

Health Systems in Transition

Vol. 14 No. 10 2012

United Kingdom (Northern Ireland)

Health system review

Ciaran O'Neill
Pat McGregor
Sherry Merkur

Sherry Merkur (Editor) and Sarah Thomson were responsible for this HiT

Editorial Board

Editor in chief

Elias Mossialos, London School of Economics and Political Science, United Kingdom

Series editors

Reinhard Busse, Berlin University of Technology, Germany

Josep Figueras, European Observatory on Health Systems and Policies

Martin McKee, London School of Hygiene & Tropical Medicine, United Kingdom

Richard Saltman, Emory University, United States

Editorial team

Jonathan Cylus, European Observatory on Health Systems and Policies

Cristina Hernández-Quevedo, European Observatory on Health Systems and Policies

Marina Karanikolos, European Observatory on Health Systems and Policies

Anna Maresso, European Observatory on Health Systems and Policies

David McDaid, European Observatory on Health Systems and Policies

Sherry Merkur, European Observatory on Health Systems and Policies

Philippa Mladovsky, European Observatory on Health Systems and Policies

Dimitra Panteli, Berlin University of Technology, Germany

Wilm Quentin, Berlin University of Technology, Germany

Bernd Rechel, European Observatory on Health Systems and Policies

Erica Richardson, European Observatory on Health Systems and Policies

Anna Sagan, European Observatory on Health Systems and Policies

Sarah Thomson, European Observatory on Health Systems and Policies

Ewout van Ginneken, Berlin University of Technology, Germany

International advisory board

Tit Albreht, Institute of Public Health, Slovenia

Carlos Alvarez-Dardet Díaz, University of Alicante, Spain

Rifat Atun, Global Fund, Switzerland

Johan Calltorp, Nordic School of Public Health, Sweden

Armin Fidler, The World Bank

Colleen Flood, University of Toronto, Canada

Péter Gaál, Semmelweis University, Hungary

Unto Häkkinen, Centre for Health Economics at Stakes, Finland

William Hsiao, Harvard University, United States

Allan Krasnik, University of Copenhagen, Denmark

Joseph Kutzin, World Health Organization

Soonman Kwon, Seoul National University, Republic of Korea

John Lavis, McMaster University, Canada

Vivien Lin, La Trobe University, Australia

Greg Marchildon, University of Regina, Canada

Alan Maynard, University of York, United Kingdom

Nata Menabde, World Health Organization

Ellen Nolte, Rand Corporation, United Kingdom

Charles Normand, University of Dublin, Ireland

Robin Osborn, The Commonwealth Fund, United States

Dominique Polton, National Health Insurance Fund for Salaried Staff (CNAMTS), France

Sophia Schlette, Federal Statutory Health Insurance Physicians Association, Germany

Igor Sheiman, Higher School of Economics, Russian Federation

Peter C. Smith, Imperial College, United Kingdom

Wynand P.M.M. van de Ven, Erasmus University, The Netherlands

Witold Zatonski, Marie Skłodowska-Curie Memorial Cancer Centre, Poland

Health Systems in Transition

Ciaran O'Neill, *Professor of Health Technology Assessment,
NUI Galway*

Pat McGregor, *Senior Lecturer, School of Economics,
University of Ulster*

Sherry Merkur, *Research Fellow, European Observatory on
Health Systems and Policies*

United Kingdom (Northern Ireland):

Health System Review
2012



The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

Keywords:

DELIVERY OF HEALTH CARE

EVALUATION STUDIES

FINANCING, HEALTH

HEALTH CARE REFORM

HEALTH SYSTEM PLANS – organization and administration

UNITED KINGDOM (NORTHERN IRELAND)

© World Health Organization 2012 (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies).

All rights reserved. The European Observatory on Health Systems and Policies welcomes requests for permission to reproduce or translate its publications, in part or in full.

Please address requests about the publication to:

**Publications,
WHO Regional Office for Europe,
Scherfigsvej 8,
DK-2100 Copenhagen Ø, Denmark**

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office web site (<http://www.euro.who.int/en/what-we-publish/publication-request-forms>).

The views expressed by authors or editors do not necessarily represent the decisions or the stated policies of the European Observatory on Health Systems and Policies or any of its partners.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the European Observatory on Health Systems and Policies or any of its partners concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Where the designation “country or area” appears in the headings of tables, it covers countries, territories, cities, or areas. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the European Observatory on Health Systems and Policies in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

The European Observatory on Health Systems and Policies does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use.

Printed and bound in the United Kingdom.

Suggested citation:

O'Neill C, McGregor P, Merkur S. United Kingdom (Northern Ireland): Health system review. *Health Systems in Transition*, 2012; 14(10): 1–91.

Contents

Preface	v
Acknowledgements	vii
List of abbreviations	ix
List of tables and figures	xi
Abstract	xiii
Executive summary	xv
1. Introduction	1
1.1 Geography and sociodemography	1
1.2 Economic context	3
1.3 Political context	5
1.4 Health status	6
2. Organization and governance	9
2.1 Overview of the health system	9
2.2 Historical background	14
2.3 Organization	15
2.4 Decentralization and centralization	16
2.5 Planning	17
2.6 Intersectorality	17
2.7 Health information management	18
2.8 Regulation	19
2.9 Public and patient involvement, patient rights and patient choice	20
3. Financing	23
3.1 Health expenditure	23
3.2 Sources of revenue and financial flows	28
3.3 Overview of the statutory financing system	29
3.4 Private expenditure on health	35
3.5 Payment mechanisms	36

4. Physical and human resources	37
4.1 Physical resources	37
4.2 Human resources	47
5. Provision of services	53
5.1 Public health	53
5.2 Patient pathways	55
5.3 Primary/ambulatory care	55
5.4 Secondary/inpatient care	56
5.5 Emergency care	57
5.6 Pharmaceutical care	57
5.7 Rehabilitation/intermediate care	58
5.8 Long-term and informal care	59
5.9 Services for informal carers	60
5.10 Palliative care	60
5.11 Mental health care	60
5.12 Dental care	61
6. Principal health care reforms	63
6.1 Analysis of recent reforms	63
6.2 Future developments	65
7. Assessment of the health system	67
7.1 Stated objectives of the health system	68
7.2 Financial protection and equity in financing	68
7.3 User experience and equity of access to health care	69
7.4 Health outcomes, health service outcomes and quality of care	70
7.5 Health system efficiency	73
7.6 Transparency and accountability	75
8. Conclusions	77
9. Appendices	79
9.1 References	79
9.2 Useful web sites	86
9.3 Additional sources for Chapter 4	86
9.4 HiT methodology and production process	87
9.5 The review process	90
9.6 About the authors	90

Preface

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries; and
- to assist other researchers in more in-depth comparative health policy analysis

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources,

including the World Health Organization (WHO) Regional Office for Europe's European Health for All database, data from national statistical offices, Eurostat, the Organisation for Economic Co-operation and Development (OECD) Health Data, data from the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to info@obs.euro.who.int.

HiTs and HiT summaries are available on the Observatory's web site (<http://www.healthobservatory.eu>).

Acknowledgements

The HiT on the United Kingdom (Northern Ireland) was co-produced by the European Observatory on Health Systems and Policies and The King's Fund, which is a member of the network of National Lead Institutions (NLI) that work with the Observatory on Country Monitoring.

The NLI network is made up of national counterparts that are highly regarded at national and international level and have particular strengths in the area of health systems, health services, public health and health management research. They draw on their own extensive networks in the health field and their track record of successful collaboration with the Observatory to develop and update the HiT.

The King's Fund is an independent charity working to improve health and health care in England with the vision that the best possible health care is available to all. The King's Fund contributes to achieving this vision in two ways: by working to improve the way health care, and related social care, in England is organized, funded and delivered, and supporting individuals, teams and organizations to improve health and health care.

This edition was written by Ciaran O'Neill (NUI Galway) and Pat McGregor (University of Ulster). It was edited by Sherry Merkur, working with the support of Sarah Thomson of the Observatory's team at the London School of Economics and Political Science. The basis for this edition was the previous HiT on Northern Ireland, which was published in 2006, written by Angela Jordan, Jackie McCall, William Moore, Heather Reid and David Stewart, and edited by Sara Allin.

The Observatory, The King's Fund and the authors are grateful to Dr Naresh Chada, Senior Medical Officer, Department of Health Social Services and Public Safety, Northern Ireland and Derek Birrell, Professor of Social Policy, School of Criminology, Politics and Social Policy, University of Ulster for reviewing the report.

Thanks are also extended to the WHO Regional Office for Europe for their European Health for All database from which data on health services were extracted; to the OECD for the data on health services in western Europe; and to the World Bank for the data on health expenditure in central and eastern European countries. Thanks are also due to national statistical offices that have provided data. The HiT reflects data available in April 2012, unless otherwise indicated.

The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine. The Observatory team working on HiTs is led by Josep Figueras, Director, Elias Mossialos, Martin McKee, Reinhard Busse and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Gabriele Pastorino. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Caroline White, Mary Allen (copy-editing), Steve Still (design and layout) and Jane Ward (proofreading).

List of abbreviations

Abbreviations	
A&E	accident and emergency
ALOS	average length of stay
BSO	Business Services Organization
DHSSPS	Department of Health, Social Services and Public Safety of Northern Ireland
EU	European Union
FPS	Family Practitioner Services
GP	general practitioner
GDP	general dental practitioner
GMS	General Medical Services
HSC	Health and Social Care (bodies)
HSCB	Health and Social Care Board
ICT	information and communications technology
LCG	local commissioning groups
MRI	magnetic resonance imaging
NHS	National Health Service
NI	Northern Ireland
NICE	National Institute for Health and Clinical Excellence
OECD	Organisation for Economic Co-operation and Development
OOP	out of pocket
PCC	Patient and Client Council
PESA	Public Expenditure Statistical Analyses
PFI	Private Finance Initiative
PHA	Public Health Agency
POC	programme of care
PSS	Personal Social Services
RQIA	Regulation and Quality Improvement Authority
RRL	Revenue Resource Limit
SIB	Strategic Investment Board
WHO	World Health Organization

List of tables and figures

Tables		page
Table 1.1	Trends in population/demographic indicators, 1980–2009	2
Table 1.2	Macroeconomic indications, 1990–2009	4
Table 1.3	Mortality and health indicators, 1980–2009	6
Table 1.4	Main causes of death, 1990–2009	7
Table 3.1	Health and PSS expenditure per capita in Northern Ireland, 1995–2010/11	24
Table 3.2	Government per capita expenditure on health and PSS in Northern Ireland, Scotland, Wales and England (in £), 2010–2011	25
Table 3.3	Classification of POC	25
Table 3.4	Total HSCB expenditure by POC, 2007–2008	26
Table 3.5	Family health service expenditure (in £, million), 2010–2011	28
Table 3.6	Public health expenditures by service input (in £, million), 2006–2010	28
Table 3.7	DHSSPS staff costs (in £, million), 2009–2011	28
Table 3.8	Flow of funds between LCGs and hospital trusts, 2010–2011	34
Table 4.1	Health workers in Northern Ireland per 100 000 population, 1990–2010	48
Table 7.1	Satisfaction survey results	69
Table 7.2	Breakdown of operating rates per 10 000 population, United Kingdom, 2006	74

Figures		page
Fig. 1.1	Map of Northern Ireland and part of the Republic of Ireland	2
Fig. 2.1	HSC trust areas in Northern Ireland	10
Fig. 2.2	Overview of the health system	13
Fig. 3.1	Distribution of expenditure by POC and service type, 2007–2008	26
Fig. 3.2	HSCB expenditure by POC, 2007–2011	27
Fig. 4.1	Number of general hospitals by average number of available beds in Northern Ireland, 2009–2010	38
Fig. 4.2	Mix of beds by POC in Northern Ireland, 2006/7–2010/11	40
Fig. 4.3	Rate of bed occupancy in Northern Ireland, 1998/9–2010/11	41
Fig. 4.4	Rate of bed occupancy in Northern Ireland compared with selected countries, 1998/9–2010/11	42

Figures

		page
Fig. 4.5	Hospital ALOS in Northern Ireland, 1998/9–2010/11	43
Fig. 4.6	Hospital ALOS in Northern Ireland compared with selected countries, 1998/9–2010/11	44
Fig. 4.7	Average bed availability per 100 000 population in acute hospitals in Northern Ireland, 1998–2010	45
Fig. 4.8	Average bed availability per 100 000 population in acute hospitals in Europe, 1998–2009	45
Fig. 4.9	Number of MRI scans performed in Northern Ireland, 2001–2010	46
Fig. 4.10	Number of GPs per 100 000 population in Northern Ireland, 1990–2010	49
Fig. 4.11	Number of physicians per 100 000 population in Northern Ireland compared with selected countries, 1990–2010	49
Fig. 4.12	Number of nurses per 100 000 population in Northern Ireland, 1990–2010	50
Fig. 4.13	Number of dentists per 100 000 population in Northern Ireland compared with selected countries, 1990–2010	51
Fig. 5.1	Cost of prescribed medicines in Northern Ireland, 1990–2010	58

Abstract

The political context within which Northern Ireland's integrated health and social care system operates has changed since the establishment of a devolved administration (the Northern Ireland Assembly, set up in 1998 but suspended between 2002 and 2007). A locally elected Health Minister now leads the publicly financed system and has considerable power to set policy and, in principle, to determine the operation of other health and social care bodies. The system underwent major reform following the passing of the Health and Social Care (Reform) Act (Northern Ireland) in 2009. The reform maintained the quasi purchaser-provider split already in place but reduced the number and increased the size of many of the bodies involved in purchasing (known locally as commissioning) and delivering services. Government policy has generally placed greater emphasis on consultation and cooperation among health and social care bodies (including the department, commissioners and care providers) than on competition. The small size of the population (1.8 million) and Northern Ireland's geographical isolation from the rest of the United Kingdom provide a rationale for eschewing a more competitive model. Without competition, effective control over the system requires information and transparency to ensure provider challenge, and a body outside the system to hold it to account. The restoration of the locally elected Assembly in 2007 has created such a body, but it remains to be seen how effectively it will exercise accountability.

Executive summary

Introduction

Northern Ireland has a population of 1.8 million people located largely in and around the capital city, Belfast. Its economy depends heavily on the service sector, particularly public sector employment. Per capita output in 2009 was £15 800 (€18 960¹), somewhat less than in England and Scotland but on a par with Wales. The country has experienced a legacy of division between its two dominant communities since the establishment of the state following the partition of Ireland in 1920. Between the late 1960s and the mid- to late 1990s, this division was manifested in a period of low intensity conflict known as ‘the Troubles’. Political power was devolved from Westminster to a locally elected body – the Northern Ireland Assembly – in 1998, with representation from across the community. The Assembly was suspended between 2002 and 2007. It is responsible for a range of devolved powers, including the operation of the publicly funded health and social care system, and the Department of Health, Social Services and Public Safety (DHSSPS) is the largest government department in spending terms, with a budget of £3.7 billion (€4.38 billion) in 2010. Major causes of morbidity and mortality include circulatory and respiratory diseases and cancer.

Organization and governance

Health and social care in Northern Ireland is predominantly publicly financed and almost entirely free at the point of use. Responsibility for the administration and management of health-related matters in Northern Ireland lies with the Minister of Health, Social Services and Public Safety who is part of an 11 person executive led by a First Minister and a Deputy First Minister. The Health and Social Care (Reform) Act (NI) 2009 set out the arrangements for the provision and governance of care and significantly reduced the number of health and social

¹ £1 = €1.20.

care (HSC) bodies, although many changes to the system were undertaken as part of the Review of Public Administration that took place while the Assembly was suspended. The DHSSPS has strategic control of services; a Health and Social Care Board (HSCB) and Public Health Agency (PHA) are responsible for commissioning care; and five territorial HSC trusts are responsible for providing care. The HSCB is advised by five local commissioning groups (LCGs). Trusts may commission services such as domiciliary care. The PHA supports care providers, informs the Board's commissioning, maintains a register of nursing and allied health professions and carries out health promotion activities. It is also responsible for responding to threats posed by infectious diseases and supporting research and development on new interventions. Although there is in principle a purchaser-provider split, emphasis is placed on cooperation and consultation within the system. This, together with the relatively small size of the country and the newness of the reforms, gives rise to questions about whether a split exists in practice.

Financing

The health and social care system is mainly financed through general taxation via allocations from the executive to the department. In 2010/11, the executive allocated almost one half of its budget to the department. Per capita public spending on health and social care is 15% higher in Northern Ireland than in England. All residents are entitled to a wide range of publicly financed health and social care benefits that are almost entirely free at the point of use; user charges are only applied to dental care. As a result, out-of-pocket (OOP) payments are extremely low and there is very little take up of voluntary health insurance. The system has nine programmes of care (POC); the largest is acute services, which consumed 43% of the total budget for secondary care in 2007/8, followed by care of the elderly, which consumed 22%. The former almost totally consists of hospital expenditure, while 70% of the latter comprises the personal social services (PSS). Secondary care is in principle commissioned by the HSCB, with funds allocated on a capitation basis. The capitation formula reflects the characteristics of the local population and the scale of service provision. Most funds are spent locally, with the exception of highly specialized services (usually provided by the Belfast HSC Trust). Primary care is also funded through capitation, but administered directly by the board. General practitioners (GPs), through whom the bulk of primary care is delivered, are

generally self-employed. Secondary care providers, responsible for the delivery of hospital services, are usually employed by the publicly funded health service although some also provide care privately.

Physical and human resources

In Northern Ireland in 2010 there were 46 hospitals, but most acute care is delivered by six large hospitals. Capital investment heavily favours secondary over primary care and there is relatively little cross-border cooperation (with the Republic of Ireland) in the planning and delivery of services. Strategic capital planning is the responsibility of the department: a Strategic Investment Board (SIB) in conjunction with the Office of the First Minister and Deputy First Minister provides an indicative ten-year funding envelope from the public purse for the department with which to plan. The use of hospital beds is dominated by acute services; the number of available beds peaked in 2004 and has fallen by 15% in the last five years. Bed occupancy has also fallen from its peak in 2002/3; Northern Ireland's rate is below that of the United Kingdom and the Republic of Ireland but is above the European Union (EU) average. Average length of stay (ALOS) in hospital has fallen slowly in recent years. Use of magnetic resonance imaging (MRI) scanners has grown greatly since the early 2000s. The experience of investment in information and communications technology (ICT) is mixed. The number of GPs and dentists per capita has grown steadily since the early 1990s but remains below EU levels. Although the number of nurses per capita fell in that period a gradual return to initial levels is being seen.

Provision of services

Health and social care is financed and provided within an integrated system, in contrast to the rest of the UK, but in most other respects service provision is similar to provision in England. Five territorial HSC trusts provide publicly financed care through an integrated system of acute and community services at primary, secondary and tertiary levels, complemented by supra-regional provision of highly specialized services within the UK. The GP plays a pivotal role in the system as the first point of contact for most patients and as gatekeeper to other services. GPs mainly work in group practices, often in teams that include practice nurses and health visitors. Most health services are provided by public entities; there are only two small private hospitals. However,

most care home places are privately provided. The voluntary sector is active in palliative care and in the provision of screening for breast cancer. As with GPs, general dental practitioners (GDPs) are generally self-employed, although some are employed by private organizations with whom the Department of Health contracts services. Dental care for some groups, such as children with special needs, is also provided by departmental employed dentists within what is known as the community dental service.

Principal health reforms

In recent years, there has been one major reform of the health and social care system. The Health and Social Care (Reform) Act (NI) 2009 was introduced following a Review of Public Administration initiated in 2002 (for all public administration, not just health). The act aimed to make the health system more accountable and more focused on meeting patient needs and to concentrate available resources on the delivery of frontline services by reducing the number of bodies involved in care commissioning, delivery and administration. The new streamlined service is intended to realize potential economies of scale in care administration; simplify structures and thus increase transparency; and, by promoting a spirit of cooperation and consultation across HSC bodies, focus collective effort on maximizing outcomes. The act created one large commissioning body – the HSCB – supported by five LCGs organized geographically and five coterminous HSC trusts to provide care. Responsibility for activities including public health, quality improvement and inspection was delegated to bodies working in cooperation with each other under the Act.

Assessment of the system

The stated aim of the health and social care system is to improve the health and social well-being of the people of Northern Ireland. Most care is provided free at the point of use. Satisfaction levels among the public with a range of publicly financed services are comparable to levels in other parts of the UK (somewhat higher in the case of dental care). Recent reports have raised concerns about the efficiency with which care is delivered, pointing to lower levels of activity that may not be related to differences in need and to issues regarding the level and use of acute care facilities. For example, Northern Ireland has been noted to have lower levels of activity per head of hospital and community health service staff members related to inpatient, outpatient, day case and accident

and emergency (A&E) attendances compared with England. These issues have been acknowledged in recent work commissioned by the department. Health inequalities are evident in some areas of health, although there is evidence to suggest they have narrowed in recent years. Evidence regarding equity of access to care is more difficult to interpret, but gender and socioeconomic differences in the use of a range of services have been observed. With respect to transparency, the 2009 Act imposes a statutory obligation on each HSC body involved in commissioning and delivering care to provide information about its services and to gather information about care needs and the effectiveness of the care it provides. This requirement extends to the development of a consultation scheme, which must set out how each organization involves and consults patients, clients, carers, and the Patient and Client Council (PCC). Nevertheless, the emphasis placed on cooperation among organizations can make it difficult to discern where and how decisions are taken.

1. Introduction

Northern Ireland has a population of 1.8 million people located largely in and around the capital city, Belfast. Its economy depends heavily on the service sector, particularly public sector employment. Per capita output in 2009 was £15 800 (€18 960), somewhat less than in England and Scotland but on a par with Wales. The country has experienced a legacy of division between its two dominant communities since the establishment of the state following the partition of Ireland in 1920. Between the late 1960s and the mid- to late 1990s, this division was manifested in a period of low intensity conflict known as ‘the Troubles’. Political power was devolved from Westminster to a locally elected body – the Northern Ireland Assembly – in 1998, with representation from across the community. The Assembly was suspended between 2002 and 2007. It is responsible for a range of devolved powers, including the operation of the publicly funded health and social care system, and the DHSSPS is the largest government department in spending terms, with a budget of £3.7 billion (€4.38 billion) in 2010. Major causes of morbidity and mortality include circulatory and respiratory diseases and cancer.

1.1 Geography and sociodemography

The island of Ireland is located in the Atlantic Ocean to the west of Britain (Fig. 1.1). Northern Ireland comprises the six counties in the north-eastern part of the island, namely Antrim, Armagh, Derry, Down, Fermanagh and Tyrone. The capital city is Belfast with a population of 268 745 in 2010 and a further 388 568 persons living in the greater Belfast area (NISRA, 2011a). The total population of Northern Ireland was estimated in 2009 at 1.8 million (Table 1.1) with other significant population centres in the cities of Armagh, Derry, Lisburn and Newry.

Fig. 1.1

Map of Northern Ireland and part of the Republic of Ireland



Source: Author's own compilation.

Note: Northern Ireland is shown in white.

Table 1.1

Trends in population/demographic indicators, 1980–2009

	1980	1990	1995	2000	2005	2009
Total population (millions) ^a	1.5328	1.5956	1.6491	1.6829	1.7244	1.7889
Population, female (% of total) ^a	50.76	51.25	51.25	51.25	51.04	51.26
Population aged 0–14 years (% of total) ^a	27.3	24.5	23.63	22.35	20.59	19.97
Population aged 65 and above (% of total) ^a	11.77	12.87	13.04	13.15	13.7	14.23
Population aged 80 and above (% of total) ^a	2.06	2.83	3.09	3.11	3.45	3.63
Population density (people per km ²) ^b	112.90 ^d	117.53 ^d	121.47 ^d	123.96 ^d	127	132.5
Fertility rate, total (births per woman) ^c	2.79	2.21	1.91 ^c	1.75	1.87	2.04
Birth rate, crude (per 1 000 people) ^c	18.6	16.5	14.5	12.8	12.9	13.9
Death rate, crude (per 1 000 people) ^c	11.0	9.7	9.3	8.9	8.2	8.1
Age dependency ratio (population 0–14 & 65+:population 15–64 years) ^a	0.64	0.60	0.58	0.55	0.52	0.52

Source: ONS (2011a).

Notes: ^a NISRA (2011a); ^b NISRA (2011a); ^c RG Northern Ireland Annual Reports 1980, 1990, 1995, 2000, 2005, 2009, NISRA;^d authors' calculations for years where NISRA data were not produced.

Northern Ireland has a relatively young population. Those aged 18 and under represented 25.4% of the population (ONS, 2011a) compared with 22.4% for the United Kingdom as a whole. Similarly, those aged 75 and over constituted 6.5% (ONS, 2011a) of the population in Northern Ireland compared with 7.9% for the United Kingdom as a whole (all figures are for 2010).

