

Health Systems in Transition

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# United Kingdom

## Health system review

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nuffieldtrust



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## United Kingdom

### Health System Review 2022

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HEALTH CARE REFORM

HEALTH SYSTEM PLANS – organization and administration

UNITED KINGDOM

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# PREFACE

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

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

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

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including data from national statistical offices, the Organisation for Economic Co-operation and Development (OECD), the International

Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

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

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to [contact@obs.who.int](mailto:contact@obs.who.int).

HiTs and HiT summaries are available on the Observatory's website (<https://eurohealthobservatory.who.int>).

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The Observatory is a partnership that includes the governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Sweden, Switzerland and the United Kingdom; the Veneto Region of Italy (with Agenas); the French National Union of Health Insurance Funds (UNCAM); the World Health Organization; the European Commission; the Health Foundation; the London School of Economics and Political Science (LSE); and the London School of Hygiene & Tropical Medicine (LSHTM). The partnership is hosted by the WHO Regional Office for Europe. The Observatory is composed of a Steering Committee, core management team, research policy group and staff. Its secretariat is based in Brussels and has offices in London at LSE and LSHTM and at the Technical University of Berlin. The Observatory team working on HiTs is led by Josep Figueras (Director); Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors), Ewout van Ginneken and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Anna Maresso. The production and copy-editing process of this HiT was coordinated by Jonathan North, with the support of Lucie Jackson, Lesley Simon (copy-editing) and Tetragon (design and layout).

# LIST OF ABBREVIATIONS

|                |  |
|----------------|--|
| <b>AfC</b>     | Agenda for Change                                    |
| <b>APMS</b>    | Alternative Provider Medical Services                |
| <b>AQP</b>     | Any Qualified Provider                               |
| <b>A&amp;E</b> | Accident and Emergency Department                    |
| <b>AWMSG</b>   | All Wales Medicines Strategy Group                   |
| <b>BMA</b>     | British Medical Association                          |
| <b>CCG</b>     | Clinical Commissioning Group                         |
| <b>CT</b>      | Computerised tomography                              |
| <b>DHSC</b>    | Department of Health & Social Care                   |
| <b>EEA</b>     | European Economic Area                               |
| <b>EU</b>      | European Union                                       |
| <b>EU-15</b>   | the 15 EU Member States up to 1 May 2004             |
| <b>EU-27</b>   | the 27 EU Member States from 1 February 2021         |
| <b>EU-28</b>   | the 28 EU Member States from 1 July 2013             |
| <b>GDC</b>     | General Dental Council                               |
| <b>GDP</b>     | Gross Domestic Product                               |
| <b>GMC</b>     | General Medical Council                              |
| <b>GMS</b>     | General Medical Services                             |
| <b>GP</b>      | General practitioner                                 |
| <b>HM</b>      | Her Majesty's  |
| <b>HMRC</b>    | Her Majesty's Revenue and Customs                    |
| <b>HSC</b>     | Health and Social Care                               |
| <b>ICS</b>     | Integrated Care System                               |
| <b>IJB</b>     | Integration Joint Boards                             |
| <b>IMTP</b>    | Integrated Medium-Term Plans                         |
| <b>LCG</b>     | Local Commissioning Group                            |
| <b>LHB</b>     | Local Health Board                                   |
| <b>MHRA</b>    | Medicines and Health care products Regulatory Agency |

|              |   |
|--------------|---|
| <b>MRI</b>   | Magnetic resonance imaging  |
| <b>NHS</b>   | National Health Service   |
| <b>NICE</b>  | National Institute for Health and Care (formerly Clinical) Excellence |
| <b>NMC</b>   | Nursing and Midwifery Council   |
| <b>NPfIT</b> | National Programme for Information Technology                         |
| <b>NSC</b>   | National Screening Committee  |
| <b>OECD</b>  | Organisation for Economic Co-operation and Development                |
| <b>ONS</b>   | Office for National Statistics  |
| <b>PbR</b>   | Payment by Results  |
| <b>PHS</b>   | Public Health Scotland  |
| <b>PPP</b>   | Purchasing power parity   |
| <b>QALY</b>  | Quality-adjusted life year  |
| <b>QOF</b>   | Quality and Outcomes Framework  |
| <b>SMC</b>   | Scottish Medicines Consortium   |
| <b>SNP</b>   | Scottish National Party   |
| <b>UN</b>    | United Nations  |
| <b>VHI</b>   | Voluntary Health Insurance  |
| <b>WHO</b>   | World Health Organization   |
| <b>WTO</b>   | World Trade Organization  |



