Northern Ireland Skills and Labour Market Intelligence Assessment 2011

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1 Executive Summary

This is Skills for Health's 2011 Sector Skills and Labour Market Intelligence Assessment of the health sector in Northern Ireland. It is one of a suite of assessments for the sector which together cover the UK and each of its countries (England, Northern Ireland, Scotland and Wales).

Our first sector skills assessment of the health sector in Northern Ireland, conducted in late 2009, signalled a period of significant change for the sector. Impending change was fuelled by a range of short- and longer-term drivers. It was clear that after the credit crisis the Government was likely to explore how significant cost savings might be made in public sector expenditure, with clear impacts on the health sector. In the longer term, the demand for health provision would continue to grow through a combination of demographic changes and shifts in expectations of service quality.

Following the formation of the coalition government in May 2010, there have been a substantial number of initiatives, and early announcements indicate that the landscape of institutions and their roles in all 'sub-sectors', public, private and voluntary, are set for significant change.

In Northern Ireland, as in Scotland and Wales, elections due in 2011 are likely to herald policy movements in health and related sectors as newly elected or re-elected governments seek to reform public services. Such developments will influence the shape of employment and skills needs in each country.

During this period of rapid change, it can be challenging to see the relevance of acting on the skills needs and development of the workforce. But during such times, it is even more important to address skills development and skills utilisation in the health sector. Failure to address these skills issues during this period of transition will undermine the sector's ability to deliver high-quality services and make gains in productivity in Northern Ireland in the future.

Using a comprehensive range of primary and secondary sources and forward-looking consultation activities, this assessment highlights how the health sector in Northern Ireland is confronted with a range of current and near-future skills needs. It highlights how the sector may wish to prepare the skills of employees further with reference to use of technology and other innovative approaches.

Current skills demand

Health sector employers in Northern Ireland will need to address current skills deficiencies identified including:

- The development of ‘team working’, ‘problem solving’ and ‘communication skills’; high-quality skills in these areas will help prevent errors in patient care and provide employees with a springboard for future development.
- An increase in opportunities for those in largely routine roles (often described as Agenda for Change pay band levels 1-4) in the health sector to undertake training and development.
- A reduction in dependence on migrant labour in the health sector.

Towards 2020: emerging skills priorities

Our assessment also indicates that moving towards 2020, employers in Northern Ireland will face a growing range of skills-related priorities including:

- Enhancement of the quality of management and leadership, particularly through excellent employee engagement and follower-ship.
- Continued development of workforce planning capability in the sector to assist with changes to a highly complex set of services.
- Growth in the supply of those willing and able to undertake new roles at level 3 and 4 of the NHS Career Framework (Assistant Practitioner roles).
- Growth in the supply of those undertaking new roles at level 7 of the NHS Career Framework (Advanced Practitioner roles).
- Ongoing development of new skills sets in the light of new opportunities to exploit technology, including navigator/facilitator roles.
- Ongoing willingness of healthcare professionals to deliver care in areas that require multi-disciplinary working within diverse teams.
- Growth in the skills and volume of those working in a range of non-traditional healthcare providers and community settings.
- The development of health skills for non-health specialists to assist family carers and to facilitate self-care, supported by a combination of Information Technology and human contact.

Beyond 2020: opportunities for skills development

The Northern Ireland health sector will need to look beyond the next decade to position itself for new markets and begin to monitor the skills requirements as they emerge. Skills for Health’s own monitoring activities have identified a number of early trends that may set the course for future development of the sector. The applications of genetics, new diagnostic methods and robotics all present potential opportunities for the health sector that need to be met by enhanced IT and technology-related skills.

Helping the sector meet current and future skills and employment challenges

This assessment will inform Skills for Health's engagement with government agencies throughout Northern Ireland's education and training system, and ongoing debates with employers in the sector. The aim of this will be to enable the development of greater responsiveness in the skills system.

Skills for Health also has a comprehensive range of products and services to help employers address the skills needs of the sector. Full details of these can be viewed in the Skills for Health Catalogue at www.skillsforhealth.org.uk.

We would be delighted to hear your views on any of the themes raised in this assessment. If you would like to get involved with any of our work, please contact lmi@skillsforhealth.org.uk.

2 Introduction

About Skills for Health

Skills for Health is the Sector Skills Council (SSC) for the United Kingdom's health sector. It covers all those working in the sector, public, private and voluntary. The sector can be technically defined using the 2007 Standard Industrial Classification (SIC). A breakdown of the technical codes for the sector and SSC can be found in Chapter 13, *Appendix 1 – SIC Definitions* of this report.

How the assessment was developed

Skills for Health developed this sector skills assessment with close reference to the Common Labour Market Intelligence (LMI) Framework, established by the UK Commission for Employment and Skills (UKCES).

The assessment draws upon a range of research undertaken by Skills for Health since it was originally licensed in 2005, and a significant number of external sources, such as the Labour Force Survey and Annual Business Inquiry. The overall research agenda is guided by Skills for Health's board and ongoing engagement with employers to determine their needs.

During 2009 and 2010 Skills for Health has undertaken a comprehensive programme of research aimed at enriching its knowledge of the skills and employment issues across the sector. Those relevant to Northern Ireland include:

- Tomorrow's Workforce: Commentaries on the future of skills and employment in the UK's health sector.
- The Hidden Workforce, The Role of Health and Social Care Volunteers in Northern Ireland.
- Identifying the Movement of the Workforce around the sector.
- Understanding the Contribution of Skills to Productivity in the UK Health Sector.
- Rehearsing Uncertain Futures – Scenario Planning Application and Horizon Scanning.
- Labour Market Intelligence for Counselling Professions.

The research undertaken has utilised a mix of quantitative and qualitative methodologies. These range from questionnaires, structured interviews with 'experts' and employers, statistical quantitative analysis of secondary data, and future-orientated research which included scenario planning and the use of technology to scan the internet for areas of development within the sector.

The research initiative of particular importance to the development of this assessment has been Rehearsing Uncertain Futures, Skills for Health's future-orientated scenario planning and LMI initiative. Conducted throughout 2009/10, this initiative assisted Skills for Health in identifying current and future skills priorities facing employers in the health sector.

A summary of each of the methodologies used in each of the research reports above is contained within Appendix 2 of the full UK sector skills assessment.

In addition, Skills for Health presented its 2009/2010 skills assessment to a number of employer audiences in England, Scotland, Wales and Northern Ireland. During these events, employers confirmed the overall trajectory of skills and employment needs that they would be confronted with in the immediate and longer-term future. These discussions have informed the Rehearsing Uncertain Futures initiative, as well as the broader 2011 sector skills assessment.

Full details of Skills for Health's programme of work can be found on www.skillsforhealth.org.uk.

About this document

This document is a report of findings from the 2011 UK sector skills assessment relating to the Northern Ireland health sector only. It is one of a suite of reports for the sector which together cover the UK and each of its countries (England, Scotland, Wales and Northern Ireland).

3 Key Findings for Northern Ireland and its Health Sector

3.1 Introduction

This health sector skills assessment provides the basis for anticipating the future employment and skills priorities for health sector employers, and indicates that *continuing to do more of the same rather than doing things differently is unsustainable and unaffordable*.

The pace of change in the sector has picked up as the governments of England, Scotland, Wales and Northern Ireland seek to deal with the economic deficit and with longer-term concerns about how the workforce can raise its performance to deal with an ever-increasing demand for healthcare services[1].

Employers throughout the health sector in the UK and Northern Ireland must respond to the strategic drivers and the challenge of continuing to meet increasing demand with finite resources by improving productivity. They will also be required to demonstrate the value of new methods of delivering care in a broader range of environments.

During this period of extensive change, Skills for Health's role as a Sector Skills Council is to monitor and inform developments and to assist employers in finding the best approach to skills development and achieving the best skills mix.

This chapter summarises the key findings from this sector skills assessment. It provides a setting for understanding the skills priorities facing the sector, through a brief account of:

- The health sector in Northern Ireland.
- Workforce characteristics.
- Shaping the demand for healthcare in Northern Ireland.
- Current skills needs and training provision.
- Projection of future levels of employment in the sector.
- Current and future developments.
- Further developments.

[1] Demand for healthcare services is arising from drivers such as demographic change and population's health seeking behaviours. Appleby et al (2010) Improving NHS Productivity, More with the same not more of the same. Developed for The Kings Fund.

It then addresses the skills priorities that will face health sector employers in the coming years, and highlights where Skills for Health will work to support employers to effectively deal with these priorities. Priorities outlined include:

- Achieving better for less.
- Addressing skills gaps and vacancies.
- Reducing dependence on migration.
- Continued development of the roles at Levels 3 and 4 of the NHS Career Framework (Assistant Practitioner roles).
- Continued development of roles at level 7 of the NHS Career Framework (Advanced Practitioner roles).
- Continuing focus on employability and functional skills.
- The development of management, leadership and engagement.
- A focus on the skills needs of small and medium sized health care providers.
- Enhancing workforce-planning capability.
- Local intelligence to assist decision making.
- Qualifications and Framework development.

Skills for Health has reviewed the most recent sources of reliable available data to inform this Sector Skills Assessment. The health sector is developing at a fast pace, and where the most recent source of available data on a specific subject or region is no longer timely, this is highlighted clearly within the report. Skills for Health has made every effort to analyse and interpret the available data in the context of today’s economic, political and social environment.

3.2 Setting the context for future skills priorities

3.2.1 The health sector in Northern Ireland

The health sector represents one of the largest sectors of employment within Northern Ireland. It employs an estimated 72,000 workers, which accounts for approximately 10% of the whole economy. Almost 25% are employed in the independent sector, with 75% employed in the NHS and voluntary sector. In addition to this, there are also a large number of volunteers helping to support a wide range of services, though their numbers are more difficult to quantify.

Employment within the sector grew by an estimated 29% between 1997 and 2007; this growth was supported by increased government investment in the NHS over the period. The growth in overall employment numbers has, however, slowed since 2003. It is anticipated that in the short term, employment across the sector will remain stable or reduce slightly, this will be a product of the need for the sector to make efficiency savings in line with the financial settlements for the NHS.

There is a very real need for employers across the sector to improve productivity and quality of services whilst delivering efficiencies within the context of an austere economic environment. There can be no doubt that the financial settlement for the public sector will drive further debate in respect of efficiency and productivity across the sector.

3.2.2 Workforce characteristics

There are a wide range of paid and voluntary roles across the sector. It is estimated that there are over 300 paid roles and 111 different roles undertaken by volunteers.

Females make up almost 80% of the total workforce; this presents unique challenges to employers across the sector in offering flexible working arrangements to employees.

The sector in Northern Ireland is unique to the UK in that it employs a higher proportion of the workforce aged between 16 and 24 years (11%). Despite this the workforce is a little older than the average of other sectors. This skewed profile largely results from training times for professional staff, where many professionals do not join the sector until their mid twenties or early thirties. The opportunities for young people (16 – 21 year olds) are therefore limited to administrative and clinical support roles.

The sector is highly qualified with 61% of the workforce holding qualifications equivalent to NQF Level 4 and above, this compares to a whole economy average of 33%.

3.2.3 Projections of future levels of employment

Forecasts of levels of employment for the sector were produced prior to the recession. These projections predict growth for the sector in Northern Ireland of almost 9% over a ten-year period.

More recent intelligence and data in relation to the levels of public spending available to the health sector indicate that growth will be severely constrained over the short to medium term, perhaps with some decreases in overall levels of employment in some staff groups over the short term.

Occupations that may see a decrease include Administrative and Managerial roles, as employers across the sector seek to increase productivity and efficiency whilst protecting front line services for patients.

Analysis of the data available demonstrates that there is an opportunity for the sector and its employers to utilise retirements as a mechanism by which they can deliver transformational workforce change.

3.2.4 Current skills demand

Whilst the sector boasts a highly qualified workforce there remains a range of current skills gaps, skills shortages and occupational shortages that are highlighted as an immediate priority for the sector. These priorities are evidenced through national skills surveys, analysis of NHS vacancy data and the Migration Advisory Committee (MAC) Skilled, Shortage and Sensible shortage occupation list for the UK and Scotland.

Within the sector an estimated 14% of employers in Northern Ireland report that they are experiencing current skills gaps. This is lower than the percentages reported for England, Scotland and Wales.

The MAC list contains 35 occupations with distinct shortages, these include:

- Consultants within certain specialties.
- Pharmacists.
- Dental practitioners.
- Specialist nurses and therapists in certain roles.

In addition to the findings above there is a need for employers to identify and address literacy and numeracy skills gaps across the sector. This action will be needed if employers want to progress individuals within the sector in order to deliver flexibility in healthcare delivery.

Addressing literacy and numeracy needs may however require a fundamental shift in the training patterns across the sector, Analysis of access to training across the workforce highlights an apparent inequality, with those individuals who already hold high levels of qualification (typically medical consultants or senior managers) reporting they receive more ongoing training than individuals without a high level of qualification (those in routine or support roles). If employers aspire to enhance skills utilisation across the whole workforce, they may need to examine and analyse these issues further in order to break down any barriers that currently exist.

3.2.5 What drives skills demand?

There are many drivers shaping the demand for healthcare in Northern Ireland.

During 2009 Skills for Health developed Rehearsing Uncertain Futures, a scenario-planning initiative aimed at supporting health sector employers in planning for the workforce of the future.

This initiative involved the synthesis of several future-looking activities and the factors that emerged as driving change within the health sector are:

- The NHS concept.
- Funding of healthcare.
- Public/private healthcare.
- Demographic changes.
- Political developments.
- Developments in bioscience, pharmaceuticals and technology.
- The choice agenda.
- Societal trends.

3.2.6 Towards 2020: emerging skills priorities

The near-future challenges for employers across the sector will be on developing a flexible and more productive workforce through more effective skills utilisation of the existing workforce. It is envisaged that the sector as a whole will increasingly be interested in:

- The development of new roles at Levels 3 and 4 of the NHS Career Framework.
- The development of roles at Level 7 of the NHS Career Framework.
- Ongoing professional development.
- The ongoing impact of ICT on roles and skills within the health sector.
- Developing capacity and capability of the volunteer workforce.
- Informal and unpaid carers.
- Self-managed care.
- Developing Management and Leadership.

3.2.7 Beyond 2020: opportunities for skills development

There will be potential opportunities for the sector a little further in the future, particularly through exploiting developments in bioscience, pharmaceuticals and technology, to improve services and outcomes for patients. Some of these potential developments could have significant implications on the skills utilised across the sector, with new skill sets emerging and some existing skills sets no longer being needed.

Areas of development examined include:

- The human genome and genetics.
- Innovation in diagnostics and treatment.
- Innovation in robotics and technology.

Each of these innovations are likely to shape the health sector in the long term and provide opportunities for employers to improve services, which will in turn impact on the shape of the workforce and on skills needs.

Employers will also need to consider the cost implications of these developments, and plan training interventions to ensure smooth transitions to new ways of working.

3.3 Helping the sector meet current and future skills and employment challenges

This Sector Skills Assessment has contributed to the identification of a range of current and future skills and employment priority areas for health sector employers across Northern Ireland and the UK to address.

These are skills areas which Skills for Health feels employers will be increasingly focused on in the near future in order to improve productivity and flexibility within the workforce. They will inform Skills for Health's own priorities for action and solutions for the sector. It will also enable us to report skills issues to the government to help shape the Government's response to skills needs in the sector. They include:

- Achieving better for less.
- Addressing skills gaps and skills shortages.
- Reducing the sector's dependence on non-EU migration.
- Continuing focus on employability and functional skills.
- Continued development of new roles at NHS Career Framework levels 3 and 4 (Assistant Practitioners).
- The development of roles at NHS Career Framework level 7 (Advanced Practitioners).
- Dealing with the impact of ICT on roles and skills within the health sector
- The development of management and leadership, and high-quality engagement strategies.
- Skills development in small- and medium-sized healthcare providers.
- Enhancing workforce-planning capability.
- The challenge of local intelligence.
- Careers Information and Guidance for all ages.
- Health skills for non-health specialists – community, family and friends.
- Skills to enable greater 'Self-Care'.
- Qualifications and framework development.
- Developments in far-future diagnostics, treatment and technology.

These skills priorities are outlined in more detail in Chapter 11, *Helping the sector meet current and future skills and employment challenges*.

4 The Health Sector in Northern Ireland

Key Features

- There are an estimated 72,300 people employed in the health sector in Northern Ireland.
- There is 1 health employee for every 25 people resident in Northern Ireland.
- There is 1 GP Surgery for every 4,959 residents and 1 NHS Hospital for every 23,187 residents in Northern Ireland. Sub-regionally, this ratio ranges from 1 GP Surgery for every 3,296 up to 10,174 residents and 1 NHS Hospital for every 7,317 up to 99,034 residents.
- The health sector accounts for 10% of the country's total employment.
- The independent sector accounts for approximately 25% of the total health sector workforce in Northern Ireland.

4.1 Introduction

This section looks at the size and structure of the health sector in Northern Ireland using the latest nationally available data; the Northern Ireland Census of Employment 2007[2], the Annual Business Inquiry 2008 (ABI), and the Labour Force Survey (LFS) using a four quarter average July 2009 – June 2010.

The health sector in Northern Ireland comprises of hospitals, medical and dental practices, ambulance transportation, complementary medicine and other human health activities. These services are delivered across a wide range of organisations within the public, private and voluntary sectors.

Throughout the UK, there is no one single centre of health sector activity and the same can be said for Northern Ireland. Healthcare is delivered to the whole of the population with publicly funded healthcare being free at the point of care. As a result, healthcare employment is distributed throughout the UK and Northern Ireland, often reflecting the levels of population density in a given area.

[2] At the time of publication the latest Northern Ireland Census of Employment was for 2007 and is based upon Standard Industrial Classification (SIC) 2003. This is explained further in section 4.3 and a full descriptive of both SIC 2003 and SIC 2007 are included in the Appendixes.

4.2 Size of the health sector workforce

Table 1 details that in Northern Ireland the health sector employs approximately 72,300 people, accounting for 4% of the total UK health sector workforce. The health sector is a major employer within Northern Ireland and latest data shows the sector accounts for 10% of total employment.

Table 1: Health Employment by Country, 2008

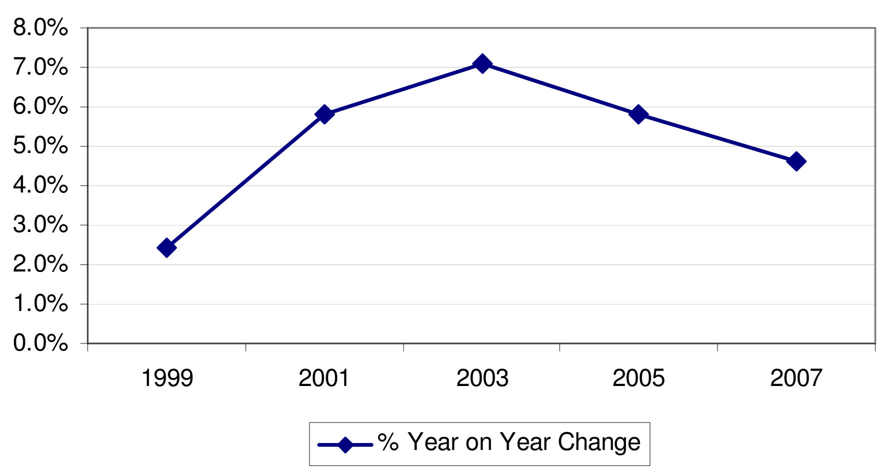
	Total Health Sector Employment	Percentage of UK Health Sector	Health Employments as a Percentage of Whole Economy
Scotland	227,300	12	9
Northern Ireland*	**72,300**	**4**	**10**
Wales	98,900	5	8
England	1,529,700	79	7
United Kingdom	**1,928,200**	**100**	

Source: ABI 2008
Source Northern Ireland – Census of Employment 2007

In our 2009/10 Skills and LMI Report for Northern Ireland we detailed how the health sector had seen a growth rate of 28.5% over the period 1997 – 2007, compared to 21.4% for the whole economy.

Much of this growth occurred between 1999 and 2003. Chart 1 demonstrates that the rate of growth has declined since 2003.

Chart 1: Percentage Change in Growth of Workforce, 1999 - 2007



Source: Northern Ireland – Census of Employment 1997 and 2007

4.3 Changes in health sub-sectors over the period 1997- 2007

The 2003 Standard Industrial Classification (SIC) Human Health is made up of four sub-sectors that define the activities across the health sector. Table 5 shows the variances over the period 1997 – 2007 between the total number of local units and employees by each sub-sector.

Within Northern Ireland the data shows:

- A decrease in the number of local units within sub-sector 85.11 '*hospital activities'* despite an increase in the accompanying workforce of 27%, or 11,720 employees. This indicates that organisations within this sub-sector have perhaps merged or restructured.
- The largest percentage of growth in workforce numbers was seen within 85.12 '*medical practice activities',* with a significant increase of 55%, but with a much lesser rate of growth in the number of local units.
- The dental workforce increased by a third, but again there was a much lower rate of growth in the number of local units.
- The largest overall increase was seen in sub-sector 85.14 '*other human health activities*', with the number of local units increasing by 49% and the accompanying workforce by 30%.

Table 2: Growth Rates in Number of Local Units and Employees by Sub Sector, 1998 – 2007

Local Units	**Northern Ireland**			
	1997	**2007**	**Variance**	**%**
85.11 Hospital activities	443	360	-83	-19
85.12 Medical practice activities	395	441	46	12
85.13 Dental practice activities	339	362	23	7
85.14 Other human health activities	373	556	183	49
Total	**1,550**	**1,719**	**169**	**11**
Employees				
85.11 Hospital activities	43,828	55,548	11,720	27
85.12 Medical practice activities	2,265	3,513	1,248	55
85.13 Dental practice activities	1,417	1,888	471	33
85.14 Other human health activities	8,714	11,313	2,599	30
Total	**56,224**	**72,262**	**16,038**	**29**

Source: Northern Ireland Census of Employment

The growth in each sub-sector greatly influences the current and potential demand on the labour market. Demand for occupations will impact on training provision, although demand has to be planned with sufficient timing to allow for new staff to obtain qualifications or existing staff to retrain.

4.4 Number of health units

Health sector units account for 4% of all units in the Northern Ireland economy and 3% of all health sector establishments in the UK are located in Northern Ireland.

This is undoubtedly influenced by the size and distribution of the population, but as Table 6 illustrates, Northern Ireland has more units for every 1 resident compared to the other three countries and is also higher than the UK average.

It is also important to highlight that within each country of the UK, health services are structured differently.

Table 3: Health Units by Country, 2008

	Health Units	Percentage of UK Health Units	Percentage of Units in Whole Economy
England	45,200	85	2
Scotland	3,800	7	2
Wales	2,500	5	2
Northern Ireland*	**1,700**	**3**	**4**
UK	**53,200**	**100**	**2**

Source: ABI 2008
*Northern Ireland Census of Employment 2007

Table 4 indicates that the health sector is dominated by micro-establishments. Currently 63% of all health and social care units employ 1-10 employees, with the majority being in the 1-4 employee sizeband.

