traffic accidents (V01-V80, V87, V89, Y85)	3872	1	4	37	18	10	9	7	3
Suicide and self inflicted injury (X60-X84, Y87.0)	3625	0	1	18	23	26	19	8	6
Homicides and assault (X85-Y98)	1150	0	0	4	10	9	4	3	4
Females									
All causes	30034	7	13	28	52	133	254	527	1179
Carcinoma of stomach (C16)	295	0	0	0	0	1	3	8	13
Carcinoma of colon (C18)	720	0	0	0	0	2	9	17	34
Carcinoma of lung (C33-C34)	1830	0	0	0	1	3	11	59	104
Carcinoma of breast (C50)	2670	0	0	0	2	17	38	50	57
Carcinoma of cervix (C53)	435	0	0	0	2	5	2	6	6
Cancer of lymphoid haematopoietic and related tissue (C81-C96)	950	0	1	1	5	3	3	17	34
Ischaemic heart disease (120-125)	2490	0	0	1	0	3	21	57	190
Cerebrovascular disease (160-169)	1555	0	1	0	1	8	14	27	82
Pneumonia and influenza (J10-J18)	515	0	0	0	0	2	6	7	38
Road traffic accidents (V01-V80, V87, V89, Y85)	1065	0	3	8	7	2	1	1	1
Suicide and self inflicted injury (X60-X84, Y87.0)	1030	0	0	5	7	7	7	1	1
Homicides and assault (X85-Y98)	505	0	2	1	3	2	2	4	1

Source: These figures are derived from the NISRA Mortality Statistics

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TABLE 11

Northern Ireland: Expectation of Life at Birth, at One Year of Age and at 65 Years of Age for Certain Periods Between 1900 and 2003

Expectation Of Life						
	At Birth		At Age 1 Year		At Age 65 Years	
Period	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
1985-87	70.9	77.1	70.6	76.8	13.2	16.9
1995-97	73.8	79.2	73.3	78.6	14.6	18.1
1999-01	74.8	79.8	74.3	79.2	15.3	18.5
2000-02	75.2	80.1	74.6	79.5	15.7	18.7
2001-03	75.6	80.4	75.0	79.8	15.9	18.9

Source: NISRA



TABLE 12

Notifiable Diseases 1989-2003 for Northern Ireland

NOTIFIABLE DISEASES	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Acute encephalitis (a)	2	0*	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute meningitis (b)	126	52*	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute encephalitis/ meningitis: Bacterial**		66	110	89	105	119	96	86	74	48	86	73	65	63	50
Acute encephalitis/ Meningitis: Viral**		40	59	29	17	21	18	19	17	16	17	24	26	13	15
Anthrax	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Chickenpox**	-	2,744	3,685	9,934	3,957	6,141	4,785	7,004	5,235	4,945	4,950	4,751	4,149	5,001	4,380
Cholera	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0
Dysentery	369	51	71	174	129	137	272	155	29	18	11	25	21	7	15
Food poisoning	494	818	634	914	954	1,006	1,267	1,456	1,533	1,608	2,082	2,422	1,201	1,260	1,106
Gastro-enteritis (under 2 years of age)	1,250	1,155	1,106	1,068	1,379	889	1,072	745	896	1,371	1,088	1,225	1,121	842	882
Infective hepatitis (c)	405	69*	-	-	-	-	-	-	-	-	-	-	-	-	-
Hepatitis A** -		80	230	194	245	229	92	49	33	91	63	28	6	2	4
Hepatitis B**	-	5	9	14	7	7	9	15	8	1	5	11	8	29	37
Hepatitis Unspecified: Viral**	-	159	201	94	43	30	21	15	15	16	9	9	11	15	21
Legionnaires**	-	0	1	2	1	1	1	0	2	2	2	1	4	3	5
Leptospirosis**	-	2	3	1	3	3	0	1	1	2	1	0	0	1	0
Malaria**	-	3	8	14	8	6	5	14	16	23	13	12	15	2	2
Measles	1,464	335	346	302	495	950	263	197	120	112	80	95	104	88	63
Meningococcal Septicaemia**	-	2	19	27	35	40	44	67	56	87	142	109	89	78	76
Mumps	691	187	193	156	115	103	93	67	68	79	95	190	542	78	189
Paratyphoid Fever	2	0	0	1	1	2	0	0	1	1	0	0	0	0	0
Polio (paralytic)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubella	653	543	364	293	528	408	221	190	127	112	75	62	66	52	35
Scarlet Fever	745	772	581	523	575	519	502	478	424	489	425	331	294	225	297
Tetanus	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0
Typhoid Fever	0	0	0	0	1	0	0	1	1	2	0	0	1	3	2
Tuberculosis (pulmonary)	71	95	71	65	69	62	65	51	55	42	32	38	39	65	37
Tuberculosis (non-pulmonary)	14	37	27	18	20	29	20	25	19	17	28	30	22	13	21
Whooping Cough	1,244	287	243	205	134	234	131	148	135	100	109	65	70	69	41