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## ABSTRACT

This analysis provides a review of developments in financing, governance, organisation and delivery, health reforms and performance of the health systems in the United Kingdom. The United Kingdom has enjoyed a national health service with access based on clinical need, and not ability to pay for over 70 years. This has provided several important benefits including protection against the financial consequences of ill-health, redistribution of wealth from rich to poor, and relatively low administrative costs. Despite this, the United Kingdom continues to lag behind many other comparable high-income countries in key measures including life expectancy, infant mortality and cancer survival. Total health spending in the United Kingdom is slightly above the average for Europe, but it is below many other comparable high-income countries such as Germany, France and Canada. The United Kingdom also has relatively lower levels of doctors, nurses, hospital beds and equipment than many other comparable high-income countries. Wider social determinants of health also contribute to poor outcomes, and the United Kingdom has one of the highest levels of income inequality in Europe. Devolution of responsibility for health care services since the late 1990s to Scotland, Wales and Northern Ireland has resulted in divergence in policies between countries, including in prescription charges, and eligibility for publicly funded social care services. However, more commonalities than differences remain between these health care systems. The United Kingdom initially experienced one of the highest death rates associated with COVID-19; however, the success and speed of the United Kingdom's vaccination programme has since improved the United Kingdom's performance in this respect. Principal health reforms in each country are focusing on facilitating cross-sectoral partnerships and promoting integration of services in a manner that improves the health and well-being of local populations. These include the establishment of integrated care systems in England, integrated joint boards in Scotland, regional partnership boards in Wales and integrated partnership boards in Northern Ireland. Policies are also being developed

to align the social care funding model closer to the National Health Service funding model. These include a cap on costs over an individual's lifetime in England, and a national care service free at the point of need in Scotland and Wales. Currently, and for the future, significant investment is needed to address major challenges including a growing backlog of elective care, and staffing shortfalls exacerbated by Brexit.

## EXECUTIVE SUMMARY

- Life expectancy in the United Kingdom is slightly above the average of EU countries, but lags behind many other comparable high-income countries

The United Kingdom has a population of around 65 million, and consists of four separate countries: England, Scotland, Wales and Northern Ireland. Average life expectancy in the United Kingdom increased between 1995 and 2019 from 76.8 to 81.2 years [slightly above 81.1, the average of the EU-28 countries (the 28 EU Member States from 1 July 2013) in that year]. However, increases in life expectancy have been stalling, and the United Kingdom now lags behind many other comparable high-income countries such as Sweden, Italy and France. The United Kingdom also performs poorly in relation to other key health outcomes such as infant mortality and cancer survival. There is, however, variation between countries in the United Kingdom, with England consistently reporting higher life expectancy than Scotland, Wales and Northern Ireland. Despite the United Kingdom having the fifth biggest economy in the world, and a Gross Domestic Product (GDP) per capita of \$40 289 in 2020, the United Kingdom also has one of the highest levels of income inequality in Europe, with millions of people continually at-risk of poverty. The United Kingdom initially experienced one of the highest death rates associated with COVID-19 internationally, and GDP dropped by 9.8% in 2020, the highest of all G7 countries. The success and speed of the United Kingdom's vaccination progress has improved the United Kingdom's comparative performance both in relation to the death rate associated with COVID-19, and the economic recovery.