The timing of the data releases in relation to the recession means that it is too early to draw firm conclusions regarding trends. The increases in establishments with 11-24 employees and the decrease in establishments with 1-4 employees may be indicative of the early effects of the recession on the sector with some employers downsizing and others ceasing to trade.

Table 4: Size and Structure of the Health and Social Work Sector 2005 - 2007

Sizeband – Employees	2005	2007	Market Share %
1 - 4	2,200	2,000	41
5 -10	1,100	1,100	22
11 - 24	800	900	18
25 - 49	500	500	10
50 - 99	200	200	4
100 - 199	100	100	2
200 or more	<100	<100	0
Total	**5,000**	**4,900**	**100**

Source: Northern Ireland Census of Employment, all figures rounded to nearest hundred

It is difficult to supplement this data further by ascertaining the number of business registering/de-registering in the health sector as goods and services are VAT exempt, with the exception of the dispensing of prescriptions by a registered pharmacist, which is currently zero rated.

4.5 Public and independent health providers

Health services are delivered through both private and public providers, the public sector being a combination of NHS and Voluntary[3] organisations.

Using annualised Labour Force Survey data we can estimate in Northern Ireland the independent sector accounts for 25% of the total health workforce, of which 44% are employed in hospital activities.

It is important to note that the percentages are not definitive as employees can work in both, if not all three, sectors at any one time.

Table 5: Healthcare Employees by the Independent and Public sector

	Independent		Public		Total	
	Employees	%	Employees	%	Employees	%
86.10 Hospital activities	6,900	11	33,100	52	40,000	63
86.21/22 Medical combined[4]	800	1	800	1	1,600	3
86.23 Dental practice activities	2,700	4	300	<1	3,000	5
86.90 Other human health activities	5,400	8	13,900	22	19,300	30
Total	**15,800**	**25**	**48,100**	**75**	**63,800**	**100**

Source: Labour Force Survey, 4 Quarter Average Q3 2009 – Q2 2010
All number rounded to the nearest 100

4.6 Ratio of health establishments and employees in Northern Ireland

Table 6 shows the ratio of health establishments and employees to the resident population. A high ratio could be indicative of easier access to services and regional variations in health system structures. This table is subject to future debate.

The population[5] of Northern Ireland is estimated at 1,788,900. This means that there is one health unit for every 1,041 resident population and one health employee for every 25 resident population.

[3] Definition used by the Labour Force Survey
[4] Sub-sector 86.21 general medical practice activities and 86.22 Specialists medical practice activities combined for continuity in data sets
[5] Population extracted Nomis 9 December 2009 – Mid year population estimates 2008

Table 6: Ratio of Health Establishments and Employees to Resident Population, 2008

	Population Estimates 2009		Resident Population to every 1 Health Establishment	Resident Population to every Health Employee
	Data	%		
England	51,809,700	83.8	1,147	34
Scotland	5,194,000	8.4	1,360	23
Wales	2,999,300	4.9	1,201	30
Northern Ireland	**1,788,900**	**2.9**	**1,041**	**25**
UK	**61,792,000**		**1,161**	**32**

Source: Source: ABI 2008
Northern Ireland – Census of Employment 2007

4.7 Ratio of GP surgeries and NHS hospitals

Within Northern Ireland there is 1 GP Surgery for every 4,959 residents and 1 NHS Hospital for every 23,187 resident population.

At a subregional level this can range from 1 GP Surgery for every 3,296 resident's in Fermanagh, up to 10,174 residents in Carrickfergus and 1 NHS Hospital for every 7,317 resident's in Derry, up to 99,034 residents in Newry and Mourne. However at a District Council Area level both Cookstown and Carrickfergus do not have a NHS Hospital within the geographic area.

At District Council Area level the ratios are:

- Belfast Health and Social Care Trust
  - 1 GP Surgery for every 3,362 residents in Belfast up to 7,216 residents in Castlereagh and
  - 1 NHS Hospital for every 12,649 residents in Belfast up to 21,647 residents in Castlereagh.

- Northern Health and Social Care Trust
  - 1 GP Surgery for every 3,381 residents in Moyle up to 10,174 residents in Carrickfergus and
  - 1 NHS Hospital for every 16,906 residents in Moyle up to 63,212 residents in Ballymena.

- South Eastern Health and Social Care Trust
  - 1 GP Surgery for every 4,906 residents in Ards up to 7,682 residents in Lisburn and
  - 1 NHS Hospital for every 35,397 residents in Down up to 57,619 residents in Lisburn.

- Southern Health and Social Care Trust
  - 1 GP Surgery for every 4,001 residents in Banbridge up to 6,588 residents in Armagh and 1 NHS Hospital for every 14,822 residents in Armagh up to 99,034 residents in Newry and Mourne.

- Western Health and Social Care Trust
  - 1 GP Surgery for every 3,296 residents in Fermanagh up to 6,456 residents in Derry and

- 1 NHS Hospital for every 7,317 residents in Derry up to 39,909 residents in Strabane.

A full analysis at Health and Social Care Trust and District Council Area can be found in Section 14.1, *GP and NHS Hospital Ratio, 2008*.

4.8 Maximum road distances to health services

Due to the urban and rural factors in Northern Ireland it is no surprise the range between the maximum drive times to the nearest GP is so extreme.

At a District Council level the max road distance in kilometres for each service provision is:

- GP Surgery – distances ranges from 2.93 km in Belfast up to 17.08 km in Fermanagh
- A & E – 8.58 km in Belfast up to 46.90 km in Moyle
- Dentist – 2.39 km in Belfast up to 25.13 km in Fermanagh
- Optician & Pharmacist – 4.11 km in Belfast up to 21.69 km in Strabane

The urban/rurality factor can be a major obstacle when considering the effect and impact on workforce development. There are challenges for employers in very rural geographies in having a suitably skilled local labour pool to draw from. Issues also arise in respect of delivering services closer to home in rural areas where the road distances between households and services may impact upon efficiency.

The full table can be found in Section 14.2, *Maximum Road Distances to Health Services (KM)*.

5 Workforce Characteristics

Key Features

- The age profile of the health sector in Northern Ireland is 'older' than the economy, particularly across age bandings 45-54 years.
- The sector is highly feminised; 83% of the health and social care workforce are female.
- The ratio of males employed in the health and social sector is significantly less than that seen in the whole economy, 17% compared to 53%.
- The health sector is highly qualified with 61% of the workforce in Northern Ireland holding qualifications equivalent to 'NQF Level 4 and above' compared to 33% in the whole economy.
- Nurses account for approximately 28% of the workforce but there are over 300 different careers within the sector of which 111 roles are undertaken in part by volunteers.

5.1 Introduction

The following sections outline the main characteristics of the health workforce in Northern Ireland in terms of age, gender, level of highest qualification held, employment patterns and roles and occupations. Differences and similarities are drawn to both the whole economy in Northern Ireland and the health sector and whole economy of the UK.

5.2 Age Profile

The health sector has an older than average age profile when compared to the whole economy. The reason for this is that many of the roles within the sector require the completion of an approved course of study. Individuals do not begin employment within the sector until they have completed formal qualifications at degree level and above. This means that there are fewer joiners to the sector aged between 16 and 24 years of age, when compared to the whole economy. Indeed many opportunities for young people aged between 16 and 21 are limited to administrative and clinical support roles.

Table 7 below shows the LFS age data for the health sector and the whole economy of Northern Ireland and the UK. It demonstrates that:

- The proportion of the workforce in age band 16-24 years is just slightly less than those employed in the whole economy in Northern Ireland. This is an anomaly not seen in any of the countries nor the UK.
- However, generally the health sector employs an older workforce particularly across age bandings 45-54 years compared to the whole economy.

Table 7: Age Profile of the Health Workforce

	Northern Ireland		UK	
	Health Sector %	Whole Economy %	Health Sector %	Whole Economy %
16-24 yrs	11	13	7	13
25-34 yrs	25	24	20	22
35-44 yrs	24	26	27	25
45-54 yrs	27	22	29	23
55-64 yrs	13	12	16	14
65+ yrs	1	2	2	3

Source: Labour Force Survey, 4 Quarter Average July 2009 – June 2010

In addition to the data available from the LFS data Skills for Health have undertaken a scheme of research examining volunteers across the sector in England, Wales and Northern Ireland during 2010.

Our research in Northern Ireland shows that the age profile of health and social care volunteers provides a much younger age profile than the paid workforce with an estimated 34% of volunteers 24 years old or under.

Table 8: Age Profile of Volunteers in Health and Social Care

	Health and Social Care Volunteers %
Under 18 years	15
18-24 yrs	19
25-34 yrs	10
35-44 yrs	9
45-54 yrs	13
55-64 yrs	16
65-74 yrs	17
75+ yrs	2

Source: Skills for Health (2009) The Hidden Workforce: The role of health and social care volunteers.

The implications for service delivery of having a young age profile of volunteers were further explored by the study. Interviews with organisations that have youthful volunteers offering their time noted that typically these volunteers stay with organisations for a relatively short period of time. The reason for this was not explored but within other studies of volunteers[6] it is noted that young volunteers typically give their time in order to develop skills that assist them in obtaining permanent paid employment.

5.3 Gender profile

The health sector has a greater proportion of the workforce that is female when compared to the whole economy. With 83% of the health sector workforce being female, the sector faces challenges that are different to other sectors. These challenges include higher numbers of workers retiring earlier and higher proportions of workers taking career breaks or returning to the sector after career breaks.

Table 9: Gender Profile of the Health Sector

	Northern Ireland	
	Health Sector %	Whole Economy %
Female	83	47
Male	17	53

Source: Labour Force Survey, 4 Quarter Average July 2009 – June 2010

By examining the combined sectors of Health and Social Care[7] we can obtain further detailed examination of employment patterns. This data demonstrates that across the two sectors the overall gender ratio is consistent with that across the health sector. It also indicates that:

- Females working part time account for 42% of the total workforce.
- Employees working part time (those working 30 hours or less a week) account for 47% of the total health and social care workforce. This is much higher than the percentage seen in the whole economy (33%).

[6] Skills for Health (2009), The 'Hidden' Workforce: Volunteers in the Health Sector in England. Developed by the Mackinnon Partnership.
[7] Table 10 is derived for Workforce Jobs by Industry (SIC 2007) and includes Social work but is included in this report to highlight the flexible working hours polices and gender profile

Table 10: Gender Profile of the Health & Social Work Industry, June 2010

	Human Health & Social Work		Whole Economy	
	Data	%	Data	%
Male Full-Time Workers	15,200	12	357,900	43
Male Part-Time Workers	5,800	5	82,200	10
Female Full-Time Workers	50,500	41	199,800	24
Female Part-Time Workers	52,800	42	194,400	23
Male	21,000	17	440,000	53
Female	103,300	83	394,100	47
Full-Time Workers	65,700	53	557,600	67
Part-Time Workers	58,700	47	276,500	33
Total	124,300	100	834,100	100

Source: Nomis – Workforce Jobs by Industry (SIC 2007)

Policies enabling flexible working arrangements have been at the forefront of employers' agendas for many years in order to continue to attract and retain high-calibre employees.

These policies have succeeded in attracting females into roles that have traditionally been very male dominated. In 2008 a study in England demonstrated that 56% of all accepted applicants to medical school were female[8]; although not as high as the sector average, this is a significant reversal of the historic gender balance in this section of the workforce.

The impact of this high level of feminisation across the workforce should not be ignored and underestimated, despite shifts in the expectations of care giving across society still large proportions of these young female doctors will at some point take maternity leave and may request more 'family friendly' working arrangements to allow them to balance work and family life. There is anecdotal evidence that an increasing number of female doctors in training are attracted to General Practice for this very reason.

The sector, although an early leader and adopter of flexible working practices, may therefore wish to re-examine whether or not the options available to the workforce are progressive enough to be an enabler to the progression of the careers of female medics (and indeed other staff groups) rather than a barrier.

Our research shows that there are a significantly greater proportion of female workers within the volunteer workforce as well as the paid workforce. This research demonstrates that across Northern Ireland in some trust areas as many as 75% to 95% of volunteers are female. Many organisations are keen to recruit more male volunteers and are seeking more innovative ways of doing this by linking in with schools and universities.

Examination of NHS data[9] for Northern Ireland reveals that despite a similar gender profile as that estimated by the LFS, certain staff

[8] British Medical Association (2009) Equality and Diversity in UK Medical Schools http://www.bma.org.uk/images/eocreport_tcm41-192128.pdf
[9] Northern Ireland Health and Social Care Workforce Census March 2009. http://www.dhsspsni.gov.uk/workforce_census_march_2009_exc_sec_11.pdf

groups do not follow this general trend. Just over three quarters (76%) of ambulance staff within Northern Ireland are male, whereas only 8% of all nursing and midwifery staff are male.

5.4 Ethnicity profile

There is a greater diversity of ethnicity in the health sector workforce than the whole economy. This is a pattern that is repeated across both Northern Ireland and the UK. Northern Ireland is however significantly less ethnically diverse than other areas of the UK and the difference between the health sector and the whole economy is not significant.

Table 11: Ethnicity Profile of Health Workforce

	Northern Ireland		UK	
	Health Sector %	Whole Economy %	Health Sector %	Whole Economy %
White	97	98	87	91
Non White	3	2	13	9

Source: Labour Force Survey, 4 Quarter Average July 2009 – June 2010

The largest 'non-white' group within the health sector of Northern Ireland is Asian or Asian British at almost 3%.

5.5 Level of highest qualification held

The sector is highly qualified with 61% of the health sector in Northern Ireland holding qualifications equivalent to 'NQF Level 4 and above'. This is higher than the average across the sector in the UK (61%) and significantly higher than the workforce across all sectors of Northern Ireland (33%).

The sector across Northern Ireland still has a challenge, however, in that it is estimated 6% of the workforce holds no qualifications.

Table 12: Level of Highest Qualification Held for Health Sector

	Northern Ireland		UK	
	Health Sector %	Whole Economy %	Health Sector %	Whole Economy %
NQF Level 4 and above	61	33	61	36
NQF Level 3	9	18	11	19
NQF Level 2	13	19	12	18
Below NQF Level 2	8	10	8	12
Other Qualifications	3	5	6	9
No Qualifications	6	14	3	7

Source: Labour Force Survey, 4 Quarter Average July 2009 – June 2010

The challenge for the sector is predominantly based around how it can increase the percentages of the workforce qualified to NQF level 2 and 3 in order to meet the challenges of creating a truly flexible and more productive workforce. This issue, including the challenges in respect of training and development are explored further on in Chapter 8, *What Drives Skills Demand?*

5.6 Roles and occupations in the sector

The sector is naturally dominated in terms of numbers by clinical staff and the profile in Table 13 shows that a high proportion of the workforce is found within Associate Professional and Technical Occupations[10]. There are, however, a wide range of roles across the sector. NHS Careers in England[11] highlight over 300 different careers within the sector including gardeners, window cleaners, and plumbers as well as doctors, nurses and ambulance staff. Although this list of roles has bee produced in England the breadth of roles is relevant across the whole of the UK.

Table 13: Major Occupation Profile of the Health Workforce

	Northern Ireland		UK	
	Health Sector %	Whole Economy %	Health Sector %	Whole Economy %
Managers and Senior Officials	4	11	7	16
Professional Occupations	14	13	16	14
Associate Professional and Technical	47	12	39	15
Administrative and Secretarial	11	14	14	11
Skilled Trades Occupations	<1	17	1	10
Personal Service Occupations	18	9	17	9
Sales and Customer Service Occupations	<1	7	<1	7
Process Plant and Machine Operatives	1	8	1	7
Elementary Occupations	5	10	5	11

Source: Labour Force Survey, 4 Quarter Average July 2009 – June 2010

Table 14 details the six largest '*minor*' occupation groups that make up the Associate Professional and Technical classification.

[10] Associate Professional and Technical occupations include nurses, therapists and midwives etc. whilst Personal Service Occupations include nursing auxiliaries, nursery nurses etc. A breakdown of occupations relating to broad occupational groups can be found in the Glossary.
[11] NHS Careers (2009) http://www.nhscareers.nhs.uk/ accessed 28/01/10

Table 14: Roles within 'Associate Professional and Technical' Classification

Minor Occupation Groups	Total Workforce Size
Nurses	18,100
Midwives	1,900
Physiotherapists	1,700
Medical Radiographers	1,500
Occupational Therapists	1,300
Medical and Dental Technicians	1,000

Source: Labour Force Survey, 4 Quarter Average Q3 2009 – Q2 2010
All figures rounded to the nearest 100

Using the LFS data we can estimate in Northern Ireland, Nurses currently make up almost 61% of the Associate Professional and Technical workforce and 28% of the total health sector workforce.

6 Projections of Future Levels of Health Employment in Northern Ireland

Key Features

- The health sector is entering a period of high uncertainty due to the recent establishment of the coalition government and policy changes, coupled with public sector funding changes. There are decisions still to be made across the public sector that could have a significant impact on employment levels across the sector.
- According to forecasts completed in 2008, the health sector across Northern Ireland is predicted top grow by 7,000 people between 2007 and 2017. These estimates were created prior to the economic downturn and tighter public spending and should therefore be treated with extreme caution
- 32,000 employees are predicted to retire from or leave the sector between 2007 and 2017; this represents an opportunity for employers to reshape their workforce.

6.1 Introduction

Working Futures III 2007-2017[12] is an econometric forecast of changes to employment and skills needs between 2007 and 2017. It seeks to model the impact of technological change, changes in government policy, economic conditions and other social drivers for the UK labour market, including the health sector.

These forecasts for future employment in the sector were produced prior to the recession which began in 2008. The effect of this and tighter public spending will almost certainly mean that these forecasts of expansion are now overstated. Set against a backdrop of tighter public spending, and the dominance in terms of employee numbers of the NHS across the sector, it is unlikely that the sector will experience any significant growth over the short- to medium-term.

6.2 Changes in the workforce by main occupation group

The health sector across Northern Ireland is predicted to grow by 7,000 people (9.2%) between 2007 and 2017; this is lower than the 11.8% growth predicted for the health sector across the UK. However, the sector will need to recruit an additional 39,000 people between 2007 and 2017 to fill new jobs and replace existing workers that will retire or leave the sector.

Table 15 provides an overview of the expansion and net requirement for workers across the sector by occupation groups. The largest expansion in absolute numbers of workers is predicted in the Health Associate Professionals Occupations which includes nurses,

[12] Working Futures 2007-2017, Institute for Employment Research, University of Warwick, December 2008

therapists, midwives etc. This group is predicted to increase by almost 24%. The largest expansion in percentage terms is found within the Corporate/Senior Managers group at 38%.

Table 15: Changes in the Workforce across the Sector by Main Occupation Group 2007 – 2017

	2007 (000s)	2017 (000s)	Estimated Growth 2007-2017 (000s)	Replacement Demand 2007-2017 (000's)	Net Requirement* 2007-2017 (000s)
Corporate/Senior Managers	7	9	3	3	5
Health Associate Professionals (inc. nurses, therapists, midwives etc.)	22	27	5	9	14
Caring Personal Services Occupations (inc. nursing auxiliaries, nursery nurses etc,)	23	24	2	9	11
Health Professionals (inc. medical and dental practitioners, pharmacists, psychologists etc.)	4	4	0	2	1
Science/Technical Professionals (inc. Chemists, Biomedical scientists, etc.)	2	2	1	1	1
Teaching and Research Professionals (inc. special needs teachers, primary and nursery education teachers etc)	1	2	<1	1	1
Business/Public Service Professionals (inc. social workers, accountants etc.)	5	6	<1	2	2
Administrative Occupations (inc. admin officers, wages clerks, filing and records clerks, office assistants etc.)	3	2	-1	1	1
Secretarial (inc. medical secretaries, personal assistants, receptionists etc.)	1	1	-1	1	0
All Other Occupations	11	9	-2	4	2
Total Workforce	**79**	**86**	**7**	**32**	**39**

Source: Working Futures III
*Net Requirement is a total of the estimated expansion of jobs + replacement demand. All figures are rounded to the nearest thousand.

Working Futures III 2007 – 2017 predicts that across Northern Ireland the health sector will:

- Grow by 7,000 employees.
- Need to replace 32,000 employees that will retire.
- Reduce the overall number of people working within 'administrative and secretarial' occupations, however, the age profile of this section of the workforce will mean that recruitment will still be necessary over the period.

As already highlighted, it is important to note that this modelling was completed prior to the start of the recent economic downturn; therefore, actual predictions for growth are now almost certainly overstated although the overall long-term trend may remain true. It is anticipated that whilst growth will return to the sector in the long term that the level of growth will not match the historic trend of the past ten years.

Reports from within the health sector show that many NHS organisations across the UK are preparing for a reduction in overall workforce numbers over the short term with much more subdued levels of growth returning to the sector in the medium term.

Across all parts of the UK there will be focused work to identify areas where workforce reductions can be made without impacting on patient care and the quality of frontline services. There is no reason to believe that the focus in Northern Ireland will be different to other areas of the UK.

Within England and Scotland[13] there is emerging clarity in relation to planned reductions in the administrative and managerial workforce. Organisations are seeking to reduce these numbers in order to protect frontline services to patients. Within England this will be done through major structural change which includes the abolishment of Strategic Health Authorities and Primary Care Trusts.

What the Working Futures III analysis does demonstrate, however, is that there is an opportunity for employers to utilise retirements as a mechanism by which they can deliver transformational workforce changes. However, it should be noted that although the numbers appear very high they represent an annual retirement rate of less than 4%. This, coupled with the knowledge that other types of natural wastage across the sector is very low[14], leads to the conclusion that large-scale workforce transformation programmes undertaken by employers will need to be effected through high-quality workforce planning, together with systematic change management processes, rather than relying wholly on natural wastage.

In addition to this the sector also has a number of individuals that will be leaving professional courses of study over this period; these individuals will be seeking employment within a sector that is very different to the one that existed when they embarked upon their studies. It is highly likely that in the short term the labour market for health professionals will be constrained and competition between graduates will be very high. This newly qualified workforce may have to undertake their first roles as qualified practitioners in specialties that have historically been less attractive. There also exists the potential for short-term oversupply of graduates from universities with new doctors, nurses, therapists etc. struggling to find jobs within the sector following graduation.

[13] Nicola Sturgeon's address to SNP party conference 16th October 2010 http://www.snp.org/node/17405
[14] Skills for Health (2009). Identifying the Movement of the Workforce around the Health Sector. Developed by MacKinnon Partnership

6.3 Changes in the workforce by gender and employment status

Table 16 shows the predicted changes in the workforce by gender and employment status with all figures to the nearest thousand. These figures demonstrate that over the forthcoming years the workforce will change as follows:

- An increase in percentage terms of the number of male workers (although the sector will remain highly feminised).
- A greater general move towards full-time employment.
- The level of workers who are self-employed remaining static.