1.2 Economic context

Historically, manufacturing represented a significant part of the Northern Ireland economy in terms of output and employment. Manufacturing centred on industries such as shipbuilding, textiles and aerospace, although agriculture also made a significant contribution to the economy. Northern Ireland shared the experience of many developed economies in terms of a decline in the contribution of manufacturing to the economy after the Second World War, a process that accelerated during a period of low intensity conflict known as “the Troubles” (below). This was mirrored by a rise in service sector employment and in particular public sector employment. By 2009, 32% of the workforce was employed in the public sector, which compares with a United Kingdom figure of just 21% (Public Sector Employment, 2011). However, estimates suggest that dependence on the public sector is significantly greater, with some suggesting that perhaps 60–70% of the economy depends on the public sector (EPM, 2007).

Gross value added per capita is lower in Northern Ireland than England and Scotland although broadly on a par with that in Wales. As noted, the economy is dominated by the service sector (Table 1.2) and, in particular, the public sector, with over 30% of all jobs being in the public sector compared with a United Kingdom average of just 21% (Public Sector Employment, 2011). Northern Ireland also has the highest proportion of inactive people of working age, at 28.4%, which is 5 percentage points above the United Kingdom average (DETI, 2011). While it has enjoyed the benefits of foreign direct investment in recent years, this was largely from low wage contact centre type of employment. There is, in consequence, recognition of the need to rebalance the Northern Ireland economy with greater emphasis on higher paying private sector employment as well as a greater degree of engagement from among those who are economically inactive. This situation has been given added impetus – although perhaps made more challenging too – by the financial crisis of 2007/8 and the subsequent economic downturn.

Table 1.2**Macroeconomic indications, 1990–2009**

	1990	1995	2000	2005	2009
GVA (£ at current basic prices)	10 327	14 394	19 215	25 101	28 256
GVA per capita (£ at current basic prices)	6 472	8 728	11 417	14 556	15 795
% GVA industry and production	30.89	28.87	28.85	26.48	24.80
% GVA agriculture	4.57	5.08	2.65	1.76	1.41
% GVA services	64.53	66.05	68.50	71.75	73.78

Source: ONS (2010).

Note: All figures gross value added (GVA) NUTS1 (Nomenclature of Territorial Units for Statistics 1) 1989–2009.

The International Labour Organization indicated that the unemployment rate in Northern Ireland rose from 4.3% in the three months to December 2007 to 8% in the three months to December 2010. The area's dependence on the Republic of Ireland as an export market, which has itself experienced a significant economic downturn, will present economic challenges for growth in the short term. The fact that two of Northern Ireland's four banks are owned by the Republic of Ireland and another has substantial operations in the Republic of Ireland will also present challenges as access to finance is curtailed. The links between poverty and ill health and fiscal constraints will create a challenging environment for health and social care over the course of the current Comprehensive Spending Review period up to 2014.

1.3 Political context

Northern Ireland was established following the partition of the island by the Government of Ireland Act of 1920. The 26 counties that now constitute the Republic of Ireland were recognized following a peace treaty between republicans and the British Government, which granted dominion status within the British empire, while the six counties of what is now Northern Ireland were granted limited self-governing powers through a parliament opened in Belfast in 1921. This semiautonomous government, which operated as a form of devolved government, was suspended in 1972 after three years of violence between unionists (who were predominantly Protestant) and nationalists/republicans (who were predominantly Catholic).

Northern Ireland was then governed directly from London until limited powers were again returned under the Belfast Agreement, commonly known as the "Good Friday" Agreement, with the Northern Ireland Act of 1998. This established an elected Assembly with a new coalition government based on

the formula for power sharing. Government is effected through an 11-person executive elected by the Assembly and comprising of ministers from political parties across the two dominant communities based on electoral support within the Assembly. The executive is led by a First Minister and a Deputy First Minister. Each minister has responsibility for a separate government department established under the Good Friday Agreement – one being the DHSSPS. Each ministry is associated with a scrutiny committee made up of representatives from various parties (and those with no party affiliation) including those of the minister.

A United Kingdom Government cabinet minister – the Secretary of State for Northern Ireland – is responsible to the United Kingdom Government for the government of Northern Ireland. The Secretary of State sits on the United Kingdom Cabinet and leads the Northern Ireland Office, which administers non-devolved matters such as constitutional matters and, until 2010, security and justice. The Assembly has been suspended on four occasions since its establishment: 11 February 2000 to 30 May 2000, 10 August 2001, 22 September 2001 and 14 October 2002 to 8 May 2007. During these periods, legislative power reverted back to London on all matters and, as before the devolution of power, Northern Ireland was governed by the Secretary of State for Northern Ireland.

As Northern Ireland has its own Assembly with devolved powers in the areas of health and social care, it has the ability to devise its own systems. Even under direct rule, when United Kingdom ministers ruled Northern Ireland directly from London, the administrative structures, including the Civil Service, remained distinct; therefore, policies from the Department of Health in London do not automatically apply to Northern Ireland. As the island of Ireland consists of two separate jurisdictions, services and systems that could have been developed on an all-Ireland basis have not been, although in recent years there has been an increase in cross-border initiatives (Chapter 6).

The 30 years from 1968 onwards, commonly referred to as “the Troubles”, were a period of prolonged violence and civil unrest in Northern Ireland. While these appear to have been consigned to history, they have left a legacy not only in terms of those affected by the violence but also in terms of the relationships and in some respects the structures that were left. This is seen, for example, in the importance attached to equality legislation in Northern Ireland. Under section 75 of the Northern Ireland Act 1998, all public authorities – including those in health and social care – have a duty to “promote equality of opportunity” and good relations between nine designated groups: persons

of different religious beliefs, political opinion, racial group, age, marital status or sexual orientation; men and women generally; persons with a disability and persons without; and persons with dependents and persons without. A new body, the Equality Commission, was established to oversee and guide the implementation of this legislation (although substantive change effected under the Fair Employment Act preceded this).

1.4 Health status

Overall life expectancy in Northern Ireland has shown a continued increase for both men and women over the period 1980–2009 (Table 1.3). At birth, in 2009 compared with 1980, men could expect to live an additional 7.5 years and women an additional 5.8 years, with life expectancy at 76.7 years and 81.3 years, respectively. Infant mortality rates fell from 9.6 per 1000 live births in 1985, to 7.5 and 7.1 in 1990 and 1995, respectively, reaching 5.0 in 2000. In 2005, they rose again to 6.1 before falling to 5.1 in 2009 (NISRA, 2011b).

Table 1.3

Mortality and health indicators, 1980–2009

	1980	1990	1995	2000	2005	2009
Life expectancy at birth (male) ^a	69.2	72.6	73.8	75.2	76.2	76.7
Life expectancy at birth (female) ^a	75.5	78.4	79.2	80.1	81.2	81.3
Total mortality rate (male) ^b	11.7	9.8	9.3	8.7	8.2	7.9
Total mortality rate (female) ^b	10.3	9.5	9.3	9.0	8.3	8.2

Sources: ^a ONS (2011b); ^b RG Annual Report for Northern Ireland (2009).

The main causes of death in Northern Ireland are circulatory diseases (including heart disease and stroke), cancer and respiratory diseases such as pneumonia (Table 1.4). Some trends are evident in Table 1.4, such as the fall in deaths due to circulatory diseases (both ischaemic heart disease and cerebrovascular disease) and the more worrying increase in diabetes-related deaths. With respect to cancer deaths, the picture is somewhat more mixed. This might be explained by the conflicting effects of improvements in detection and care on the one hand and of population ageing on the other.

Table 1.4**Main causes of death, 1990–2009**

Causes of death	1990	1995	2000	2005	2009
Circulatory diseases (I00-I99)	71 103	69 282	57 762	50 021	44 851
Malignant neoplasms (C00-C97)	34 453	34 912	35 412	37 351	38 851
Ischaemic heart diseases (I20-I25)	43 273	40 862	32 342	27 081	23 051
Chronic respiratory diseases (J00-J99)	27 813	26 562	30 192	19 211	20 171
Cerebrovascular diseases (I60-I69)	16 423	16 902	14 692	13 071	11 751
Digestive diseases (K00-K93)	3 923	4 492	5 312	5 841	6 861
Mental and behavioural disorders (F00-F99)	583	782	2 072	4 081	5 251
Breast cancer (C50)	2 953	3 292	2 892	3 071	3 081
Colon cancer (C18)	3 223	3 542	3 012	2 931	2 711
Diabetes (E10-E14)	513	432	892	2 241	2 291
Suicide (X60-X84)	1 583	1 222	1 632	1 861	2 201
Communicable diseases	463	442	732	1 621	1 641
Transport accidents (V01-V99)	1 943	1 502	1 442	1 751	1 271

Sources: ^a RG Annual Report for Northern Ireland (1990); ^b RG Annual Report for Northern Ireland (2000);

^c RG Annual Report for Northern Ireland (2010).

Note: Cause of death codings from WHO *International Classification of Disease*.

The increase in deaths associated with suicide is an issue that has received much media interest in Northern Ireland and beyond. Suicide is significantly more likely to occur among males – males being three to five times more likely to have suicide recorded as the cause of death than females between 2001 and 2010. That the increase has coincided with the end of the “Troubles” has been commented on and there has been much speculation about the reasons underlying this. What has received somewhat less attention until recently is the increase in deaths related to diabetes. Given trends in obesity levels together with those of population ageing, obesity-related death is an area that will likely warrant closer attention in the future.

While not reported in Table 1.4, some differences besides those related to suicide are evident across the genders. Leaving aside the obvious differences with respect to specific types of cancer, more women die from cerebrovascular disease while more men die from ischaemic heart disease in Northern Ireland. Males are more likely to die in transport accidents than are women, while the numbers dying with mental and behavioural disorders are roughly the same. Some care is warranted in the interpretation of other results, for example with communicable diseases where a 2001 change in the WHO *International Classification of Diseases* coding explains the apparent jump in deaths attributable to this cause.

2. Organization and governance

Health and social care in Northern Ireland is predominantly publicly financed and almost entirely free at the point of use. Responsibility for the administration and management of health-related matters in Northern Ireland lies with the Minister of Health, Social Services and Public Safety, who is part of an 11-person executive led by a First Minister and a Deputy First Minister. The Health and Social Care (Reform) Act (NI) 2009 sets out the arrangements for the provision and governance of care and significantly reduced the number of HSC bodies, although many changes to the system were undertaken as part of the Review of Public Administration that took place while the Assembly was suspended. The DHSSPS has strategic control of services; the HSCB and the PHA are responsible for commissioning care; and five territorial HSC trusts are responsible for providing care. The board is advised by five LCGs. Trusts may commission services such as domiciliary care. The PHA supports care providers, informs the board's commissioning, maintains a register of nursing and allied health professions and carries out health promotion activities. It is also responsible for responding to threats posed by infectious diseases and supporting research and development on new interventions. Although there is, in principle, a purchaser–provider split, emphasis is placed on cooperation and consultation within the system. This, together with the relatively small size of the country and the newness of the reforms, gives rise to questions about whether a split exists in practice.

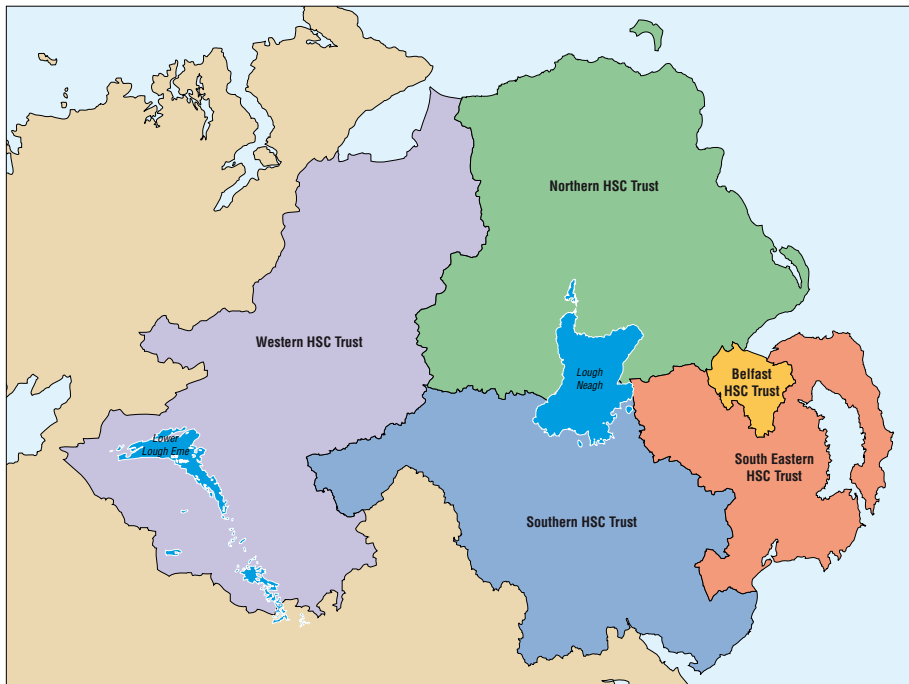
2.1 Overview of the health system

Responsibility for the administration and management of health-related matters in Northern Ireland lies with the Minister of Health, Social Services and Public Safety. A framework document produced by the DHSSPS (the department) (DHSSPS, 2011e) describes the roles and function of HSC bodies and the

systems that govern their relationships with each other and with the department (Fig. 2.1). These bodies were established under the Health and Social Care (Reform) Act (NI) 2009 (the Act).

Fig 2.1

HSC trust areas in Northern Ireland



Source: Belfast HSC Trust (2012).

The DHSSPS is the largest of the government departments in Northern Ireland with a budget in 2010 of £3.7 billion (€4.38 billion) the bulk of which is allocated to health and PSS. The department is responsible for the overall operation of the system and for holding to account the various HSC bodies established under the Act; it is through these bodies that it delegates various responsibilities for the delivery and commissioning of care as well as the oversight arrangements regarding governance. Its responsibilities include policy development and legislation for hospitals, family practitioner services (FPS), community health and PSS; public health, which covers responsibility for policy and legislation to promote and protect the health and well-being of the population; and public safety, which encompasses responsibility for the policy and legislation for the fire authority, food safety and emergency planning. The DHSSPS is organized under the Permanent Secretary into several groups: the

Planning and Resources Group; Strategic Planning and Modernization Group; the Primary, Secondary and Community Care Group; and five professional groups (medicine, nursing, pharmacy, social care and dental).

The department is responsible to the Minister of Health, one of eleven departmental ministers who together with the First Minister and Deputy First Minister constitute the Executive Committee of the Northern Ireland Assembly, the elected body to which powers were devolved under the Belfast/Good Friday Agreement. A cross-party Assembly Health Committee provides a scrutiny role in terms of the decisions of the minister, the operation of the department and the other HSC bodies and legislation. The minister is part of the Assembly Executive that makes policy decisions. The minister is assisted by a political advisor and is scrutinized by an Assembly committee (the Northern Ireland Assembly Health, Social Services and Public Safety Committee) made up of Assembly members from various parties (and those with no party affiliation) within the Assembly. The committee is chaired by a person who is not from the minister's own party and can take evidence from the minister, civil servants or employees of the service. Since devolution, there have been three health ministers, each from a different political party.

The HSCB is responsible for commissioning care, performance management, service improvement and resource management. It is assisted in this role by five LCGs established on a geographical basis to be co-terminus with the five HSC trusts responsible for the delivery of care. The LCGs assess the needs of their local populations, identify priorities and secure the delivery of services to meet those needs. The LCGs are relatively small in terms of manpower. Commissioning, moreover, is effectively undertaken by the board. Funds are allocated on the basis of assessed needs. The HSCB ensures that resources allocated for the commissioning of care on behalf of local populations are used for that purpose. Significantly, and unlike the National Health Service (NHS), there is no attempt to generate competition between trusts in the provision of services.

Care is delivered by five HSC trusts established on a geographical basis. The average population per trust is 359 878 (compared to 307 753 in England). A sixth trust, the Ambulance Service, has a specific function and operates on a regional basis. In addition to the provision of care, each trust has a statutory obligation to establish and keep in place arrangements for monitoring and improving the quality of health and social care for the area for which it provides

services and the environment in which it provides them. Trusts may also commission aspects of social care such as domiciliary services. Fig. 2.1 shows the geographical distribution of the HSC trust areas.

The PHA is responsible for service development, health protection and improvement in health and social well-being. Under these headings, the PHA, for example, provides professional input on the commissioning of care, plans and advises for emergencies related to communicable and non-communicable diseases, and supports research and development initiatives intended to improve health and social well-being or reduce health inequalities in Northern Ireland. The PHA works cooperatively with a range of bodies, including local councils, in pursuance of health improvement.

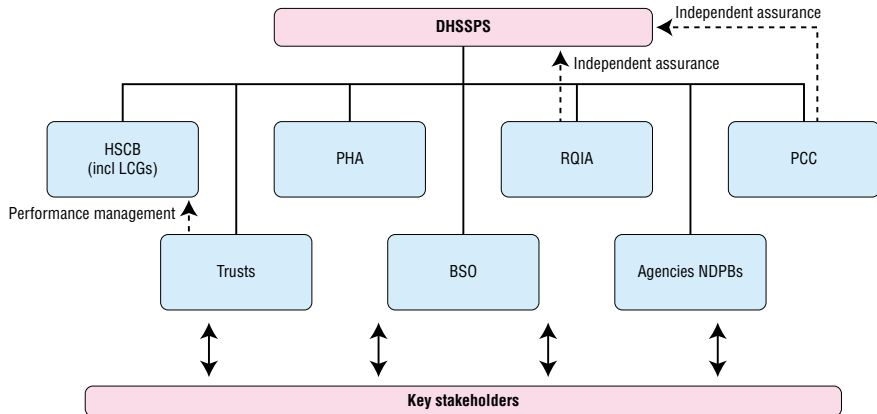
The Business Services Organization (BSO) provides a range of support and specialist services to other HSC bodies. These include financial and procurement services, personnel, information technology, internal audit, fraud prevention and legal services. These services are provided either directly by the BSO or through third parties with whom it contracts services.

The Regulation and Quality Improvement Authority (RQIA) has responsibilities that include those related to the regulation and inspection of various HSC bodies, including care homes, private hospitals, adult day centres, voluntary adoption agencies, residential family centres and placement agencies. It provides a rolling programme of hygiene inspections in HSC hospitals and may advise the department about any changes that it considers should be made to the standards set by the department. The RQIA also provides reviews on governance arrangements as part of a series of planned thematic reviews for the department. It can also at the request of the department undertake reviews outside of the planned cycle as circumstances require.

The PCC is supported by five local bodies with the same geographical coverage as the LCGs and trusts. Its responsibility is to provide a voice for the public in the operation of the health and social care service. This is done by consultations with the public on the operation of the services, supporting complaints by the public related to their experience of the service and by promoting the provision of information and advice to the public on the design, delivery and commissioning of care in Northern Ireland.

Fig 2.2

Overview of the health system



Source: DHSSPS (2011e).

Notes: Agencies: Special agencies, i.e., Northern Ireland Blood Transfusion Service, Northern Ireland Medical and Dental Training Agency and Northern Ireland Guardian ad Litem Agency; NDPBs: Non-departmental public bodies, i.e., Northern Ireland Social Care Council and Northern Ireland Practice and Education Council for Nursing and Midwifery.

Fig. 2.2 shows the structure of the Northern Ireland health system. In addition to the bodies identified, a number of special agencies also exists with specific functions. These include the NIBTS, with responsibility for securing the supply of blood and blood products in Northern Ireland; the Northern Ireland Medical and Dental Training Agency with responsibility for postgraduate medical and dental education; and the Northern Ireland Guardian ad Litem Agency, which represents the interests of children in family and adoption court proceedings. A number of what are referred to as “non-departmental public bodies” also exist, such as the Northern Ireland Social Care Council, which registers and regulates the social care workforce, and the Northern Ireland Practice and Education Council for Nursing and Midwifery, which supports education and professional development among these professions.

The remaining key entity in the health and social care system is the FPS. This covers GPs and also includes GDPs, optometrists and pharmacists operating in the community. GPs operate under contract from the department and occupy a pivotal role in the operation of the service, not only often being the first and most frequent point of contact with the public, but also in acting as gatekeepers to other services. Unlike in England, GPs in Northern Ireland have not been organized into primary care trusts. GPs in Northern Ireland as in England

are independent contractors. In Northern Ireland, GPs provide care to patients registered on their lists and are funded on a capitation basis with additional elements of care reimbursed under fee-for-service arrangements.

2.2 Historical background

Prior to the implementation of direct rule in 1972, there was a long period of legislative devolution that lasted almost 50 years. This saw the evolution of health and social care structures that were distinct in several respects from those that operated in Britain. Key among these was the integration of health and social care provision under the department. The introduction of direct rule in 1972, in the face of mounting political violence, saw the introduction of a system of government in which decisions regarding public policy were taken at Westminster and communicated by a Secretary of State who answered directly to parliament. The Secretary of State appointed a minister for health – again from Westminster – with responsibilities for health and social care. These were administered through the department and a range of quasi-autonomous nongovernmental organizations (quangos), although such bodies existed prior to the introduction of direct rule.

Prior to the re-introduction of devolution in 2007 and the Review of Public Administration that preceded the Health and Social Care (Reform) Act (NI) 2009, the department oversaw 18 trusts that provided either acute or community care or a combination of both, together with the Ambulance Trust. Commissioning was organized around four geographical areas into HSCBs, with some 37 quangos involved in the delivery or administration of care. These bodies included not only the 18 HSC trusts (as well as the Ambulance Trust) and four commissioning boards (each with its own public health department) but also four HSC councils that were coterminous with the boards. These were intended to represent patient and client interests. A Medical Physics Agency, Central Services Agency and Health Promotion Agency also existed with responsibilities for a range of professional and administrative services.

The reforms detailed in the Health and Social Care (Reform) Act (NI) 2009 were enacted partly to simplify the organizational structure of the health and social care system, but also to increase the proportion of resources allocated to front-line services as opposed to administration. With the return of devolved powers to the Northern Ireland Executive and the appointment of a locally elected Minister for Health and scrutiny committee (the Health, Social Services and Public Safety Committee), an opportunity was presented to streamline

what was viewed by some as an overly elaborate administrative structure. The restoration of devolved powers thus provided an opportunity for an overhaul of public sector services in Northern Ireland in general, of which the reforms encapsulated in the Reform Act represented a part. Whether the size or function of the quango sector changed as a result – for example, a smaller number of large trusts replacing a larger number of small trusts – is debatable.

2.3 Organization

The key elements of the Northern Ireland health and social care system are detailed in section 2.2. In terms of the relationship between the various bodies, the DHSSPS sets the strategic context in which care is commissioned through a Commissioning Plan Direction to the HSCB. The department may also direct the Board as to the performance indicators it uses in assessing the performance of trusts.

The Board, in consultation with the PHA and in response to the Commissioning Plan Direction, produces an annual commissioning plan. The plan and its associated service and budget agreements must be agreed between the PHA and the HSCB. Notwithstanding the accountability arrangements between the various bodies described in section 2.2 and the department, there is an emphasis on cooperation in the pursuance of health and social care goals between the department and other bodies, and among the other bodies. The various bodies are expected to consult and support each other in pursuance of health and social care objectives set by or agreed with the department.

The board can, with agreement from the department and following consultation, give direction to trusts on carrying out a trust function; this direction must be consistent with other directions and guidance issued to the trust. The board also manages contracts with FPS not only in terms of pay, but also for performance and delivery of departmental policy.

The services provided by the BSO to other HSC bodies are governed by a series of service level agreements. These set out the range, quantity, quality and costs of the services to be provided.

Section 18 of the Reform Act places a specific duty on certain HSC bodies, as defined in the act, to cooperate with the PCC in the exercise of its functions (providing it with information required, for example) and must have regard to the advice provided by the PCC, such as how best these bodies should consult the public. It also has a responsibility to represent an independent voice for

patients and thus has to act both in cooperation with and independent of other HSC bodies. Given that the PCC is appointed and funded by the department, the extent of its independence might be questioned

2.4 Decentralization and centralization

The model under which care is commissioned, provided and administered in Northern Ireland might be described as a centralized command and control system in which the minister can direct trusts and quangos, although various responsibilities are delegated through the department to other HSC bodies. The HSCB, for example, is delegated responsibility for the commissioning within the context of the Commissioning Directive; the RQIA and BSO are delegated responsibilities for aspects of inspection and financial governance, respectively. In turn these bodies can delegate aspects of service delivery to other agencies, as in the case of aspects of service delivery by the BSO, for example. Unlike in England, local governments (known as local councils) have no formal role in health and social care.