- **Four separate health care systems across the United Kingdom in England, Scotland, Wales and Northern Ireland are responsible for delivering health services, free at the point of use**

Ordinarily resident citizens in the United Kingdom enjoy access to a National Health Service (NHS) based on clinical need, and not ability to pay. In contrast, free access to social care services is means-tested, with different eligibility criteria across the United Kingdom. Since devolution in the late 1990s, the respective governments in England, Scotland, Wales and Northern Ireland have been responsible for organising and delivering health care services. The United Kingdom Government allocates a set budget for health care in England, whereas Scotland, Wales and Northern Ireland receive a general block grant for public spending that is distributed according to funding priorities decided by each devolved government. At the local level, clinical commissioning groups (CCGs) in England (to be replaced by integrated care systems by July 2022), health boards in Scotland and Wales, and the health and social care board in Northern Ireland are responsible for commissioning or planning health and care services in their respective areas. These local organisations are expected to implement priorities outlined with national plans or strategies, such as the NHS Long-Term Plan in England, the National Performance Framework in Scotland, A Healthier Wales: long-term plan for health and social care in Wales, and Commissioning Plan Directions in Northern Ireland. There is a complex landscape of health care regulators across the United Kingdom, with some such as General Medical Council, and Nursing and Midwifery Council having a United Kingdom-wide remit, and others specific to individual countries such as the Care Quality Commission in England. For health technology assessment, the United Kingdom has developed a rigorous and transparent system through the efforts of the National Institute for Health and Care Excellence (NICE) in England, Scottish Medicines Consortium (SMC) in Scotland, and All Wales Medicines Strategy Group (AWMSG) in Wales, using the cost per quality-adjusted life-year (QALY) and the threshold approach.



- **The United Kingdom's system of health care financing provides high levels of protection against the financial consequences of ill-health and facilitates redistribution of wealth**

Health services in the United Kingdom are funded predominantly through progressive general taxation, with the remainder coming from private medical insurance and out-of-pocket payments. Analysis indicates that these health care financing arrangements in combination with a health service accessed based on clinical need and not ability to pay facilitates redistribution of wealth from the rich to the poor, and from the healthy to the sick. This redistributive impact is enhanced by centralised and systematic methods of resource allocation to allocate fixed annual budgets to local commissioning bodies or health boards guided by formulae that take account of local needs, resulting in financial control and consideration of equity of access. The United Kingdom also has one of the lowest levels of catastrophic health expenditure in the world, demonstrating how citizens enjoy high levels of protection against the financial consequences of ill-health and minimal out-of-pocket payments. There are, however, important exceptions including means-tested out-of-pocket payments for social care, dental care, optometry and (in England) prescriptions.

- **The United Kingdom has lower levels of doctors, nurses and health care infrastructure than most other comparable high-income countries**

Some countries have relatively low levels of either doctors or nurses, but the United Kingdom is exceptional among other comparable high-income countries in that it has relatively low levels of both doctors and nurses. The United Kingdom also has relatively low levels of hospital beds, and of diagnostic equipment such as computed tomography (CT) and magnetic resonance imaging (MRI) scanners than most other high-income countries. This has left the United Kingdom with little spare capacity, and vulnerable to acute shocks such as the COVID-19 pandemic. It has also contributed to growing waiting lists for elective care, with over 6 million people in England alone on a waiting list in 2022. Further evidence of poor workforce planning can be seen with larger increases in the hospital

workforce compared with the community workforce, despite a policy agenda to provide care closer to home in the community, and an ongoing reliance on foreign health care staff.

- **The COVID-19 pandemic has accelerated more widespread use of health information technology infrastructure, but there is a need for further progress**

In terms of health information technology infrastructure, primary care has developed comprehensive electronic health record systems over the last three decades, but many hospitals are still heavily reliant upon paper notes. The reasons behind this are complex and include poor usability and limited interoperability of available software, and a previous National Programme for Information Technology (NPfIT) in England demonstrated how nationally developed strategies do not always reflect local needs. The COVID-19 pandemic has accelerated progress in this respect, with improved access for patients to electronic health records, and more widespread use of teleconsultations. However, all countries in the United Kingdom are now focused on developing and implementing strategies so that both patients and health care professionals can have consistent access to integrated electronic health care records across multiple health care settings, and to maximise the use of routinely collected health care data to support policy and planning, as well as for quality improvement purposes.