Table 16: Changes in the Workforce by Gender and Status 2007 – 2017

Levels of Employment 000's				
		2007	**2012**	**2017**
Full-time	*Male*	11	11	11
	Female	32	35	38
Part-time	*Male*	3	3	4
	Female	29	29	28
Self-employed	*Male*	2	2	2
	Female	2	2	2
All workers	*Male*	16	17	17
	Female	63	67	69
	Total	**79**	**83**	**86**

Source: Working Futures III

7 Current Skills Demand

Key Features

- A comparatively strong picture for the health sector in respect of skills gaps, skills shortages and training.
- 14% of health establishments report they have current skills gaps in their workforce.
- Shortages are so severe in 35 occupations that recruitment from outside the EU is necessary.
- 97% of health establishments have provided training for their employees in the past 12 months.
- 45% of all employees in the health sector are estimated to have received training in the past 12 months.
- 37% of the health sector workforce qualified to 'NQF Level 4 and above' report having received training in the past 13 weeks compared to only 19% of those qualified to 'NQF Level 3'.

7.1 Introduction

The Northern Ireland Skills Monitoring Survey 2008[15] report, published by DELNI, provides robust and reliable information from employers in Northern Ireland on recruitment difficulties, skills deficiencies, and workforce development to help in the development of policy and influence actions to address skills issues.

Further analysis of the Skills Monitoring Survey 2008 results at SSC level[16] presents a comparatively strong picture for the health sector with some specific areas that need further work or attention.

[15] DELNI (2009) The Northern Ireland Skills Monitoring Survey 2008 – Main Report http://www.delni.gov.uk/niskillssurvey2008
[16] DELNI (2009) The Northern Ireland Skills Monitoring Survey 2008 Sector Skills Councils (SSC) Report. http://www.delni.gov.uk/nisms_2008_-_final_ssc_report.pdf.pdf

7.2 About skills and employment surveys

National Employer Skills Surveys are carried out by government-funded bodies across England, Scotland, Wales and Northern Ireland. They provide a useful indicator of general skills gaps and shortages[17] across the health sector. Detailed analysis of these surveys[18] presents a comparatively positive picture for the health sector, and highlights some specific areas that need further attention.

The most recent surveys were conducted in England (2009)[19], Scotland (2008)[20] and Northern Ireland (2008)[21]. The latest survey in Wales dates back to 2005[22].

With the exception of the England survey, all of the recent surveys took place prior to the recent recession. All results should therefore be interpreted with caution, as the landscape for employment has dramatically changed. In addition to this, the England survey was conducted at the very start of the recession when the full effects were arguably not felt across the whole economy, and the impact on the public sector had been minimal.

7.3 Skills gaps in the health sector

Skills gaps are said to exist at an establishment when the employer indicates that staff at the establishment are not fully proficient at their jobs. The number of skills gaps refers to the number of staff not fully proficient.

Table 17 shows the percentage of establishments reporting skills gaps. The percentage of health sector establishments reporting skills gaps in 2008 was significantly higher than the level found in the whole economy.

Table 17: Establishments with Skills Gaps, the Health Sector

	% of Establishments with any skills gaps
Health Sector	14
Whole Economy	10

Source: The Northern Ireland Skills Monitoring Survey 2008
Base: All establishments

17 A full definition of skills gaps and skills shortages can be found in the glossary.
18 Skills for Health (currently unpublished), *Health Care Providers and Skills Development, Relevant Findings from the 2009 National Employer Skills Survey for England*
The Alliance of Sector Skills Councils (2009), *Health Scottish Sector profile* (currently unpublished)
19 UKCES (2010) National Employers Skills Survey for England 2009: Main Report https://ness.ukces.org.uk/Hidden%20Library/NESS09/FINAL%20NESS%20Main%20report%20for%20the%20web.pdf
20 Future Skills Scotland (2009) Skills in Scotland 2008. http://www.scotland.gov.uk/Resource/Doc/263613/0078884.pdf
21 Department for Employment and Learning (2009) *The Northern Ireland Skills Monitoring Survey 2008 Main Report*; prepared by IFF Research Ltd http://www.delni.gov.uk/nisms08_final_main_report.pdf.pdf
22 Future Skills Wales (2006) *2005 Sector Skills Survey Main Report* http://www.learningobservatory.com/uploads/publications/436.pdf

7.3.1 Skills that need Improving

The data for Northern Ireland does not allow us to examine specific areas where skills gaps exist, however, if we examine data from other areas of the UK[23] there are areas highlighted that are of significance to the sector and may be of relevance to Northern Ireland.

If the data from the other areas of the UK is analysed further it demonstrates that where skills gaps do exist within health sector organisations, employers report the most common gaps as being in the following areas:

- Problem solving skills.
- Other technical and practical skills.
- Customer handling skills.
- General IT user skills.
- Team working skills.

7.4 Skills supply and training

There is a high incidence of training across the sector as reported in the Northern Ireland Skills Monitoring Survey 2008. Employers within the health sector were much more likely to have provided training for employees in the past 12 months (97% of employers providing training in the health sector compared to an average of 74% across all sectors). This data also highlights that an estimated 49% of employees across the sector have received training in the past 12 months, again this is higher than the average across all sectors (34%).

There is a general pattern across all sectors that more highly qualified employees receive more training than those with lower-level qualifications.

This pattern is seen across the health sector with Table 18 showing that those individuals qualified to NQF Level 4 and above are more likely to have received training in the last 13 weeks than those qualified to NQF Level 2 or equivalent.

Table 18: Percentage of the Health Sector Workforce That Have Received Training in the Last 13 Weeks Split by Qualification Level

	Northern Ireland %
NQF Level 4 and above	37
NQF Level 3	19
NQF Level 2	20
Below NQF Level 2	34
Other qualifications	30
No qualifications	29

Source: Labour Force Survey, 4 Quarter Average July 2009 – June 2010

[23] England 2009 and Scotland 2008 National Employer Skills Surveys.

This analysis of access to training across the workforce highlights an apparent inequality, with those individuals who already hold high levels of qualification (typically medical consultants or senior managers) reporting they receive more ongoing training than individuals without a high level of qualification (those in routine or support roles). If employers aspire to enhance skills utilisation across the whole workforce, they may need to examine and analyse these issues further in order to break down barriers.

8 What Drives Skills Demand?

Key Features

- Identifiable public expenditure on health has increased by 38% over the period 2004-05 to 2009-10.
- After Social Protection, Health is the next priority with a planned spend per head of population of £1,881.
- Northern Ireland has increased health spend per head of population by 32% over the period 2004-05 to 2009-10.
- Northern Ireland spends less per head of population than any of the other countries of the UK on health.
- Over a third of the resident population are affected by or harbouring existing or future problems.
- In Health policy there is a specific focus on getting the balance right between specialist and generalist.
- In 2008, the average household in Northern Ireland spent £4.40 on healthcare products and services.
- Between 2008 and 2009, overall UK household expenditure dropped by 3%. The largest annual drop was seen in 'dental services' which experienced a 26% drop over the period.

8.1 Introduction

Throughout the UK, healthcare provision, and the skills of those who provide it, are being shaped by a wide range of social, economic, cultural and political forces.

The identification of the key drivers for skills demand across the sector has been done collaboratively with employers across the sector, including those in Northern Ireland, through our Rehearsing Uncertain Futures scenario-planning activities.

It is clear from the Rehearsing Uncertain Futures work and the commentaries from a wide range of experts, that employers within the health sector will need to think differently about how a whole range of services are offered to the population.

As a result, a range of new roles, new ways of organising work and taking full advantage of new technology will be of increasing interest to employers. These will also have meaningful consequences for the skills required of those working within the sector.

This chapter outlines some of the major drivers for change for the sector in Northern Ireland. A full outline of these forces and how they effect the sector's development in the UK can be found in our UK Sector Skills assessment summary and main report.

8.2 NHS concept

The NHS is a major presence in the UK health sector. How the service is organised, funded and structured has a major influence on the whole health provision within the UK. This was one of the highest ranking influencing forces on the development of health provision in the UK and in turn skills development.

The NHS is one of the world's largest employers. It is also wholly publicly funded. In many respects it is also an important 'ideal' and is part of the cultural landscape of the UK. Few public institutions receive the same level of support as the NHS in the UK.

When the NHS was launched in 1948 it was based on three core principles:

- That it meet the needs of everyone.
- That it be free at the point of delivery.
- That it be based on clinical need, not ability to pay.

These principles continue to guide the development of the NHS more than sixty years later. Whilst finessed throughout the years, various modernisation programs have sought to drive forward change whilst upholding these principles. Tensions do however exist within the concept of the NHS and the practicalities of health provision which help shape its development.

One of the key tensions of the NHS concept is its aim to provide a universal service within finite (publicly funded) resources whilst demand and expectations for services continue to rise. As a result there has been a growing debate on how to measure and achieve better productivity in the NHS. The debates on skills mix and workforce reconfiguration are continually pushing the development of new services.

The concept of the NHS also influences the development of private and voluntary sector provision. This influences how these sub-sectors are able to provide services and therefore employ and develop people. For instance, within England there has been a greater emphasis on private sector institutions delivering healthcare funded by the public purse through a programme of increasing patient choice. In Scotland there is a greater emphasis on the use of NHS only.

The NHS concept, therefore, has an important set of further consequences for change and therefore the development of employment and skills related issues.

- The NHS, because of its size, can handle change poorly, according to many commentators. Reconfiguring services and skills sets can therefore take time and pose a challenge for employers.
- Change can be stymied by the complex set of institutions that the NHS needs to relate to, each with different needs and, often, regulatory powers.
- Managers and Leaders can be confronted with a set of issues that are not easily (and sometimes never) resolvable.

The current position of the NHS concept is usefully illustrated in the current government's deficit reduction plan. The NHS has been protected from many of the cuts other public institutions have been confronted with. There remains a need, however, for significant efficiency savings to take account of surging demand. These efficiency savings will require better skills utilisation and development as well as management.

8.3 Funding/economic

Following the economic crisis and subsequent public sector deficit, the immediate focus for employers will be on achieving sustainable efficiency savings over the coming years to maintain financial balance and high-quality patient care, in line with higher patient expectations[24].

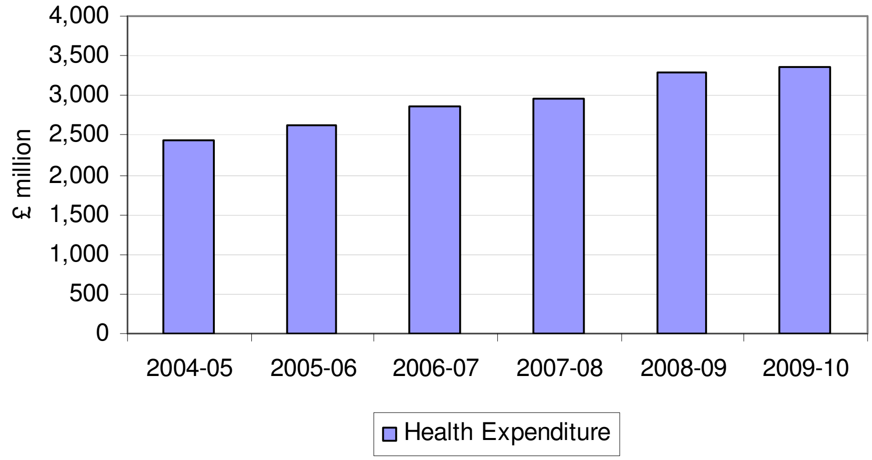
The Comprehensive Spending Review in October 2010[25] outlined overall financial settlements for each of the devolved administrations including Northern Ireland. The overall settlement for Northern Ireland represents a 25% cumulative real terms cut in funding over the course of the parliament (split between a 6.9% cut in resource budgets and a 37% cut in capital budgets).

This settlement is more generous than the average across the UK. However, the exact nature of the health budget for Northern Ireland is unknown as each devolved administration is free to allocate their budgets in line with local needs and priorities. Looking forward, however, it is clear that reducing waste whilst improving efficiency and productivity will remain one of the top strategic priorities across the sector in Northern Ireland.

[24] http://budget.treasury.gov.uk/improving_public_services.htm
Gainsbury S, Public Spending Cuts will be worse than predicted – Institute for Fiscal Studies. Health Service Journal
24th April 2009
Laing and Buisson Press Release, 29th October 2008
www.laingbuisson.co.uk/Portals/1/PressReleases/Laings_Review_2008.pdf
[25] HM Treasury (2010) Spending Review 2010 http://cdn.hm-treasury.gov.uk/sr2010_completereport.pdf

Chart 2 details identifiable public expenditure on health in Northern Ireland from 2004/05 and includes the planned spend in 2009/10. Health expenditure in 2004/05 was £2.4bn with a planned spend of £3.4bn in 2009/10, an increase over the period of 38%.

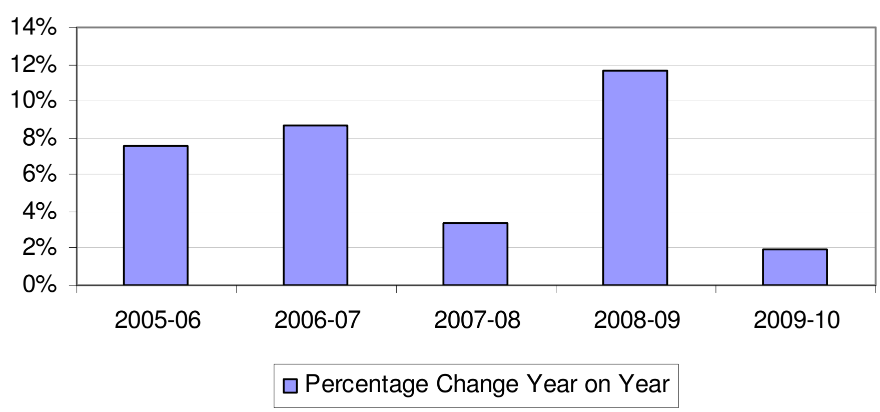
Chart 2: Identifiable Public Expenditure on Health 2004/05 – 2009/10



Source: www.hm-treasury.gov.uk

From 2005, Northern Ireland has seen some fluctuations in the planned annual growth in the health budget. In looking across all countries of the UK, Northern Ireland saw the largest increase in health expenditure between 2007/08 and 2008/09 (increasing from 3% growth to 12% growth). The planned health expenditure for 2009/10 shows the reduction in the level of growth of planned spend across Northern Ireland with an increase of just 2%.

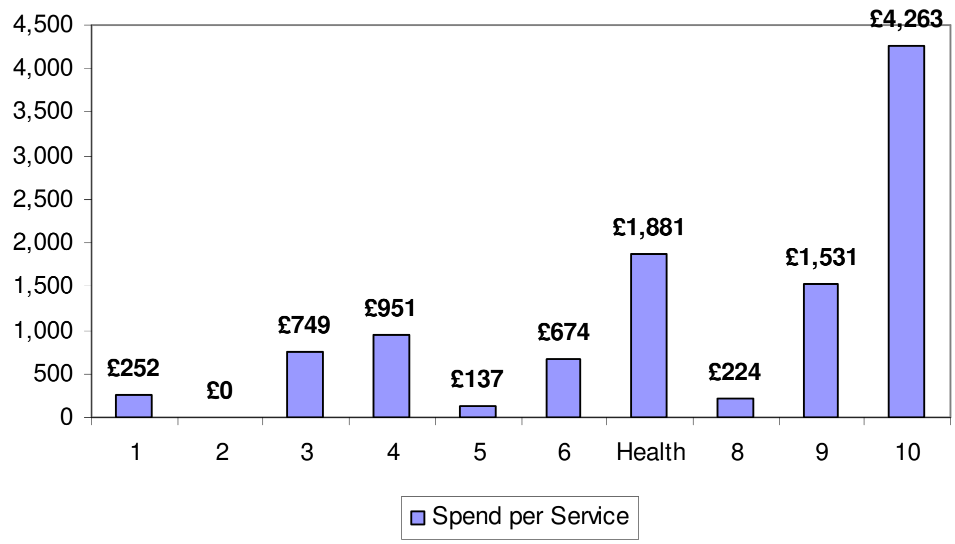
Chart 3: Northern Ireland Health Budget Percentage Change Year on Year



Source: www.hm-treasury.gov.uk

Chart 4 details the planned spend by service for Northern Ireland in 2009/10. After Social Protection (income support, tax credits, unemployment benefits, pension etc), Health is the next largest area of spend. When comparing the allocated budget across the four countries Northern Ireland has the highest spend on Public Order and Safety, Housing and Community Amenities, Education and Social Protection.

Chart 4: Planned Public Expenditure per Head of Population by Service 2009/10



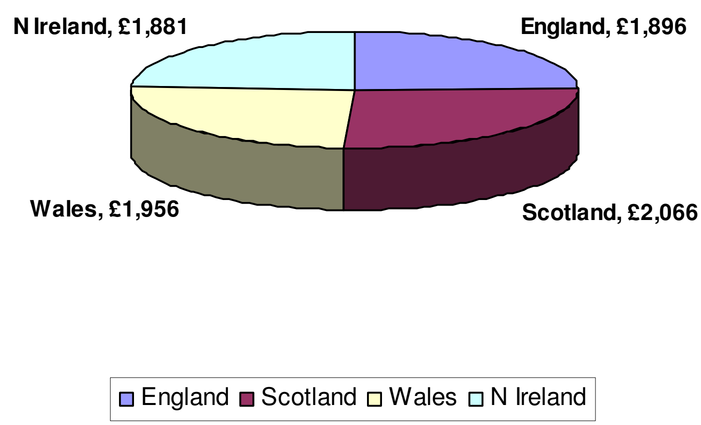
Key

1 = General Public Services	6 = Housing and community amenities
2 = Defence	7 = Health
3 = Public Order and safety	8 = Recreation, culture and religion
4 = Economic affairs	9 = Education
5= Environment Protection	10 = Social protection

Source: www.hm-treasury.gov.uk

Chart 5 illustrates that Northern Ireland planned to spend the least amount on health per head in 2009/10. From the start of the period in 2004-05, Northern Ireland has increased health spend per head from £1,430 to £1,881 (32%) and in-between the period 2008/09 and 2009/10 funding has increased by only 1% from £1,859 to £1,881.

Chart 5: Planned Spend per Head of Population 2009/10



Source: www.hm-treasury.gov.uk

Table 19 suggests that using current available health profiling models[26] the allocation of funding is not directly linked to the health of the resident population. Using the latest intelligence, Northern Ireland has a fifth of its population experiencing existing health problems (50% higher than the percentage in England) yet the planned spend is £5 less per head.

Table 19: Country Health Profile, 2010

	Existing Problems %	Future Problems %	Possible Future Concerns %	Healthy %	U/c %
England	14	12	35	39	1
Scotland	19	17	33	31	1
Wales	31	8	30	31	<1
Northern Ireland	**21**	**14**	**29**	**36**	**<1**
UK	**15**	**12**	**34**	**37**	**1**

Source: CACI 2010

Current research undertaken by the TUC[27] raises the issues that the areas that need it most will feel the anticipated cuts in public funding the hardest.

[26] Health profile models are drawn from CACI's Health and Consumer profiles. A full explanation of the profiles can be found in Section 8.4.2 *A snapshot of current and future patterns of health and wellbeing.*
[27] http://www.tuc.org.uk/economy/tuc-18463-f0.cfm
http://www.tuc.org.uk/economy/tuc-18467-f0.pdf

It is important to recognise that there are many societal and environmental factors that impact upon the health and wellbeing of the population. For this reason government spend on other areas of welfare and social protection can have a very real and positive benefit to the health of the population. Research[28] indicates that one such area is housing support and investment in this area can potentially improve health outcomes and reduce health inequalities. Well insulated, energy efficient homes can help to combat:

- Cardiovascular disease - cold weather increases blood pressure and thus increases the risk of heart attacks and strokes.
- Respiratory illness – being cold impairs lung function and can trigger a range of respiratory diseases. Dampness in cold houses can also cause asthma and respiratory infections.
- Mobility issues and falls - symptoms of arthritis become worse in cold or damp houses, strength and dexterity also decrease in the cold increasing the risk of injury and falls.
- Mental and social health issues – damp, cold housing is associated with an increase in mental health problems and social isolation.

8.4 Old age/demography

8.4.1 Lifestyle

Lifestyle risk factors, such as alcohol consumption and increasing levels of obesity, are a key concern. A recent survey[29] estimated that almost one in four (23%) male drinkers exceeded their sensible weekly limit of 21 units; while almost one in seven (15%) female drinkers drank over their 14 unit sensible limit; this is up from 10% in 1997[30]. The consequences for a whole range of areas of health and wellbeing are significant.

Obesity is also a key risk factor in terms of health; 59% of adults measured were either overweight (35%) or obese (24%). A similar proportion of men (25%) and women (23%) were obese.

8.4.2 A snapshot of current and future patterns of health and wellbeing

The general trends in health and health provision are played out very differently throughout the regions of Northern Ireland. There are a range of organisations seeking to understand the variances in health and wellbeing throughout Northern Ireland and the UK, including Public Health Observatories, as well as local healthcare providers.

[28] http://www.dhcarenetworks.org.uk/_library/Resources/ICN/ICN_advice/HousingSupport.pdf
[29] Northern Ireland Health and Lifestyle report 2005/6 (2007) Department of Health, Social Services and Public Safety
[30] Northern Ireland Health and Lifestyle Report 2001 (2001) Department of Health, Social Services and Public Safety

CACI's health and consumer ACORN profiles (A Classification of Residential Neighbourhoods) is one commercially available source of data profiling the demand of healthcare in the UK[31]. This profile provides us with a snapshot of current and possible future health requirements.

Health ACORN classifies households into four main health groups. These are:

- Existing problems – where the levels of illness are above average. The proportion of people with angina is 60% higher than average, the proportion who have suffered a heart attack is 45% above average. The incidence of diabetes, high blood pressure and high cholesterol are also above average, and this is the only group where this is the case.
- Future problems – The areas classified as harbouring future problems do not generally have high incidence of existing illnesses. Exceptions to this are depression, asthma and migraine.
- Possible future concerns – These are areas with lower levels of smoking, obesity and average or slightly below average incidence of illness.
- Healthy – The healthy areas tend to have a younger demographic and the proportions of people with high blood pressure, angina, diabetes and high cholesterol are lower than average. This group are likely to take more exercise and less likely to be smokers or overweight.

These four main groups are refined into a further twenty-five health types which provide more explanation of household composition, work position, lifestyle and diet. Examples include:

- Older couples, traditional diets, cardiac issues.
- Disadvantaged elderly, poor diet, chronic health.
- Poor single-parent families with lifestyle related illnesses.

The largest health groups in Northern Ireland are '*healthy'* and *'possible future concerns'*. These are often households whose position and wealth are relatively comfortable, but whose lifestyle choices, such as through alcohol consumption, may be leading them towards encountering future health issues.

[31] These draw extensively from official sources of intelligence, such as the annual population survey, 2001 Census, consumer surveys and expenditure data. These sources enable models of health care and consumer demand to be developed on a local, regional and country basis.