The emphasis on cooperation between bodies and on consultation between different agencies – as well as the relationships created by the reforms continuing to evolve – has contributed to a degree of ambiguity with regard to how delegation operates in practice. A contributory factor is that new bodies are largely staffed by individuals from the previous structures who may continue to work within the parameters of their previous organization. In relation to commissioning, while the Commissioning Directive is set by the department and put into operation by the board, this is done in consultation with the PHA and with advice from the LCGs as well as input from the PCC if consultation with the public is involved. Thus, the extent to which decision-making is centralized in practice is unclear given the requirements for collaboration and consultation that exist. The HSCB is able to direct trusts as well as negotiate service delivery with them; since trusts vary in size and in their local and regional responsibilities, this may contribute to variation in how relationships work in practice, for example with negotiation. Given that staff in different bodies may have had previous professional relationships with those in other bodies, and given the small population of Northern Ireland, it would not be surprising if some inertia existed in the organization of health care.

2.5 Planning

The resources available for public spending generally in Northern Ireland are largely determined by the HM Treasury Spending Review on the basis of the Barnett Formula (Chapter 3). The Northern Ireland Executive establishes, on the basis of its own priorities, the spending plans for all Northern Ireland departments, including health. The DHSSPS retains responsibilities in areas such as human resources, estates management and strategic and emergency planning. Specific business groups and directorates exist within the department to discharge these responsibilities. These include the Health Estates Investment Group, the Healthcare Policy Group, the Social Policy Group and the Human Resources Directorate.

While strategic capital planning is the responsibility of the department, the SIB, in conjunction with the Office of the First Minister and Deputy First Minister, provides an indicative ten-year funding envelope with which the department can plan. The department, however, contributes to formulation of the investment strategy managed by the SIB and thus is able to contribute to setting the parameters within which it operates. This spirit of cooperation operates in other areas as does planning at other levels.

The HSCB and the PHA are jointly responsible for identifying and quantifying the services required to meet assessed needs. The trusts and the HSCB (for ICT) are responsible for preparing and obtaining approval for business cases for the capital requirements needed to deliver the service. These business cases must have commissioner support before approval. This again highlights the emphasis on cooperation.

2.6 Intersectorality

Decisions by the Executive Committee of the Assembly are taken collectively with emphasis on consensus and cross-community support; this includes decisions on health and social care. Each department is represented at the committee and each department has its own cross-party scrutiny committee. In a jurisdiction with a population of just 1.8 million, these arrangements facilitate a degree of cooperation between departments that is arguably greater than in a larger jurisdiction.

Article 67 of the Health and Personal Social Services (NI) Order 1972, as amended by the Health and Social Care (Reform) Act (NI) 2009, makes explicit the expectation of cooperation among HSC bodies with other agencies in addition to that which would occur through ministerial level contact. This article provides that “In exercising their respective functions, HSC bodies, district councils, Education and Library Boards and the Northern Ireland Housing Executive shall co-operate with one another in order to secure and advance the health and social welfare of Northern Ireland” (NIA, 2009). Indeed in its mission statement, the Department of Health makes explicit reference to “...leading a major programme of cross-government action to improve the health and well-being of the population and reduce health inequalities” (DHSSPS, 2011a).

Various examples of intersectoral initiatives exist. These include work between the PHA (and its predecessor) and education with respect to healthy eating in schools; between health and the criminal justice system with respect to domestic violence and the care of offenders; with respect to housing in regard to home adaptations; and with respect to a range of other departments including fuel poverty. Initiatives also exist that involve other departments, such as those concerned with communicable diseases, food safety and road safety. However, it would be wrong to suggest that Northern Ireland always represents best practice with respect to intersectoral working since there is evidence of a silo mentality operating among departments on occasion.

2.7 Health information management

Section 19 of the Reform Act places a statutory requirement on each organization involved in the commissioning and delivery of health and social care to provide information about the services for which it is responsible as well as to gather information about care needs and the efficacy of care it provides. This statutory requirement extends to the development of a consultation scheme, which must set out how the organization involves and consults with patients, clients, carers and the PCC about the health and social care for which it is responsible. Information on health and social care is in consequence generated, held and managed by a variety of organizations.

Key bodies involved in the generation and use of information at a systems level include the BSO, which manages reimbursement for FPS and has a responsibility in relation to fraud prevention. The BSO collates information for payments made to doctors, dentists and community pharmacists and holds

information on prescribing patterns as well as uptake of services funded publicly by GPs and GDPs. The RQIA generates and analyses information for a wide range of health and social care providers through its registration and inspection work. This includes monitoring nursing and residential homes against a set of minimum standards.

The Northern Ireland Statistical Research Agency is the principal source of official statistics and social research on Northern Ireland's population including data on health and care. The Agency hosts the Central Survey Unit, which is responsible for a range of surveys. It also houses the General Register Office, which produces vital events data. Another significant sources of information is the Northern Ireland Cancer Registry, which records and manages data on cases of cancer in Northern Ireland.

Northern Ireland adapts as appropriate determinations by the National Institute for Health and Clinical Excellence (NICE) in England for health technology assessments including public health. This is done by disseminating NICE determinations and soliciting comment on these from interested parties before the department makes a decision regarding the adoption of a new technology.

2.8 Regulation

Regulation is principally managed internally by HSC bodies although they look to the RQIA to independently validate their internal arrangements for clinical and social care governance. Examples of RQIA's work can be seen within its rolling programme of special and thematic reviews within the HSC. The RQIA must also work closely with HSC trusts in the discharge of its functions relating to regulation of independent sector providers, particularly in terms of safeguarding the interests of vulnerable people, for example in the registration and inspection of care homes, children's homes, independent hospitals, clinics, nursing agencies, day care provision for adults, residential family centres, adult placement agencies and voluntary adoption agencies. The DHSSPS has responsibility for inspection and enforcement under all medicines-related legislation in Northern Ireland. This is assumed by the Medicines Regulatory Group within the department. This Group works with the Pharmaceutical Society of Northern Ireland to ensure that pharmacists are fit to practise and inspects pharmacies to ensure these comply with standards.

2.9 Public and patient involvement, patient rights and patient choice

Each HSC body is required to put in place its own arrangements for engagement and consultation with clients and/or local populations who may be clients. The PCC, in addition, represents the interests of the public along with other HSC bodies provides assistance to individuals making or intending to make a complaint relating to health and social care and promotes the provision of advice and information to the public by the HSC body about the design, commissioning and delivery of health and social care services.

Patients in Northern Ireland have the same rights as those in England, for example in terms of the right to be registered with a GP and to change GP without the need to give a reason. They have the same rights to access hospital services through a referring GP, except in the case of an A&E visit or specialist clinics such as those for sexually transmitted diseases. The hospital sector offers the same range of services as those within Britain. Northern Ireland is covered by NICE, which issues regular guidance on the range of therapies considered to be suitable for reimbursement within the NHS (not necessarily binding).

Inevitably in some areas choice is more constrained in Northern Ireland than in Britain. For example, since Northern Ireland has fewer hospitals there is less choice of where care can be received. Indeed, in the case of regional specialist centres (such as cardiac surgery, critical care and specialist cancer services), there is effectively no choice within the public sector in Northern Ireland. In some specialist areas, this has left Northern Ireland vulnerable to departures of key personnel where the same scope for stochastic economies of scale does not exist.

2.9.1 Cross-border activity

The Good Friday Agreement of 1998 provided for cooperation between Northern Ireland and the Republic of Ireland in the areas of A&E, planning for major emergencies, high technology, cancer research and health promotion (child protection was later added) under the North South Ministerial Council. This led to the establishment of the Food Safety Promotion Board in 1999, which has undertaken food safety promotional campaigns and educational initiatives in both areas. The same year also saw the creation of the Institute of Public Health, which aims to reduce health inequalities and promote healthy outcomes through public policy. Subsequently further bodies have been established that focus on specific issues.

Examples of such cooperation can be seen in patients in South Armagh being able to access GP out-of-hours services in Castleblaney, with a similar arrangement for patients in Inishowen at Altnagelvin Hospital. There are considerable areas of potential collaboration at the strategic, practical and promotional level (DHSSPS, 2009c).

The Southern and Western HSC Trusts and the Health Service Executive (border counties) work together within the border counties under the umbrella of Co-operation and Working Together. Its programmes, especially *Putting Patients, Clients and Families First* had by the end of 2011 benefitted over 17 000 patients and clients. Funding is through the EU's INTERREG IV programme, which runs to 2014 (CAWT, 2011). The funding system in the Republic of Ireland is based primarily on insurance, in contrast to the NHS, and this has tended to prevent the full potential of cooperation being realized.

3. Financing

The health and social care system is mainly financed through general taxation via allocations from the executive to the department. In 2010/11, the executive allocated almost half of its budget to the department. Per capita public spending on health and social care is 15% higher in Northern Ireland than in England. All residents are entitled to a wide range of publicly financed health and social care benefits that are almost entirely free at the point of use; user charges are only applied to dental care. As a result, OOP payments are extremely low and there is very little take-up of voluntary health insurance. The system has nine POCs; the largest is acute services, which consumed 43% of the total budget for secondary care in 2007/8, followed by care of the elderly, which consumed 22%. The former almost totally consists of hospital expenditure, while 70% of the latter comprises PSS. Secondary care is in principle commissioned by the HSCB, with funds allocated on a capitation basis. The capitation formula reflects the characteristics of the local population and the scale of service provision. Most funds are spent locally, with the exception of highly specialized services (usually provided by the Belfast HSC Trust). Primary care is also funded through capitation, but administered directly by the HSCB. GPs through whom the bulk of primary care is delivered are generally self-employed. Secondary care providers, responsible for the delivery of hospital services, are usually employed by the publicly funded health service, although some also provide care privately.

3.1 Health expenditure

The health and social care system is almost entirely publicly financed via allocations from the executive to the department. Given that the accounting procedures used in the development of government expenditure statistics are not always self-evident (nor is the impact of changes to processes over

time always obvious), some care is warranted in the use and interpretation of expenditure estimates. With this caveat, trends in health expenditure over the last 15 years are set out in Table 3.1. The figures in this table relate purely to government expenditure. Data on OOP expenditures and private health insurance expenditures are not collected and the sample sizes of the local social surveys are insufficient to generate reliable estimates. To ensure that the figures are consistent, the relevant expenditure is taken as that on health and PSS. It is clear that in the 21st century there has been a substantial and sustained increase in the expenditure per capita, reflecting the policies for the entire United Kingdom under the New Labour Government (1997–2010). In 2010/11, the expenditure on PSS was £921m (€1105m) out of a total of £4711m (€5653m) on health and PSS (19.5%).

Table 3.1

Health and PSS expenditure per capita in Northern Ireland, 1995–2010/11

	1995	2000	2005	2010/11
Total health and PSS expenditure per capita (£)	925	1 290	1 945	2 618
Government health and PSS spending as % total	17.6	20.7	22.3	24.5

Sources: Year 2010/11: HM Treasury (2012) PESA – Tables 10.4 and 10.8; Year 2005: HM Treasury (2011c) – Tables 10.4 and 10.8.

Notes: For the previous years in PESA, health and PSS are combined; Year 2000: HM Treasury (2003) PESA – Corrigendum, corrected tables for Chapter 8, Tables 8.1 and 8.5a; Year 1995: HM Treasury (1999) PESA – Tables 8.4a and 8.4b.

In Table 3.2, the per capita health and PSS expenditure for Northern Ireland is compared with that of England, Scotland and Wales. In 2010/11, health expenditure per capita was 10.8% higher in Northern Ireland than in England, while the PSS expenditure was 5.1% higher. Although health expenditure per capita in Northern Ireland was also higher than that in Scotland and Wales, the differential was less marked; PSS expenditure in Northern Ireland was appreciably less.

Health expenditure is broken down by POC as shown in Table 3.3. Health and social care have been integrated in Northern Ireland since 1973 and thus the costs for POCs contain both elements (Heenan & Birrell, 2006). Learning disability appears in POC6 (in England it would come under local government). The total HSCB expenditure by POC for 2007/8 is given in Table 3.4. The acute POC dominates expenditure with more than two-fifths of the total; the care of the elderly POC comes next with one-fifth. In Fig. 3.1, expenditure by POC is broken down by hospital, community and PSS. The acute POC consists almost totally of hospital services while care of the elderly is dominated by PSS.

Table 3.2

Government per capita expenditure on health and PSS in Northern Ireland, Scotland, Wales and England (in £), 2010–2011

	Health expenditure	PSS	Health and PSS expenditure
Northern Ireland	2 106	512	2 618
Scotland	2 072	625	2 697
Wales	2 017	617	2 634
England	1 900	487	2 387

Source: HM Treasury (2012) PESA – Tables 10.5–10.8.

Table 3.3

Classification of POC

1. Acute services	All activity and resources used relating to a patient episode (inpatient, outpatient, day case, regular day or night admission) where the consultant in charge is a specialist in an acute speciality
2. Maternity and child care	All activity and resources used relating to a patient episode where the consultant is a specialist in obstetrics or well babies paediatrics; also includes community contacts relating to maternity or child health by health professionals
3. Family and child care	Activity and resources used relating to the provision of social services support for families and/or children
4. Care of the elderly	All activity and resources used relating to a patient episode where the consultant in charge is a specialist in either geriatric medicine or old age psychiatry; includes some community contacts for those aged 65 and over
5. Mental health	All activity and resources used relating to a patient episode where the consultant is a specialist in mental illness, child and adolescent psychiatry, forensic psychiatry or psychotherapy; also community care where contact is due to a functional mental illness
6. Learning disability	All activity and resources used relating to a patient episode where the consultant is a specialist in learning disability; includes community contacts where the reason for the contact was learning disability
7. Physical and sensory disability	All community contacts by a health professional where the primary reason is physical and/or sensory disability
8. Health promotion and disease prevention	All hospital, community and GP-based activity relating to health promotion and disease prevention
9. Primary health and adult community	All contacts by any health professional with community patients not covered by other POCs

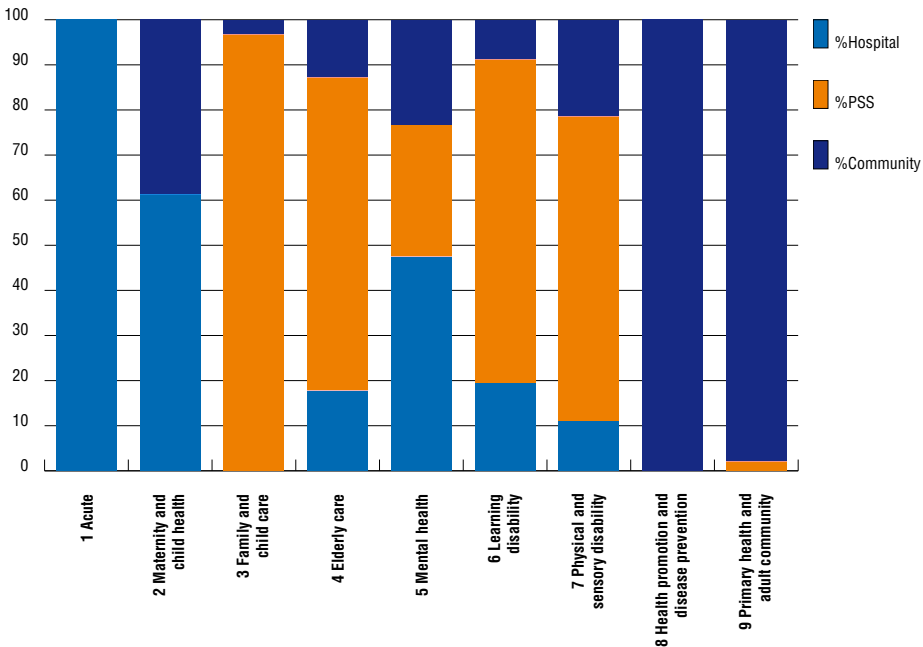
Source: DHSSPS (2006).

Table 3.4
Total HSCB expenditure by POC, 2007–2008

Programme of care	Total (£ millions)	%
1. Acute	1 116.64	43.3
2. Maternity and child health	115.72	4.5
3. Family and child care	179.48	7.0
4. Care of the elderly	558.87	21.7
5. Mental health	199.03	7.7
6. Learning disability	180.76	7.0
7. Physical and sensory disability	83.92	3.3
8. Health promotion and disease prevention	51.08	2.0
9. Primary health and adult community	91.72	3.6
Total expenditure 2007/8	2 577.23	100.0

Source: DHSSPS (2008).

Fig. 3.1
Distribution of expenditure by POC and service type, 2007–2008



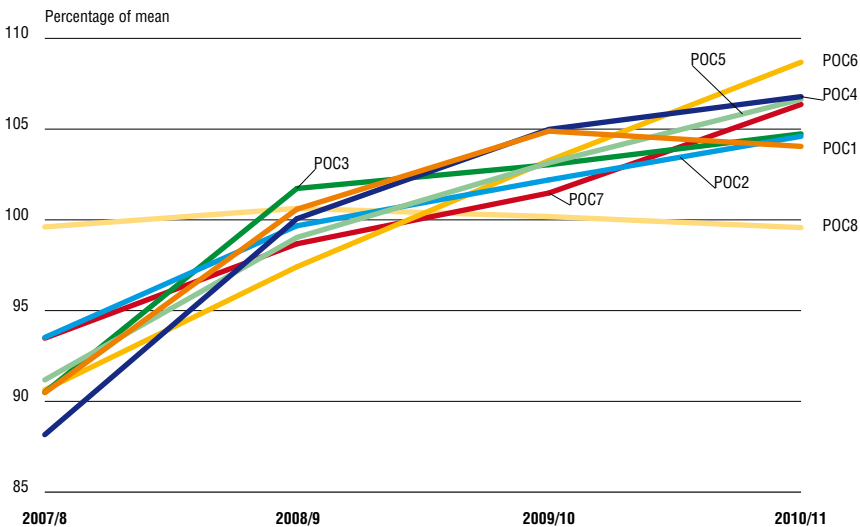
Source: DHSSPS (2008).

Expenditure by POC can be obtained for a limited number of years and this is presented in Fig. 3.2. The graphs indicate that generally there was a sharp increase in expenditure from 2007/8 to 2008/9 followed by much more

moderate growth; for POC1 (acute) there was actually a small fall in 2009/10–2010/11; for POC4 (care of the elderly) there was a slower but steadier rate of increase that over the four years virtually equalled that of POC1 (the mean of the four years has been taken as base so that the size of the POC does not influence the result). POC9 (primary health and adult community) does not appear on the graph because the scale of its increase would have obscured the other POC results. POC9 expenditure increased steadily from £98m (77%) to £154m (121%) over the period (values in parentheses are percentages of the mean of the series).

Fig. 3.2

HSCB expenditure by POC, 2007–2011



Source: DHSSPS (data supplied directly to authors).
 Note: see Table 3.3 for definitions of POCs.

For FPS the breakdown is by sector as opposed to POC as shown in Table 3.5. Public expenditure on health by service input is highlighted in Table 3.6. The DHSSPS staff costs are broken down in Table 3.7. The running costs of HSCB are £32m (€38.4m) (NIA Research and Library Service, 2011). Management costs in the trusts are expected to be below a ceiling of 5% of their total expenditure (NIAO, 2010a: p.7). In 2010 management costs ranged from 2.9% of total expenditure in the South Eastern Trust to 3.9% in the Southern Trust (NIA Research and Library Service, 2010a).

Table 3.5

Family health service expenditure (in £, million), 2010–2011

Part of policy development, community health and PSS	702.1
General medical services	115.2
Pharmaceutical services	65.6
Dental services	90
Ophthalmic	19.8

Source: DHSSPS (2011g).

Table 3.6

Public health expenditures by service input (in £, million), 2006–2010

	2006/7	2007/8	2008/9	2009/10
Medicines	87	95	104	112
Medical devices	72	89	95	85
Human resources	na	na	13	17
Utilities	31	31	44	36

Source: DHSSPS (data supplied directly to authors).

Note: na: not available.

Table 3.7

DHSSPS staff costs (in £, million), 2009–2011

	2009/10	2010/11
Wages and salaries	57.0	56.2
Social security costs	4.2	4.2
Other pension costs	12.5	8.7
Total net costs	67.3	64.6

Source: DHSSPS (2011a).

3.2 Sources of revenue and financial flows

The health and social care system is predominantly publicly financed via allocations from the executive to the DHSSPS (equal to about half of the executive's total budget). All residents are entitled to a wide range of publicly financed health and social care benefits that are almost entirely free at the point of use; user charges are only applied to dental care. As a result, OOP payments are extremely low and there is very little take up of voluntary health insurance (see section 3.4). Around 90% of the department's budget is distributed by the

HSCB and the PHA based on a risk-adjusted capitation formula (see section 3.3). The primary and secondary care sectors are funded separately. In principle the HSCB commissions secondary care, which is delivered by five trusts. It directly administers primary care. The HSCB and the PHA issue the trusts with a cash limit at the beginning of the financial year to fund the services commissioned by them; this permits the trusts to draw down on the Northern Ireland Consolidated Fund. The services that are commissioned are subject to contract.

3.3 Overview of the statutory financing system

3.3.1 Coverage

The basis for entitlement for NHS services in Northern Ireland is that the individual is “normally resident” in the province. Eligibility is essentially the same as in England (Boyle, 2011) (see section 3.2). The level of funding of the health service in Northern Ireland is determined by the local Assembly and so the range of services provided can differ from the rest of the United Kingdom. The Health Committee in 2011 was informed that “as a result of budgetary pressures, health and social care in Northern Ireland is not able to provide certain services, or patients are required to wait longer to receive services... The reduced access to treatment and care for patients and clients in Northern Ireland creates a divergence in the quality of provision compared with that in the rest of the United Kingdom”. However, breast and cervical screening services available in Britain are also available in Northern Ireland (with colorectal cancer screening recently added to the services available), and NICE guidance on service developments extend to Northern Ireland albeit being subject to local review (see section 2.7). Statutory user charges only apply to dental care.

3.3.2 Collection

Devolution was restored to Northern Ireland in March 2007. The power-sharing administration that arose is funded principally by the United Kingdom Ministry of Finance (known as the Treasury) on the basis of the Barnett Formula, which had operated from the late 1970s (HM Treasury, 2010). This block grant constituted 91.6% of total funds in 2007–8. In addition the Northern Ireland Executive can raise money through levying regional rates that householders and businesses pay based on the value of their property (Knox, 2010: pp.56–58).

3.3.3 Pooling of funds

The Northern Ireland Executive controls the allocation of funds across those areas of expenditure for which it is responsible. The revised current spending plans for 2010/11 came to a total of £9053.3m (€10 864.0m); of this the department was allocated £4302.9m (€5163.5m, 47.5%) (NIE, 2010). The extent to which this provision satisfies the (relative) level of need in Northern Ireland is subject to frequent review and is surveyed in Appleby (2011).

In Northern Ireland, departmental expenditure is determined in the first instance by the budget that is approved by the Northern Ireland Assembly. The budget that was agreed by the Assembly in January 2008 outlined expenditure for a three-year period, from financial year 2008/9 to 2010/11. Within this budget, the department's current expenditure was planned to rise from £3949.6m (€4739.5m) in 2008/9 to £4076.4m (€4891.7m) in 2009/10 to £4273.6m (€5128.3m) in 2010/11 (Department of Finance and Personnel, 2008). In addition to the money received under the Northern Ireland Budget, DHSSPS also receives a share of United Kingdom National Insurance Contributions (these are taxes on labour that were originally to fund welfare benefits such as pensions and medical expenses but are now considered to be a form of income tax). In the department's accounts for 2010/11 these are listed as "Health service contributions" and amounted to £450m (€540m) (DHSSPS, 2011g: p.93). As a consequence of the Northern Ireland Assembly declining to impose water charges, the original budget for 2010/11, was cut (NIE, 2010). Within these totals, the yearly expenditures on aggregate hospital, community health and family health services were, respectively, £2923.3m (€3508.0m), £3033.2m (€3639.8m) and £3206.0m (€3847.2m).

In 2010/11, the department planned to account for 47.6% of government expenditure in Northern Ireland. Within this allocation, it was intended that the department would make efficiency savings that cumulatively would amount to £344m (€413m) or 3% per year over the entire period that would be resource releasing; that is, the same level of output would be achieved for less input (Department of Finance and Personnel, 2008: p.95). Due to the Assembly deciding to fund water services publicly rather than with a direct charge on users, the budget allocations for 2010/11 had to be revised. The position of the department in the political matrix can be gauged by comparing the reduction in its budget – 2.1% compared with an average departmental cut of 2.6% (NIE, 2010). Unlike in England, there was no pledge to increase the Northern Ireland health expenditure in real terms and the financial pressure steadily built up.

The spending of all departments in Northern Ireland is closely monitored by the executive. The allocations set out in the budget are intended to be ceilings that require approval before any breach (Department of Finance and Personnel, 2010). There are quarterly monitoring rounds, beginning in June. The results of these are contained in an Assembly statement by the Minister of Finance and Personnel and are reflected in the supplementary estimates produced by departments (Statement to the Assembly, 2012). The purpose of the monitoring rounds is two-fold. The first is to ensure that the department expenditure limit is not breached. The second is to ensure that there is no overall surplus in the budget that would have to be returned to the Northern Ireland Treasury.