Source: 1989 DHSS. 1990-2003 Area Health Boards

* First Quarter data only

** Only notifiable from 16 April 1990

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TABLE 13A

Percentage Uptake Rates for Immunisations (1994-2003) Northern Ireland

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Diphtheria	94.0	96.0	94.2	94.3	95.9	95.4	95.1	94.9	96.2	95.5
Polio	94.0	96.0	94.2	94.3	95.9	95.4	95.0	94.7	95.5	95.4
Tetanus	94.0	96.0	94.2	94.3	95.9	95.4	95.1	94.9	95.7	95.5
Whooping Cough	92.0	94.0	92.4	93.0	94.9	94.5	94.2	94.2	95.2	95.1
MMR	92.0	95.0	92.4	92.5	90.8	91.0	92.5	89.9	89.3	88.3
HIB	94.0	96.0	94.1	94.2	95.8	95.3	95.8	94.9	95.6	95.5
Men C	-	-	-	-	-	-	-	-	95.8	95.6

Source: Child Health System, Area Health Boards

Footnote: For diphtheria, tetanus, polio, whooping cough and HIB and meningitis C, the uptake is at 12 months of age. For MMR the uptake is at 24 months of age.

TABLE 13B

Immunisation Rates by Health and Social Services Board in Northern Ireland in 2003

BOARD	PERCENTAGE UPTAKE						
	DIPHTHERIA	POLIO	TETANUS	WHOOPING COUGH	MMR	HIB	MEN C
Eastern	94	94	94	94	85	94	94
Northern	96	96	96	96	89	96	96
Southern	92	97	97	97	91	97	97
Western	96	95	96	95	90	96	96
N Ireland	96	95	96	95	88	96	96

Source: Child Health Systems, Area Health Boards

Footnote: For diphtheria, tetanus, polio, whooping cough, HIB and Meningitis C the uptake is at 12 months of age. For MMR the uptake is at 24 months of age.



TABLE 14A

Coverage Rate for Cervical Screening in Women aged 20-65 for year ending March 2003

Board	% Uptake
Eastern	69.2
Northern	77.1
Southern	74.5
Western	68.7
Northern Ireland	72.0

Source: Northern Ireland Quality Assurance Reference Centre

Coverage: the percentage of women within the target age group who have been screened in the previous 5 years.

TABLE 14B

Uptake Rate for Breast Screening in Women aged 50-64 for year ending March 2003

Board	% Uptake
Eastern	67.4
Northern	81.2
Southern	74.9
Western	74.7
Northern Ireland	73.2

Source: Northern Ireland Quality Assurance Reference Centre

Uptake: the percentage of women within the target age group invited for screening, who attend.

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TABLE 15A

Notifications of Congenital Malformations: Number and Rate Per 1,000 Total Registered Births to Mothers Resident in Northern Ireland 1991 - 2003

Year	Anencephalus		Hydrocephalus		Spina-Bifida		Downs syndrome	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1991	5	(0.19)	14	(0.53)	22	(0.84)	52	(1.98)
1992	2	(0.08)	11	(0.43)	20	(0.78)	29	(1.13)
1993	2	(0.08)	10	(0.40)	11	(0.44)	31	(1.24)
1994	3	(0.12)	6	(0.25)	19	(0.78)	29	(1.19)
1995	3	(0.12)	10	(0.42)	12	(0.45)	25	(1.04)
1996	6	(0.24)	5	(0.20)	6	(0.24)	38	(1.54)
1997	3	(0.12)	9	(0.37)	9	(0.37)	45	(1.84)
1998	7	(0.29)	10	(0.42)	11	(0.46)	42	(1.75)
1999	5	(0.22)	13	(0.56)	8	(0.35)	27	(1.17)
2000	0	(0.00)	13	(0.60)	9	(0.42)	32	(1.48)
2001	5	(0.23)	11	(0.50)	13	(0.59)	36	(1.63)
2002	6	(0.28)	8	(0.37)	8	(0.37)	34	(1.58)
2003	4	(0.18)	6	(0.28)	12	(0.55)	38	(1.75)

Source: Department of Medical Genetics, QUB, Child Health System, Area Health Boards and NISRA

TABLE 15B

Incidence of Downs Syndrome Per 1,000 Total Registered Births to Mothers Resident in Northern Ireland for 5 Year Period 1999-2003 by Maternal Age

Maternal Age (Years)	Incidence of Downs Per 1,000 Total Births
15-19	0.38
20-24	0.65
25-29	0.75
30-34	1.27
35-39	3.82
40-44	8.90
45-49	36.36
50-54	0

Source: Department of Medical Genetics, QUB, Child Health System, Area Health Boards and NISRA



Appendix 2

LIST OF NOTIFIABLE DISEASES

Acute encephalitis/meningitis: bacterial
Acute encephalitis/meningitis: viral
Meningococcal septicaemia
Anthrax
Chickenpox
Cholera
Diphtheria
Dysentery
Food Poisoning
Gastro-enteritis (persons under 2 years of age only)
Hepatitis A
Hepatitis B
Hepatitis unspecified: viral
Legionnaire's Disease
Leptospirosis
Malaria
Measles
Mumps
Paratyphoid Fever
Plague
Poliomyelitis: acute
Rabies
Relapsing Fever
Rubella
Scarlet Fever
Smallpox
Tetanus
Tuberculosis: pulmonary and non-pulmonary
Typhoid fever
Typhus
Viral Haemorrhagic Fevers
Whooping Cough
Yellow Fever

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