Table 20 outlines the health profile of Northern Ireland compared to the UK. Maps highlighting District Council Areas where specific health groups exceed the UK average can be found in Chapter 15 *Appendix 3 – Health and Consumer Profiles*.

Table 20: Health Population Profile for Northern Ireland 2010

	Northern Ireland		**UK**	
	Data	**%**	**Data**	**%**
Existing Problems	369,409	21	9,270,098	15
Future Problems	256,990	14	7,582,290	12
Possible Future Concerns	510,300	29	21,297,772	34
Healthy	642,769	36	23,153,555	37
Unclassified	5,909	<1	557,817	1
Total	**1,785,377**		**61,861,532**	

Source: CACI Health ACORN 2010

Despite four of the six health types that constitute the health group 'healthy' being significantly underrepresented in Northern Ireland, the largest health type in the country is in fact 'mixed communities with better than average health,' accounting for 13.6% of the population and having a representation over one and a half times higher than the UK average.

The health groups and types of concern to the country are:

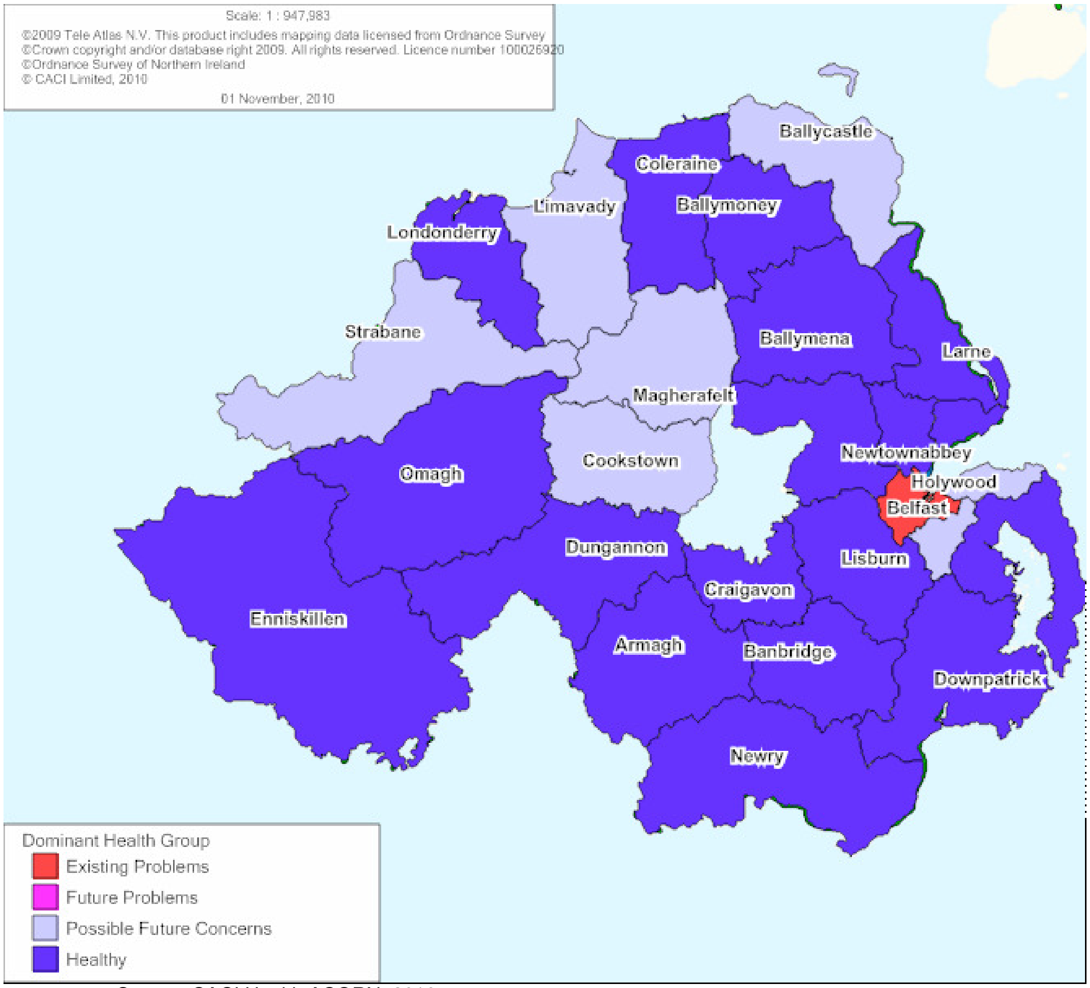
- Existing Problems – '*vulnerable disadvantaged, smokers with high levels of obesity'* account for 3.9% of Northern Ireland's population and are overrepresented – over four times the UK average.
- Existing Problems – *'disadvantaged neighbourhoods with poor diet & severe health issues'* account for 6.6% of Northern Ireland's population and as above are overrepresented in the country, nearly two-times higher than the UK average.
- Possible Future Concerns – *'less affluent neighbourhoods, high fast food, sedentary lifestyles'* have a presence over two-times higher than the UK average and account for 11.1% of the population.

Geographical profile of health groups in Northern Ireland

Fig 1 below details the District Council areas categorised by their dominant health group. The map itself serves to illustrate the complexity of health economies throughout Northern Ireland. It also highlights how the skills and employment need to be shaped in order to best meet the needs of these populations.

The District Council Areas which predominately are 'healthy' are shaded in purple; the only District Council area whose dominant group is '*existing problems'* is Belfast.

Fig 1: Dominant health group by District Council Areas

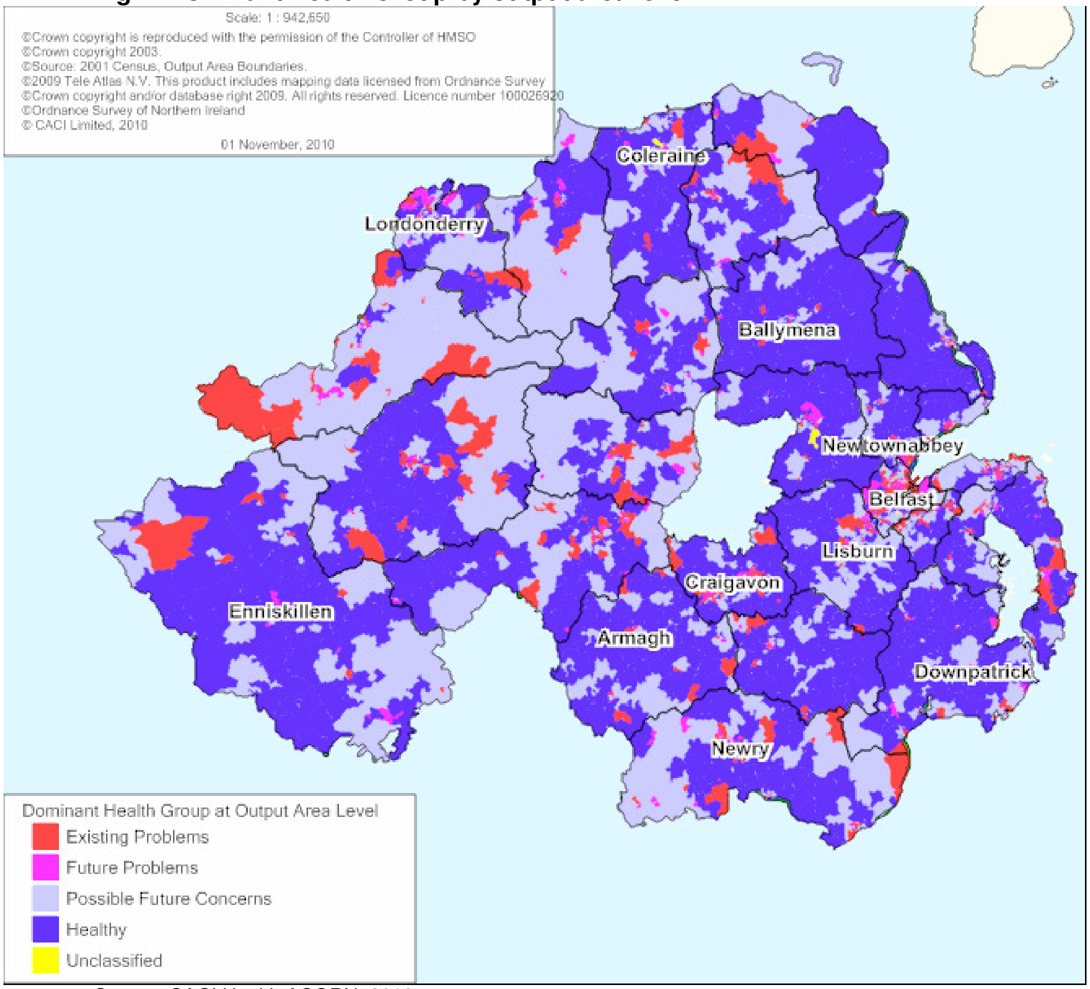


Source: CACI Health ACORN, 2010

Northern Ireland, however, does contain pockets of high levels of deprivation throughout. Fig 2 shows dominant health group by output area[32]. The areas shaded red are those with existing problems and will predominantly map to areas experiencing higher levels of deprivation.

[32] Output areas based on postcodes as at January 2000 and are related to 2001 wards. The minimum OA size is 40 resident households and 100 resident persons but the target size was 125 households. There are 5,022 OAs in Northern Ireland.

Fig 2: Dominant Health Group by output area level



Source: CACI Health ACORN, 2010

8.4.3 Health inequalities

Aligned to consumer expectations is the issue of health inequalities. Studies of health inequalities in Northern Ireland do report some encouraging trends, however, the gap between the most disadvantaged groups and areas and the rest of the population has remained[33].

The government sees the health sector, and the services it provides, as a key component of tackling health inequalities, although it is recognised that inequalities arise from a complex interaction of many factors including other societal factors. For this reason government spend on other areas of welfare and social protection can have a very real and positive benefit to the health of the population. Section 8.3, *Funding/economic* of this report highlights the importance of housing support in improving health outcomes for the populations.

[33] NI Health & Social Care Inequalities Monitoring System; Third update bulletin (2009) Department of Health, Social Services and Public Safety

8.4.4 Ageing population and the growth of long-term conditions

A recent report from the ONS[34] shows that whilst all UK countries show evidence of population ageing, the changes have not occurred evenly across the UK (or indeed in its constituent countries) and the concentration of older people varies.

These figures show that in 2008 people aged 50 and over made up at least 25% of the population in each part of the UK. The lowest percentages were found in London (26%) and Northern Ireland (31%). The highest percentages were found in the South West of England (39%) and Wales (37%).

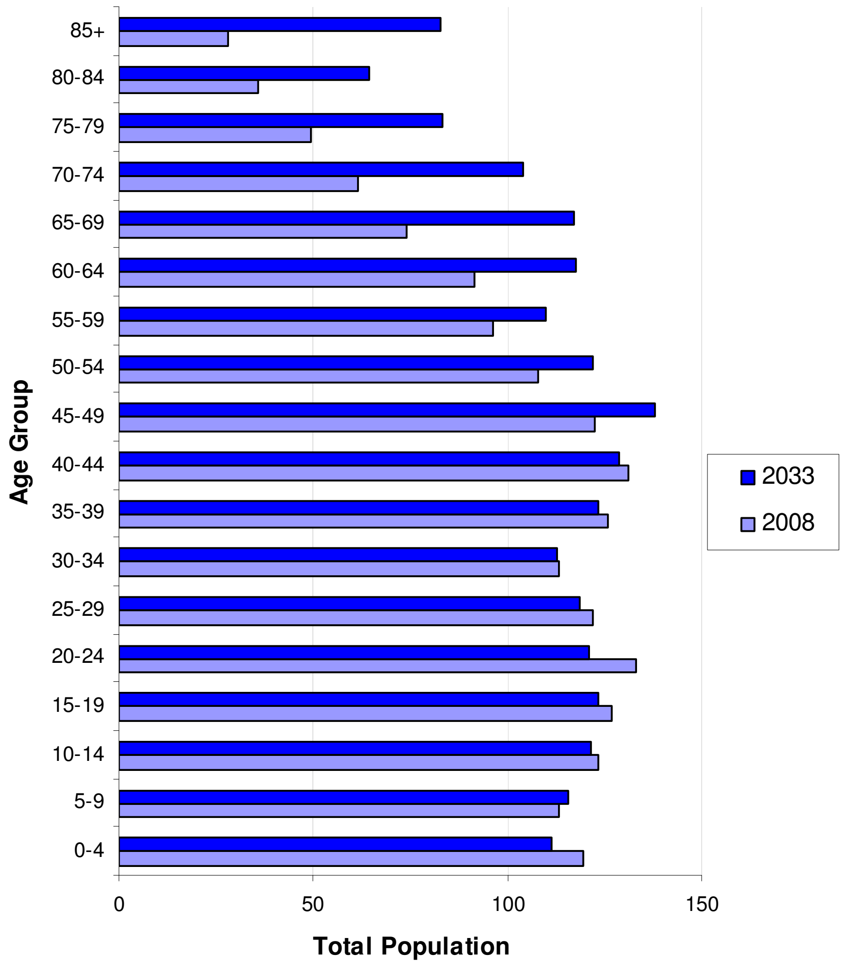
Coastal and rural areas had the highest percentages of population aged 50 and over, except within Northern Ireland. These higher percentages reflect the known patterns of internal migration related to people of retirement age within the UK moving to such areas over a period of many years.

The ONS reports that one of the most striking features of UK population ageing is the increasing numbers in the oldest age groups. Although much smaller in volume compared to younger age groups, they are noted as being important because this is where most growth is projected to take place in the future. There is also concern that the extension of life may mean more ‘unhealthy years’ for many individuals within the UK. These older people will have a potentially disproportional effect on demand across the sector.

Chart 6 contains population projections by age group for the country. Population projections from the Northern Ireland Statistics and Research Agency (NISRA)[35], published in October 2009, show that the population is to rise from 1.775 million in 2008 to 2.016 million in 2033, a growth of 241,000 or 14%. Growth in absolute numbers is predominately found in age groups over 40; age groups younger than this are expected to either remain static or decrease over this period.

[34] Office for National Statistics (2010) Regional Trends 42, Ageing Across the UK.
[35] Northern Ireland Statistics and Research Agency, 2008 Based Population Projections Published October 2009 www.nisra.gov.uk/archive/demography/population/projections/popproj08.pdf

Chart 6: Population Changes by Detailed Age Bands 2008 – 2033



Source: Source: Northern Ireland Statistics and Research Agency, Projected Populations (2008 based) October 2009

There has been an increase in the prevalence of long-term conditions due to the demographic and lifestyle risk factors described above. A key long-term condition is that of dementia. A recent report estimated that within Northern Ireland there were approximately 396 people with young-onset dementia (onset before the age of 65 years) and approximately 15,374 people with late-onset dementia (onset after the age of 65 years). As the population grows older a greater number of people are anticipated to develop these illnesses[36].

[36] www.dh.gov.uk/en/Healthcare/Longtermconditios/index.htm)

8.4.5 An ageing workforce

Predicted changes in the population of the country have a double impact on the health sector. Demographic pressures of an ageing population will increase demand for health services, whilst a potentially dwindling labour pool will mean that employers may struggle to supply the labour and skills needed to deliver the services the population needs.

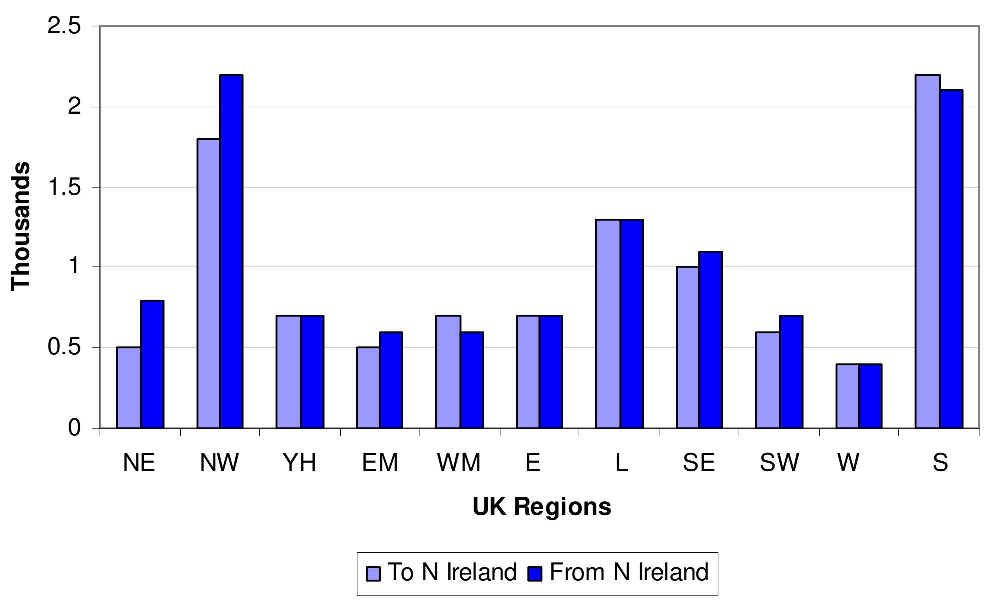
8.4.6 Internal migration

Research shows that people migrate for four main reasons: work, family, change of lifestyle and the cost of living. Migration affects, amongst many things:

- The labour market.
- Demand on health.
- The age profile of the resident population.

Chart 7 shows the interregional migration movements for the UK year ending December 2009. The data demonstrates that more people move to Northern Ireland from Scotland than any other area of the UK and that the greatest movement out of Northern Ireland is to the North West of England and Scotland.

Chart 7: Interregional Migration Movements, 2009



Source: www.statistics.gov.uk

8.5 Politics

The Department of Health, Social Services and Public Safety is one of 11 Northern Ireland Departments. There is a Minister for Health, Social Services and Public Safety in the Northern Ireland Executive who is responsible for over 70,000 professionals working in health and social care, ambulance and the fire service and has an annual budget of approximately £4 billion.

Health and Social Care in Northern Ireland are provided as an integrated service. The reform of health and social care has seen 19 health trusts reduce to six (including the Northern Ireland Ambulance Service). There has been streamlining of the structure to include the establishment of the new Health and Social Care Board, the Public Health Agency, the Patient and Client Council and the Business Services Organisation to replace a number of existing organisations.

The key health policy for Northern Ireland, which sets out the response to these challenges is '*A Healthier Future - a 20 year vision for health and wellbeing in Northern Ireland'* and an associated primary care strategy.

'A Healthier Future' recognises the importance of the workforce in meeting the outcomes of this policy direction and acknowledges that traditional models of care, based on rigid demarcations between different professional groups, will need to change. Specific focus will be on:

- Getting the balance right between specialist and generalist.
- The appropriate movement of skills and competences across professional groups.
- The development of new roles to meet the new demands on services.
- A particular emphasis on developing skills and competences in the management of long-term conditions and those relating to the provision, support of and promotion of independence for vulnerable people.
- The promotion of shared learning in a range of competences relevant across services, including the prevention of illness and harm, team working, information technology and cross-sectoral working.
- The development of leadership skills for those with management responsibilities.

The overall approach to learning and development for health and social care staff is set out in 'A Workforce Learning Strategy for the Northern Ireland Health and Social Care Services 2009-2014' (DHSSPSNI 2009). The overall aim of this strategy is to promote and sustain a culture of life-long learning and development for staff across health and social care.

Following extensive cross-sectoral consultation during 2006, the Department for Employment and Learning developed a new comprehensive Management and Leadership Strategy, '*Leading…to Success: Management and Leadership development strategy and implementation plan' (DELNI, 2007).* This outlines the challenge, articulates a vision for the future and maps the actions required to deliver it. It draws together a number of existing major strategies and related strands of work across several departments and organisations so that actions may be developed and implemented in a coordinated way. The strategy spans the private, public and voluntary community sectors.

8.6 Technology

Historically, the sector has benefited from continued research in bioscience, pharmaceuticals and technological innovation. Such innovations can occur rapidly and have far-reaching consequences for health provision and the skills of the workforce.

In some cases, traditional forms of healthcare practice have become redundant within a relatively short period of time. There are indications that the UK's Pharmaceutical and Bio-science industries are encountering a period of significant change[37] and the government is backing collaboration between these sectors[38] and all parts of the UK's health sector.

8.7 Choice

It is widely acknowledged that consumer expectations of the level of service they receive have risen. New generations are much more demanding and possibly better informed about healthcare issues. In some cases there is growing awareness of their statutory entitlements. The role of the NHS is also culturally significant to those within the UK and many are committed to its core values and its role as a universal healthcare provider.

Rising consumer expectations means that patients expect to have a greater degree of control with respect to their chosen treatments, place of treatment and time of treatment. This agenda is driven in part by government policy but also by the wide range of information available to patients through public health initiatives, pharmacies and information from other sources such as the internet.

[37] Compass bitter pill to swallow www.compassonline.org.uk/publications/
[38] Life Sciences Blueprint A statement from the Office for Life Sciences
July 2009 http://www.dius.gov.uk/innovation/business_support/~/media/publications/O/ols-blueprint

8.8 Societal

This driver encompasses a wide range of broad trends within society which will act on and with the development of the health sector. This driver seeks to identify how people relate to groups of common interest and how these groups relate to wider society and other communities of interest. These include:

- Patient self-reliance and responsibility are key. Will society be content to continue to provide healthcare to those who openly take risks with their own health such as smoking or poor diet?
- To what extent will communities be exclusive in the sense that they become tribal and look after their own rather than working with other communities collectively? Could this, in combination with localism, create many systems that do not wish to work with one another?
- There are a range of complex issues around public health that will have implications for the future health provision; for example increasing levels of migration, tourism, air travel etc. lead to a growing potential for the spread of an increasing array of communicable diseases and fears for increased risk of pandemics.

This driver is of particular relevance as the coalition government is seeking to develop the relationship between individuals, communities and the state. The developments may have particular relevance for those working within the voluntary sector. However it will also have an important influence on publicly funded health provision which will need to be more responsive to a greater diversity of community needs.

8.9 Public/private

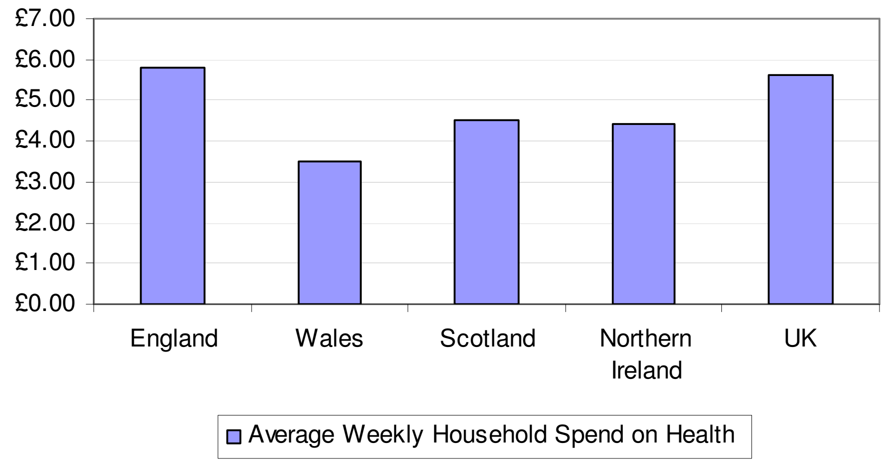
Much of the debate around the drivers for change focuses on the important area of policy development. However, there are also a range of developments in terms of how people consume healthcare products and services as privately paying individuals. This can be from paying for toothpaste and dental bills to taking out private healthcare insurance.