Any department that fails to spend its allocation surrenders the surplus to the consolidated fund; other departments can then bid for this amount, although it will be non-recurrent expenditure and claims tend to be cautious in the current financial climate. In the minister's statement referred to above, over £44m (€52.8m) was made available for resource expenditure bids under the monitoring review. Departments bid for less than half of this, leading to a transfer to capital expenditure. DHSSPS has a privileged position within this system. The department can automatically retain its own reduced requirements and has first call on the first £20m (€24m) of the available resources generated in the monitoring round.

3.3.4 Allocating resources

The primary and secondary care sectors are funded separately. The primary sector is managed directly by HSCB while the secondary sector is organized into five territorial trusts that are funded principally by HSCB and PHA. The department's budget in 2010/11 was £4307m (€5168.4m) of which £3824m (€4588m) or 89% is distributed by the HSCB and PHA. The bulk of this (72%) was allocated to the trusts with the remainder allocated to external bodies and primary care through the General Medical Services (GMS) and Family Health Service (FHS). The department directly funds various bodies, such as NI Fire and Rescue Service (£80m; €96m), and also activities such as education and training (£99m; €118.8m).

Financial control of the organizations funded by the department is exerted principally through the Revenue Resource Limit (RRL), which is a cash limit – in the case of HSCB – on the extent to which funds can be drawn from the department to finance board activities. For HSCB in 2010/11 this was received on 24 May 2010 and set at £3852m (€4622.4m) (DHSSPS, 2010d); of this, £2883.7m (€3460.44m) (74.9%) was issued as RRLs to the five HSC trusts

that provide direct health care (Health and Social Care Board, 2011). Similarly, the PHA received from the department a somewhat smaller RRL of £69.7m (€83.64m) for the same year, of which £24.3m (€29.16) of RRLs were issued to the trusts (Public Health Agency, 2011). (RRL was introduced in 2009/10 into trust monitoring.)

Intermediate between the HSCB and PHA and the trusts are the LCGs (see section 2.1). The LCGs are charged with assessing local health and social care needs, planning to meet them and securing delivery of them (DHSSPS, 2009f). These are considerable functions. In reality, the role of the LCG appears to be somewhat more modest. It advises the HSCB on local priorities and delivery (the LCG areas of responsibility are coterminous with those of the trusts). “Within the Health and Social Care Board are regional commissioning teams, which advise the LCGs on professional matters and on ideas about how, in totality, a service might be provided across the five trust areas” (Evidence of Sheelin McKeagney before the Committee for Health, Social Services and Public Safety of the NIA (DHSSPS, 2011d); see also NIA, 2011). The HSCB and PHA provide the LCG with a local executive team and a range of regional service teams to provide information and advice (Belfast Local Commissioning Group, 2011: p.2). It thus appears that the LCGs provide a conduit for local concerns to be fed into the overall commissioning plan.

As noted above, the five trusts received £2.9bn (€3.48bn) in RRLs from the HSCB and PHA in 2010. The RRLs for the individual trusts were allocated on the basis of a capitation formula. The objective of this (as in England) is “to distribute resources based on the relative need of each area for health services” (Department of Health Financial Planning and Allocations Division, 2011: p.4). The formula is based on the level of utilization of a service. Divided into five-year age bands and gender, utilization is the dependent variable in a regression; the explanatory variables consist of measures of need and supply. The former consist of a range of socioeconomic and demographic variables, while the latter include the location of facilities relative to users. Supply factors attempt to capture the effect proximity has on utilization so that such effects can be removed when the estimated regression is used to derive resource allocations.

The construction of the Northern Ireland formula differs from the England formula, reflecting in part the much larger size of the population in England. For example, the health service utilization variable employed is the consumption

of service by POC (Table 3.3);¹ the allocation formula includes adjustments for economies of scale and rurality; and the outcome of the capitation formula for LCGs is transferred almost directly to the local trust in Northern Ireland.

The introduction of economies of scale into the capitation formula was recommended by the fourth report of the Capitation Formula Review Group (DHSSPS, 2004). One objective of the research was to determine an optimal size for a hospital in terms of cost efficiency. This occurred at about 40 000 inpatient episodes per year (DHSSPS, 2004: 16.24). Those areas with smaller hospitals, particularly outside the heavily populated east of the province, faced higher costs; in Belfast, the Royal Group had a high volume but suffered diseconomies of scale (MSA-Ferndale Secta, 2003: Fig. 3.5). The capitation formula was to reflect these cost differentials. Thus, in Northern Ireland the funding formula is conditional upon the current efficiency of hospital provision with trusts compensated where they experience economies or diseconomies of scale.

In contrast, in England national average costs are used and adjusted for local economic conditions by the Market Forces Factor (MFF), which reflects wages and rents particularly, but where these are measured at the regional economic level and do not relate to the specific health sector being examined. The funding given to primary care trusts (PCTs) in England thus reflects national average costs adjusted for local economic conditions (Department of Health Financial Planning and Allocations Division, 2011). The income that hospital trusts in England receive from PCTs is determined by the level of service they provide multiplied by unit costs; the latter consist of the national average cost by procedure adjusted by the MFF (Department of Health Payment by Results Team, 2011). Thus the residual of revenues less costs of a hospital trust in England that had relatively high costs due to diseconomies of scale would be lower (and could indeed be negative) than one that operated at the minimum of the average cost curve. In Northern Ireland the revenue of the former would be augmented by the economies of scale adjustment given to the LCG. The financial pressure in England is consequently for hospital trusts to operate efficiently; this is not the case in Northern Ireland.

Table 3.8 presents the flow of funds between LCGs and hospital trusts. In general the funds are directly allocated to the local hospital trust: 71% for the South Eastern and 88% for Belfast. The exception to this flow is that for Belfast with its specialist hospitals from the other trusts, ranging from 9% for the Western to 25% for the South Eastern.

¹ In England the Healthcare Resource Group is used (NHS, 2012).

Table 3.8

Flow of funds between LCGs and hospital trusts, 2010–2011

LCG	Belfast	Northern	Southern	South-eastern	Western	NIAS	Other
Belfast	528 586	941	156	41 408	100	10 946	17 610
Total (%)	88.1	0.2	0.0	6.9	0.0	1.8	2.9
Northern	129 842	487 361	3 191	5 754	6 499	13 390	11 154
Total (%)	19.8	74.2	0.5	0.9	1.0	2.0	1.7
Southern	68 055	471	426 167	9 152	3 108	9 464	8 691
Total (%)	13.0	0.1	81.2	1.7	0.6	1.8	1.7
South-eastern	121 768	730	1 058	343 668	82	8 649	9 691
Total (%)	25.1	0.2	0.2	70.8	0.0	1.8	2.0
Western	39 111	1 282	1 143	2 013	396 231	11 160	11 245
Total (%)	8.5	0.3	0.2	0.4	85.7	2.4	2.4
Direct	–	–	–	7 356	–	–	–
Total	887 362	490 785	431 715	409 351	406 020	53 609	58 391

Source: Health and Social Care Board/Public Health Agency (2010).

The allocation of resources for FPS is based on a capitation formula that is similar to that for the secondary sector (although it has been suggested that the two be combined) (DHSSPS Modernisation and Improvement Programme Board, 2009). For the FPS, the breakdown is by sector as opposed to POC as shown in Table 3.5. The pharmaceutical services budget provides an insight into the process. The LCG can top slice the resource allocation at its discretion in order to make provision for new high-cost drugs. The board provides prescribing advisers to each LCG in an attempt to reduce expenditure by, for example, using more generic drugs.

What picture of the finance of health care in Northern Ireland emerges from the above discussion? It is certainly one in which the formalism of control is highly developed as indicated by the fact that HSC trusts are required to break even, where this is defined as being within 0.25% of their RRL (DHSSPS, 2009b). Resource allocation is fair in the static sense that, conditional upon the existing provision of facilities, considerable effort is expended in securing horizontal equity. The financial performance of trusts is closely monitored with those at risk of breaching their break-even obligation being required to adopt contingency plans and to report to HSCB monthly. In terms of Ouchi's taxonomy there is a bureaucracy where each layer is closely evaluated and where there is a socialized acceptance of common objectives (Ouchi, 1979).

The structure, however, operates in a political environment that imposes some, though not robust, constraints on outcomes. With the budget operating on a three-year cycle and a vote on account in February that covers a substantial

amount of departmental expenditure before any detailed plans are scrutinized, it is unsurprising that members of the Legislative Assembly feel that a lack of information impairs the quality of debate (NIA, 2010). Even when budgetary pressures deny particular services to Northern Ireland patients that would be available elsewhere in the United Kingdom, the relevant scrutiny committee feels itself deprived of information (NIA, 2011).

Devolution complicates comparisons within the United Kingdom with respect to the issue of equity: if one country (and given its economic dominance it is inevitably England) changes its government expenditure (as New Labour did with the NHS) then the operation of the Barnett Formula can lead to a change in the block grant for Northern Ireland. However, there is no obligation for the Assembly to allocate this to health (Heald, 2009).

In 2009/10, the Northern Trust required an extra £10.6m (€12.7m) of funding from HSCB to “achieve” break-even status; in 2010/11, an additional £6m (€7.2m) was provided (NIAO, 2011; Northern Health and Social Care Trust, 2011). The Trust initiated a two-year Modernization and Recovery Plan that was monitored internally every month. The additional funding requirement was indicated by the monthly monitoring reports, which in July 2011 had a peak forecast for the year-end deficit of £4.27m (€5.12m) (Northern Health and Social Care Trust, 2012). Flexibility is clearly desirable in any system of financial control that experiences major shocks as rigid cash limits are likely to be reflected in substantial variations in service levels. Without transparency and timely information, however, the consensus model that is at the heart of the Northern Ireland health service can lead to a diffusion of responsibility and limited dynamics in the face of institutional inertia.

3.4 Private expenditure on health

A small amount of revenue for health is raised through statutory user charges for dental care. The patient pays 80% of the gross annual cost of dental treatments up to a maximum of £384 (€460.8) although there are many exemptions to this, such as users under 18 years and those on certain social security benefits and low incomes (BSO, 2010). Prescription charges were abolished in April 2010. However, in December 2011, a new Minister of Health announced in the Northern Ireland Assembly that he was considering their reintroduction specifically to fund drugs for cancer and other debilitating diseases (BBC News Website, 2011). Take-up of voluntary health insurance is assumed to

be extremely low. Data on OOP expenditures and voluntary health insurance expenditures are not collected and the sample sizes of local social surveys are insufficient to generate reliable estimates.

3.5 Payment mechanisms

Hospital services are commissioned by the HSCB and provided by HSC trusts. The volume and price of such services are set out in contracts negotiated between the HSCB and the particular trust. The primary sector is directly managed by the board. The position of GPs in Northern Ireland is similar to that in England (Boyle, 2011 and section 3.6). In fact GPs and consultants working in Northern Ireland were represented in the negotiations that culminated in their respective 2004 and 2003 NHS contracts. Similarly, staff employed in HSC in Northern Ireland, other than GPs, consultants and dentists, were represented in the Agenda for Change negotiations that culminated in a common payment system in Northern Ireland and England.

Two points serve to underline this relationship. First, the Finance Act 1971 obliged the then department “to ensure that the rates of remuneration for staff employed in the provision of health services in Northern Ireland correspond as nearly as may be with the rates which obtain in GB” (DHSSPS, 2012a). Second, the recommendations of the NHS Pay Review Body for 2012/13 were accepted by the Minister in Northern Ireland as being in line with the executive’s (and also Westminster’s) imposition of a two-year pay freeze in July 2010 (DHSSPS, 2012a).

4. Physical and human resources

In 2010 there were 46 hospitals in Northern Ireland but most acute care is delivered by six large hospitals. Capital investment heavily favours secondary over primary care and there is relatively little cross-border cooperation with the Republic of Ireland in the planning and delivery of services. Strategic capital planning is the responsibility of the DHSSPS: an SIB in conjunction with the Office of the First Minister and Deputy First Minister provides an indicative ten-year funding envelope from the public purse for the department for planning. The use of hospital beds is dominated by acute services; the number of available beds peaked in 2004 and has fallen by 15% in the last five years. Bed occupancy has also fallen from its peak in 2002/3; Northern Ireland's rate is below that of the United Kingdom and the Republic of Ireland but above the EU average. ALOS in hospital has fallen slowly in recent years. Use of MRI scanners has grown greatly since the early 2000s. The experience of investment in ICT is mixed. The number of GPs and dentists per capita has grown steadily since the early 1990s but remains below EU levels. Although the number of nurses per capita has fallen in the last 20 years, there is a gradual return to initial levels.

4.1 Physical resources

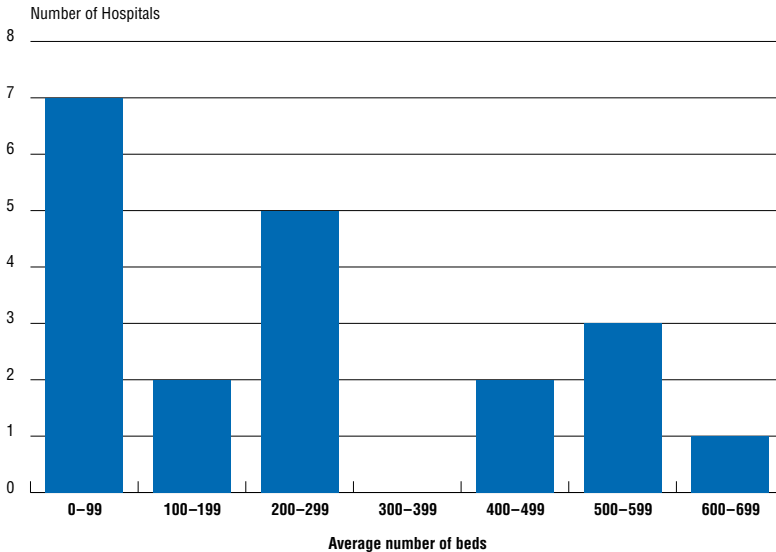
4.1.1 Capital stock and investments

There were 46 hospitals in Northern Ireland in 2010. The influence on location of Belfast and its hinterland is clear: the population of the Belfast and Lagan Valley area made up 44.7% of the estimated population of Northern Ireland in 2010 (NISRA, 2010). The districts covered here are Antrim, Belfast, Carrickfergus, Castlereagh, Craigavon, Lisburn, Newtownabbey and North Down. The size distribution – as measured by the average number of available beds – of the

general hospitals is shown in Fig. 4.1. There are 14 hospitals with fewer than 300 beds and six with 400 or more beds. A report on economies of scale in Northern Ireland hospitals noted that minimum average costs occurred with between 400 and 500 beds, which suggests that many of the smaller hospitals were associated with higher costs (MSA-Ferndale Secta, 2003: p.97). On average, the total number of available beds is 7254 and 3216 (44%) of these are in the six largest acute hospitals (DHSSPS, 2010b).

Fig. 4.1

Number of general hospitals by average number of available beds in Northern Ireland, 2009–2010



Source: DHSSPS (2010b).

The Compton Review in 2011 (DHSSPS, 2011h; see section 6.2) strongly recommended a move away from a hospital-centred approach to one more focused on the community. The evidence suggests that an optimal major acute hospital network could serve a population of 250 000 to 350 000 in Northern Ireland; currently there is one such network per 180 000. The proportion of older people living in nursing homes is three and a half times that of England and Wales: “There is an over reliance on buildings to provide care rather than support its delivery” (DHSSPS, 2010b, pp.27, 60, 31–32). If it is assumed that overall funding is unlikely to increase substantially in the present financial environment, funds have to be shifted from the hospital sector to the community to maintain the quality of health care.

There are five HSC trusts in Northern Ireland, which are responsible for hospital and social care in geographically defined areas. Capital investment by these trusts is funded principally through the DHSSPS. In the Belfast Trust, which is the largest, the capital budget in the financial year 2010/11 was £87.7m (€105.2m) of which £76.5m (€91.8m) related to projects specifically funded by the DHSSPS. The remainder comprised funds delegated to the trust that were spent on minor works, equipment and ICT systems infrastructure (Belfast HSC Trust, 2011: pp.31–32). The department's revenue is determined by the Northern Ireland Executive and the level of capital investment within this is determined within the department (DHSSPS, 2011b).

The public health priorities are formally established through the Public Sector Agreements that are contained in the Programme for Government. These relate to the period of the Comprehensive Spending Review, the last complete one being 2008/9–2010/11. With respect to capital investment, the 16 targets of the Public Sector Agreements included the creation of a “NI-wide network of fit-for-purpose hospital facilities” (NIA Research and Library Service, 2010b: p.2). For the period of the Review, the relative priority given to primary over secondary care may be gauged to some extent in the investment budgets: primary care was allocated £152.6m (€183.1m) while hospital modernization received £412.1m (€494.5m) (NIE, 2008: p.12). The recently published Compton Review (DHSSPS, 2011h) would suggest that the current trend to move treatment from the secondary to the primary sector will continue in the foreseeable future.

Public–private partnerships

In November 2011, there were 38 signed private finance initiative (PFI) projects in Northern Ireland according to the Treasury (HM Treasury, 2011b). Of these, seven were commissioned by the DHSSPS and three had an estimated total capital value of over £25m (€30m) – the Cancer Centre (equipment, maintenance and consumables) £36.7m (€44m), Managed Equipment Service £52.0m (€62.4m) (both Belfast HSC Trust) and the Enniskillen Hospital £223.9m (€268.7m) (Western HSC Trust). There have been difficulties with the contracts in the last (Gosling, 2009). There were no health projects among the four from Northern Ireland under procurement (HM Treasury, 2011a). This reflects a general disenchantment with PFI in the United Kingdom, where the departmental planned spend on health by the private sector fell from £211m (€253m) in 2011/12 to £107m (€128m) in 2012/13 (HM Treasury, 2011d).

In July 2011, there was a very critical United Kingdom Treasury Select Committee report that concluded that the price of finance under PFI was significantly higher than alternative methods (House of Commons Treasury

Committee, 2011). When the PartnershipsUK website closed down in 2011, there were 15 DHSSPS projects listed on its website, which came to an estimated capita value of £352.69m (€423.23m) (PartnershipsUK, 2009). In 2011, the PFI charges for the Belfast HSC Trust were £7.9m (€9.5m) (Belfast HSC Trust, 2011: p.34).

Funding through sale of assets

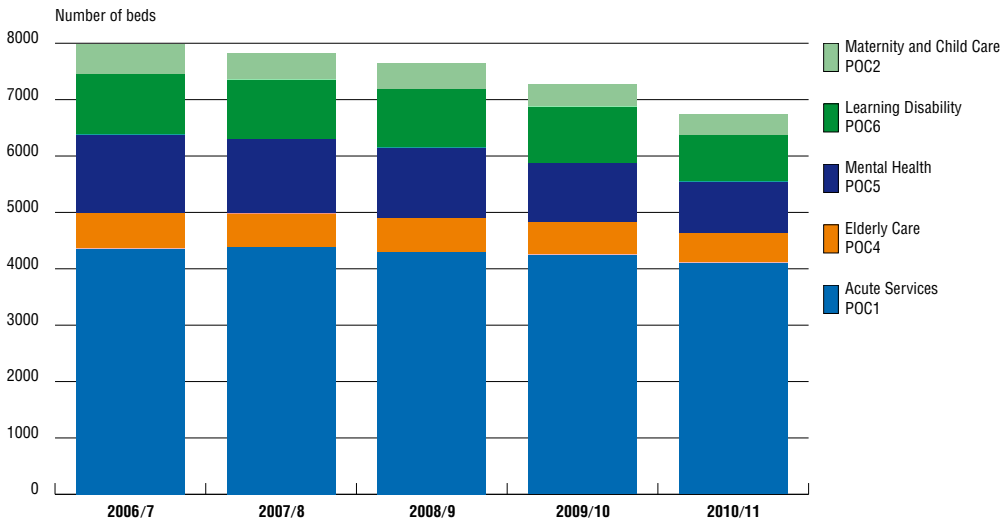
Between 2001/2 and 2010/11, sales of land and property by DHSSPS amounted to £33.4m (€40.1m). The peak was in 2006/7 at £11.6m (€13.9m), which fell to £8.0m (€9.6m) a year later and collapsed to £0.016m (€0.019) in 2009/10 (Cunningham, personal communication, 2012). The influence of the property price bubble in this pattern of releases is obvious.

4.1.2 Infrastructure

The distribution of hospital beds is broken down by programme of care in Northern Ireland and is presented for the period 2006/7 to 2010/11 (Fig. 4.2).

Fig. 4.2

Mix of beds by POC in Northern Ireland, 2006/7–2010/11



Source: DHSSPS (2010b, 2010c).

Note: see Table 3.3 for definitions of POCs.

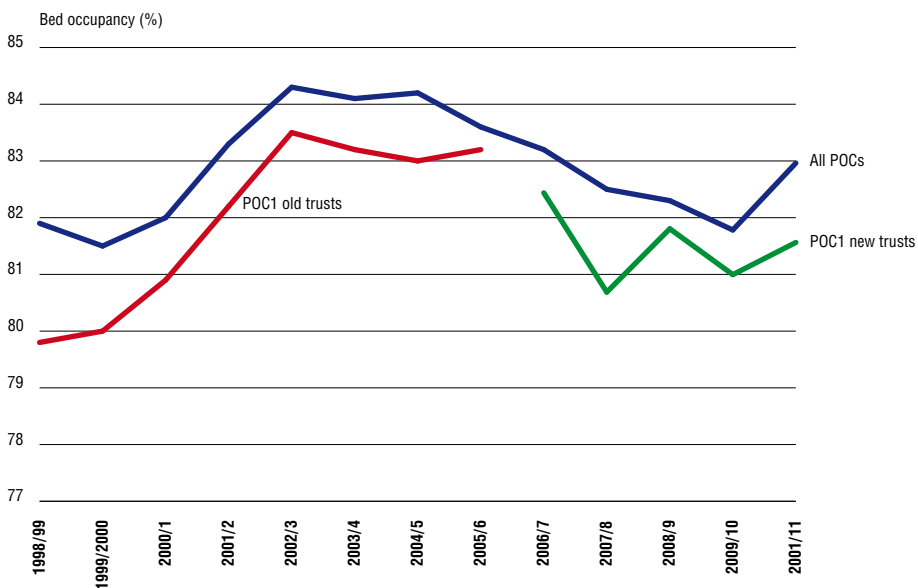
Overall, the average number of available beds fell by 15.6% in the period 2006/7 to 2010/11. Only maternity and childcare beds fell at a similar rate (-16.8%); acute services fell the least (-5.8%) while mental health fell 23.9%,

learning disability 30.7% and care for older people by over a third (33.8%). Thus these last five years witnessed a substantial fall in the number of available beds but an even more remarkable change in composition, away from care for older people, those with mental health problems and those with learning disability and towards acute services.

The reorganization of the trusts in 2007 highlighted the inconsistent definition of categories between them. In addition to this, the categorization of beds is not by hospital type but rather POC. A consequence of this is that there are discontinuities in the historic time series and also that international comparisons have to be made with caution. This is illustrated in Fig. 4.3, where the published series regarding bed occupancy rates are graphed for POC1, acute services, and all POCs together.

Fig. 4.3

Rate of bed occupancy in Northern Ireland, 1998/9–2010/11



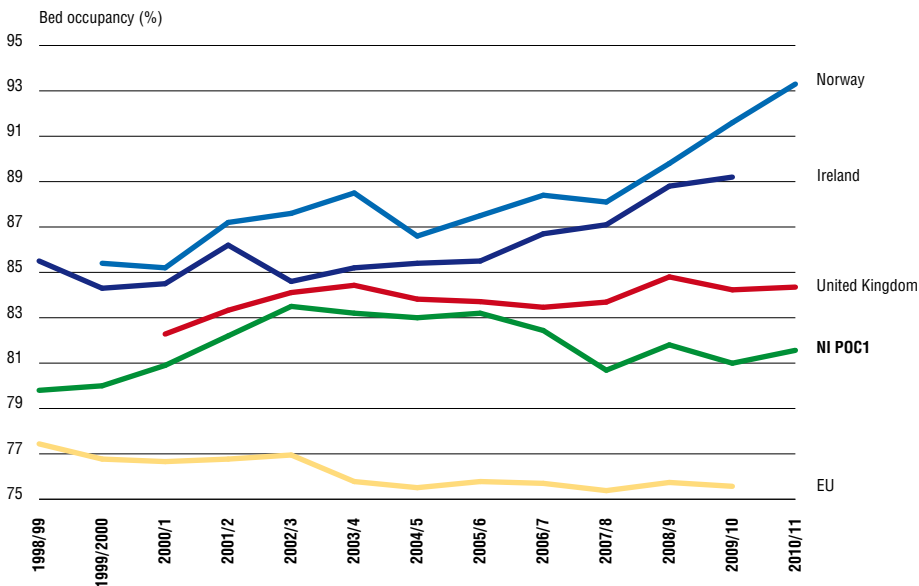
Sources: DHSSPS (2010b, 2010g, 2011f); WHO Regional Office for Europe (2012).

The various components of the POC1 series move together closely. The rate rose from 79.8% in 1998/9 to peak at 83.5% in 2002/3; there was a sharp decline from 83.2% in 2005/6 to 80.6% in 2007/8 that was followed by an uneven recovery. The occupancy rate for all POCs together is usually 1.1% higher on average but varies substantially: in 1998/9 the difference was 2.1%, declining to 0.8% in 2002/3 but somewhat uneven thereafter.

In Fig. 4.4, the occupancy rate for POC1 in Northern Ireland is compared with other European countries. With respect to the United Kingdom as a whole, the Northern Ireland rate is 1.6% less on average where data are available. Any impression of convergence in the middle of the period was negated after 2006/7 when the difference became about 3%. The closest Northern Ireland came to the occupancy rates of the Republic of Ireland was in 2002/3 when the difference was 1.1%. Thereafter the difference in occupancy rates widened, reaching 8.2% in 2009/10. Although the Norway rate is even higher than the Republic of Ireland's, the Northern Ireland rate is still over 6% on average above the EU average rate.

Fig. 4.4

Rate of bed occupancy in Northern Ireland compared with selected countries, 1998/9–2010/11

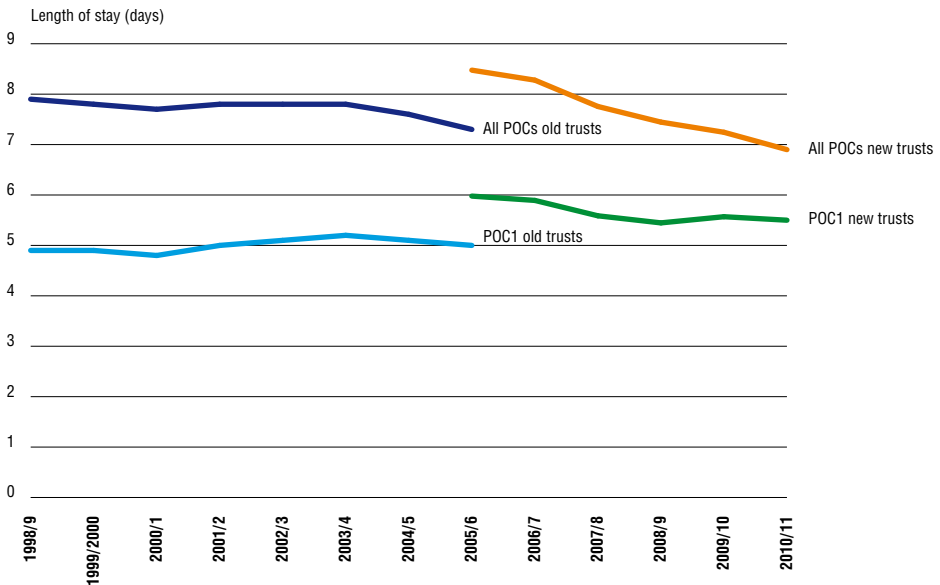


Sources: DHSSPS (2010b, 2010c, 2011f); WHO Regional Office for Europe (2012).

The effect of the reorganization of the HSC trusts in 2009 is particularly marked as regards the ALOS (Fig. 4.5). In 2005/6, there is over a day in the difference between the two historical series. With both the POC1 series and the aggregate POC series, the trend over the discontinuity is maintained: in both cases a gentle decline continues. The difference between the two series is about 0.1 of a day, although this narrows towards the end of the period. Reducing the ALOS is an important contribution to the improvement of productivity; it has

a high quality and financial impact while being relatively easy to implement (DHSSPS, 2010d, Exhibits 15–27). Fig. 4.5 shows that the decline across all POCs is proceeding more rapidly than that in the acute POC. This probably reflects the greater emphasis on care in the community that has occurred for learning disability and elderly care, which is illustrated in Fig. 4.2. Relative to England though, there is still room for improvement (Appleby, 2011).

Fig. 4.5
Hospital ALOS in Northern Ireland, 1998/9–2010/11



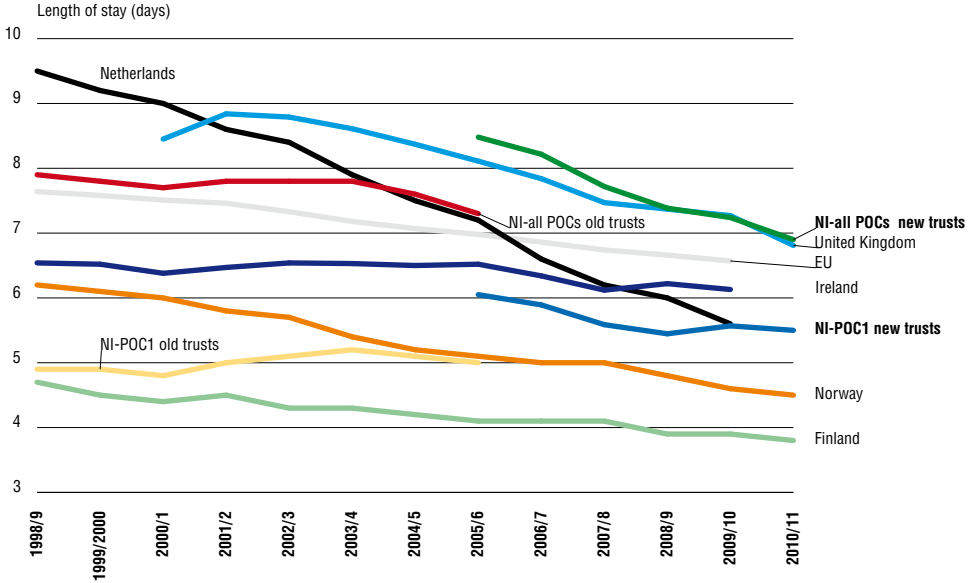
Sources: DHSSPS (2010b, 2010c, 2011f).

Note: New trusts: Data available for new trust areas; Old trusts: Data available for old trust areas.

The discontinuities in the series make international comparisons hazardous and so it is best to concentrate principally on the trends evident in Fig. 4.6.

Fig. 4.6

Hospital ALOS in Northern Ireland compared with selected countries, 1998/9–2010/11



Sources: DHSSPS (2010b, 2010c, 2011f); WHO Regional Office for Europe (2012).
 Note: New trusts: Data available for new trust areas; Old trusts: Data available for old trust areas.

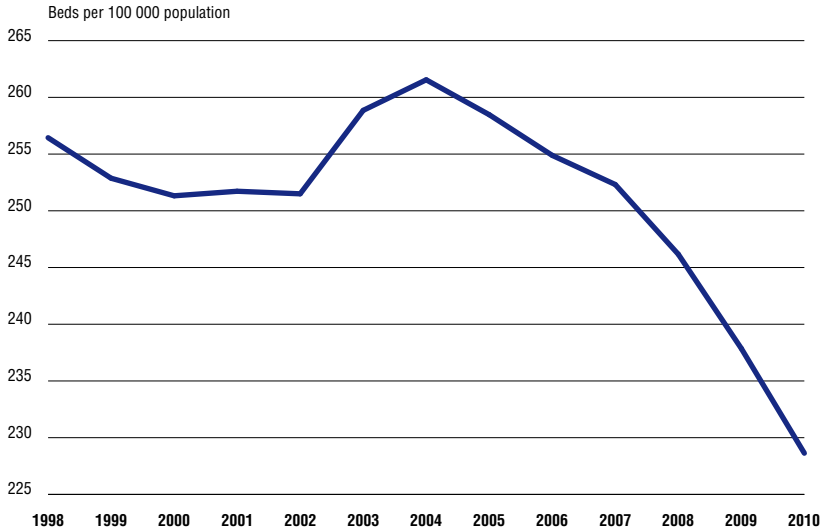
The EU average ALOS neatly bisects the aggregate and POC1 Northern Ireland series. The rates of decline are of a similar order. The rate of decline in the United Kingdom series is more marked than both of those for Northern Ireland, which in turn are greater than that for the Republic of Ireland. The ALOS in the Netherlands shows the sharpest decline over the period while those for Norway and Finland decline at the same rate as the EU average.

As with the other series above, the reorganization of the HSC trusts has led to a discontinuity. However, the broad trend is clear (Fig. 4.7). Bed availability peaked in 2004 at 262 per 100 000 population; thereafter, this fell steadily to 229 in 2010. This was a reflection of the policy to focus care away from acute hospitals towards primary and community-based services.

Given the classification of beds by POC in Northern Ireland, it is prudent to focus international comparisons on trends rather than levels. Fig. 4.8 shows that the decline that began in Northern Ireland in 2004 reflected general European trends and that the rate was similar.

Fig. 4.7

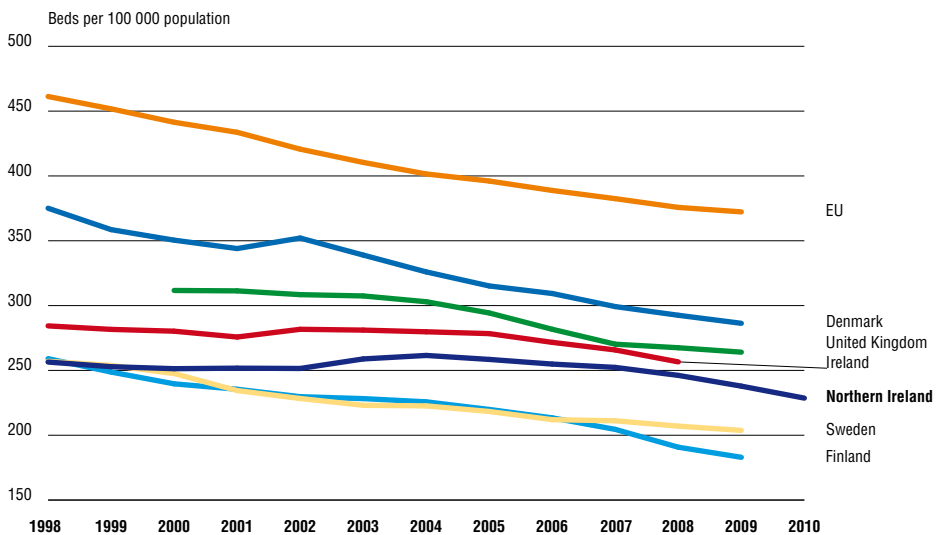
Average bed availability per 100 000 population in acute hospitals in Northern Ireland, 1998–2010



Sources: DHSSPS (2010b, 2010c, 2011f).

Fig. 4.8

Average bed availability per 100 000 population in acute hospitals in Europe, 1998–2009



Source: DHSSPS (2009e).

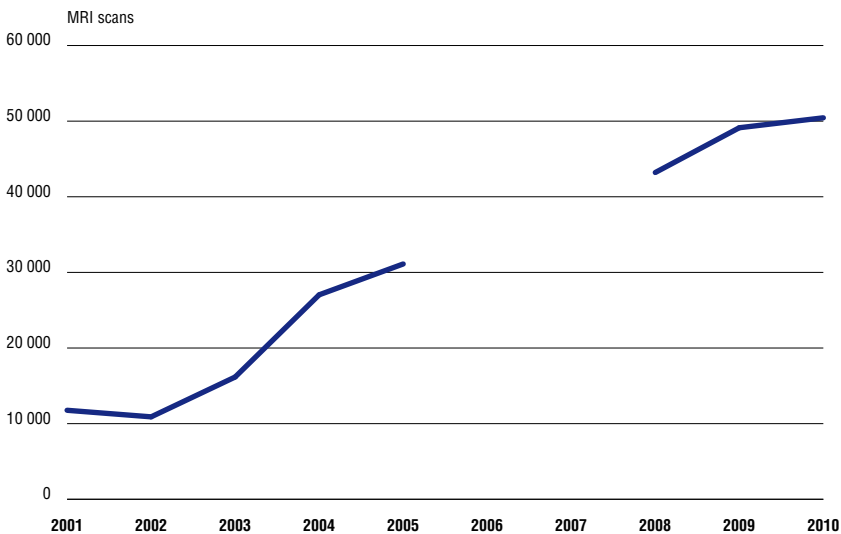
Medical equipment

Data on MRI scans are not collected routinely in Northern Ireland. Those reported in Fig. 4.9 were obtained as the result of parliamentary or Assembly questions and relate only to those scans carried out within the NHS or by private providers who supplied the service to the NHS. Figures for 2008–2010 were provided by DHSSPS.

The graph suggests a strong upward trend. With respect to funding, a £2m (€2.4m) appeal was launched in 2011 to provide an MRI scanner for the Royal Hospital for Sick Children by the Children’s Heartbeat Trust. The DHSSPS Resource Accounts for 2011 record that among completed projects were a mobile CT scanner for Antrim, a CT scanner for Daisy Hill and an MRI scanner for the Ulster Hospital (DHSSPS, 2011g).

Fig. 4.9

Number of MRI scans performed in Northern Ireland, 2001–2010



Sources: House of Commons (2006); latter years supplied directly by DHSSPS.

Information technology

The DHSSPS Resource Accounts for 2011 provide an insight into the scale and nature of ICT investment. In the four-year budget period 2011/12–2014/15, the capital investment budget was set at £851m (€1021m); of this £400m (€480m) “is required to cover fixed costs such as maintenance, investment in ICT etc.” (DHSSPS, 2011g: p.44). Investment in ICT specifically was set at £22m (€26.4m) (DHSSPS, 2011g: p.46).

The management of ICT in the public sector in the United Kingdom has generally been unsatisfactory. The Auditor General's 2009 report on the health and social care sector considered three specific ICT projects: the Person-Centred Community Information System, the Electronic Prescribing and Eligibility System and GMS probity (Information Technology services) (NIAO, 2010b). The Person-Centred Community Information System was an ambitious scheme to replace all the trust ICT systems across social care, mental health, children's and community services that began in 2000. After a series of delays, the procurement was terminated in 2007 after £9.3m had been spent. The trusts wrote off £0.8m of this in 2007/8 and the DHSSPS wrote off £0.34m of the remainder. The Electronic Prescribing and Eligibility System project was approved in 2006 and was operational in 2008. Despite one of its aims being counteracting fraud in prescription charges exemption (the minister abolished prescription charges in 2008), the project was considered a success with the construction of the first, fully patient-centred prescribing database in Europe and the computerization of the payments process. The GMS project collapsed with the withdrawal of GP cooperation (NIAO, 2010b).

The broad strategy for ICT was outlined in a document by the DHSSPS (2005). The vision was to improve the care experience for health service users through supporting staff in their current work, improving the efficiency of current service delivery, supporting research activities and developing clinical and social care governance. It was recognized that the core business of the department was paper based. Implementation was structured around the introduction of a new health and care number with a department wide electronic care record.

4.2 Human resources

4.2.1 Health workforce trends

In Northern Ireland, the data concerning people working in health care in the public sector are gathered at the primary and secondary levels by different parts of the DHSSPS. The primary care statistics appear under the FPS, which is administered directly by the HSCB, while the secondary care statistics are gathered by the individual HSC trusts and aggregated by the department. These latter statistics are not readily combined with the former: for instance, medical and dental professionals are combined, whereas GPs are listed separately by

FPS; qualified nursing and midwifery are reported for the secondary sector but not by FPS. Since 2000, the number of health workers in each professional group has been increasing (Table 4.1).

Table 4.1

Health workers in Northern Ireland per 100 000 population, 1990–2010

	1990	1995	2000	2005	2010
GPs	58.1	60.9	62.9	62.9	64.5
Other doctors	117.9	125.2	141.2	173.4	191.2
Nurses and midwives	818.1	720.4	676.3	772.1	772.4
Dentists	35.4	40.1	44.8	50.8	55.7
Optometrists	9.7	15.4	20.1	29.3	33.2
Occupational therapists	–	–	–	35.1	40.3
Radiographers	–	–	–	31.5	36.7
Physiotherapists	–	–	–	40.4	46.3

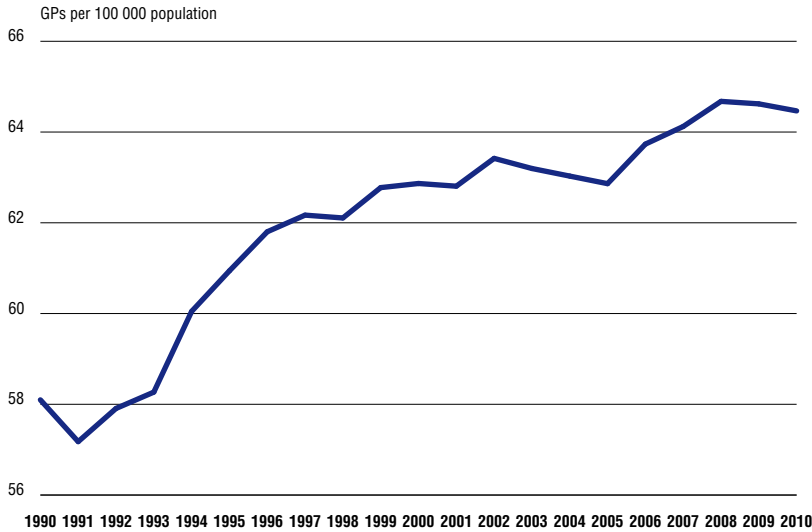
Source: see Appendix 9.3.

From 1990 to 2010, the number of GPs in Northern Ireland per 100 000 population showed a gradual but unsteady increase (Fig. 4.10). There was a dip in the early 1990s, followed by a sustained rise that plateaued in 1996–2004. Subsequently, the increase was resumed until 2008 when the maximum was achieved at 64.7 GPs per 100 000 population.

In Fig. 4.11, GPs are combined with doctors in the secondary sector as “physicians” and compared with some other European countries. The Northern Ireland series is closely related to that of the United Kingdom as would be anticipated, although as a region it seems to have slipped behind in the last two years of the series. The Northern Ireland (and United Kingdom average) series is below the EU average: the mean difference over the period was over 85, which was over 40% of the Northern Ireland mean. The highest difference was 97 in 1994, which fell to 65 in 2007. The physician density in the Republic of Ireland is also below the EU average but is appreciably above that of Northern Ireland. On the upper side of the EU average are the Scandinavian countries.

Fig 4.10

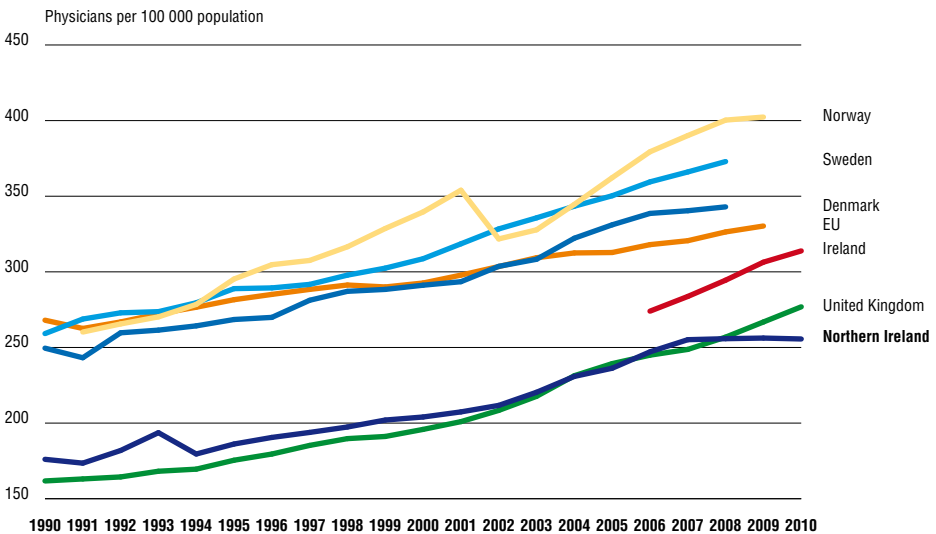
Number of GPs per 100 000 population in Northern Ireland, 1990–2010



Source: see Appendix 9.3.

Fig 4.11

Number of physicians per 100 000 population in Northern Ireland compared with selected countries, 1990–2010

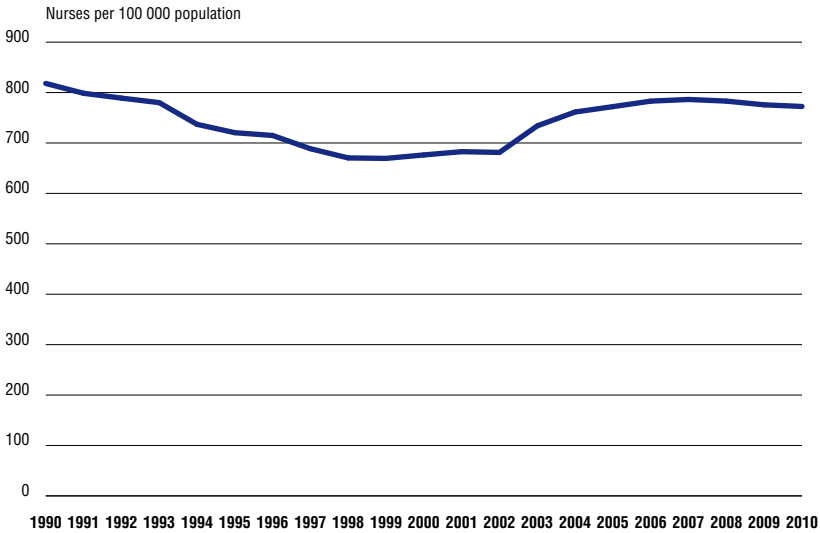


Sources: WHO Regional Office for Europe (2012); see also Appendix 9.3.

Some caution is required when examining the number of nurses employed in the health sector in Northern Ireland. The figures used in Fig. 4.12 relate to those employed as qualified nurses and midwives in the hospital sector in Northern Ireland. It, therefore, excludes those working in the primary sector and the private sector. Using the secondary sector data only gives, for 2010, a figure of 772 nurses per 100 000 population for Northern Ireland compared with a United Kingdom figure of 968. Such a discrepancy clearly makes international comparison hazardous. The period 1990–2010 saw a dip of about 100 nurses per 100 000 population (from 1995 to 2005) after which the earlier level was regained.

Fig 4.12

Number of nurses per 100 000 population in Northern Ireland, 1990–2010

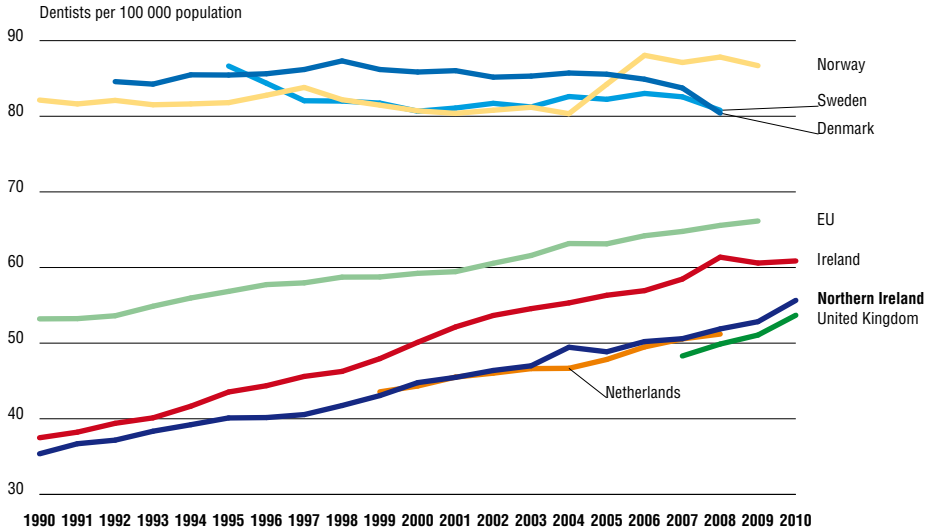


Source: see Appendix 9.3.

The number of dentists in Northern Ireland per 100 000 population has increased steadily from 35 in 1990 to 56 in 2010 (Fig. 4.13). The level and trend in the figures is very similar to comparable available figures for the Netherlands. There is limited evidence that the Northern Ireland series is converging towards the EU average. The mean difference between the two figures is 15; in 1990 it was 18 and in 2009 was 13. There is clearly more evidence of convergence between the Republic of Ireland and the EU.

Fig. 4.13

Number of dentists per 100 000 population in Northern Ireland compared with selected countries, 1990–2010



Sources: WHO Regional Office for Europe (2012); see also Appendix 9.3.