The average UK household spent an average of £471 a week in 2008[39] on main commodities and services.

In Northern Ireland the average weekly household expenditure on health over the period 2006-2008 was £4.40, England had the highest with £5.80. Chart 8 provides a four-countries and UK comparison.

[39] http://www.statistics.gov.uk/CCI/nugget.asp?ID=284

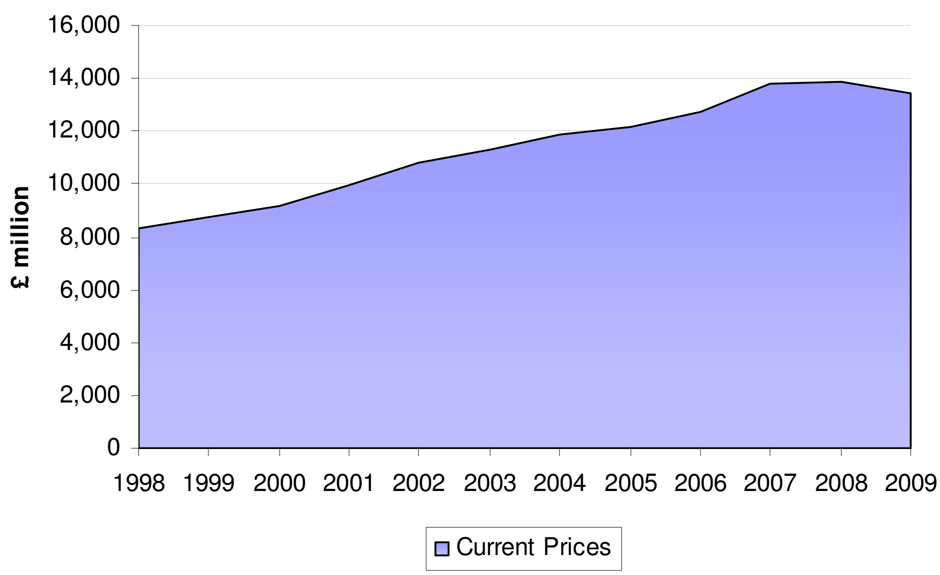
Chart 8: Average weekly UK household expenditure 2006 – 2008



Source www.statistics.gov.uk/downloads/theme_social/Family-Spending-2008/FamilySpending2009.pdf

Charts 9 and 10 illustrate the average UK household expenditure on health from 1998 up to 2009. From 2007 we can see the beginning of a slowing down in the rate of increase in spend and from 2008 the first actual decrease since 1998.

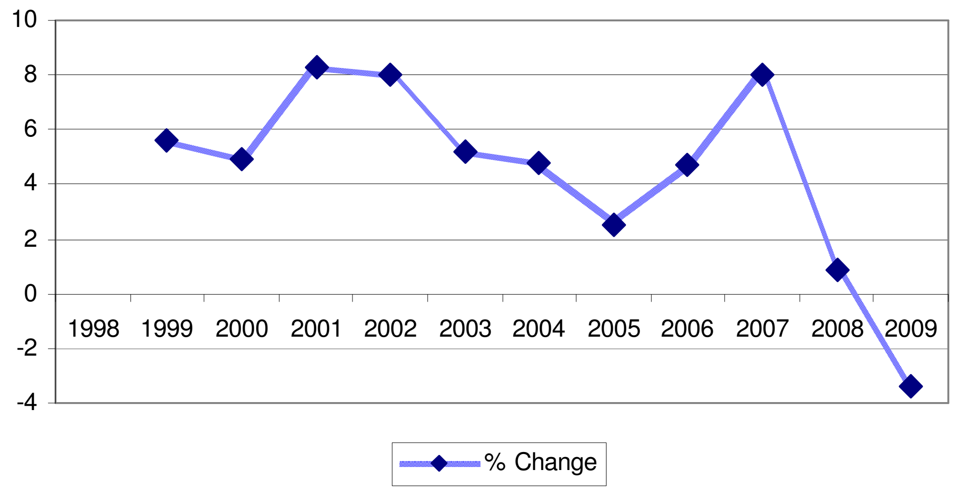
Chart 9: Household final consumption expenditure - Health



Source: Consumer Spending, Q2 2009 ONS

The percentage change year on year shows a slowing down in growth from 2007 but 2009 has seen the first reduction in household expenditure.

Chart 10: Percentage change, year on year in UK households' expenditure on Health



Source: Consumer Spending, Q2 2009 ONS

These charts clearly show that there was an overall real decrease in UK household consumption expenditure on health in 2009. Overall expenditure dropped by 3.4%. Table 21 shows detailed analyses of the health spend by the component parts.

Household expenditure is made up of the following:

- Pharmaceutical goods – medicinal preparations, drugs, medicines, serums, vaccines, vitamins and other oral products.
- Other medical products – clinical thermometers, plasters, bandages, dressings, syringes, body supports and non-oral contraception.
- Therapeutic equipment – spectacles, contact lenses, hearing aids, artificial eyes and limbs, orthopaedic footwear, supports, wheelchairs, invalid carriages, special beds, other devices.
- Out-patient medical services – consultations with doctors, specialists and orthodontists.
- Dental Services – Services of dentists, hygienists and other dental facilities.
- Paramedical services – private nurses, midwives, acupuncturists, aromatherapists, reflexologists.
- Hospital Services are all in-patient hospital services, including medical care and meals and accommodation charges.

Table 21: Analysis of UK Household Expenditure on Health Services and Products

	2006	2007	2008	2009	Variance Percentage 2006-2009	Variance Percentage 2008 - 2009
Medical Goods:						
Pharmaceutical products	4,025	4,248	4,545	4,409	9.5	-3.0
Other medical products	450	475	514	609	35.3	18.5
Therapeutic appliances and equipment	2,674	2,765	2,830	2,805	4.9	-0.9
Total	**7,149**	**7,488**	**7,889**	**7,823**	**9.4**	**-0.8**
Out-patient services:						
Medical services	1,079	1,022	981	837	-22.4	-14.7
Dental services	1,367	2,055	1,746	1,301	-4.8	-25.5
Paramedical services	538	498	484	535	-0.6	10.5
Total	**2,984**	**3,575**	**3,211**	**2,673**	**-10.4**	**-16.8**
Hospital services	2,627	2,712	2,793	2,924	11.3	4.7
Total	**12,760**	**13,775**	**13,893**	**13,420**	**5.2**	**-3.4**

£ Million
Source: ONS, Consumer Trends Q2 2009

Whilst spend on many areas saw a decrease over 2008 – 2009 the household expenditure on 'Other medical products' continued to increase. The data between 2006 and 2009 appears to indicate a continued upward trajectory in this category, this may be indicative of consumers taking more responsibility for self treatment, using over the counter medication armed with the wealth of knowledge available to them through public health, the advice of pharmacists and information from other sources such as the internet.

The largest annual drop was seen in 'Dental Services' which experienced a 26% drop in household expenditure. The reasons for this are unclear but as dental services (even NHS provided services) are not free to all it may be that constrained household budgets have resulted in individuals perhaps waiting longer between dental visits.

9 Towards 2020: Emerging Skills Priorities

Key Features

Skills for Health was able to use the insights derived from the scenario planning exercise to explore with colleagues the implications of the drivers and plausible futures on future employment and skills. These insights assisted Skills for Health in refining further analysis of potential developments in the sector. The priorities in this section focus on those developments likely to have an impact on skills as we approach 2020. These include:

- The development of new roles at Levels 3 and 4 of the NHS Career Framework
- The development of roles at Level 7 of the NHS Career Framework
- Ongoing professional development
- The ongoing impact of ICT on roles and skills within the health sector
- Developing capacity and capability of the volunteer workforce
- Informal and unpaid carers
- Self-managed care
- Developing Management and Leadership

9.1 Introduction

The scenario development workshops (phase 2 of Rehearsing Uncertain Futures) produced a set of eight factors that were agreed as having a high impact with a wide range of possible consequences for skills demand, as well as three potential scenarios of how the UK health sector will look in the year 2020.

This understanding of the drivers shaping skills demand assisted Skills for Health's thinking about possible future skills needs for the sector. Three application workshops were run with employers and stakeholders to think about emerging skill sets and changes to occupations by 2020.

Skills for Health developed the output from these application sessions using additional desk research and consultation, to ensure that relevant sector trends were taken into account when considering future skills priorities[40].

[40] Skills for Health Working Paper (forthcoming) Rehearsing Uncertain Futures; New Skillsets, roles and occupations

The current and near future skills priorities that emerged from this stage and further research include:

- Changing skill sets and emerging health roles
- More effective use of information technology
- Developing capacity and capability of the volunteer workforce
- Informal and unpaid carers
- Self-managed care
- Developing management and leadership

This chapter addresses these skills priorities, looking at what employers in the UK health sector will need to focus on (and in some instances, are already focusing on), in the near future, to ensure the presence of a productive, flexible workforce in the year 2020. Further explanations of these priorities and emerging examples of new roles and practices are contained within the UK Sector Skills Assessment full report.

9.2 Development of roles at Levels 3 and 4 of the NHS Career Framework

The future orientated work by Skills for Health, and subsequent research has identified a range of changes to roles at or around Levels 3 and 4 of the NHS Career Framework. This framework was developed to enable skills escalation and helps develop new roles to meet patient need, and are driven by a range of factors.

The development of these roles provides an important opportunity for employers to adjust the skills mix of the teams which they are working with and meet the increasing demand for health provision within tightening budgets.

Skills for Health have developed the following definition of the Assistant Practitioner role as:

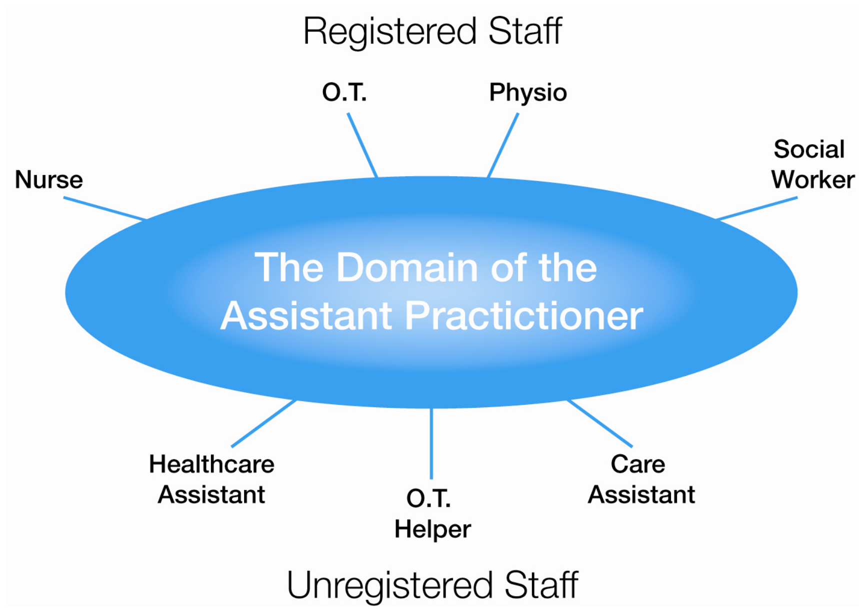
> *"The Assistant Practitioner role developed is at Level 4 of the Career Framework. An Assistant Practitioner is defined as a worker who competently delivers health and social care to and for people. They have a required level of knowledge and skill beyond that of the traditional healthcare assistant or support worker. The Assistant Practitioner would be able to deliver elements of health and social care and undertake clinical work in domains that have previously only been within the remit of registered professionals The Assistant Practitioner may transcend professional boundaries. They are accountable to themselves, their employer, and, more importantly, the people they serve."*[41]

The diagram below illustrates how an Assistant Practitioner may work in relation to other roles and professions typically found within a healthcare setting. This is a flexible approach to role development i.e. the competences required for different services by different employers

[41] Skills for Health (2009) Core Standards for Assistant Practitioners in England. A Consultation Report http://www.skillsforhealth.co.uk/about-us/news/2009/~/media/Resource-Library/PDF/consultation_document-AP.ashx

can be drawn from different mixes of professions based on the needs of the patients within that pathway.

Fig 3: The domain of the Assistant Practitioner



Recent analysis commissioned by Skills for Health[42] indicates that there has been a raft of activity to develop new roles at NHS Career Framework levels 3 and 4 with a particular emphasis at level 4. Many of these posts are labelled as Health Care Assistants (normally at level 3) or more often Assistant Practitioners (level 4). This activity is taking place throughout the UK.

The move towards more Assistant Practitioners is also more attractive and potentially more pressing in the light of the decision that nursing should become a graduate entry profession[43]. The Royal College of Nursing's policy discussion paper on Assistant Practitioners notes that:

> *"...developing roles at the assistant practitioner level is extremely important in terms of bringing people into the registered nursing profession, and maintaining a wide entry gate to an all-graduate pre-registration nurse education programme."*[44]

[42] Skills for Health expert paper (forthcoming) The Role of the Assistant Practitioner. Developed by Dr Linda Miler, Institute for Employment Studies
[43] Nursing & Midwifery Council (2009), *Confirmed Principles to Support a New Framework for pre-registration nursing education.* http://www.nmc-uk.org/aArticle.aspx?ArticleID=3396
[44] Royal College of Nursing (2009), *The Assistant Practitioner Role, A Policy Discussion Paper.* http://www.rcn.org.uk/__data/assets/pdf_file/0008/249857/06.09_Assistant_Practitioner_Role_A_Policy_Discussion_Paper_12.05.09.pdf

The response from employers to these developments is generally positive as evidenced in the Assistant Practitioner Scoping Report[45] commissioned by Skills for Health. This states:

> *"…the overwhelming response we have had from all regions is very positive about the introduction of Assistant Practitioners."*

The Assistant Practitioner role is one that continues to grow in popularity across all countries of the UK and development of these roles has been employer led. Quantifying the potential for widespread development of this role across the UK requires further analysis at a national and regional level.

Whilst there has been widespread instances of these roles being developed there are a number of institutional factors which continue to affect these changes. These include:

- The debate about the nature of the role, in particular around how 'assistive' or 'autonomous' these roles are able to be
- How they are developed and accepted by others particularly in relation to the healthcare professions

There remain a range of factors that may affect the successful development of this role include:

- The need to address numeracy and literacy skills amongst those who might be considered candidates for the role
- The numbers of staff ready, motivated and able to progress their careers in this way
- The appropriate opportunities for training and development to progress into these roles and beyond[46]

Whilst there will inevitably be challenges as these roles develop and become more refined - the drivers for change point to an increase in their demand. Overall, this approach is likely to be more cost effective and could generate significant productivity improvements in terms of public investment in education and training.

[45] Skills for Health (2009), *Assistant Practitioners: Scoping Exercise.* http://www.skillsforhealth.org.uk/~/media/Resource-Library/PDF/Assistant_Practitioner_Scoping_Report_Final14_April.ashx
[46] Skills for Health expert paper (forthcoming) The Role of the Assistant Practitioner. Developed by Dr Linda Miler, Institute for Employment Studies

9.3 Development of roles at level seven of the NHS Career Framework

Another key innovation in extending knowledge and practice is the development of roles at level seven of the NHS Career Framework. These are also often referred to as Advanced Practitioners.

These roles seek to extend the existing professional knowledge and skills of the 'registered' clinical workforce. Successful development into Advanced Practitioner roles will enable this section of the non-medical workforce to undertake tasks that have traditionally been the sole responsibility of doctors.

People undertaking development into Advanced Practitioner roles will already be highly skilled and qualified (typically qualified to NQF level 4 or equivalent and above) and development is usually through a Masters level programme.

An independent evaluation of the introduction of Advanced Practitioners in one area of the UK[47] notes the following reasons for introducing Advanced Practitioners:

- Ensuring better access to services
- Improving activity and service delivery
- Addressing governance and compliance issues
- Increasing workforce productivity
- Enhancing patient experience

The evaluation report further notes:

> *"The findings from the case studies and the wider work on impact which has run through the evaluation clearly show that the Advanced Practitioner roles are having a positive impact on patient care and service delivery in their trusts."*

More recent work by Skills for Health with a single NHS Trust has demonstrated the impact that Advanced Practitioner roles can have[48]. The introduction of Advanced Practitioners into the orthopaedic assessment service reduced referrals to secondary care from 100% to 30%. The impact on patients meant that 70% of them were treated in community locations, closer to home with improved patient experience and satisfaction.

Employers are likely to continue to focus on the development of a range of Advanced Practitioner roles in order to better enable more flexible team working across a wider clinical team and to enhance the quality of care delivered within the finite resources available.

[47] Acton Shapiro (2009), *Evaluating the implementation and Impact of Advance Practitioners across Greater Manchester – Summary of Findings.* http://www.actonshapiro.co.uk/Assets/19278/summary%20of%20findings%20final%20report%20jan%2009.pdf

[48] Dramatically cutting waiting times and improving productivity. How transferable roles are transforming services in NHS Dudley. A case Study by Skills for Health (2010) www.skillsforhealth.org.uk

Continual Professional Development

Employers will seek to enhance their workforce through maximising opportunities for skills acquisition and enhancement through professional development. This appears particularly pressing, given that an estimated 60% of the workforce that will work in the sector in 2018 are already working in the sector today.

There will be opportunities for employees across the sector to acquire skills within their current role as well as skills that traditionally fall outside of their professional boundaries. It is most likely that this will be facilitated through re-targeting the resources available to support Continuing Professional Development (CPD). The exact number of employees that could benefit from this form of CPD rather than the more 'traditional' form of CPD over the next five years cannot be estimated with any accuracy at this stage however the potential to improve skills utilisation across the sector is great.

9.4 The ongoing impact of ICT on roles and skills within the health sector

As mentioned in Chapter 8, *What Drives Skills Demand?* the developments of information technology, bio-tech and pharmaceuticals are highlighted as significant drivers for change in the health sector. Their importance has grown given the recent emphasis on achieving greater efficiencies.

There is huge potential for ICT to reshape the way that services are delivered across the health sector. All roles, wherever they are based will over the next ten years be affected by the ongoing saturation of the health sector by ICT. The effect of the ongoing impact of ICT includes:

- Many roles will have to understand how to operate basic ICT systems in order to do their jobs. This implies increased levels in many of the related 'functional' and key skills.
- Data handling skills with respect to Issues of confidentiality and security will grow in importance. There is likely to be debate within the sector about what roles should be using and processing patient information.
- A range of potential developments for health professionals and clinicians. With ICT development bringing remote diagnostics or even surgery within ever closer reach.

The challenge for the sector is how well it embraces the technology already available to maximise productivity and efficiency whilst ensuring that the workforce is ready for implementation of the technology.

The development of 'navigator' skills and roles in the health sector

The expansion of information technologies will provide new opportunities for health professionals through support of clinical decision making. Healthcare professionals will increasingly need to be skilled 'knowledge managers and navigators'. They will also need to support patients in this navigation of service-related information technology.

The Rehearsing Uncertain Futures work highlighted the Personal Health Navigator role which may be of interest to employers in the future. Part advocate, part information organiser and broker, the participants described a care co-ordinator role. The role could act as an enabler assisting clients, especially vulnerable people, to navigate their way through the increasingly joined up systems of health, social care, education and housing.

Enhanced Collaboration with Bio-technology and Pharmaceutical Industries

The health sector, with its vast knowledge base, is in a unique position to collaborate with global bio-technology and pharmaceutical companies in the development of future generations of medical treatments. This is particularly important, as innovations will become more incremental and will require ongoing feedback beyond their initial development. Current government policy is seeking to encourage greater collaborative working between the 'upstream' sectors of pharmaceuticals/bio-tech and the 'downstream' user sector of health.

It will be critical to put the right skills in place to enable the health sector to relate better to these sectors.

9.5 Developing Capacity and Capability of the Volunteer Workforce

The provision of healthcare is not confined to 'conventional outlets' such as hospitals and clinics. There are a range of alternative forms of provision which are increasing in popularity amongst policy makers and employers[49]. There is currently a wide range of health related services provided in the voluntary sector.

In order to develop the capacity and capability of the local community to deliver health services there are a wide range of policy responses available to organisations. Empowering individuals, through volunteering and social enterprise, to shape and develop their local health services will continue to grow in emphasis.

[49] Skills for Health, (2010). *The Hidden Workforce, Volunteers in the Healthcare Sector in England* developed by The Mackinnon Partnership.

Whilst many of those involved in this 'non-conventional' form of delivery may have a healthcare or related background there are significant implications for skills development in respect of the successful implementation and management of volunteers and volunteer programmes.

The volunteer workforce

There are an estimated 9,000 people volunteering in the health and social care sectors of Northern Ireland[50].

Recent research commissioned by Skills for Health highlighted a wide range of roles undertaken by volunteers across the sector, over 110 have been identified[51]. The research attempts to categorise these role into those that are wholly unskilled, require every day skills, require modest training, and require specialist training. Some roles require very high levels of interpersonal skills and personal attributes (such as befriending in palliative care settings).

Volunteering can provide significant opportunities to break the circle of joblessness, poverty and ill-health in some of the most deprived sections of the community. It could promote greater social and ethnic diversity as well as promoting social inclusion and capacity building in local communities.

For the full potential of the volunteer workforce to be realised, there will need to be access to training and support for skills development of people in these roles across the sector. This is also particularly important as volunteering can act as a stepping stone into paid employment within the sector. Investment in the skills of volunteers can therefore have wider benefits in improving employability and soft skills of the labour market.

The management of volunteers

Recent research identified how the management of volunteers is a particular skills need for organisations across the sector. This is particularly important when existing services are being refocused and volunteers are being asked to change working practices.

The management of volunteers has many of the facets of managing paid employees, but with the added complexity of managing the volunteer's often very personal motivations. Formal qualifications are available for those responsible for managing volunteers across all countries of the UK. Greater use of these qualifications and dedicated volunteer managers may be one are of growth for the sector over the short term.

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[50] Skills for Health (2010) The Hidden Workforce, The role of health and social care volunteers in Northern Ireland. Developed by Northern Ireland Council for Voluntary Action

[51] Volunteering England (2009) *111 roles for volunteers in health & social care* http://www.volunteering.org.uk/WhatWeDo/Projects+and+initiatives/volunteeringinhealth/111+rolesforvolunteersinhealthsocialcare.htm

Mainstreaming volunteer programmes

Another particular business-related challenge for the community and voluntary sector is in the *mainstreaming* of successful volunteer programmes beyond the initial project stage when initial funding has ended. This is of particular importance in the current economic conditions[52]. The skills that may be required by individuals include evaluation and influencing skills.