5. Provision of services

Health and social care is financed and provided within an integrated system, in contrast to the rest of the United Kingdom, but in most other respects service provision is similar to provision in England. Five territorial HSC trusts provide publicly financed care through an integrated system of acute and community services at primary, secondary and tertiary levels, complemented by supra-regional provision of highly specialized services within the United Kingdom. The GP plays a pivotal role in the system as the first point of contact for most patients and as gatekeeper to other services. GPs mainly work in group practices, often in teams that include practice nurses and health visitors. Most health services are provided by public entities; there are only two small private hospitals. However, most care home places are privately provided. The voluntary sector is active in palliative care and in the provision of screening for breast cancer. As with GPs, GDPs are generally self-employed although some are employed by private organizations with whom the DHSSPS contracts services. Dental care for some groups, such as children with special needs, is also provided by departmental employed dentists within the community dental service.

5.1 Public health

The primary responsibility for public health in Northern Ireland rests with the PHA. This was established in 2009 and is organized into three directorates: Public Health; Nursing and Allied Health Professions; and Operations. Within each directorate, there are in turn a number of divisions with distinct responsibilities. The first directorate – Public Health – includes health protection, health and social well-being improvement, service development and screening, as well as research and development. Activities undertaken by the PHA include the promotion of health and well-being by working with other

agencies on particular initiatives aimed, for example, at promoting healthy lifestyles, supporting commissioning activities by LCGs with public health advice, responding to threats posed by infectious diseases and supporting research and development on new interventions.

Among the responsibilities of the second directorate – Nursing and Allied Health Professions – is the maintenance of a register of professionals across the range of specified professions such as dietetics, radiography, speech and language therapy, and physiotherapy and podiatry. The intention of this register is to help maintain standards and protect the public. In addition, this directorate has responsibility for personal public involvement through which the service engages with users to obtain views on their experiences and share plans to better inform service improvements. While not a new initiative within the health service, the fact that it became a legislative requirement under the Health and Social Care (Reform) Act (NI) 2009 marks a new departure and perhaps reflects an increase in the importance attached to this activity.

The third directorate – Operations – includes health intelligence with responsibility for evaluating public health interventions and preparing briefings on public health issues such as road traffic deaths in the PHA annual report. Other activities within this directorate include developing systems that allow monitoring of performance on ministerial targets (housed within the Planning and Corporate Services function) and public relations (housed within Communications and Knowledge Management) that support the development of publications, event management and corporate communications.

As part of the disease management function, the Director of Public Health must be notified by the GP or attending physician in the case of 35 different diseases, including tuberculosis and meningococcal disease as well as food poisoning. The public health directorate also has responsibility for commissioning, coordinating and quality assuring the seven screening programmes currently operating within Northern Ireland including breast, bowel and cervical cancer; diabetic retinopathy; antenatal and newborn screening; and abdominal aortic aneurysm screening. While some screening services, such as those for breast and cervical cancer, have been in operation for over 20 years, these services continue to develop. For example, bowel cancer screening is being offered in all areas as of January 2012, while developments in other services, for example in terms of call and re-call and the age ranges contacted, are ongoing as new evidence and technology emerges.

5.2 Patient pathways

The GP is normally the patient's first point of contact with the health service. People can also access the health system through the A&E department of acute hospitals. As a result of registering with a GP, people have access to a range of primary care services free at the point of use. The GP can refer patients to other services if required, in hospital or community sectors. Hospital services generally cannot be accessed without a referral. Specialist investigation or treatment is also provided free at point of use (unless the patient opts to pay for treatment in one of the small number of private facilities, although this is the exception rather than the norm). Patients have a degree of choice in terms of referral to hospital services (see section 2.9). Generally, on discharge, patients again become the responsibility of their primary care physician although their discharge may be supported with community care services provided by the trust from which they have been discharged. Prescribed medicines are provided without user charges. Dental care is the only type of service that incurs user charges.

5.3 Primary/ambulatory care

Primary care is mainly provided by GPs. There are approximately 1148 GPs operating in 350 GP practices, often in teams that include practice nurses and health visitors. GPs are typically self-employed. People must register with a GP in order to access primary care but can change GP without giving a reason and can be removed from a GP list only after the provision of a reason in writing.

Outpatient care is delivered through the acute sector with each trust providing a range of services, although certain specialist services may be confined to particular trusts. Referral is generally through a GP although this may also come from another diagnostic service or from a hospital consultant depending on the service involved. Recent reviews of the health service including that of the Northern Ireland Audit Office in 2011 (NIAO, 2011) have commented on the performance of the trusts in relation to outpatient care. Not only has the percentage of patients waiting to access care increased in recent years, but the length of time patients have waited has also increased since 2009. At the end of March 2011, 30% of patients had waited longer than the target period of 9 weeks for a first appointment. Performance has been noted to vary across trusts with issues such as a backlog of reading radiographs at one trust prompting the

department to commission the RQIA to undertake an independent review of the handling and reporting arrangements for plain radiological investigations across the country.

5.4 Secondary/inpatient care

While the bulk of care is delivered through general practice and where necessary secondary hospital care services, on occasion specialist (tertiary services) may be required. In Northern Ireland, a range of specialist services are delivered through the trusts with regional centres staffed by appropriate consultants and supported by other clinical specialists. Where necessary, supra-regional arrangements exist to deal with particularly complex conditions where local expertise may be limited or equipment unavailable (e.g. in a recent case involving stereotactic ablative radiotherapy). Such arrangements, however, also exist to deal with pressures that may inevitably arise at particular times, for example, in neonatal intensive care where capacity may sometimes be challenged. In a health care system the size of Northern Ireland's, such instances may be more common than elsewhere because the relative cost of maintaining spare capacity would be greater than in larger systems.

Ministerial waiting time targets are set with respect to inpatient, outpatient and diagnostic services. In 2011/12, the ministerial waiting time target for inpatient services was that at least 50% of patients should wait no longer than 13 weeks, and no patient should wait longer than 36 weeks, for inpatient admission. For outpatient services, the 2011/12 ministerial waiting time target was that at least 50% of patients should wait no longer than nine weeks, and no patient should wait longer than 21 weeks, for a first outpatient appointment. For diagnostic services, the ministerial target (which only came into effect in April 2011) was that all routine tests should be reported on within four weeks.

Following an expansion in waiting list numbers for inpatient and outpatient services between 1996 and 2006, as well as in the average length of time waited, considerable effort was expended in reducing delays. Between 2006 and 2009, progress was made although since then both waiting lists and times have increased. For example, for outpatient appointments the numbers waiting for a first appointment rose from 68 755 in March 2009 to 103 007 in March 2012. The percentage waiting more than nine weeks for a first appointment over the same timeframe rose from 0.71% to 27.45%. For inpatients, waiting list numbers rose from 30 663 in March 2009 to 50 828 in March 2012 and the percentage

waiting rose from 1.2% to 35.6%. These are issues that have received comment in recent reports on the performance of the health system in Northern Ireland, for example by Appleby (2011).

5.5 Emergency care

Unscheduled care is currently delivered through 10 A&E departments (nine of which are 24/7 consultant led), 8 minor injuries units and 19 GP out-of-hours facilities; these services are supported by the Northern Ireland Ambulance Service. An individual can present at a GP surgery without an appointment or request an out-of-hours visit at evenings and weekends. The GP out-of-hours service operates on a regional basis with a telephone system available to the public used to coordinate responses to requests. Alternatively, individuals can attend one of the acute service provider's A&E service units or one of the minor injury units without an appointment. As with many services, A&E services tend to be more readily available in Belfast. For example, even after the temporary closure of one unit, another three continue to operate. Between 2006/7 and 2010/11, the number of attendances at emergency care departments in Northern Ireland increased by 3.1% (DHSSPS, 2011c); at the same time the percentage of patients seen within four hours fell from 89% in 2008/9 to 82% in 2010/11 (DHSSPS, 2011c).

5.6 Pharmaceutical care

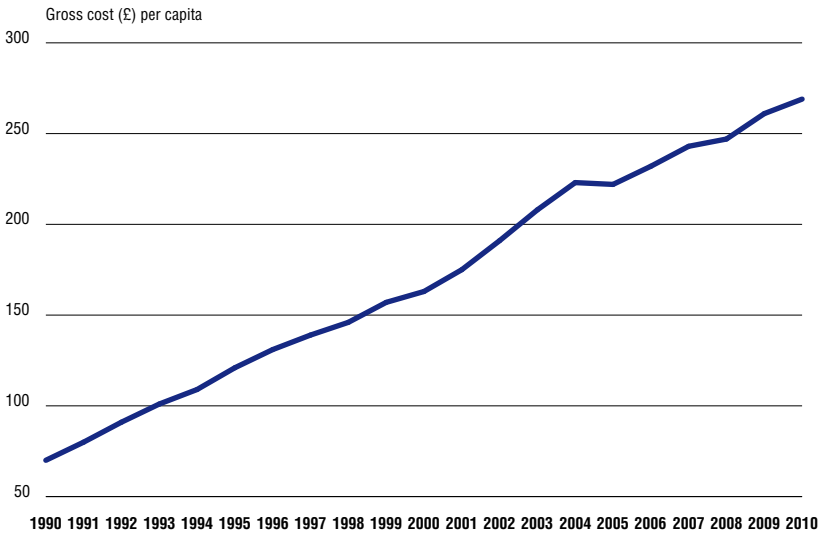
In addition to hospital pharmacists, who dispense medicines to patients following care provided by hospital consultants, there are approximately 520 community pharmacies through which patients can access medicines. Currently, there are no user charges for prescriptions. In addition to dispensing services, pharmacists are publicly funded to provide a range of additional services, such as specialist smoking cessation services and, minor ailment services (including dispensing from a formulary) as well as being a further point of contact between the health service and the public for advice.

Fig. 5.1 presents the gross cost of prescribed medicines (including net ingredient costs and dispensing fees) and charts the growth in prescribing expenditure in Northern Ireland since 1990. The level of expenditure and the opportunities to reduce, if not stem, this growth is an issue that has received comment in the past (Appleby, 2005); the relatively low rate of

generic prescribing being identified as an area worthy of attention. The total net ingredient cost of medicines in Northern Ireland in 2009 was just over £416m (almost €500m with almost 40% of the total net ingredient cost coming from seven classes of drugs – lipid-regulating drugs, corticosteroids, drugs used in diabetes, analgesics, antiepileptics, antidepressants and oral nutrition). A Pharmaceutical Services Improvement Programme was implemented by the department in light of the findings of Appleby (2005). This was continued under the Pharmaceutical Clinical Effectiveness programme. These initiatives essentially try to persuade GPs (and other prescribers) to, for example, use generic medicines rather than branded and advising them of their availability and of DHSSPS policy in this regard. The department, however, is constrained in the sanctions it can impose by the current GP contract.

Fig. 5.1

Cost of prescribed medicines in Northern Ireland, 1990–2010



Source: BSO (2012).

5.7 Rehabilitation/intermediate care

Rehabilitation services are organized around particular conditions and are provided in a variety of ways from community to acute tertiary service units. For patients whose condition may require immediate but transient support – for example, a stroke or fracture – the Intermediate Care Network,

organized through the trusts, provides a range of coordinated services including community-based rehabilitation services, fast-track community support services and short-term interim placements in care homes, etc. The care network comprises multidisciplinary teams that include physiotherapists, occupational therapists, speech and language therapists, nurses, rehabilitative assistants, care coordinators, care workers, social workers and supporting clerical staff. Referrals to intermediate care primarily come from hospitals, but may be accepted from other health care professionals including GPs.

In other areas, for example substance abuse, addiction services that include clinics and community outreach programmes involving collaborative work with GPs are provided through trusts. Specialist services, for example for brain injury, are provided in a regional specialist unit based in Belfast that provides post acute rehabilitation, slow-stream rehabilitation and long-term care for patients whose needs make them unsuited to community-based services.

5.8 Long-term and informal care

Long-term care in Northern Ireland is provided and reimbursed in a variety of ways. Care is provided both in the community and through a variety of institutional settings. For institutional care, although trusts continue to provide some services, such as dementia care, as with the rest of the United Kingdom, a significant role exists for private providers. Northern Ireland has not only the highest provision of care home places per 1000 of the population aged over 65 (49 compared to 43 in England), but also has the highest proportion of independent care homes (93% compared to 83% in England) (Bell, 2010). Northern Ireland has been reported to provide more domiciliary care through home help services than Britain. As in Britain such services may be contracted out to, for example, voluntary groups, or involve the use of direct payments although this practice is less evident in Northern Ireland.

Long-term care in a nursing or residential home is funded privately unless the individual meets the means-tested requirements for public funding. In 2012, individuals with assets in excess of £23 250 (€27 900) are assessed by their local HSC trust as being able to meet the full cost of their care. Assets include the person's house unless a spouse or dependent relative continues to live there.

Whether the integrated nature of health and social care provision in Northern Ireland impacts on the cost of long-term care or ease with which patients transfer from one care setting to another (for example in terms of better management of hospital discharges) is unclear (an issue returned to later).

5.9 Services for informal carers

Informal care is supported through the benefits system with a range of specific benefits available. Much care, however, continues to be provided outside the benefits system. Recent surveys suggest that over 20% of adults in Northern Ireland may be providing informal care – generally to a family member – and almost 40% of those providing care do so more than 20 hours a week (Ferguson & Devine, 2011).

5.10 Palliative care

As with rehabilitation services, palliative care is provided in a range of ways by trusts, including: community oncology and palliative care nursing teams; specialist palliative care teams that comprise a range of professionals who work with medical and surgical teams in the acute sector and with both the Marie Curie Centre and the Northern Ireland Hospice (NIH); and voluntary sector providers who provide care both in the person's own home and through hospice care.

5.11 Mental health care

Trusts provide a range of mental health services in the community, at home and in hospitals. Services include acute inpatient services as well as community mental health services that comprise multidisciplinary teams of psychiatrists, community psychiatric nurses and social workers. Services are organized to reflect the differing needs of different patient groups, such as the young, young adults, and adults and older people with for example dementia. Memory clinics, dementia wards, supported living and a regional forensic unit reflect the broad spectrum of support available to GPs and mental health teams working in the community. The adequacy of mental health services in Northern Ireland has been the subject of critical review. The Bamford Review of Mental Health and Learning Disability, which produced a series of ten reports between 2005

and 2007, recommended a wide-ranging reform of the mental health and learning disability landscape in Northern Ireland, including the reform and modernization of services, significant increases in resources and changes in the law around mental capacity. Work on implementation of the review's findings continues (DHSSPS, 2009a).

5.12 Dental care

Dental care is provided primarily through a system of independently employed GDPs. This is supported by the community dental service, which provides care to special needs groups, and the Royal Dental Hospital, which houses the Dental Education Centre and provides specialist services on a referral basis and services to at-risk groups who would not normally be treated by GDPs. GDPs are reimbursed by a combination of fee-for-service payments, capitation-based payments and grants.

In 2012, there are approximately 1050 GDPs operating in Northern Ireland, with a further 65–70 employed in the community dental service. To meet specific difficulties for individuals accessing GDPs through the publicly funded system in some areas, arrangements have been made with a private provider through which a further 38 salaried dentists are employed. The absence of water fluoridation has contributed to Northern Ireland having among the poorest oral health in the United Kingdom, an issue that is currently being addressed through increased emphasis on preventive services.

6. Principal health care reforms

In recent years, there has been one major reform of the health and social care system. The Health and Social Care (Reform) Act (NI) 2009 was introduced following a review of public administration initiated in 2002 (for all public administration, not just health). The Act aimed to make the health system more accountable and more focused on meeting patient needs and to concentrate available resources on the delivery of frontline services by reducing the number of bodies involved in care commissioning, delivery and administration. The new streamlined service is intended to realize potential economies of scale in care administration; simplify structures and thus increase transparency; and, by promoting a spirit of cooperation and consultation across HSC bodies, focus collective effort on maximizing outcomes. The act created one large commissioning body, the HSCB, supported by five LCGs organized geographically and five coterminous HSC trusts to provide care. Responsibility for activities including public health, quality improvement and inspection was delegated to bodies working in cooperation with each other under the Act.

6.1 Analysis of recent reforms

The current legislative structure, within which health and social care is delivered in Northern Ireland, is set out in the Health and Social Care (Reform) Act (NI) 2009 (“the Reform Act”). This sets out the new structures for health and social care including the role of the minister, the high level functions of the various HSC bodies, the parameters within which they operate, and the governance and accountability arrangements for the system.

The Act had its origins in the Review of Public Administration (RPA), which was initiated by the executive in June 2002. The aim of the Review was to access current arrangements for public administration in Northern Ireland

and propose, where appropriate, new structures better suited to the needs of the population in the context of the new political dispensation created by the Belfast/Good Friday Agreement. Significantly, structures would be streamlined relative to the past with a greater proportion of resources devoted to the delivery of frontline services than to the administration of those services.

In the past – due in part to a desire to address what was known as the “democratic deficit” – there had been a proliferation of public bodies including a range of quasi-autonomous nongovernmental organization (quangos) involved in public administration in Northern Ireland. The proliferation of bodies involved in the delivery and overseeing of public services in Northern Ireland expanded the administration of services, arguably at the expense of service delivery, as well as creating layers of bureaucracy that could reduce the system’s responsiveness. There was multiplicity of the administrative bodies – four health and social services boards, four health and social care councils, nineteen health and/or social care trusts, etc. – which in some respects brought the administration of services closer to the public in terms of the population for whom a particular body was responsible. This was at a cost of not exploiting potential economies of scale in service administration.

The new bodies and arrangements governing them continue to evolve and are set out in detail in Chapter 2. As detailed there, the emphasis on cooperation and consultation rather than competition, as well as the possibility that there may exist some inertia among staff in terms of working relationships, may impact on the operation of the new structures. Exactly where and by whom decisions are made – within an organization that emphasizes cooperation and consultation and where many of the staff were inherited from previous systems – is not immediately evident. It is likely that the relationship between the LCGs and the HSCB and that between the trusts and the HSCB will vary and continue to evolve depending the circumstances and personalities involved. That rationalization may be achieved at the expense of localism may be a source of concern. Similarly, emphasis on cooperation rather than competition may remove an important source of discipline among the providers of care.

For a population the size of Northern Ireland (1.8 million), adopting a competitive model based on a dichotomy between purchaser and provider may not be practical. On the provision side, for example, there may simply not be a range of providers available to provide choice and thus competition. Equally, on the commissioning side, were the HSCB to exploit its monopoly power as a purchaser of services with a view solely to minimizing cost, this could run counter to broader objectives for improving the quality of care and/

or reducing inequalities in access to care. This said, emphasis on cooperation and consultation may not only be difficult to reconcile with the notion of a commissioner–provider split but also carries with it inherent dangers. A cooperative model, for example, may result in purchasers failing to challenge as vociferously or effectively underperformance by providers as may occur in a more competitive model. It is unclear what impact recent reforms may have had on realizing the potential of the integrated system of health and social care.

6.2 Future developments

Northern Ireland is unique among United Kingdom countries in sharing a land border with another EU Member State (the Republic of Ireland). This provides opportunities for shared services with another jurisdiction, especially for communities that live in close proximity to the border. Various examples of cross-border cooperation in the provision of a range of services exist (Centre for Cross Border Studies, 2011). These include acute care, primary care, health promotion, child care and, disability care, as well as emergency planning.

Various reviews, however, have commented on the failure to create opportunities for greater coordination in service planning (Jamison et al., 2001; Butler & Jamison, 2007). When services are viewed on an all-island basis, it has been argued that opportunities may exist not only to better meet the needs of local populations – for example in the provision of GP out-of-hours services – but also for a more efficient delivery of services. As budgets come under increasing pressure north and south of the border, this is an issue that may receive greater attention in the future.

In June 2011, the Minister of Health announced a review of the provision of health and social care services in Northern Ireland that would provide “a strategic assessment across all aspects of health and social care services” (DHSSPS, 2011h: p.3). The chief executive of the HSCB was appointed as ex officio chair. The conclusion was that within the likely financial constraints there was an “unassailable” case for change. The central recommendation was a shift from secondary to primary care. This was most clearly put for the care of those with learning disability and mental health problems; long-stay institutions should close and community services developed. If possible diagnostic, outpatient and urgent services would be provided locally. To facilitate this, GPs would be combined into 17 integrated care partnerships. Most radically, the review pointed out that in England a population of Northern Ireland’s size would be serviced by four acute hospitals rather than the eleven that currently

exist; the recommendation was to develop five to seven major hospital networks. Implementation is likely to be challenging; many of the recommendations are consistent with those of the Hayes Report that was published in 2001 (DHSSPS, 2001).

7. Assessment of the health system

The stated aim of the health and social care system is to improve the health and social well-being of the people of Northern Ireland. Most care is provided free at the point of use. Satisfaction levels among the public with a range of publicly financed services are comparable to levels in other parts of the United Kingdom (somewhat higher in the case of dental care). Recent reports have raised concerns about the efficiency with which care is delivered, pointing to lower levels of activity that may not be related to differences in need and issues regarding the level and use of acute care facilities. For example, Northern Ireland has been noted to have lower levels of activity per head of hospital and community health service staff members related to inpatient, outpatient, day case and A&E attendances compared with England. These issues have been acknowledged in recent work commissioned by the DHSSPS. Health inequalities are evident in some areas of health, although there is evidence to suggest they have narrowed in recent years. Evidence regarding equity of access to care is more difficult to interpret, but gender and socioeconomic differences in the use of a range of services have been observed. With respect to transparency, the 2009 Act imposes a statutory obligation on each HSC body involved in commissioning and delivering care to provide information about its services and to gather information about care needs and the effectiveness of the care it provides. This requirement extends to the development of a consultation scheme, which must set out how each organization involves and consults patients, clients, carers and the PCC. Nevertheless, the emphasis placed on cooperation among organizations can make it difficult to discern where and how decisions are taken.

7.1 Stated objectives of the health system

The objectives of the Northern Ireland health and social care system are perhaps best summarized in the mission statement of the DHSSPS: “...to improve the health and social well-being of the people of Northern Ireland” (DHSSPS, 2011a). It endeavours to do this by “leading a major programme of cross-government action to improve the health and well-being of the population and reduce health inequalities.” (DHSSPS, 2011a). The Health and Social Care (Reform) Act (NI) 2009 created various bodies and devolved powers to them in pursuance of these aims, with the DHSSPS taking an overall strategic role in this and being answerable through the minister to the executive. Emphasis is placed on consultation and cooperation across HSC bodies and more broadly in seeking to improve health and reduce health inequalities through concerted actions. The performance of the system has been the subject of several recent reviews, including studies by Appleby (2005, 2011), Connolly, Bevan & Mays (2010) and the McKinsey Report (DHSSPS, 2010d).

7.2 Financial protection and equity in financing

7.2.1 Financial protection

The health and social care system seeks to ensure equal access to care based on need rather than ability to pay. Residents are entitled to a wide range of health and social care services, largely free at the point of use. Dental care is the only service for which people must pay user charges. As a result, the health system provides good financial protection and there is little evidence of financial barriers to access. However, not all highly specialized services can be or are provided and the distinct legal framework for abortion in Northern Ireland means access to termination of pregnancy is more limited than in Britain (the 1967 Abortion Act was not extended to Northern Ireland and legislation governing access is contained in sections 58 and 59 of the Offences Against the Person Act 1861 and section 25(1) of the Criminal Justice Act (Northern Ireland) 1945).

7.2.2 Equity in financing

Health and social care are predominantly financed through general taxation and the NHS element of national insurance contributions (in effect another form of general taxation). The funding of the NHS is, therefore, equitable to the

extent that the system of taxation is progressive. A study of 12 OECD countries concluded that overall the system in the United Kingdom is ‘mildly progressive’ and in this respect Northern Ireland is no different from other parts of the United Kingdom (Wagstaff et al., 1999).

7.3 User experience and equity of access to health care

7.3.1 User experience

Information on user experience of the health service can be found in the sporadic satisfaction surveys undertaken as part of the Northern Ireland Social Attitudes Survey and, more recently, in the Northern Ireland Life and Times Survey. The most recent of these was conducted in 2006. Table 7.1 summarizes the results of these surveys and compares them to survey results from Britain in 2005. Levels of satisfaction are comparable across countries for most services and markedly better in Northern Ireland for NHS dentists, possibly reflecting the impact of reform of dental services in England at this time that was not extended to Northern Ireland.

Table 7.1

Satisfaction survey results

Percentage of respondents quite or very satisfied	Northern Ireland (2006) ^a	Britain (2005) ^b
GP services	79	74
NHS dentists	65	45
Inpatient services	54	50
Outpatient services	61	61
NHS overall	42	36

Source: ^a Gray (2008) and ^b National Centre for Social Research (2012).

As with any comparison some care is warranted in the interpretation of the results given, for example, the role expectations might have in determining satisfaction and the impact that actual experience of the service might have on expectations. (If satisfaction is assessed over time rather than between locations, comparisons across systems may not be very meaningful.) Specific aspects of specific services scored lower levels of satisfaction in Northern Ireland but this underscores the importance of treating the figures with care. For example, while 79% were quite or satisfied with GP services, only 52% were quite or very satisfied with GP appointment systems. Similarly, while 54% were quite or

very satisfied with inpatient services and 61% with outpatient services, 79% and 71%, respectively, thought waiting times for appointments with consultants and waiting times for non-emergency operations were in need of some or a lot of improvement. That waiting times in Northern Ireland were high at this time is likely to be a factor in explaining the results. As noted below, while waiting lists and times improved as a result of concerted efforts after 2006, they have risen again in recent years, which may reflect current satisfaction levels although no evidence is available on this. Overall, however, satisfaction levels with the service appear to be high in Northern Ireland.

While significant improvements in waiting times were recorded after 2006–2009 (Appleby, 2011), waiting times have since increased. Waiting time targets have not been achieved for inpatient treatment, outpatient appointments, diagnostic tests or emergency care, with 30% of patients having waited longer than the targeted nine weeks for a first outpatient appointment during 2010–2011 and significant numbers waiting for inpatient and diagnostic services (NIAO, 2011).

7.3.2 Equity of access to health care

In spite of largely free access to services, differences in care utilization rates by age, gender and social class are evident for a range of services (McWhirter, 2002). Research on adolescent oral health also points to differences in registration and utilization rates by gender and social class (Telford et al., 2012; Telford & O’Neill 2012). As discussed in the literature and detailed with regard to GP use in Northern Ireland (McGregor, McKee & O’Neil, 2006), it is impossible to draw inferences regarding access simply by examining utilization, and disentangling need from sociodemographic characteristics is far from straightforward.

7.4 Health outcomes, health service outcomes and quality of care

7.4.1 Population health

Health status and differences in health status across groups are monitored by the department using a range of indicators, including specific cause mortality rates, potential years of life lost and life expectancy, as well as aspects of service utilization such as elective hospital admission rates, ambulance response times and immunization rates. It also monitors differences in respect between

socioeconomic groups using area-based measures of deprivation as well as between urban and rural dwellers. Outcomes at the subregional level (i.e., at the trust level) and inequalities between groups within the trust are also monitored and changes over time examined.

The most recent report of health inequalities at the Northern Ireland level (DHSSPS, 2009d) indicates significant differences between those who live in the most deprived parts of Northern Ireland and those who live in the most affluent parts. The largest inequalities between deprived and more affluent areas overall related to alcohol-related deaths (121% higher), drug-related deaths (113% higher), admissions for self-harm (94% higher), teenage births (80% higher), suicide (73% higher), respiratory death rates (66% higher) and lung cancer incidence (65% higher) (National Centre for Social Research, 2012). Differences are evident in the size of the gap at the subregional level: for example, while the gap in alcohol-related deaths was 103% in the Belfast Trust area, it was 76% in the Northern Trust area, with rank ordering of inequality gaps also varying on occasion (DHSSPS, 2010a). These variations may reflect differences between trust populations in socioeconomic disparities rather than different approaches to addressing inequalities. Overall male and female life expectancies were 4.4 years and 2.6 years lower, respectively, in deprived areas compared with Northern Ireland overall (National Centre for Social Research, 2012).

Over time, significant improvements have been achieved with regards to several inequalities; for example, differences in childhood immunizations evident in 2004 were virtually eliminated by 2007. Similarly, while fluctuations are evident over time, infant mortality rates in deprived areas have declined from 7.5 infant deaths per 1000 live births in 2001 to 5.9 in 2008, compared with a drop in affluent areas from 5.7 to 5.2 in the same period (National Centre for Social Research, 2012).

In other areas such as alcohol-related deaths and deaths amenable to health care (the standardized amenable mortality rate), the gaps have remained largely unchanged in recent years. Standardized amenable mortality rates in the most deprived areas decreased from 128.4 to 117.1 deaths per 100 000 population between 2005 and 2008, compared with a drop from 93.7 to 84.6 in the more affluent areas over the same period (National Centre for Social Research, 2012). In other areas the gap has widened, for example in suicides and deaths as a result of circulatory disease in people under 75 years. For suicides, the number of deaths per 100 000 has risen from 15.3 in 2001 to 23.3 in 2008 in the most deprived areas, but less sharply in affluent areas from 9.3 to 13.5. Gaps for

rural/urban dwellers have also been noted, and similar heterogeneity is seen in changes in these over time. Notably, perhaps, the gap in ambulance response times between urban and rural dwellers has fallen markedly over time.

7.4.2 Health service outcomes and quality of care

Assessing the quality of a health care system is not straightforward given the multifaceted nature of quality. A recent review assessed the quality of the health care systems of each of the four countries of the United Kingdom (Sutherland & Coyle, 2009). It examined the systems in terms of effectiveness, access and timeliness, capacity, safety, patient centeredness and equity – these qualities collectively being deemed to constitute the quality of the service. Where data were available, Northern Ireland compared reasonably relative to other United Kingdom countries across many of the measures used. With respect to life expectancy at birth for example, among males this increased by 4.8 years in Northern Ireland in 1991–1993 and 2005–2007 matching the increase in Wales and exceeding that in Scotland where the increase was 4.6 years (the increase in England was 5.3 years). Female life expectancy at birth increased over the same period by 3.3 years in Northern Ireland compared with 2.9 years in Wales and 3.4 years in Scotland (and 3.4 years in England). Improvements in cause-specific mortality in Northern Ireland exceeded those of other United Kingdom countries in some areas, notably ischaemic heart disease; the declines in mortality from ischaemic heart disease in 1999 and 2006 in Northern Ireland, England, Wales and Scotland, respectively, were in males 37.4%, 33.5%, 35.0% and 36.2% and in females, 33.7%, 33.2%, 29.6% and 33.3%. However, in other areas, such as cancer improvements in mortality, rates in Northern Ireland have lagged behind those in all other countries of the United Kingdom (and by international standards).

Examination of data gathered as part of the Quality Outcomes Framework (used in part to determine the reimbursement of GPs) indicates that patients in Northern Ireland receive care consistent with evidenced-based practice – indeed practices from Northern Ireland and Scotland generally record the highest achievement scores using the Quality Outcomes Framework of the four constituent parts of the United Kingdom. While in relation to access, the measures, based largely on waiting lists, highlight the relatively poor performance of Northern Ireland, in other areas such as capacity it was noted that GP surgeries in Northern Ireland were assessed to be the best equipped in the United Kingdom.

Relating health outcomes to health care as opposed to its wider determinants including lifestyle is by no means straightforward. Studies by Desai et al. (2011) across the four constituent countries of the United Kingdom used mortality amenable to health care to assess performance between 1990 and 2009. The study reveals a complex picture. Amenable mortality in Northern Ireland (deaths per 100 000 of the population amenable to health care) were 87.0 among men and boys compared with 105.44 in Scotland and 83.5 in England and Wales. Among women and girls the figures were, respectively, 74.0 (Northern Ireland), 82.3 (Scotland) and 67.9 (England and Wales). The percentage improvement among all disease amenable to health care compared with 1999 among men and boys was greatest in Northern Ireland (43.3%), followed by England and Wales (39.1%) and then Scotland (38.7%). Among women and girls the respective figures were 32.4%, 35.1% and 32.7%, although in both genders variations were evident between particular diseases.

7.5 Health system efficiency

Two recent reports have analysed the efficiency of the Northern Ireland health system relative to health systems in other parts of the United Kingdom: Appleby (2005, updated in 2011) and Connolly, Bevan & Mays (2010). Bearing in mind the difficulty of making cross-national comparisons, an issue discussed at length in both reports and revisited in detail in a recent Audit Office report comparing the four systems (NAO, 2012), the following paragraphs summarize some key findings.

NHS expenditure per capita was highest in Scotland at almost £1800 (€2160), followed by Northern Ireland, which was on a par with Wales at a little over £1600 (€1920) per capita, with England being lowest at under £1600 per capita (all figures quoted from Connolly, Bevan & Mays (2010) relate to 2006).

Staffing and the staffing per head of population are key indicators of health care inputs. Connolly, Bevan & Mays (2010) indicated that, at just over 2.0 whole-time equivalents, Northern Ireland had slightly more hospital medical and dental staff per head of population than Scotland, Wales and England. Northern Ireland had significantly more managerial and support staff per 1000 population compared with any other part of the United Kingdom, although the authors note the difficulty in comparing like with like for Northern Ireland given figures there include individuals employed within PSS, which is not the case for Britain. In 2011, the Northern Ireland Audit Office expressed the view that greater savings than those achieved in health and social care management

and administration could have been expected following the Review of Public Administration, a view with which the Department of Health disagreed (NIAO, 2011).

With regard to outputs, Connolly, Bevan & May (2010) found Northern Ireland had lower rates per 10 000 population for surgical procedures such as knee replacement, hip replacement, coronary artery bypass grafts and varicose vein operations than any other United Kingdom country (Table 7.2). It is difficult to imagine that all the differences here can be explained in terms of differences in needs.

Table 7.2

Breakdown of operating rates per 10 000 population, United Kingdom, 2006

	England	Northern Ireland	Scotland	Wales
Hip replacement	12.5	10.0	13.4	12.6
Knee replacement	11.9	6.2	11.3	12.8
CABG	8.0	3.6	Not available	7.4

Source: Connolly, Bevan & May, 2010.

Note: CABG: coronary artery bypass graft.

Appleby (2011) found unit costs for day case, elective and non-elective inpatient, as well as all activity, to be higher in Northern Ireland than in England in 2008, just over one-fifth higher in the case of all activity (Appleby, 2011: Fig. 20). Acute activity per head of hospital and community health service staff was between 17% and 30% lower in Northern Ireland than in England, although depending on the service involved slightly better than in Scotland and on a par with Wales (Appleby, 2011: Fig. 27).

With respect to hospital beds, Northern Ireland has approximately one-quarter more acute beds per 100 population than England (Appleby, 2011: Fig. 29), but with less intensive utilization – 55 inpatient spells per bed per year compared with 72 for England. Patients also tend to stay in hospital for longer periods – nearly 28% (1.2 days) longer than the average English patient, although again Northern Ireland's performance is broadly similar to that of Scotland. Pharmaceutical costs rose faster in Northern Ireland than anywhere else in the United Kingdom between 2006 and 2009; net ingredient costs per head of population rose by over 8% in Northern Ireland during this period compared with 2.2% in England and, in 2011, were 40% higher than in England. While generic dispensing was noted to have improved over time in Northern Ireland – from around 50% in 2007 to 62% in 2009 – it is still low in comparison with England (68%).

Productivity in the Northern Ireland health service is currently lower than in England (Appleby, 2005, 2011; Connolly, Bevan & Mays, 2010; DHSSPS, 2011h) so output could potentially be increased with no additional resources. Moreover, reason 9 (of 11) in the argument for change put forward by the Compton Review (DHSSPS, 2011h) is "making best use of resources available". Given the constraints on public expenditure arising from the financial situation, improving efficiency is a particularly important avenue to increase service provision. However, Compton envisages that this can be achieved by a continuation of the current managerial approach: in terms of the principles for change, "partnership working will be central". According to the evidence of Charles Normand (2011), before the health committee at Stormont, "efficiency savings come from detailed, hands-on scrutiny and really working at things". How strong are the incentives to achieve this within the current system? Does partnership accelerate progress or prolong paralysis?

7.6 Transparency and accountability

Under the 2009 Reform Act, the department has overall responsibility for the development of policy, establishment of priorities and allocation of resources in pursuance of the aim of improving health and reducing health inequalities in the people of Northern Ireland. This strategic vision informs the DHSSPS's position in discussions regarding the allocation of budgets between departments (and the determination of the Programme for Government) and provides the context for the development of an annual Commissioning Direction to the HSCB, the Priorities for Action, Commissioning Plan and Trust Delivery Plans.

As noted in Chapter 2, emphasis is placed on consultation and cooperation in the development of plans both between HSC bodies including the PHA and with the public. A statutory requirement is placed on each HSC body involved in the commissioning and delivery of health and social care to provide information about the services for which it is responsible as well as to gather information about care needs and the efficacy of care it provides. This statutory requirement extends to the development of a consultation scheme, which must set out how the organization involves and consults with patients, clients, carers and the PCC about the health and social care for which it is responsible through the LCGs.

Despite the relatively high levels of satisfaction with services noted in Table 7.1, issues of communication, sharing of information and the need for consultation with the public attracted comment in a household survey of 1009 adults selected to be representative of the Northern Ireland population

in terms of age, gender social class and geography undertaken as part of the Compton Report (see section 6.2), although the results of this survey may not be generalizable. The size and complexity of HSC bodies and the difficulty of identifying where decisions originate may also adversely affect accountability. Identifying who is responsible for underperformance, for example, becomes more difficult.

Issues have been identified relating to aspects of financial management within trusts and the handling of information by and sharing of concerns between HSC bodies. These issues attracted comment in a recent report by the Controller and Auditor General's Office (NIAO, 2011), which noted (for example) that a *Clostridium difficile* outbreak was linked to risks arising from the management of organizational change (Hines et al., 2011). These issues have sometimes resulted in the establishment of reviews, discussion in the Assembly and media interest. However, it is difficult to establish how Northern Ireland compares with other health systems in respect to governance and transparency.

8. Conclusions

Northern Ireland is a small geographically isolated region of the United Kingdom. Its population of 1.8 million is less than 3% of that of the United Kingdom. In all of the United Kingdom's four constituent countries, the NHS operates on the principle of equal access on the basis of need to care that is largely free at the point of use. However, the organization of the NHS in Northern Ireland is radically different to that in England, despite superficial similarities. A crucial difference between the two countries concerns the commissioning of hospital services. In Northern Ireland, unlike in England, there is no competition between trusts. This has two important implications. First, funds to hospitals are effectively distributed geographically based on a formula designed to ensure horizontal equity. Second, there is no market pressure on individual hospitals and control is essentially bureaucratic.

While bureaucratic in organization, the health system in Northern Ireland eschews strict hierarchy. Instead it promotes cooperation and consensus between all organizations, mirroring to some extent the system of government as a whole, where the representatives of the two communities have to be in agreement for change to be effected. HSC trusts in Northern Ireland have a legal obligation to break even, which would suggest they face a hard budget constraint that should militate towards efficient operation. However, the notion of break even can be interpreted flexibly as was seen in 2009/10 with respect to the Northern Trust (see section 3.3), which received additional funding to help it "achieve" break even status. Within a declared framework of cooperation and consensus it is not clear how in the final analysis power is distributed between organizational layers, and further research on this point is necessary.

The emphasis on consensus and cooperation is understandable but it can lead to complacency. Effective control over the system relies on transparency and information to ensure provider challenge and, more broadly, accountability throughout the health system. In the absence of competition, the imperative

for purchasers to demand transparency and hold providers to account may be less apparent. As evident from reviews by the Audit Office and reviews commissioned by the DHSSPS, there are grounds to believe that accountability mechanisms are currently inadequate. The Health and Social Services and Public Accounts committees in the Assembly frequently complain that they are presented with faits accomplis rather than being engaged in the decision-making process. If the bureaucratic system is to continue in Northern Ireland it is essential that greater emphasis be given to the generation of relevant data in a timely fashion to facilitate informed debate, national health system performance measurement and intra-United Kingdom and international comparisons. It is perhaps telling that in a survey to determine the one thing that would make a better health service in Northern Ireland just one respondent thought Northern Ireland had lessons to learn from best practice in other countries, while 126 thought more staff/no more staff cutbacks was central (DHSSPS, 2011h).

A second key difference concerns the integration of health and social care. Health and social care in Northern Ireland are commissioned and provided within an integrated framework, whereas in other parts of the United Kingdom social services are the responsibility of local government rather than the NHS. Some commentators assert that integration exists more on paper than in reality (Hudson & Henwood, 2002). However, most of what has been written about the success and failure of integration in Northern Ireland (of which there is a paucity) has not been informed by empirical research (Heenan & Birrell, 2006). This is another area to which further research could usefully contribute (DHSSPS, 2010d).

According to the McKinsey Report (DHSSPS, 2010d), demographic change with respect to the number and composition of the population will require an annual increase of 0.7% in the HSC budget. On top of this, improvements in health and social care technology, professional practice and increases in client expectations – referred to as “residual growth” – will, in the absence of structural change, lead to an annual increase of 2.4% (DHSSPS, 2010e, p.26). In the light of this and against the background of the contemporary financial position, it is impossible to argue with the assessment of the Compton Review (DHSSPS, 2011h) that “no-change” is not a responsible option and one that would eventually result in a crisis in provision. The major proposal in response by Compton was to suggest a move from hospital to community care.

9. Appendices

9.1 References

- Appleby J (2005). *Independent review of health and social care services in Northern Ireland*. Belfast: DHSSPS (<http://www.dhsspsni.gov.uk/appleby-report.pdf>, accessed 19 March 2012).
- Appleby J (2011). *Rapid review of Northern Ireland health and social care funding needs and the productivity challenge: 2011/12–2014/15*. Belfast: DHSSPS (http://www.dhsspsni.gov.uk/final_appleby_report_25_march_2011.pdf, accessed 15 June 2012).
- BBC News Website (2011). *Edwin Poots considers bringing back prescription charges*, 12/12/2011 (<http://www.bbc.co.uk/news/uk-northern-ireland-16145841>, accessed 5 January 2012).
- Belfast HSC Trust (2011). *Annual accounts for the year ended 31 March 2011*. Belfast, Belfast HSC Trust (http://www.belfasttrust.hscni.net/pdf/Annual_Accounts_2010-11.pdf, accessed 10 February 2012).
- Belfast HSC Trust (2012). Map web page. Belfast, Belfast HSC Trust (http://www.belfasttrust.hscni.net/pdf/Health_and_social_care_trust_areas_in_NI.pdf, accessed 20 June 2012).
- Belfast Local Commissioning Group (2011). Belfast Local Commissioning Plan 2011–12. Belfast, Belfast Local Commissioning Group (<http://www.hscboard.hscni.net/lcg/050%20Belfast%20Local%20Commissioning%20Group/1%20Publications/Belfast%20LCG%20-%20Draft%20Local%20Commissioning%20Plan%202011-2012%20-%20PDF%20743KB.pdf>, accessed 6 June 2012).
- Bell D (2010). *The impact of devolution: long term care provision in the UK*. Stirling, University of Stirling (<http://www.jrf.org.uk/sites/files/jrf/impact-of-devolution-long-term-care.pdf>, accessed 19 March 2012).
- Boyle S (2011). United Kingdom (England): health system review. *Health Systems in Transition*, 13(1):1–486.
- BSO (2010). *Dental charges*. Belfast, BSO (<http://www.hscbusiness.hscni.net/services/2068.htm>, accessed 16 June 2012).
- BSO (2012). *Pharmaceutical statistics*. Belfast, BSO (<http://www.hscbusiness.hscni.net/services/1806.htm>, accessed 19 March 2012).
- Butler P, Jamison J (2007). *Removing the barriers: an initial report on the potential for greater cross-border co-operation in hospital services in Ireland*. Armagh, Centre for Cross Border Studies (<http://borderireland.info/pubs/BI-01876.pdf>, accessed 24 November 2011).

- CAWT (2011). *Annual Report 2011: Putting patients, clients and families first*. Londonderry, Co-operation and Working Together Group (<http://www.cawt.com/Site/11/Documents/Publications/CAWT%20Annual%20Report/CAWT%20AR%202011%20%20final.pdf>, accessed 14 August 2012).
- Centre for Cross Border Studies (2011). *Cross border briefings*. Armagh, Centre for Cross Border Studies (<http://www.crossborder.ie/briefings/your-guide-to-co-operation-in-health-services/>, accessed 24 November 2011).
- Connolly S, Bevan G, Mays N (2010). *Funding and performance of healthcare systems in the four countries of the UK before and after devolution*. London, The Nuffield Trust (http://www.nuffieldtrust.org.uk/sites/files/nuffield/funding_and_performance_of_healthcare_systems_in_the_four_countries_report_full.pdf, accessed 2 July 2012).
- Department of Finance and Personnel (2008). *Budget 2008–11*. Bangor, Department of Finance and Personnel (<http://www.northernireland.gov.uk/finalbudget.pdf>, accessed 21 May 2012).
- Department of Finance and Personnel (2010). *In-year monitoring of public expenditure: 2010–11 guidelines, 2.3*. Bangor, Department of Finance and Personnel (<http://www.dfpni.gov.uk/in-year-monitoring-of-public-expenditure-2010-11-guidelines.pdf>, accessed 21 May 2012).
- Department of Health, Financial Planning and Allocations Division (2011). *Resource allocation: weighted capitation formula (seventh edition)*. London, Department of Health (http://www.dh.gov.uk/en/Managingyourorganisation/Financeandplanning/Allocations/DH_076396, accessed 19 March 2012).
- Department of Health Payment by Results Team (2011). *PbR and the Market Forces Factor (MFF) in 2011–12*. London, Department of Health (http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_124434.pdf, accessed 19 March 2012).
- Desai M, Nolte E, Karanikolos M, et al. (2011). Measuring NHS performance 1990–2009 using amenable mortality: interpret with care. *Journal of the Royal Society of Medicine*, 104; 370–379.
- DETI (2011). *Labour market report, March 2011*. Belfast, Department of Enterprise, Trade and Investment (http://www.detini.gov.uk/lmr_march_2011-2.pdf, accessed 25 July 2011).
- DHSSPS (2001). *Acute hospitals review group: report June 2001*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/hayes_report.pdf, accessed 18 September 2012).
- DHSSPS (2004). *A fourth report from the capitation formula review group*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/capitation-cfrg-fullrpt-no1.pdf>, <http://www.dhsspsni.gov.uk/capitation-cfrg-fullrpt-no2.pdf>, accessed 11 June 2012).
- DHSSPS (2005). *Information and communication technology strategy*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/ict-strategy.pdf>, accessed 20 February 2012).
- DHSSPS (2006). *Strategic resources framework 2006/07. Glossary of terms*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/strategic_resources_framework_2006-07_glossary_of_terms.pdf, accessed 8 June 2012).
- DHSSPS (2008). *Appendices to the summary of HSC expenditure 2007/2008*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/show_publications?txtid=40902, accessed 16 June 2012).
- DHSSPS (2009a). *Delivering the Bamford vision: the response of Northern Ireland Executive to the Bamford review of mental health and learning disability*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/bamford_action_plan_2009-2011.pdf, accessed 19 October 2012).

- DHSSPS (2009b). *HSC finance regime changes*. Belfast, DHSSPS ([http://www.nigala.hscni.net/Class%204-How%20We%20Make%20Decisions/Information%20Assets/Audit&Remuneration%20Committee/2010/13%20May%202010/HSS\(F\)%2017%202009%20Reform%20of%20HSC%20Finance%20Regime_Breakeven%20position%20enclosure.pdf](http://www.nigala.hscni.net/Class%204-How%20We%20Make%20Decisions/Information%20Assets/Audit&Remuneration%20Committee/2010/13%20May%202010/HSS(F)%2017%202009%20Reform%20of%20HSC%20Finance%20Regime_Breakeven%20position%20enclosure.pdf), accessed 13 June 2012).
- DHSSPS (2009c). *North–south feasibility study*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/north-south-feasibility-study-final-report-19th-feb-09.pdf>, accessed 10 February 2012).
- DHSSPS (2009d). *Northern Ireland health and social care inequalities monitoring system. Third update bulletin 2009*. Belfast, DHSSPS. (http://www.dhsspsni.gov.uk/inequalities_monitoring_update3.pdf, accessed 24 May 2012).
- DHSSPS (2009e). *Northern Ireland hospital statistics – historical series*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/key-facts-98-04.pdf>, accessed 21 June 2012).
- DHSSPS (2010a). *NI health & social care inequalities monitoring system. Sub-regional inequalities – HSC Trusts 2010*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/subreg_inequalities_monitoring_1.pdf, accessed 24 May 2012).
- DHSSPS (2010b). *Northern Ireland hospital statistics: inpatient and day case activity statistics (2009/10). Table 3a*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/inpatient_hospital_statistics_2010-11.pdf, accessed 20 June 2012).
- DHSSPS (2010c). *Northern Ireland hospital statistics: inpatient and day case activity (2009/10) Downloadable tables*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/index/stats_research/hospital-stats/inpatients/hospital-stats-previous.htm, accessed 21 June 2012); also, historical series maintained from the same site (<http://www.dhsspsni.gov.uk/key-facts-98-04.pdf>, accessed 21 June 2012).
- DHSSPS (2010d). *Reshaping the system: implications for Northern Ireland’s health and social care services of the 2010 spending review*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/2010-hsc-spending-review-implications.pdf>, accessed 14 August 2012).
- DHSSPS (2010e). *Reshaping the system: transforming Northern Ireland’s Health and Social Care Services. Appendix – Part 1* (http://www.dhsspsni.gov.uk/print/reshaping_the_system__part_1.pdf accessed 11 October 2012).
- DHSSPS (2011a). *About the department*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/index/about_dept.htm, accessed 24 February 2012).
- DHSSPS (2011b). *Capital accounting manual 2011–12*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/cam2011-12.pdf>, accessed 10 February 2012).
- DHSSPS (2011c). *Emergency care statistics 2010/11*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/downloadable_tables_201011.xls, accessed 7 March 2012).
- DHSSPS (2011d). *Evidence of Sheelin McKeagney before the Committee for Health, Social Services and Public Safety of the NIA (2011). Official report (Hansard) on 12 October 2011*. (http://www.niassembly.gov.uk/Documents/Official-Reports/Health/Minutes-of-Evidence-2011-2012/111012_LCG_CommissioningPlans.pdf, accessed 8 June 2012).
- DHSSPS (2011e). *Framework document*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/framework_document_september_2011.pdf, accessed 24 February 2012).
- DHSSPS (2011f). *Northern Ireland hospital statistics: inpatient and day case activity (2010/11)*. Belfast, DHSSPS. Downloadable tables obtained from (http://www.dhsspsni.gov.uk/index/stats_research/hospital-stats/inpatients.htm, accessed 21 June 2012).
- DHSSPS (2011g). *Resource accounts for the year ended 31 March 2011*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/2010-11-dra.pdf>, accessed 15 February 2012).