9.6 Informal & Unpaid Carers

Carers provide unpaid care and support to ill, frail or disabled friends or family members[53]. There are vast numbers of carers across the UK, estimated to save the government billions of pounds in NHS treatment.

There is perhaps a more proactive role for the sector to play in respect of supporting carers. By making a relatively small investment in the skills of the unpaid carers the sector could ensure that high quality care at home is delivered and sustained. This investment could save the sector significant sums in respect of avoiding acute periods of ill health and thereby avoiding hospital admissions. These individuals are very likely to require tailored skill sets delivered in a suitable individualised context.

9.7 Self-Managed Care

There is a growing body of evidence to suggest that supporting people to self-manage can improve outcomes for service users as well as contributing to capacity across the sector[54]. This support can be enabled through the existing workforce but also through better use of self-diagnostic and other supportive technology.

There are two important dimensions to self-managed care. Firstly, supporting people to self manage will require a shift in the skills, attitudes and behaviours of the workforce itself. Skills for Health working with Skills for Care has already undertaken steps to identify this shift through our programme of work on the ‘Common Core Principles to support Self Care’[55].

Secondly, service users and their carers will need to be supported to develop the necessary skills. Some support for this already exists through programmes such as the ‘Expert Patient Programme’ in England and Wales[56]. There is also potential in the future, through the piloting of personal health budgets in England, for service users to become employers in their own right. This will result in the need for these people to be equipped with appropriate knowledge and skills.

[52] Skills for Health, (currently unpublished). *The Hidden Workforce, Volunteers in the Healthcare Sector in England. Developed by The Mackinnon Partnership.*
[53] Carer’s UK (2009) *Who are Carers?* http://www.carersuk.org/Aboutus/Whoarecarers
[54] Department of Health (2007), *Research Evidence on the Effectiveness of Self Care Support.* http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_081251.pdf
[55] Skills for Health (2009) *Common Core Principles in Self Care* http://www.skillsforhealth.org.uk/competences/common-core-principles-in-self-care.aspx
[56] For England See http://www.expertpatients.co.uk/. For Wales see http://www.eppwales.org/

The Rehearsing Uncertain Futures work highlighted how technology could continue to enhance more effective self care and assist those with long term conditions to avoid hospital admissions. The scenario workshops highlighted the ‘remote diagnostic technician’ role as one of interest to employers in future. The role would involve monitoring banks of telemetry and is based upon the concept of a new system that sees homes and individuals connected to a central monitoring system. Such a role could also be responsible for allocating visits by district nurses on the basis of the outputs of the monitoring.

9.8 Developing management and leadership

It is a staple of media reporting to decry the level and competence of management and leadership in the UK’s health sector particularly in the NHS. Reforming governments appear to be frustrated with the pace of change in the NHS in all nations. Poor management and leadership are often citied as slowing the pace of reform.

However, according to recent employer skills surveys across the UK, skills gaps in relation to management are no greater in the health sector than those in other sectors of the economy.

This particular survey is conducted with managers and senior officials who have a particular responsibility for issues around skills and employment. It is therefore possible that these may not understand the detail of the issue particularly amongst those dealing with delivery at a local level. It is therefore feasible that the extent to which management and leadership is a skills issue might be underestimated.

Some of the examples that follow are from research conducted in England; however it is reasonable to assume that the issues they highlight are present in all countries of the UK.

Management and leadership in a complex environment

The development of management and leadership are intimately linked with the nature of the health service in the UK, particularly the role of the NHS which is a major contributor to health care provision as well as the skills for those involved. The NHS itself is a highly complex system with many conflicting demands.

This complexity is iterated in a recent study by the NHS confederation, who highlight the comment of a chief executive who arrived from the private sector[57]:

[57] NHS Confederation (2007)The Challenges of Leadership in the NHS; London pp7

> *"It's not particularly a of lack of dedication [that's the problem] – to me, it's the business with the NHS that completely dumbfounded me when I got here, about how long it takes to get a decision because the NHS is such a consensual organisation… occasionally I have to remind myself that anyone looking in for the first time who doesn't know it wouldn't have done it like that. And yet knowing because it's about hearts and minds – you don't hit people over the head, you don't have all the levers, it's still a unionised environment; it's politically highly sensitive in the profile of the NHS. It just means there are so many different constituencies you have to manage and work with, and views to take on board, that it just takes time to do things. So I think maybe a difference between how I am in the NHS and how I was in the private sector is knowing that I have to play a much longer game. I can't deliver things as quickly as I would have done; it really does take time to work it all through[I]."*

This complexity in the environment often makes leaders in the health sector dealing with an increasing range of intractable problems which Kellerman[58] refers to as 'wicked'.

Improving performance through better employee engagement and 'distributed' leadership

There are a range of systemic issues that make the issue of management and leadership in much of the NHS more challenging. However, the NHS remains a valued part of the UK's infrastructure. In addition, when international comparisons are made, the NHS continues to be relatively cost effective. It is also clear that in most comparable societies, political concerns are a feature and challenge of management and leadership.

This has led many commentators to explore the potential benefits of improving employee engagement. This more holistic approach, taking into account engagement, may unlock the potential for higher quality management and leadership in the sector.

Many commentators have sought to formulate how better engagement with all levels of employees combined with authentic messages about the limitations of what they are seeking to achieve are valuable and can help employee understand the pressures and circumstances that managers and leaders are attempting to work within.

These last points resonate with a model widely proposed in the public sector. Kellerman[59] has described a staff typology he refers to as 'responsible followership', based on level of engagement.

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[58] Kellerman, B. (2008) Followership: what it is, how it happens, why it matters, Boston: Harvard Business School. Cited in Martin (2009) above
[59] Kellerman ibid.

These typologies are:

- Isolates – Isolates are completely detached, scarcely aware of what is going on around them and do not care about leaders or respond to them. However, by being passive they provide tacit support to status quo
- Bystanders - Bystanders disengage from the organization, watching from the sidelines almost as an observer. They go along passively but they offer little active support
- Participants - Participants care about the organization and try to make an impact. If they agree with the leader they will support them. If they disagree, they will oppose them.
- Activists - Activists feel more strongly about their organizations and leaders and act accordingly. When supportive, they are eager, energetic, and engaged.
- Diehards - Diehards are passionate about an idea a person or both and will give all for them. When they consider something worthy, they becomes dedicated.

According to this model, the most desirable category of followership is the Activists and therefore the challenge of leadership will be to instil this form of followership in their employees reinforced by high quality and 'authentic' engagement. The challenge for the sector is in part therefore to develop strategies that engender followership through authentic leadership.

Management and leadership in the Independent Sector

Overall, there is less debate around the quality of management and leadership in the independent/ private sector than in the NHS. General surveys[60] on management suggest again that on the whole, skills deficits in management are no greater than the rest of the economy.

Skills for Health will be undertaking further research assessing the skills issues within the independent sector during 2010/2011, and will explore management and leadership as a key theme.

Business development skills for small and medium sized enterprises

The role of smaller enterprises in providing health care has grown throughout the UK over the past decade. Available intelligence[61] indicates a high degree of confidence amongst smaller providers in their health provision competences.

There are indications that SME's in the private sector indicate that they would like appropriate support for business related activities, such as marketing or business development.

Supporting Workforce Development Strategies

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[60] National Employer Skill Surveys in England, Scotland, Northern Ireland and Wales.

[61] Skills for Health (forthcoming) An exploration of Skills Needs with SME Independent Providers of Health Care in Scotland

The NHS across the UK operates as a planned workforce economy. As a result, workforce planners will need to place the reform of the healthcare system at the centre of their deliberations. They will also need to work closely with those who commission services and to link the design of the workforce to patient pathways.

In order to ensure that any programmes of workforce transformation or skills change undertaken by employers across the sector are coherent with each other, it will be necessary for all employers to develop clear Workforce Development Strategies. These strategies may be focused externally as well as internally.

Internally focused strategies cannot be restricted to merely addressing the suggested workforce development programmes themselves. To illustrate this point, the development of significant numbers of Assistant Practitioners is dependent on having sufficient applicants from people occupying posts, such as Healthcare Assistants, who are already developed up to NQF Level 3 or equivalent.

Evidence currently available from a variety of studies suggests that there would be a need for significant development of large numbers of people to NQF Level 3 or equivalent. This would have to begin with functional skills such as literacy and numeracy. Recruitment strategies would need to attract more people into pre-employment and 'starter jobs' that are ready, willing and able to be developed, to the point where they are then employable as Trainee Assistant Practitioners.

In addition to internal strategies, many employers may also look externally to neighbouring organisations to ensure that there is coherence in workforce development strategies across a local geographic area. This may be necessary in order to ensure that any significant shifts in the models of health service delivery and the structure of the workforce do not destabilise the utilisation of existing skills or adversely impact upon the capacity of organisations to continue to support education and training activities in the future.

9.9 Concluding Remarks

This chapter has outlined the priority areas relating to skills development that employers in the health sector are likely to be already focusing on, or will be focused on in the near future, before 2020. These areas were informed by the application sessions of the Rehearsing Uncertain Futures initiative and refined by subsequent research and analysis. They provide an indication of where resources will be invested by employers in order to develop a more productive, flexible workforce and to continue to improve the quality of health care in the UK.

In summary, the roles of Assistant Practitioner and Advanced Practitioner are gaining currency within the sector. The introduction of these roles will help those in specialist professional occupations to focus more on their specific areas of expertise, driving high quality outcomes and greater efficiencies in the system.

There will be little overall growth in levels of employment in the health sector in the near future. Hence, employers will need to focus on effectively utilising and developing the skills of their existing employees. They will need to create teams with the right skill mix to deliver high quality health care. It is likely that the 'soft skills' of team working, communication skills and problem solving (already identified as current skills needs) will become even more pressing for the sector in the future.

Information Technology will provide a range of opportunities for the sector to greatly enhance its productivity through improved information exchange, management and access. Staff will need to develop the appropriate skills to ensure that new technology is accepted and utilised effectively.

Another key area for skills development will be the management of the volunteer workforce. Specific skills will need to be developed to ensure that this unpaid workforce is managed effectively, and that successful volunteer programmes are mainstreamed smoothly.

The health sector will also play an increasingly important role in supporting informal and unpaid carers in the community, to help reduce admission to acute care and increase service capacity.

There will be a stronger focus in the sector on helping patients to better manage their own health and illness. This will require a new set of skills to enable staff to empower and educate patients to monitor their own symptoms and take more responsibility for the treatment of their own illness.

A high level of management and leadership skills will be required in order to facilitate the anticipated changes required by health care employers. Given the emphasis being placed on working more flexibly and productively, an important facet of the management skill set will be around employee engagement.

Next, Chapter 10, *Beyond 2020: Opportunities for Skills Development,* looks at the outcomes from the next stage of Rehearsing Uncertain Futures – the horizon scanning stage – which identified potential opportunities for skill development beyond 2020.

10 Beyond 2020: Opportunities for Skills Development

Key Features

Skills for Health's scenario-planning and horizon-scanning activities have highlighted a range of longer-term development which may impact upon the skills and workforce development issues of the workforce beyond 2020. These include:

- Developments in exploiting the human genome and genetics.
- Innovation in diagnostics and treatments.
- Innovations in robotics and supporting technologies.

10.1 Introduction

So far, this assessment has outlined the current skills needs within the health sector, the drivers toward future skills demand, and the current and near-future skills priorities for the health sector.

This chapter provides a more long-term look at factors that are likely to drive opportunities for employers to develop their workforce beyond the year 2020. These factors emerged from the horizon-scanning element of Skills for Health's Rehearsing Uncertain Futures initiative and the use of our horizon-scanning technology. The emerging themes that appear of significance to the sector include:

- The human genome and genetics.
- Innovation in diagnostics and treatment.
- Innovation in robotics and technology.

This chapter also is intended to provide a high-level overview of the factors that are likely to drive opportunities for skill development beyond 2020, rather than an exhaustive mapping of all potential future opportunities. It provides examples of some long-term developments that are likely to impact on skills demand and shape the workforce. These examples give an indication to employers of the possible ways the health sector could be shaped in the long term and of how the workforce will need to develop to support these changes.

10.2 The human genome and genetics

While the human genome has been mapped, our understanding of the building block of human life is still developing. The identification of genes thought to cause life-limiting conditions is continuing to evolve. What is clear is that at some point in the future, there will come a time when we can manipulate a variety of genes to eradicate common, yet devastating, life-limiting genetic conditions such as cystic fibrosis.

The technology needed for progressing gene therapy is rapidly advancing and gene therapy has the potential to radically transform the skills needs of the sector, from reliance upon skills to assist patients in managing and treating their conditions, to the development of skills relating to the correction of 'defective' genes in order to prevent serious illness and life-limiting conditions.

The progression of gene therapy across the world has been slowed by fears of safety and the need to understand the long-term effects of changing the genes of individuals. Recent successes have been reported in respect of treating inherited blood disorders. However, long-term evaluation is needed in order to assess and understand any long-term side effects of the treatment.

10.3 Innovation in diagnostics and treatment

The technology for faster and more accurate diagnosis and more effective treatment is constantly evolving. Together with this evolution consumer expectations are also rapidly changing, with an increased expectation of 'no waiting' and immediate feedback from tests. Currently this is not always possible with some specialist testing taking weeks or even months to report.

Recent developments in diagnostic testing include the development of a one-hour TB test (versus the current 8-week timescale). The potential benefit here is that such swift diagnosis will mean quicker treatment and a significant reduction in the risk of passing infection on to others.

New forms of diagnostic testing are also being developed with the potential for new techniques to replace traditional techniques such as x-rays. One such new technique is Raman Spectroscopy which measures the intensity and wavelength of light from molecules to identify diseased tissue. The technique has the potential to identify bone disease, high cholesterol, cancer and even early tooth decay, giving results within a few seconds. It also has the potential to identify the difference between benign or malignant tumours, perhaps avoiding the need for biopsy procedures for many individuals in the future.

The growth of ‘home testing’ and ‘home monitoring’ over recent years will no doubt continue over the foreseeable future. The next set of large-scale developments in these areas are already being trialled and include:

- Pills fitted with microchips that send a signal to another microchip implanted in the patients shoulder when they are taken. If the patient misses a dose the microchip will send a text message to the patient’s mobile phone. The additional cost of this technology is as low as one penny per pill; however the health and financial benefits of greater compliance from patients in managing their conditions and avoiding acute illness and hospital admissions could be great.
- The use of an insulin pump to treat diabetes which provides a constant low dose of insulin to the diabetic rather than regular injections. This means that blood sugar levels can be better controlled and the pump will adjust the levels of insulin administered in line with when the patient eats, thereby mimicking the natural insulin response in non-diabetics. Pumps are currently only used by around 2% of diabetics in the UK but the finer control that they provide over controlling blood sugar levels means that wider use could reduce the large number of diabetes-related complications such as heart attacks, strokes and amputations in the UK.

Developments such as those outlined in this section will not necessarily have a big impact on the types of skills utilised across the sector, they will, however, improve patient outcomes, aid productivity and help to reduce or control demand across the sector.

10.4 Innovation in robotics and technology

The use of Robotics within surgical procedures has been widespread for many years across the health sector. It is likely, however, that such technology will continue to develop in order to make surgery less invasive for patients and therefore improving patient experience and recovery times.

In more recent times robots have been used in new and emerging ways in order to improve efficiency and quality within hospitals. These emerging uses include:

- Robots used in Forth Valley Royal Hospital Scotland to assist in ‘domestic duties’ collecting dirty laundry and delivering clean laundry. The robots have their own designated ‘clean’ or ‘dirty’ duties. This has the potential to dramatically reduce cross contamination and infection across the hospital.
- Robots used in pharmacy settings in Forth Valley Royal Hospital and Swindon to improve the dispensing and stock control of drugs within the hospital

An Emerging Example:

Managers at the Forth Valley Royal hospital estimate that a £400,000 automated pharmacy has saved £700,000 off the hospital's drug bill[62]. Efficiencies experienced include:

- More effective use of staff time on wards.
- Reduction in dispensing errors.
- A paperless system allowing real time feedback concerning what stage each prescription is at.
- Reduction in the amount of stock having to be held by the hospital.

Looking towards the future, it is evident that this is an area attracting interest globally. Toyota has invested and created 'Partner Robots' which are aimed at supporting people's everyday life. They see a major role for these very agile robots in both domestic duties and nursing and healthcare in the next ten years.

Further developments within the wider technology field, including increased ways that we can connect with workplaces and the reliability of these connections, mean that there may be a time when a surgeon does not have to physically be in the same hospital as the surgical robot to control it. This can be done remotely with the support of the usual on-site wider operating theatre teams.

Finally, there has been some recent success in robots performing procedures on 'tissue' without the control of a surgeon. The robots are programmed to 'see' using ultrasound technology. Their use on biopsy tissue in trials has so far achieved a 95% success rate. It could therefore be envisaged that if the technology can be further refined very routine operations could be performed by such robots sometime over the next twenty to thirty years.

All of these developments have significant cost implications for the sector in respect of investing in new technology when it becomes available. However, given the current reliance of the sector on human capital the potential to supplement the workforce with robotic technology to improve the patient experience, increase productivity and drive up quality is great.

If the sector looks to adopt and implement such radical robotics technology there could be significant implications on the skills needs of the workforce that would need to be planned and managed. Some sections of the workforce will require additional training and development in order to fully utilise the technology available whilst other skills that they are currently utilising may no longer be required.

[62] Hospital robots cut hospital pharmacy bill. BBC News http://www.bbc.co.uk/news/uk-scotland-tayside-central-11552610

10.5 Concluding remarks

As can be seen from this chapter, early signs exist today of factors that are likely to shape the health sector and its workforce in the long term, beyond the year 2020. A look at these factors and at how they might play out in the future indicates that there are opportunities for employers to avail of developments in science and technology to improve health services. Taking advantage of opportunities will have a direct impact on the workforce in terms of the development of relevant roles and skills.

Summary of opportunities for skill development beyond 2020

Developments in gene therapy may lead to a shift in balance from the treatment of illness to greater prevention of long-term conditions. This will have a significant impact on the skills required in the health workforce.

Innovation in diagnostics and treatment should result in faster clinical diagnoses and may empower patients to self-diagnose. The outcome of this will be improved patient outcomes and increased workforce capacity. There will be direct skills implications for employers, in that new skills will be required to implement and/or administer new methods of diagnoses and treatment.

Innovation in robotics and technology will lead to less invasive surgery, as well as the automatic completion of routine tasks. Again, these developments should improve patient outcomes and experience of health services, and should provide professionals with more capacity to carry out more expert, less routine tasks. They will require the development of skills around the use and maintenance of robotics and other advanced technologies in the workplace.

The key drivers behind the adoption of new technologies and scientific processes are likely to be the improvement of the quality of health services, as well as the achievement of efficiency savings. Employers may also identify new technologies that can help specifically to address existing skills gaps and skills shortages.

Furthermore, the introduction of new techniques and technologies could enable the sharing of skills across country borders and the creation of international centres of excellence. In this way, technology could help to create a truly global health sector in respect of skills. Within the UK, the sharing of best practice and learning around the adoption of new technologies could enable significant efficiencies to be realised across the sector.

The sector presents opportunities for smaller technology solution providers, as the appetite for NHS-wide solutions has waned due to previous high-profile difficulties in implementing ‘one size fits all’ solutions across a diverse range of employers.

Potential challenges associated with these opportunities

The focus on improved productivity and quality will undoubtedly force employers across the sector to take a long-term view of the way in which technologies are adopted and implemented. However, a challenge for the sector will be around whether organisations will be willing to risk large investments in cutting-edge technologies for the sake of potential long-term benefit during times of economic uncertainty.

In addition, employers will need to recognise the way in which rapidly advancing technology can impact upon the skills needs of the workforce and plan training interventions in such a way as to enable the new technology to seamlessly transform quality and productivity across the sector.

Lastly, sharing best practice between employers regarding technological developments may be easier within Scotland, Northern Ireland, and Wales, where a more collaborative and partnership approach to operating health systems is seen. The greater emphasis on an ‘internal market’ within England and encouragement of competition between providers may present a barrier toward shared learning.

11 Helping the sector meet current and future skills and employment challenges

Key Features

The areas of current and future skills and employment priorities facing health sector employers and Skills for Health include:

- Achieving better for less.
- Reducing the sector's reliance on non-EU migration.
- Continuing focus on employability and functional skills.
- Continued development of new roles at NHS Career Framework levels 3 and 4.
- The development of roles at NHS Career Framework level 7.
- Dealing with the impact of ICT on roles and skills within the health sector
- The development of management and leadership, and high-quality engagement strategies.
- Skills development in small- and medium-sized healthcare providers.
- Enhancing workforce-planning capability.
- The challenge of local intelligence.
- Information and guidance for all ages.
- Health skills for non-health specialists, including the community, family and friends.
- Skills to enable greater 'Self-Care'.
- Qualifications and framework development.
- Developments in far-future diagnostics, treatment and technology.

11.1 Introduction

This Sector Skills Assessment has contributed to the identification of a range of current and future skills and employment priority areas for employers in the sector, across Northern Ireland and the UK, to address.

These areas, summarised in this chapter, will inform Skills for Health's own priorities for action and solutions for the sector. They will also enable us to report skills issues to the government to help shape the Government's response to skills needs in the sector.

11.2 Overarching priority – achieving better for less

The most immediate concern across the UK health sector is, and will continue to be, the unremitting search for finding better ways of delivering services which cost less and surpass previous performance.

With over 70% of expenditure being accounted for by employment costs, the need to develop high-quality teams and equip the workforce with the right skills will be a central concern for healthcare employers.

Skills for Health highlights a range of best practice and support in this field to enable employers to make the necessary changes required to working practices. This will continue to be developed and updated to maintain high-quality advice and guidance to those seeking to make transformations to their services. Skills for Health's experience includes:

- Development of transferable models.
- Transforming community services.
- Modernising Scientific Careers.
- The development of National Transferable Roles.
- Whole organisation redesign processes.
- The development and use of web based tools and support.
- Patient pathways/workforce reengineering.

11.3 Addressing skills gaps and shortages

The health sector performs relatively well in comparison to the whole economy in terms of skills and qualifications. Employers in the UK's health sector are faced with a variety of skills gaps and shortages, and will continue to be faced with these in the near future.

A central component of the Skills for Health's Sector Skills Agreement is the development of a more flexible workforce, using competences as a key vehicle toward achieving this [63]. Coupled with the impact of the current economic environment, this focus has placed the need for a more affordable, flexible workforce at the heart of this assessment.

Skills for Health envisages a growing role for competence-based job design in achieving a more flexible workforce. This approach will also allow employers to examine their current skills gaps and work towards more effective skills utilisation of the existing workforce.

11.4 Reducing dependence on non-EU migration

Historically there has been reliance across the sector on international recruitment in order to fill skills-shortage vacancies and to create additional capacity within the sector. The need for this was created by the increased investment across the sector and the time lag for professionals to complete training.

More recently this heavy reliance on international recruitment has subsided, however, there are currently 35 occupations within the healthcare sector that are on the MAC Skilled Shortage and Sensible list. Whilst there is consultation on the future development of this list, this is an important indicator of the scale of dependency that the sector has on migration to fulfil its demand for employment and skills need.

Important developments may impact upon the sector's ability to source skills internationally in the future. These include:

- The recently announced cap on non-EU migration[64]. This cap seeks to reduce significantly the people arriving into the UK under tier 1 and 2 during the course of the current parliament.
- The longer-term development of the UK in relation to the worlds leading economies does not mean that it will necessarily be a destination of choice for many foreign workers in the future.

Reducing this dependency further will result in the need to 'up-skill' and 're-skill' individuals, where necessary, to fill roles. However, there are a wide range of possibilities to re-think teams and team working through conducting workforce redesign, allowing the sector to deliver better services using new mixes of skills and people.

In addition, further in the future beyond 2020, technological innovations will enable countries to develop centres of excellence that can be exported to other countries throughout the world. An immigration system that allows the right expertise to develop this capacity will be essential.

[63] Available at http://www.skillsforhealth.org.uk/~/media/Resource-Library/PDF/Caseforchange-Final.ashx
[64] UK Border Agency (2010) *Government sets first annual limit for non-European workers*, 23rd November www.ukba.homeoffice.gov.uk/sitecontent/newsarticles/2010/nov/78-first-annual-limit

Skills for Health will continue to monitor the signals for such developments in the sector. The sector will need to start now to rehearse and develop how it wishes to compete in the future global health market through developing areas of expertise to offer services and attract the talent it needs to do so. This will need to be developed in tandem with future immigration policy.

11.5 Continuing focus on employability and functional skills

There are broad indications that the development of employability and functional skills will continue to be a priority for the sector. In simple terms, many of those in routine jobs are currently less likely to receive opportunities to develop their skills.

High-quality provision of these skills in the sector will assist in the supply of appropriate candidates for those seeking to become Assistant Practitioners if they wish. At the same time, developing these skills will enable all those in the sector to enhance their jobs wherever their ambitions might be.

These are exciting developments comprising new areas of intelligence that will feed into our future understanding of the extent of demand for these skills in the sector, and how they are being applied in practice. To support this Skills for Health has developed a Literacy and Numeracy Initial Assessment Tool, allowing individuals to assess their current level of literacy and numeracy, identify areas for development and plan their future learning. Taken alongside the development of the Skills Passport[65] the tool has the potential to provide a closer view of how these skills are being developed across the sector.

11.6 Continued development of new roles at NHS Career Framework levels 3 and 4

Our analysis indicates a growing demand amongst employers for a range of Assistant Practitioner roles. These flexible roles, often considered to be working at around band 4, offer a range of opportunities for re-configuration of teams. There is already substantial evidence that such roles are already being developed within the health sector throughout the UK.

[65] More information can be obtained from http://www.skillsforhealth.org.uk/developing-your-organisations-talent/Skills-passports.aspx and
Skills for Health (2010) Skills Passport for Health Evaluation, Developed by Turquoise Thinking Ltd
http://www.skillsforhealth.org.uk/~/media/Resource-Lbrary2/PDF/Skills-Passport-for-Health-Evaluation.ashx

Skills for Health's own 'National Transferable Roles' initiative offers a framework that health employers can use to develop a wide range of roles. It also acts as a potential reservoir of best practice that can be referred to by employers.

The sector will need to continue to refine how Assistant Practitioner roles are developed, putting patient safety and flexible working at the heart of this development.

11.7 The development of roles at NHS Career Framework level 7

Skills for Health has gathered substantial anecdotal evidence that indicates that Advanced Practitioner roles will continue to have relevance in the health sector. At present, it is reasonable to assume that employers will wish to continue the development of these types of roles. Skills for Health will continue to monitor the progress of this development to assist in the development of best practice.

11.8 Dealing with the impact of ICT on roles and skills within the health sector

There is huge potential for ICT to reshape the way that services are delivered across the health sector. All roles, wherever they are based, will over the next ten years be affected by the ongoing impact of ICT on the health sector.

The effect of ICT includes:

- Many roles will have to understand how to operate basic ICT systems in order to do their jobs. This implies increased levels in many of the related 'functional' and key skills.
- Data-handling skills with respect to issues of confidentiality and security will grow in importance. There is likely to be debate within the sector about which roles should be using and processing patient information.
- A range of potential developments for health professionals and clinicians. With ICT developments bringing remote diagnostics, or even surgery, within ever closer reach.

The challenge for the sector is how well it embraces the technology already available to maximise productivity and efficiency whilst ensuring that the workforce is ready for implementation of the technology

11.9 The development of management and leadership, and high-quality engagement strategies

There is a widespread perception that the sector suffers from low levels of skills in management and leadership. Our analysis supports this, indicating a range of systemic factors that can make it difficult to deliver high-quality management and leadership in the health sector, particularly in the context of the NHS. This can also explain the inconclusive impact of a considerable range of high-performing working practices pursued by employers in the sector.

Whilst management and leadership education remains a core skills development need, the sector will also need to explore how it can address the issue of improving engagement with staff to enable the step change required.

The challenge of high-quality management and leadership will be an ongoing feature of the health sector skills development landscape, increasing further as new initiatives are fed into the sector.

11.10 Skills development in small- and medium-sized healthcare providers

The role of smaller, private enterprises in providing healthcare has grown throughout the UK in recent years. Early research suggests that employers in this part of the sector are confident about their ability to deliver particular health interventions. Many staff have studied to at least a degree level, will have continual professional development provided by their professional body and in recent times have been regulated to a greater degree.

A recurring area of skills development for the small private enterprises relates to business-related skills. Owners of these organisations have a strong desire to improve and drive forward their business, but it appears that, for a significant number, this desire is not supported by learning opportunities that are easily accessible and tailored to their needs.

11.11 Enhancing workforce planning capability

The sector has further developed its workforce-planning capability, drawing on Skills for Health’s support. However, more is required in the ever-increasing complexity of the sector and the pace of change demanded by policy makers. The sector will need to continue, therefore, to develop its expertise.

Skills for Health will build on its track record of providing capability-building exercises in this area. It will continue to offer this important service to employers.

11.12 The challenge of local intelligence

The assessment has also demonstrated how employers and providers will be placing more emphasis on the local needs of the population. There is a strong need for a greater degree of localised intelligence to support the development of local service solutions. Skills for Health will provide guidance to employers wishing to explore this area further and it has already begun to extend its intelligence activities to encompass intelligence that takes account of local needs.

11.13 Careers Information and Guidance for all ages

The demand for high-quality, dispassionate information, advice and guidance will only grow as the sector undergoes a series of reforms over the next 5 to 10 years. Those starting their careers will need advice on occupations within the sector. Those within the sector already will require information about future opportunities in the health sector and in related sectors.

11.14 Health skills for non-health specialists – community, friends and relatives

The delivery of healthcare away from traditional outlets into the community has been called for by the Government for some time, and is linked to achieving greater local responsiveness and choice as well as to helping deal with increasing demand for provision. This drive has been given further impetus by the coalition Government’s desire to create a larger role for communities through its ‘big society’ initiatives.

11.15 Skills to enable greater ‘Self-Care’

Self-care skills are also a growing area of development and the health sector will need to ensure individuals are coached, mentored and provided with accessible information to enable them to provide care for themselves.

11.16 Qualifications and framework development

The attainment of qualifications is one important indicator of skills levels in the sector. As a result, there remains a strong requirement for the ongoing development of qualifications and educational frameworks.

As the SSC for health across the four UK countries, we are responsible for working with employers and Awarding Organisations to develop health-related, competence-based qualifications for health occupations for the Qualifications and Credit Framework (QCF) and Scottish Vocational Qualifications (SVQ).

11.17 Beyond 2020

Skills for Health's horizon scanning activities have identified a number of longer-term opportunities for the UK health sector that are likely to be driven by technological and scientific innovations. These opportunities may change the skills needs of the health sector further into the future, and are offered here for consideration. Skills for Health will undertake monitoring of these and other trends in the sector as they arise, and further details will soon be available on the Skills for Health website. By their speculative nature these are not intended as definitive opportunities. Instead, they provide a kernel of insight into emerging long-term health sector trends and related skills issues.

The human genome and genetics

Following the mapping of the human genome, scientists are now focusing on how genetic conditions can be prevented. Once the ethical debates have been settled, the long-term promise of genetic therapy will mean a wide range of skills needed to assist in the treatment of conditions and correction of genetic dysfunctions.

Diagnostics and treatment

The technology for faster and more accurate diagnosis and more effective treatment is rapidly evolving. Consumer expectations are also rapidly changing with an increased expectation of immediate feedback from tests. The following are examples of innovation in these areas:

- The one-hour TB test (versus the current 8-week timescale).
- Raman Spectroscopy, which has the potential to identify bone disease, high cholesterol, cancer and even early tooth decay, giving results within a few seconds.
- The growth of 'home testing' and 'home monitoring' technologies which, if managed correctly, will help to deliver higher quality healthcare within a restrained budget.

These developments will continue to shape the skills of those working within the sector and the teams that they work within. Likely consequences include an increase in the volume of patient data that needs to be managed, and in the speed of patient treatment.

Robotics and technology

The use of robots in the health sector will continue to proliferate in both the near and longer term. There is evidence that they can assist with many of the mundane tasks, such as delivering the post or accurately dispensing drugs, and in some of the more complex areas of surgery.
Early signs indicate that the use of robots in these areas is likely to improve outcomes for patients.

All of these developments have significant cost implications for the sector in respect of investing in new technology when it becomes available. As robots become more common, the shape of teams that use them, and the skills they require to use them, will develop, as will the market for healthcare and healthcare interventions.

12 Conclusion

The health sector in Northern Ireland and the UK is being transformed by a combination of short- and long-term drivers for change. In the short term, the government is seeking to deal with the UK's budget deficit in the light of the financial crisis of 2008. In the longer term, the demand for health provision continues to grow as a result of a range of factors, including aging populations and ever-increasing expectations. The overriding concern of many within the sector is therefore how better healthcare can be delivered for less.

The establishment of the coalition government in 2010 has led to the announcement of a wide range of initiatives in England designed to reform the health sector which place improved performance and local accountability at their centre. These initiatives are being introduced at some speed, which adds further uncertainty to the already complex situation employers are finding themselves in.

With elections expected in each of the devolved administrations during 2011, health-related policies within Northern Ireland are expected to develop further. This will lead to further redevelopments, as either re-elected or newly elected governments seek to establish themselves.

Around 70% of total spend in the health sector is on employment-related issues. It is therefore the largest single area for development. The challenge of continuing to develop skills and achieve the right skills mix within teams throughout the sector has rarely been more important.
There is clearly a need for employers and policy makers to think strategically about how they wish to address the wide range of current and future skills needs identified in this report.

The skills challenges identified in this assessment will be shaped by local and regional contexts, as well as by the policies of the devolved administrations. Specific intelligence is available for England, Scotland and Wales in a suite of national Labour Market Intelligence and Skills Assessments available on the Skills for Health website www.skillsforhealth.org.uk.

Skills for Health will continue to support employers across the UK health sector to identify, understand and meet the skills challenges facing them in the short term and long term. Skills for Health has a track record of providing assistance to employers regarding their service development needs. Examples of such activity can also be found on Skills for Health's website www.skillsforhealth.org.uk.

Skills for Health is an independent authority on skills and employment issues for the health sector. Our work is ongoing and we welcome the involvement of employers and stakeholders on all aspects of our research work. As part of this ongoing work, Skills for Health will be actively developing the insights contained within these assessments throughout 2011 via a series of consultations with employers and sector stakeholders. If you want to get involved or provide feedback please contact us on lmi@skillsforhealth.org.uk.

13 Appendix 1 – SIC Definitions

Standard Industrial Classifications (SIC)

In all technical analysis of the health sector, historic publications from Skills for Health have defined the sector (Skills for Health footprint) as:

85.1 Human Health Activities – comprised of:

- 85.11 – Hospital activities both public sector hospital activities including NHS Trusts (85.11/1), private sector hospital activities (85.11/2) and medical nursing home activities (85.11/3)
- 85.12 – Medical practice activities
- 85.13 – Dental practice activities
- 85.14 – Other human health activities

This definition utilised 2003 Standard Industrial Classification (SIC 2003).In recent years the SIC classifications have been updated in an attempt to better represent the sectors working across the whole economy.

This updating of classifications means that the Skills for Health footprint is now defined as:

86 Human Health Activities – comprises of:

- 86.1 – Hospital activities including Hospital activities (86.10/1) and Medical nursing home activities (86.10/2)
- 86.2 – Medical and dental practice activities including General medical practice activities (86.21), Specialist medical practice activities (86.22) and Dental practice activities (86.23)
- 86.9 – Other human health activities

All secondary data source utilised by the LMI and research team are now available in SIC 2007 however this reclassification has created some notable differences in the baseline data.

Baseline Variations

If we examine data for England, Scotland and Wales from the Annual Business Inquiry[66] 2008 by the Skills for Health Footprint as defined by both SIC 2003 and SIC 2007 there is an overall variation of 185,300 employees.

[66] Northern Ireland data sourced from Census of Employment and released biannually.

The following table summarises these variations by each country.

	SIC 2003 85.1	SIC 2007 86	Variation
England	1,684,000	1,529,700	-154,300
Scotland	244,400	227,300	-17,100
Wales	112,800	98,900	-13,900
Total	**2,041,200**	**1,855,900**	**-185,300**

* Numbers rounded to the nearest hundred

The reasons for these variations were examined in more detail and the following should be noted:

The SIC 2003 classification included Nursing Home Activities (excluding homes for the aged) SIC 85.113 within Hospital Activities. This has always been an area where we have known there to be significant overlap with Skills for Care and Development in respect of responsibility for the workforce. However, it has never been possible to disaggregate this section of the workforce within the data that we hold.

The SIC 2007 classification now splits this sub-classification into Medical Nursing Home Activities under the direct supervision of medical doctors (which falls within the skills for health footprint) and several other sub-classifications which now clearly fall within the footprint of Skills for Care and Development.

The net result of this split is that it appears that our overall workforce numbers across the health sector have reduced by the numbers as outlined above.

Implications for Research and LMI

The main implication of this change in classification is that it means that medium- and longer-term historical comparisons are no longer possible. We are able to take data from 2007 onwards but any comparisons with data prior to this date will require the provision of suitable caveats in respect of the change in classifications and the known variations in data.

14 Appendix 2 – Health Sector Analysis

14.1 GP and NHS Hospital Ratio, 2008

The ratio of GP Surgeries ranges from 1 to every 3,296 residents in Fermanagh up to 10,174 residents in Carrickfergus.

The ratio of NHS Hospital ranges from 1 to every 7,317 residents in Derry up to 1 to every 99,034 residents in Newry & Mourne.

District Councils	Ratio of GP Surgery	Ratio of NHS Hospital
Belfast Health and Social Care Trust		
Belfast	3,362	12,649
Castlereagh	7,216	21,647
Northern Health and Social Care Trust		
Antrim	5,446	18,153
Ballymena	3,512	63,212
Ballymoney	7,670	30,681
Carrickfergus	10,174	0
Coleraine	5,657	56,574
Cookstown	5,213	0
Larne	4,498	31,487
Magherafelt	6,315	44,205
Moyle	3,381	16,906
Newtownabbey	8,187	27,291
South Eastern Health and Social Care Trust		
Ards	4,906	39,250
Down	5,057	35,397
Lisburn	7,682	57,619
North Down	6,575	39,449
Southern Health and Social Care Trust		
Armagh	6,588	14,822
Banbridge	4,001	48,008
Craigavon	5,414	30,681
Dungannon	4,093	28,650
Newry and Mourne	4,306	99,034
Western Health and Social Care Trust		
Derry	6,456	7,317
Fermanagh	3,296	31,313
Limavady	5,761	17,283
Omagh	5,807	26,130
Strabane	5,701	39,909
Northern Ireland	**4,959**	**23,187**

Source: Binleys GPs (December 2008), NHS Hospitals (March 2008)

14.2 Maximum Road Distances to Health Services (KM)

At a District Council Level the maximum road distance in Kilometres for each identified health service provision is:

- GP Surgery – distances ranges from 2.93 km in Belfast up to 17.08 km in Fermanagh
- A & E – 8.58 km in Belfast up to 46.90 km in Moyle
- Dentist – 2.39 km in Belfast up to 25.13 km in Fermanagh
- Optician & Pharmacist – 4.11 km in Belfast up to 21.69 km in Strabane

District Councils	Max Road Distance to GP Premises	Road Distance to A & E Hospital Min	Max	Max Road Distance to Dentist	Max Road Distance to Optician & Pharmacist
Belfast Health and Social Care Trust					
Belfast	2.93	0.00	8.58	2.39	4.11
Castlereagh	4.99	0.00	12.34	5.81	6.39
Northern Health and Social Care Trust					
Antrim	8.92	0.00	18.40	11.73	12.32
Ballymena	10.01	7.29	34.69	13.18	14.68
Ballymoney	10.74	7.00	27.93	16.86	17.13
Carrickfergus	6.66	3.48	17.98	6.46	8.28
Coleraine	9.39	0.00	24.09	10.67	10.67
Cookstown	12.99	7.87	28.07	16.53	16.52
Larne	12.85	15.45	44.43	12.76	19.10
Magherafelt	7.89	0.00	23.45	10.44	14.07
Moyle	4.95	13.31	46.90	14.73	11.32
Newtownabbey	6.51	0.00	15.60	5.92	5.92
South Eastern Health and Social Care Trust					
Ards	6.64	3.98	27.53	14.92	10.50
Down	10.39	0.00	25.51	13.16	12.84
Lisburn	8.11	0.00	19.91	10.44	9.23
Southern Health and Social Care Trust					
North Down	4.87	4.39	20.33	4.42	7.56
Armagh	9.60	7.59	38.40	12.87	12.87
Banbridge	10.53	4.67	26.97	11.68	16.31
Craigavon	10.34	0.00	20.54	12.96	11.92
Dungannon	6.44	20.56	42.23	13.87	15.23
Newry and Mourne	8.96	0.00	37.50	14.19	18.05
Western Health and Social Care Trust					
Derry	8.28	0.00	22.28	12.30	17.99
Fermanagh	17.08	0.00	39.96	25.13	21.02
Limavady	8.42	12.65	28.30	15.50	15.50
Omagh	13.76	0.00	21.81	19.92	21.25
Strabane	11.65	10.58	39.90	20.39	21.69

Source: www.nisra.gov.uk/deprivation/nimdm

15 Appendix 3 – Health and Consumer Profiles

15.1 2009 Health Population Profile

Health ACORN Group Profile

	Profile	Data as % N Ireland	Data as % UK	Index Avg = 100
Existing Problems	369,409	20.7	15.0	**138**
Future Problems	256,990	14.4	12.3	**117**
Possible Future Concerns	510,300	28.6	34.4	83
Healthy	642,769	36.0	37.4	96
Unclassified	5,909	0.3	0.9	37
Total Population:	1,785,377	100.0	100.0	100

Health ACORN Type Profile

	Profile	Data as % N Ireland	Data as % UK	Index Avg = 100
1 Older couples, traditional diets, cardiac issues	5,066	0.3	0.5	54
2 Disadvantaged elderly, poor diet, chronic health	4,249	0.2	0.4	61
3 Vulnerable disadvantaged, smokers with high levels of obesity	70,049	3.9	0.9	**443**
4 Post industrial pensioners with long term illness	33,237	1.9	2.0	94
5 Deprived neighbourhoods with poor diet, smokers	56,096	3.1	2.0	**158**
6 Elderly with associated health issues	62,359	3.5	3.0	**115**
7 Home owning pensioners, traditional diets	20,517	1.1	2.2	53
8 Disadvantaged neighbourhoods with poor diet & severe health issues	117,836	6.6	4.0	**164**
9 Poor single parent families with lifestyle related illnesses	73,203	4.1	1.1	**378**
10 Multi-ethnic, high smoking, high fast food consumption	23,487	1.3	2.0	67
11 Urban estates with sedentary lifestyle & low fruit & veg consumption	101,531	5.7	2.8	**206**
12 Deprived multi-ethnic estates, smokers and overweight	47,343	2.7	3.8	69
13 Disadvantaged multi-ethnic younger adults, high levels of smoking	11,426	0.6	2.6	24
14 Less affluent neighbourhoods, high fast food, sedentary lifestyles	199,035	11.1	5.2	**213**
15 Affluent healthy pensioners dining out	27,484	1.5	3.7	42
16 Home owning older couples, high levels of fat & confectionery	94,456	5.3	7.1	74
17 Affluent professionals, high alcohol consumption, dining out	54,955	3.1	8.1	38
18 Low income families with some smokers	87,534	4.9	6.0	82
19 Affluent families with some dietary concerns	46,836	2.6	4.4	60
20 Young mobile population with good health and diet	32,596	1.8	4.0	45
21 Younger affluent, healthy professionals	42,973	2.4	4.8	51
22 Students and young professionals, living well	13,189	0.7	2.1	36
23 Towns and villages with average health and diet	190,671	10.7	7.9	**135**
24 Mixed communities with better than average health	242,529	13.6	7.9	**173**
25 Affluent towns and villages with excellent health and diet	120,811	6.8	10.8	63
Unclassified	5,909	0.3	0.9	37
Total Population:	1,785,377	100.0	100.0	100

Source: CACI 2010

15.2 Consumer Profile, Northern Ireland

ACORN Category Profile

		Profile	Data as % N Ireland	Data as % UK	Index Avg = 100
1	Wealthy Achievers	800,714	44.8	25.3	**178**
2	Urban Prosperity	39,517	2.2	11.8	19
3	Comfortably Off	308,187	17.3	27.3	63
4	Moderate Means	176,569	9.9	13.9	71
5	Hard Pressed	454,208	25.4	20.9	**122**
	Unclassified	6,182	0.3	0.9	39
	Total Population	1,785,377			

ACORN Group Profile

		Profile	Data as % N Ireland	Data as % UK	Index Avg = 100
A	Wealthy Executives	208,360	11.7	8.6	**136**
B	Affluent Greys	43,742	2.5	7.9	31
C	Flourishing Families	548,612	30.7	8.8	**350**
D	Prosperous Professionals	15,223	0.9	2.1	41
E	Educated Urbanites	5,546	0.3	5.9	5
F	Aspiring Singles	18,748	1.1	3.8	27
G	Starting Out	17,869	1.0	3.5	28
H	Secure Families	243,397	13.6	14.9	91
I	Settled Suburbia	33,756	1.9	5.8	32
J	Prudent Pensioners	13,165	0.7	3.0	24
K	Asian Communities	0	0.0	1.5	0
L	Post Industrial Families	52,743	3.0	4.6	64
M	Blue Collar Roots	123,826	6.9	7.7	90
N	Struggling Families	354,024	19.8	13.0	**152**
O	Burdened Singles	89,914	5.0	4.2	**119**
P	High Rise Hardship	10,270	0.6	1.6	36
Q	Inner City Adversity	0	0.0	2.0	0
	Unclassified	6,182	0.3	0.9	39
	Total Population	1,785,377			