- DHSSPS (2011h). *Transforming your care: a review of health and social care in Northern Ireland*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/transforming-your-care-review-of-hsc-ni-final-report.pdf>, accessed 20 June 2012).
- DHSSPS (2012a). *Changes to national pay bands from 1 April 2012*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/hsc_afc__2__2012_-_nhs_agenda_for_change_terms_and_conditions_of_service_handbook__amendment_number_26_-_changes_to_national_pay_bands_from_1_april_2012.pdf, accessed 18 September 2012).
- DHSSPS (2012b). *Pay and employment unit*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/index/hrd/pay_and_employment.htm] accessed 18 September 2012).
- DHSSPS Modernisation and Improvement Programme Board (2009). *Planning and finance – MIPB recommendations*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/mipb_-_04-09.pdf, accessed 13 June 2012).
- EPM (2007). *Economics in peace making: lessons from Northern Ireland*. London: The Portland Trust (http://www.portlandtrust.org/publications/EPM_Northern_Ireland.pdf, accessed 25 July 2011).
- Ferguson H, Devine P (2011). An ordinary life? Caring in Northern Ireland today. *Research Update 75* (June 2011) (<http://www.ark.ac.uk/publications/updates/update75.pdf>, accessed 8 March 2012).
- Gosling, P (2009). *Enniskillen Hospital signed off: public finance* (<http://www.paulgosling.net/2009/06/enniskillen-hospital-signed-off-public-finance/> accessed 13 August 2012).
- Gray AM (2008). What difference does a decade make? Satisfaction with the NHS in Northern Ireland in 1996 and 2006. *ARK Research Update*, 52:1–4. (<http://www.ark.ac.uk/publications/updates/update52.pdf>, accessed 24 May 2012).
- Heald D (2009). *Memorandum by Professor David Heald to House of Lords, Select Committee on the Barnett Formula*. London, The Stationery Office (<http://www.davidheald.com/publications/lordsbarnett.pdf>, accessed 13 August 2012).
- Health and Social Care Board/Public Health Agency (2010). *Joint commissioning plan 2010/2011*. Belfast, Health and Social Care Board (<http://www.publichealth.hscni.net/publications/joint-commissioning-plan-health-and-social-care-board-and-public-health-agency-2010-2011>, accessed 12 June 2012).
- Health and Social Care Board (2011). *Annual accounts for the year ended 31 March 2011*. Belfast, Health and Social Care Board (<http://www.hscboard.hscni.net/publications/Annual%20Reports/474%20Annual%20Accounts%20for%20Year%20Ending%2031%20March%202011%20-%20PDF%201MB.pdf>, accessed 8 June 2012).
- Heenan D, Birrell D (2006). The integration of health and social care: the lessons from Northern Ireland. *Social Policy and Administration*, 40:47–66.
- Hines, DD et al. for the Inquiry Panel (2011). *Public inquiry into the outbreak of Clostridium difficile in Northern Trust hospitals*. London, The Stationery Office (<http://www.cdifinquiry.org/inquiry-report.htm>, accessed 24 May 2012).
- HM Treasury (1999). *Public expenditure statistical analyses (PESA) 1999–2000*. London, HMSO (<http://www.hm-treasury.gov.uk/d/10.pdf>, accessed 30 June 2012).
- HM Treasury (2003). *Public expenditure statistical analyses (PESA) corrigendum, corrected tables for Chapter 8*. London, HMSO (http://www.hm-treasury.gov.uk/d/PESA_20Corrigendum1.pdf, accessed 30 June 2012).
- HM Treasury (2010). *Funding the Scottish Parliament, National Assembly for Wales and Northern Ireland Assembly: statement of funding policy*. London, The Stationery Office (http://cdn.hm-treasury.gov.uk/sr2010_fundingpolicy.pdf, accessed 18 September 2012).

- HM Treasury (2011a). *Public Expenditure Statistical Analyses (PESA) Chapter 9 and Chapter 10 excel tables*. London, The Stationery Office (http://www.hm-treasury.gov.uk/pesa2011_section4.htm, accessed 30 June 2012).
- HM Treasury (2011b). *PFI data web page*. (http://www.hm-treasury.gov.uk/ppp_pfi_stats.htm-pfi_signed_projects_list_november_2011_excel_spreadsheets, accessed 8 February 2012).
- HM Treasury (2011c). *PFI data web page*. London, The Stationery Office (http://www.hm-treasury.gov.uk/ppp_pfi_stats.htm-pfi_projects_in_procurement_list_november_2011_excel_spreadsheets, accessed 8 February 2012).
- HM Treasury (2011d). *UK Private Finance Initiative Projects: summary data*. London, The Stationery Office (http://www.hm-treasury.gov.uk/d/pfi_data_summary_november_2011.pdf, accessed 8 February 2012).
- HM Treasury (2012). *Public expenditure statistical analyses (PESA), Ch 9 and 10*. London, The Stationery Office (http://www.hm-treasury.gov.uk/pespub_pesa12.htm, accessed 17 September 2012).
- House of Commons (2006). *Number of people who received an MRI scan*. (<http://www.publications.parliament.uk/pa/cm200506/cmhansrd/vo061107/text/61107w0055.htm>, accessed 21 June 2012).
- House of Commons Treasury Committee (2011). *Private finance initiative*. London, The Stationery Office (<http://www.publications.parliament.uk/pa/cm201012/cmselect/cmtreasy/1146/114602.htm>, accessed 20 June 2012).
- Hudson B, Henwood M (2002). The NHS and social care: the final countdown? *Policy and Politics*, 30(2):153–166.
- Jamison J, Butler M, Clarke P, et al. (2001). *Cross-border co-operation in health services in Ireland*. Armagh, Centre for Cross Border Studies.
- Knox C (2010). *Devolution and the governance of Northern Ireland*. Manchester, Manchester University Press.
- McGregor P, McKee P, O'Neill C (2006). GP utilization in Northern Ireland: exploiting the gatekeeper function. *Economic and Social Review*, 37(1):71–90.
- McWhirter L (2002). *Health and social care in Northern Ireland: a statistical profile*. Belfast, DHSSPS (http://www.dhsspsni.gov.uk/hsc_stats_profile.pdf, accessed 24 May 2012).
- MSA-Ferndale Secta (2003). *Research on the differential costs of providing health and social services across Northern Ireland arising through economies of scale*. Belfast, DHSSPS (<http://www.dhsspsni.gov.uk/differential-costsno1.pdf>, accessed 11 June 2012).
- NAO (2012) *Healthcare across the UK: a comparison of the NHS in England, Scotland, Wales and Northern Ireland*. London, National Audit Office, 27 June 2012.
- National Centre for Social Research (2012). *British social attitudes 28*. London, SAGE Publications (http://ir2.flife.de/data/natcen-social-research/igb_html/pdf/1000001_e.pdf, accessed 24 May 2012).
- NHS (2012). *The information centre*. Leeds, NHS Information Centre (<http://www.ic.nhs.uk/services/the-casemix-service/new-to-this-service/what-are-healthcare-resource-groups-hrgs>, accessed 8 June 2012).
- NIA (2010). *Committee for Finance and Personnel, 2 June 2010, Budget (No. 3) Bill: Main Estimates 2010–2011: Briefing by the Department of Finance and Personnel*. Belfast, The Stationery Office (<http://archive.niassembly.gov.uk/record/committees2009/FinancePersonnel/100602BudgetNo3Bill.htm>, 13 June 2012).

- NIA (2009). *Health and Social Care (Reform) Act (Northern-Ireland) 2009*. Belfast: The Stationery Office (http://www.legislation.gov.uk/nia/2009/1/pdfs/nia_20090001_en.pdf, accessed 24 February 2012).
- NIA (2011). Committee for Health, Social Services and Public Safety Official Report (Hansard), Wednesday 21 September 2011/2010–11 Resource Spend and 2011–12 Budget. Belfast, Northern Ireland Executive ([http://www.niassembly.gov.uk/Assembly-Business/Official-Report/Committee-Minutes-of-Evidence/September-2011/2010-11-Resource-Spend-and-2011-12-Budget-/,](http://www.niassembly.gov.uk/Assembly-Business/Official-Report/Committee-Minutes-of-Evidence/September-2011/2010-11-Resource-Spend-and-2011-12-Budget-/) accessed 13 June 2012).
- NIA Research and Library Service (2010a). *Current management structure and costs of the HSC trusts*, p.4 (<http://www.niassembly.gov.uk/researchandlibrary/2010/16510.pdf>, accessed 16 June 2012).
- NIA Research and Library Service (2010b). *Northern Ireland Assembly: Research and Library Services briefing paper 2010. Capital investment programme for the DHSSPS*. (<http://archive.niassembly.gov.uk/researchandlibrary/2010/6510.pdf>, accessed 20 June 2012).
- NIA Research and Library Service (2011). *The DHSSPS budget: where does the money go?* (<http://archive.niassembly.gov.uk/researchandlibrary/2011/1511.pdf>, accessed 16 June 2012).
- NIAO (2010a). *Northern Ireland Assembly, Official Report (Hansard) Committee for Health, Social Services and Public Safety 2010–11 Resource Spend and 2011–12 Budget*. Belfast, Northern Ireland Audit Office ([http://www.niassembly.gov.uk/Assembly-Business/Official-Report/Committee-Minutes-of-Evidence/September-2011/2010-11-Resource-Spend-and-2011-12-Budget-/,](http://www.niassembly.gov.uk/Assembly-Business/Official-Report/Committee-Minutes-of-Evidence/September-2011/2010-11-Resource-Spend-and-2011-12-Budget-/) accessed 13 June 2012).
- NIAO (2010b). *General report on the health and social care sector by the Comptroller and Auditor General of Northern Ireland – 2009*, p.7. Belfast, Northern Ireland Audit Office (http://www.niauditoffice.gov.uk/index/publications/report_archive_home/reports_archive_2010/general_report_on_the_health_and_social_care_sector_by_the_c_ag_for_ni_2009.pdf, accessed 16 June 2012).
- NIAO (2011). *General report on the health and social care sector by the Comptroller and Auditor General for Northern Ireland – 2010 & 2011*. Belfast, Northern Ireland Audit Office.
- NIE (2008). *Investment strategy for Northern Ireland 2008–2018* (http://www.sibni.org/investment_strategy_for_northern_ireland_2008-2018.pdf, accessed 20 June 2012).
- NIE (2010). *Revised 2010–11 spending plans for NI departments* (<http://www.northernireland.gov.uk/revised-20102011-spending-plan.pdf>, accessed 15 June 2012).
- NISRA (2010). Population and migration estimates Northern Ireland (2010) – statistical report (<http://www.nisra.gov.uk/archive/demography/population/midyear/Statistical%20Report%20-%20MYE%20NI%202010.pdf>, accessed 20 June 2012).
- NISRA (2011a). *Mid-year population estimates*. Belfast, Northern Ireland Statistics and Research Agency (<http://www.nisra.gov.uk/demography/default.asp17.htm>, accessed 25 July 2011).
- NISRA (2011b). *Stillbirths and infant deaths* Belfast, Northern Ireland Statistics and Research Agency (<http://www.nisra.gov.uk/demography/default.asp9.htm>, accessed 25 July 2011).
- Normand C (2011). *Evidence to the Committee on Health, Social Services and Public Safety, 18 January 2011*. Belfast, DHSSPS (http://archive.niassembly.gov.uk/record/committees2010/HSSPS/110118_ProfNormand.htm, accessed 2 July 2012).

- Northern Health and Social Care Trust (2011) *Northern Health and Social Care Trust Annual Accounts for the year ended 31 March 2011*. Ballymena, Northern Health and Social Care Trust (http://www.northerntrust.hscni.net/pdf/Annual_Accounts_2010_2011.pdf, accessed 22 May 2012).
- Northern Health and Social Care Trust (2012). *Trust Board Finance Report as at 29 February 2012*. Ballymena, Northern Health and Social Care Trust (http://www.northerntrust.hscni.net/pdf/Trust_Financial_Report_February_2012.pdf, accessed 21 April 2012).
- ONS (2010). *Regional gross value added (income approach), December 2010*. Newport, Office for National Statistics (<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-50236>, accessed 25 July 2011).
- ONS (2011a). *All releases of population estimates for UK, England and Wales, Scotland and Northern Ireland*. Newport, Office for National Statistics (<http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15106>, accessed 25 July 2011).
- ONS (2011b). *Interim life tables 2008–2010*. Newport, Office for National Statistics (<http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223324>, accessed 19 October 2012).
- Ouchi WG (1979). A conceptual framework for the design of organisational control mechanisms, *Management Science*, 25:833–848.
- PartnershipsUK (2009). Northern Ireland web page. London, PartnershipsUK (<http://www.partnershipsuk.org.uk/PUK-Projects-Database-Map.aspx?Region=Northern%20Ireland>, accessed 20 June 2012).
- Public Health Agency (2011). Annual report 2010–2011. Belfast, Public Health Agency (http://www.publichealth.hscni.net/sites/default/files/PHA_Annual_Report_2010-2011_2011_08_0.pdf, accessed 7 June 2012).
- Public Sector Employment (2011) *Statistical bulletin Q4 2010*. Newport, Office for National Statistics, March 2011.
- RG Annual Report for Northern Ireland 1980, 1990, 1995, 2000, 2005, 2009, 2010. Belfast, NISRA (<http://www.nisra.gov.uk/demography/default.asp22.htm>, accessed 16 March 2012).
- Statement to the Assembly (2012) Minister for Finance and Personnel, Sammy Wilson, MP, MLA (<http://www.dfpi.gov.uk/2011-12-january-monitoring-round-statement>, accessed 12 May 2012).
- Statutory Rules of NI (2009). *Health and Social Care: the local commissioning groups (number, area and functions) regulations (Northern Ireland)* (http://origin-www.legislation.gov.uk/nisr/2009/99/pdfs/nisr_20090099_en.pdf, accessed 8 June 2012).
- Sutherland K, Colye N (2009). *Quality in healthcare in England, Wales, Scotland, Northern Ireland: an intra-UK chartbook*. London: The Health Foundation.
- Telford C, O'Neill C (2012). Changes in dental healthcare registration across the adolescent years: Northern Ireland longitudinal study. *British Dental Journal*, 212(9):1–6.
- Telford C, Murray L, Donaldson M, et al. (2012). An analysis examining socio-economic variations in the provision of NHS general dental practitioner care under a fee for service contract among adolescents: Northern Ireland longitudinal study. *Community Dentistry and Oral Epidemiology*, 40(1):70–79.
- Wagstaff A, van Doorslaer E, van der Burg H, et al. (1999) Equity in the finance of health care: some further international comparisons. *Journal of Health Economics*, 18:263–290.
- WHO Regional Office for Europe (2012). *European Health for All database* (HFA-DB) [offline database]. Copenhagen, WHO Regional Office for Europe (<http://www.euro.who.int/hfadb>, accessed 31 January 2012).

9.2 Useful web sites

Department of Health, Social Services and Public Safety:
<http://www.dhsspsni.gov.uk/>

Northern Ireland Statistics and Research Agency: <http://www.nisra.gov.uk/>

Business Services Organisation: <http://www.hscbusiness.hscni.net/>

Northern Ireland Audit Office: <http://www.niauditoffice.gov.uk/>

Northern Ireland Assembly: <http://www.niassembly.gov.uk/>

Regulation and Quality Improvement Authority: <http://www.rqia.org.uk/>

9.3 Additional sources for Chapter 4

Sources used in the construction of Table 4.1 and Figs 4.11–4.14 are detailed below. The bulk of these data was downloaded directly from the Internet and consequently only the file address (URL) is provided. All data was accessed on 21 June 2012. The construction of the data in Table 4.1 is considered by row.

GPs: [http://www.hscbusiness.hscni.net/pdf/MEDICAL-GPs_by_Gender\(From_1985\).xls](http://www.hscbusiness.hscni.net/pdf/MEDICAL-GPs_by_Gender(From_1985).xls)

Other doctors: these figures are derived from the Northern Ireland Health and Social Care Workforce Survey, which is published annually. The number of doctors is included in the category Medical and Dental. The series 1990–2002 can be obtained from: http://www.dhsspsni.gov.uk/wf_2001_tablea.pdf and 2002–2011 from:

http://www.dhsspsni.gov.uk/workforce_census_march_2011.pdf.

The medical and dental category is split between medical and dental departments for the period 2007–2011 in Table 2a; the category is also split by headcount and whole time equivalents (WTEs) – the latter figures have been used in the graphs displayed in the text. The proportion of dentists varies between 3.35 and 4.26% in the years 2007–2011. For 2007–2009 the proportion is stable at 0.0375 and this was used to estimate the relative numbers of doctors and dentists for the years 1990–2006. The results, together with the mid-year population estimates are available at: <http://www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-uk--england-and-wales--scotland-and-northern-ireland/population-estimates-timeseries-1971-to-current-year/>

rft---table-1-total-persons-constituent-countries-regions.zip while the per capita figures for doctors in Northern Ireland that appear in Table 4.1 are from: <http://www.ons.gov.uk/ons/taxonomy/index.html?nscl=Population+Estimates>.

Caution is required in comparing workforce levels within the UK. An amendment notice posted in 2010 stated: “Allied Health Profession services are organized differently across each of the UK countries such that it is not strictly meaningful to compare those employed within the Health sector alone. . . . For this reason the UK comparison chapter in the HSC Workforce Census March 2009 has been removed”.

Nurses and midwives: obtained directly from the category that appears in the HSC census data referred to above.

Dentists: the sum of the estimate from the medical and dental category discussed above and those that are employed as part of FPS whose numbers are given on the BSO website (<http://www.hscbusiness.hscni.net/services/1805.htm>) under the heading Dental Practitioners 1985–2010.

Optometrists: obtained from the BSO website: <http://www.hscbusiness.hscni.net/services/1807.htm>

Occupational therapists, physiotherapists and radiographers: from HSC census data.

The full list of nursing specialties included in the UK figures is from United Kingdom Health Statistics 2010, Chapter 8: Health and care resources, Tables, Box 2: <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcn%3A77-213417>

9.4 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory’s research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: <http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010>.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments. With its summer 2007 edition, the Health for All database started to take account of the enlarged EU of 27 Member States.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.

4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which IT systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.
6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process (see the following section).
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that

all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

9.5 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

9.6 About the authors

Ciaran O’Neill is Professor of Health Technology Assessment at NUI Galway. He has researched across a range of subjects including service utilization, health technology assessment and cost of illness. He has held lectureships at the Department of Economics Queen’s University Belfast, the School of Economics and the School of Medicine, University of Nottingham, as well as Chairs in Health Economics and Policy at the University of Ulster and in Oral Health Research, Queen’s University Belfast. He has held visiting positions at the University of Michigan’s Institute of Gerontology, the RAND Corporation and the University of Nottingham. He has acted in an advisory capacity to the Northern Ireland Assembly’s health committee and is part of HIQA’s scientific advisory group on health technology assessment.

Pat McGregor is Senior Lecturer in the School of Economics at the University of Ulster. His research is in applied economics and he has published in the areas of health economics, poverty, income inequality, finance and development economics. Currently one strand of his research is analysing fertility using data from the Northern Ireland Longitudinal Study where he chairs the Research Forum.

Sherry Merkur is Research Fellow at the European Observatory on Health Systems and Policies and LSE Health, London School of Economics and Political Science and Co-editor of *Eurohealth*, the health policy publication. Her research interests include comparative health policy, pharmaceutical pricing and reimbursement, the economics of public health, EU regulation and law, and quality of care.

The Health Systems in Transition profiles

A series of the European Observatory on Health Systems and Policies

The Health Systems in Transition (HiT) country profiles provide an analytical description of each health care system and of reform initiatives in progress or under development. They aim to provide relevant comparative information to support policy-makers and analysts in the development of health systems and reforms in the countries of the WHO European Region and beyond. The HiT profiles are building blocks that can be used:

- to learn in detail about different approaches to the financing, organization and delivery of health services;
- to describe accurately the process, content and implementation of health reform programmes;
- to highlight common challenges and areas that require more in-depth analysis; and
- to provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in countries of the WHO European Region.

How to obtain a HiT

All HiTs are available as PDF files at www.healthobservatory.eu, where you can also join our listserve for monthly updates of the activities of the European Observatory on Health Systems and Policies, including new HiTs, books in our co-published series with Open University Press, Policy briefs, Policy summaries, and the *Eurohealth* journal.

If you would like to order a paper copy of a HiT, please write to:

info@obs.euro.who.int

The
publications of the
European Observatory on
Health Systems and Policies
are available at
www.healthobservatory.eu



HiT country profiles published to date:

Albania (1999, 2002^a)	Republic of Korea (2009)
Andorra (2004)	Republic of Moldova (2002^g, 2008^g)
Armenia (2001^g, 2006)	Romania (2000^f, 2008)
Australia (2002, 2006)	Russian Federation (2003^g, 2011)
Austria (2001^e, 2006^e)	Scotland (2012)
Azerbaijan (2004^g, 2010^g)	Slovakia (2000, 2004, 2011)
Belarus (2008^g)	Slovenia (2002, 2009)
Belgium (2000, 2007, 2010)	Spain (2000^h, 2006, 2010)
Bosnia and Herzegovina (2002^g)	Sweden (2001, 2005, 2012)
Bulgaria (1999, 2003^b, 2007^g, 2012)	Switzerland (2000)
Canada (2005, 2012)	Tajikistan (2000, 2010^g)
Croatia (1999, 2006)	The former Yugoslav Republic of Macedonia (2000, 2006)
Cyprus (2004, 2012)	Turkey (2002^g, 2011)
Czech Republic (2000, 2005^g, 2009)	Turkmenistan (2000)
Denmark (2001, 2007^g, 2012)	Ukraine (2004^g, 2010)
Estonia (2000, 2004^g, 2008)	United Kingdom of Great Britain and Northern Ireland (1999^g)
Finland (2002, 2008)	United Kingdom (England) (2011)
France (2004^{cg}, 2010)	United Kingdom (Northern Ireland) (2012)
Georgia (2002^{dg}, 2009)	United Kingdom (Scotland) (2012)
Germany (2000^e, 2004^{eg})	United Kingdom (Wales) (2012)
Greece (2010)	Uzbekistan (2001^g, 2007^g)
Hungary (1999, 2004, 2011)	Veneto Region, Italy (2012)
Iceland (2003)	
Ireland (2009)	
Israel (2003, 2009)	
Italy (2001, 2009)	
Japan (2009)	
Kazakhstan (1999^g, 2007^g, 2012)	
Kyrgyzstan (2000^g, 2005^g, 2011)	
Latvia (2001, 2008)	
Lithuania (2000)	
Luxembourg (1999)	
Malta (1999)	
Moldova (2012)	
Mongolia (2007)	
Netherlands (2004^g, 2010)	
New Zealand (2001)	
Norway (2000, 2006)	
Poland (1999, 2005^k, 2012)	
Portugal (1999, 2004, 2007, 2011)	

Key

All HiTs are available in English.
When noted, they are also available in other languages:

^a Albanian

^b Bulgarian

^c French

^d Georgian

^e German

^f Romanian

^g Russian

^h Spanish

ⁱ Turkish

^j Estonian

^k Polish

^l Tajik



The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Ireland, the Netherlands, Norway, Slovenia, Spain, Sweden and the Veneto Region of Italy, the European Commission, the European Investment Bank, the World Bank, UNCAM (French National Union of Health Insurance Funds), the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

HITs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.