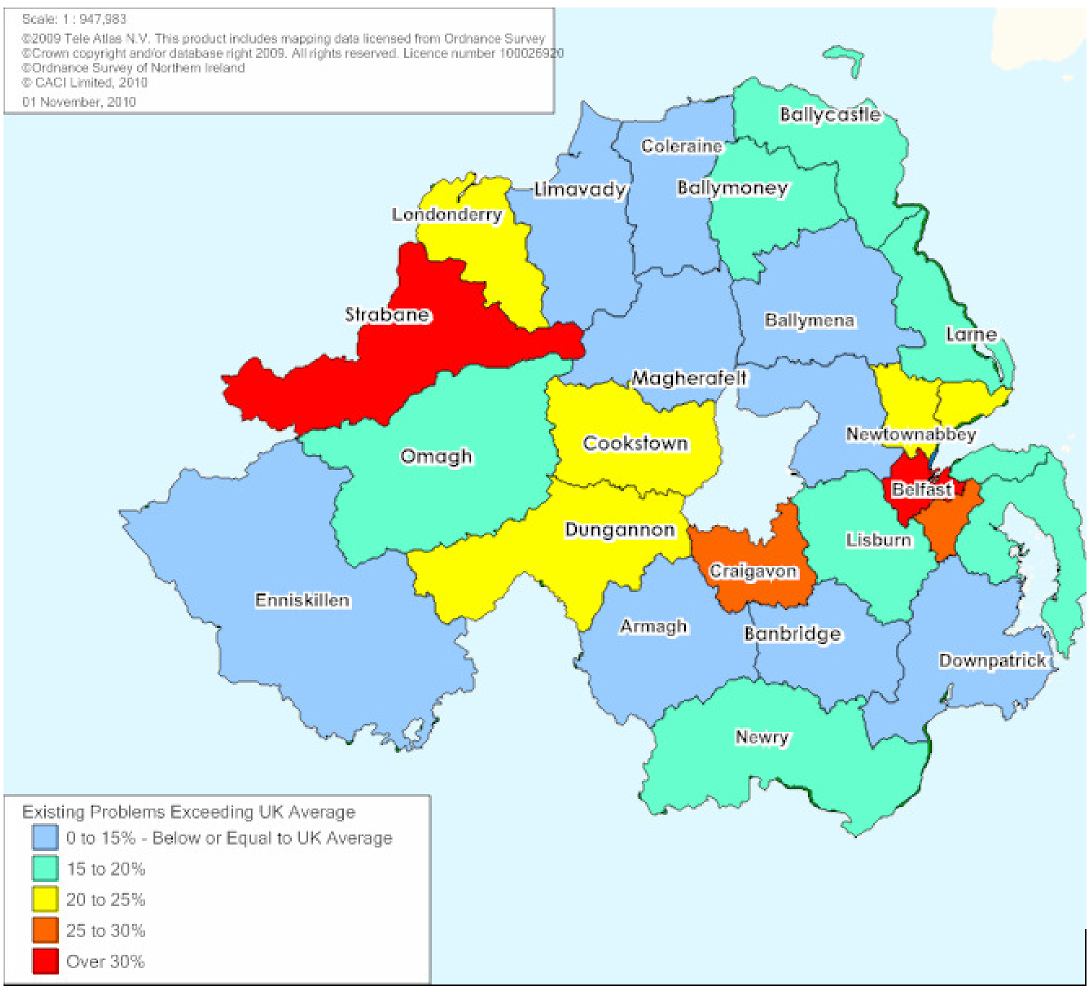
Source: CACI 2010

Appendix 4 – Comparisons to the UK Health Profile

15.3 Existing Problems

The following map illustrates where the percentage of the resident population with '*existing problems*' at District Council Area exceed the UK average of 15%. The average for Northern Ireland is 21%. The highest proportions of population are found in Belfast and Strabane with 36% and 30% respectively of the resident population compared to just 5% in Antrim.

Merthyr Tydfill has the highest percentage of its resident population affected with 'existing problems' in the whole of the UK.



Source: CACI 2010

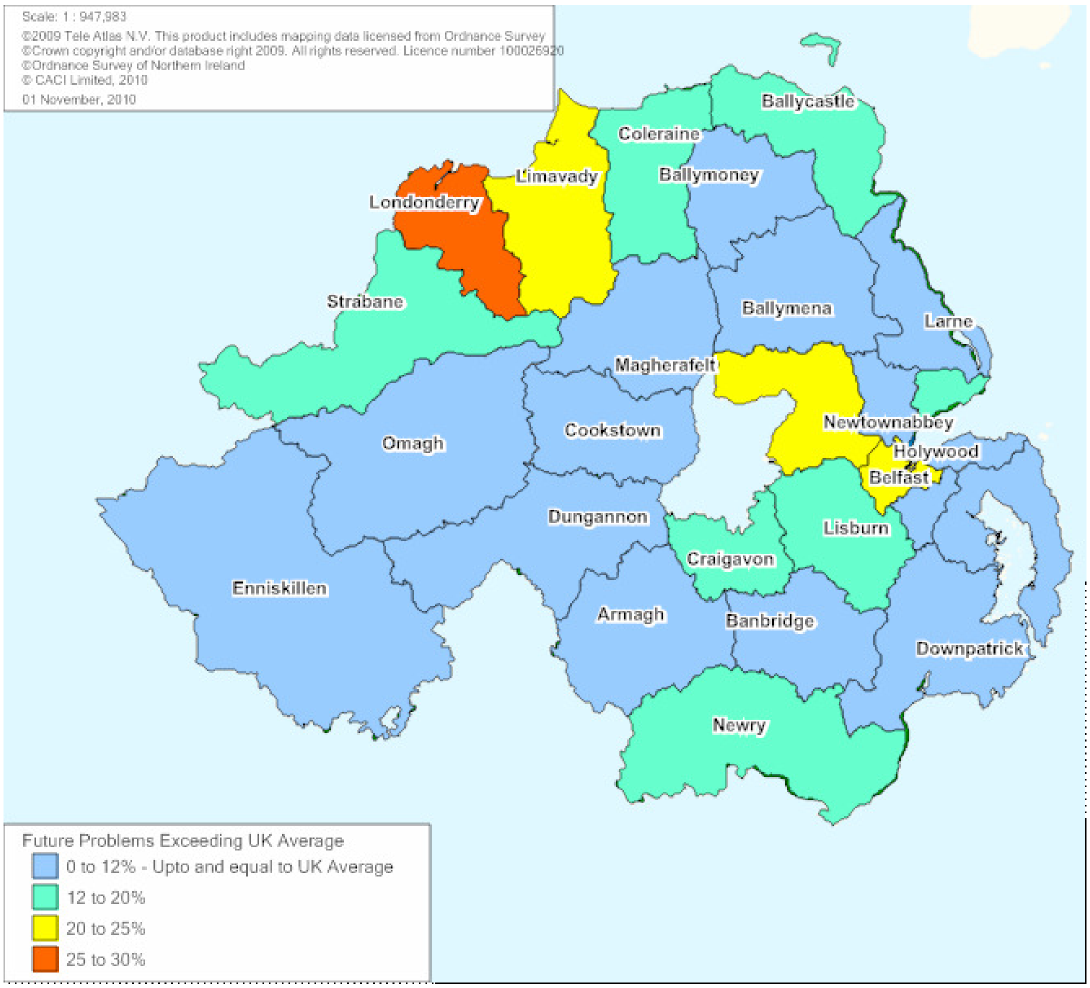
Existing problems – where the levels of illness are above average. The proportion of people with angina is 60% higher than average, the proportion who have suffered a heart attack is 45% above average. The incidence of diabetes, high blood pressure and high cholesterol are also above average, and this is the only group where this is the case.

15.4 Future Problems

The following map illustrates where the percentage of the resident population with '*future problems'* at District Council Area Level exceed the UK average of 12%. The average for Northern Ireland is 14%.

The highest proportions of population are found in Derry and Belfast with 29% and 21% respectively compared to 5% in Castlereagh.

In the UK Tower Hamlets in London has the highest percentage with 50% of its resident population affected with '*future problems'*.



Source: CACI 2010

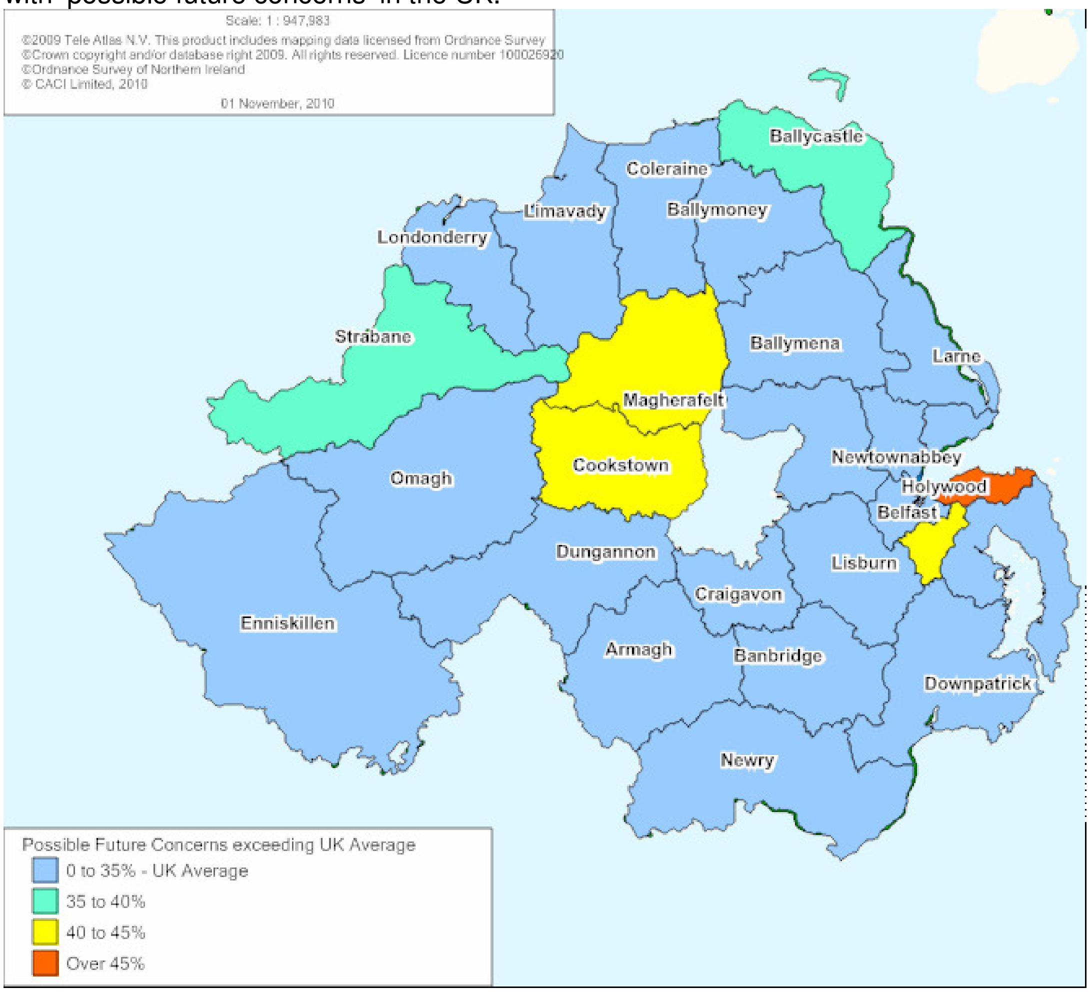
Future problems – The areas classified as harbouring future problems do not generally have high incidence of existing illnesses. Exceptions to this are depression, asthma and migraine.

15.5 Possible Future Concerns

The following map illustrates where the percentage of the resident population categorised as '*possible future concerns'* at District Council Area exceeds the UK average of 34%. The average for Northern Ireland is 29%.

The highest proportions of population categorised as '*possible future concerns'* are found in North Down and Magherafelt with 47% and 43% respectively compared to just 16% in Antrim.

Wokingham with 71% has the highest percentage of its resident population affected with 'possible future concerns' in the UK.



Source: CACI 2010

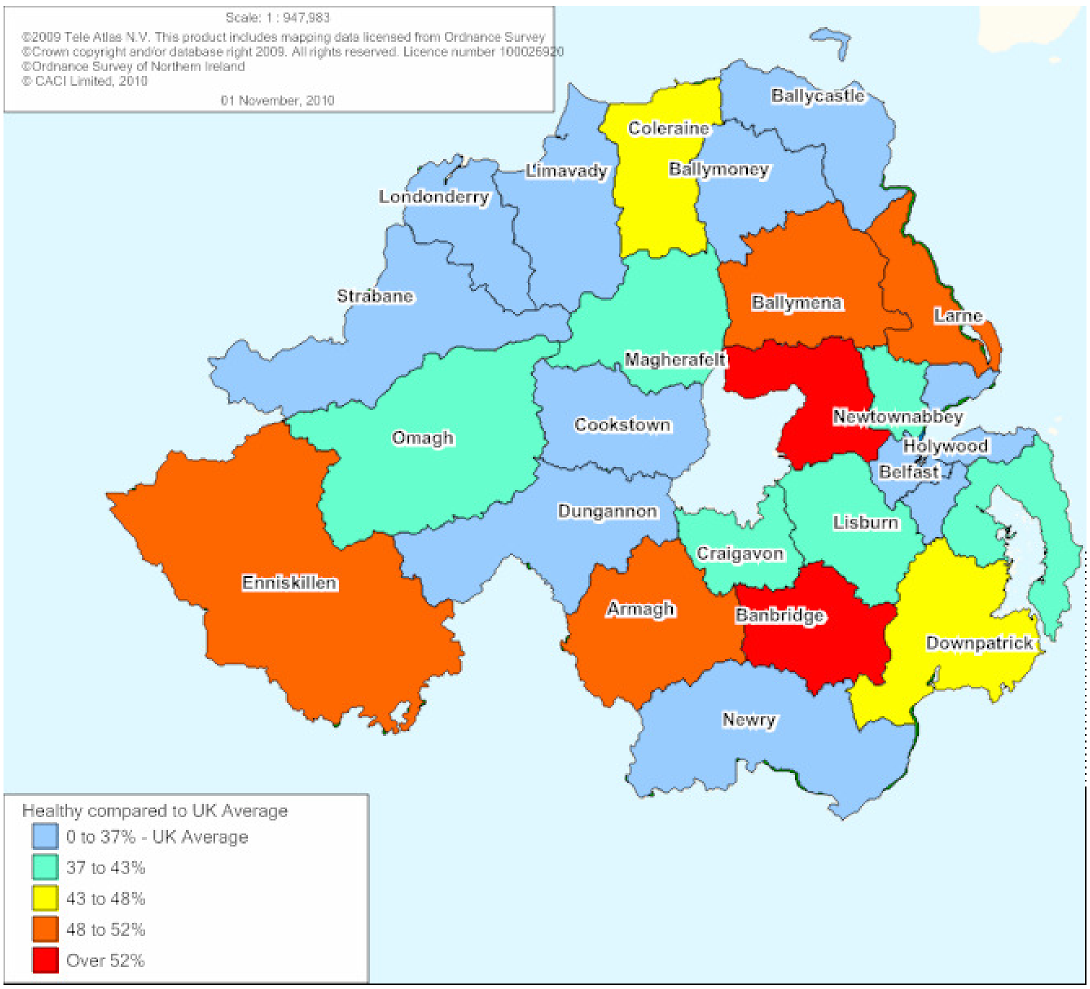
Possible future concerns – These are areas with lower levels of smoking, obesity and average or slightly below average incidence of illness.

15.6 Healthy

The following map illustrates where the percentage of the resident population classified as '*healthy*' at District Council Area exceed the UK average of 37%. The average for Northern Ireland is 36%.

The highest proportions of healthy population are found in Antrim and Banbridge with 57% and 55% respectively compared to only 14% in Strabane.

The Isles of Scilly with 100% followed by the Orkney Islands has the highest percentage of its resident population classified 'healthy' in the UK.



Source: CACI 2010

Healthy – The healthy areas tend to have a younger demographic and the proportions of people with high blood pressure, angina, diabetes and high cholesterol are lower than average. This group are likely to take more exercise and less likely to be smokers or overweight.

16 Glossary

ABI The Annual Business Inquiry is a business survey which collects both employment and financial information.

ACORN A Classification of Residential Neighbourhoods. A geodemographic classification using census and other data to classify postcodes into neighbourhood categories. The classification has been developed by the marketing-data firm CACI.

Census of Employment
The Census of Employment is a statutory enquiry of all employers in Northern Ireland, carried out biennially under the Statistics of Trade and Employment (Northern Ireland) Order 1988.

CIAG Careers Information Advice and Guidance

CPD Continual Professional Development

CSR Comprehensive Spending Review

Footprint All organisations in the health sector Standard Industrial Classifications (SIC) Human Health Activities.In analysing data for the Skills for Health footprint SIC codes are used. The most recent SIC codes that have been developed are SIC 2007.

The codes relevant to the Skills for Health Footprint are SIC code 86 – Human Health Activities. Due to availability of Census of Employment data and the exclusion of Northern Ireland from the Annual Business Inquiry, throughout this report we have used SIC 2003. SIC 85.1 Human Health Activities is comprised of the following areas:

- SIC 85.11 – Hospital activities
- SIC 85.12 – Medical practice activities
- SIC 85.13 – Dental practice activities
- SIC 85.14 – Other human health activities

GOR The nine Government Office Regions are the primary statistical subdivisions of England.

Great Britain
Refers to the whole of England, Scotland and Wales including offshore islands. It does not include Northern Ireland, the Channel Islands or the Isle of Man.

ICT Information and Communication Technology

LFS The Labour Force Survey (LFS) is a quarterly sample survey of households living at private addresses in the UK.

LMI Labour Market Intelligence

MAC Migration Advisory Committee

NQF National Qualifications Framework

OA's Output areas based on postcodes as at January 2000 and are related to 2001 wards. The minimum OA size is 40 resident households and 100 resident persons but the target size was 125 households. There are 5,022 OAs in Northern Ireland.

QCF Qualifications and Credit Framework

QUIPP Quality Innovation Productivity and Prevention

SIC The United Kingdom Standard Industrial Classification of Economic Activities (SIC) is used to classify business establishments and other standard units by the type of economic activity in which they are. For further information please visit www.statistics.gov.uk/statbase/Product.asp?vlnk=14012

Skills Gaps Skills gaps are said to exist in an establishment when the employer indicates that staff at the establishment are not fully proficient in their jobs.

Skills Shortages

Skills Shortages are said to exist when the employer indicates that they cannot recruit sufficiently-skilled workers to meet their demand.

SOC The Standard Occupational Classification allows easy comparison of UK wide, cross sector data. The 'Major Group' titles are each subdivided into 'Unit Groups' containing occupation titles that are more relevant to employers. Examples of the 'Unit Groups' underpinning each 'Major Group' is contained in the table below.

Code commencing with:	Major Group	Example of Unit Groups
1	Managers and Senior Officials	1181 Hospital and health service manager 1183 Healthcare Practice Managers
2	Professional Occupations	2211 Medical practitioners 2215 Dental practitioners
3	Associate Professional and Technical Occupations	3211 Nurses, 3212 Midwives, 3213 Paramedics
4	Administrative and Secretarial Occupations	4211 Medical secretaries
5	Skilled Trades Occupations	5434 Chefs, cooks
6	Personal Service Occupations	6111 Nursing, auxiliaries and assistants 6112 Ambulance staff (excl Paramedics)
7	Sales and Customer Service Occupations	7212 Customer care occupations
8	Process, Plant and Machine Operatives	8138 Routine laboratory testers
9	Elementary Occupations	9221 Hospital porters

SSC Sector Skills Council

SVQ Scottish Vocational Qualifications

UK The United Kingdom is the nation state consisting of England, Scotland, Wales and Northern Ireland.

UKCES UK Commission for Employment and Skills

17 Data Sources

British Medical Association
The British Medical Association is the professional medical association and trade union for doctors and medical students
www.bma.org.uk

Cabinet Office
The Cabinet Office coordinates policy and strategy across government departments
www.cabinetoffice.gov.uk

CACI
CACI offer an unrivalled range of marketing solutions and information systems to local and central government and to businesses from most industry sectors.
www.caci.co.uk

DHSSPNI
Department for Health, Social Services and Public Safety in Northern Ireland
www.dhsspni.org.uk

HM Treasury
www.hm-treasury.gov.uk

Laing & Buisson
Independent provider of authoritative data, statistics, analysis and market intelligence on the UK health, community care and childcare sectors.
www.laingbuisson.co.uk

NHS Careers
The information service for careers in the NHS in England
www.nhscareers.nhs.uk

NOMIS
Official labour market statistics
www.nomisweb.co.uk

NISRA
Northern Ireland Statistics and Research Agency
Provides basic economic and demographic information for Northern Ireland. The agency also maintains the civil registry.
www.nisra.gov.uk

Office for National Statistics
The Office for National Statistics (ONS) is the UK Government's main survey organisation and its main producer of official statistics.
www.statistics.gov.uk

Skills for Health
The Sector Skills Council for the UK health sector
www.skillsforhealth.org.uk

Trade Union Congress - TUC
The national trade union centre in the UK, representing the vast majority of organized workers
www.tuc.org.uk

UK Border Agency
The UK Border Agency is responsible for securing the UK border and controlling migration in the UK.
www.ukba.homeoffice.gov.uk

UKCES
UK Commission for Employment and Skills
www.ukces.org.uk

UK National Statistics Publication Hub
Data on economy, population and society at national and local level

Labour Force Survey
The Labour Force Survey (LFS) is a quarterly sample survey of households living at private addresses in the UK. Its purpose is to provide information on the UK labour market that can then be used to develop, manage, evaluate and report on labour market policies.
www.statistics.gov.uk/STATBASE/Source.asp?vlnk=358&More=Y

Living Costs and Food Survey
Comprehensive overview of all aspects of household expenditure and income for the calendar year 2008 derived from the Living Costs and Food Survey (LCF) of around 6,000 households in the UK.
www.statistics.gov.uk/StatBase/Product.asp?vlnk=361

Working Futures 2007 - 2017
Working Futures 2007-2017 is the latest in a long series of projections produced by IER in collaboration with Cambridge Econometrics (CE). It focuses upon the future patterns of demand for skills as measured by occupation. The results covered the National (UK) picture, as well as detailed sectoral and spatial results.
www2.warwick.ac.uk

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