- **There has been more investment in and expansion of the hospital sector despite an ongoing policy agenda to move care closer to the community**

There has been significant investment and expansion of the hospital sector over the last two decades that has outpaced investment in community services such as primary, palliative, mental health and rehabilitation care. Despite ongoing funding and workforce issues, most citizens still enjoy access to a high-quality primary care service that acts as a first point of contact for patients and provides continuous and comprehensive care. There is no direct access to specialists. Patients access specialist care through referrals from

general practitioners with primary care serving a gatekeeping function. There are patchy provision and inequities in access to palliative care services across the United Kingdom, as these rely upon a combination of NHS funding and charitable donations. Access to mental health services is also challenging because of low political priority afforded to mental health compared with physical health since the NHS's inception and historical disparities in funding. There is also limited provision of rehabilitation services across the United Kingdom, with significant shortfalls in the number of rehabilitation medicine consultants.

■ **Principal health reforms in each country are focused on promoting integration and facilitating cross-sectoral partnerships that improve the health and well-being of local populations**

Several barriers persist across all United Kingdom countries to facilitate meaningful integration between health care services, such as unlinked health information technology systems, duplication of governance arrangements and a lack of strategic planning. Northern Ireland is the only United Kingdom constituent country where the NHS and social care are fully organisationally integrated, although efforts to promote such integration in England, Scotland and Wales have accelerated in recent years. In England, the NHS is undergoing a structural reorganisation; CCGs will be replaced from July 2022 with integrated care systems, which will be responsible for delivering health and social care services to local populations of 1 to 3 million people. In Scotland, legislation over the last decades has focused on creating bodies, known as integrated joint boards, to facilitate joint work for health and social care between the NHS and local authorities, and responsibilities for managing joint budgets for local populations. In Wales, the 2014 Social Services and Well-being (Wales) Act established regional partnerships boards with responsibility for planning and developing local services to improve health and well-being in their area. In Northern Ireland, there is currently a consultation on the development of a new planning model to strengthen the delivery of integrated health care services centred around the creation of five Area Integrated Partnership Boards, that will be responsible for improving health and well-being of local populations, with progress monitored against agreed key performance indicators at the national level.

## ■ England, Scotland and Wales are in the process of developing or implementing major reforms to social care

In England, the government has committed to implementing long overdue reforms to the funding model for social care, specifically a plan to introduce a cap on costs for social care over an individual's lifetime at £86 000 from 2023. In Scotland, the government has stated it wishes to develop a national care service on an "equal footing" to the NHS, with access based on need and not ability to pay. The government intends to introduce legislation at some point in 2022, and establish the national care service by 2026 or earlier. Similarly, in Wales the government has set up an expert group to support an ambition to create a national care service also with access based on need and not ability to pay. However, the Welsh Government has not yet committed to passing legislation to support this objective.

## ■ Looking to the future

The COVID-19 pandemic has emphasised some of the enduring strengths and weaknesses of the NHS and wider health care systems across the United Kingdom. A lack of integration between health and social care, chronic underfunding, ongoing staffing shortfalls and challenges in getting data to flow in real time were all major barriers to mounting an effective response to the pandemic. In contrast, as one of the most comprehensive health systems in the world, providing free care at the point of delivery, the high level of financial protection provided by the NHS and an allocation of resources that explicitly accounts for differing geographic needs have to some extent mitigated the already significant effect of the COVID-19 pandemic on health inequalities. Despite the significant political and economic uncertainty that confronts the United Kingdom in current times, significant investment is required to rectify the United Kingdom's poor performance in terms of health outcomes, address growing backlogs for elective care and develop more sustainable and resilient health care systems. This is essential for the long-term survival of the NHS for future generations.

# Introduction

## ■ Chapter summary

- The United Kingdom, located off the northwest coast of the European mainland, has a population of around 65 million and comprises the three nations of Great Britain (England, Scotland and Wales) and Northern Ireland.
- The proportion of the population above 65 years has been increasing, overtaking the proportion of the population aged 0–14 years, and is projected to reach one in four people (23.9%) by 2039.
- The majority of the population is concentrated in urban areas, although there are challenges in providing health care services to some sparsely populated rural areas including the Scottish Highlands and Mid and Northwest Wales.
- The United Kingdom has the fifth biggest economy in the world; however, gross domestic product (GDP) reduced by 9.7% in 2020 due to the COVID-19 pandemic, the greatest reduction experienced by any G7 country.
- The level of income inequality in the United Kingdom is one of the highest of all EU-27 (the 27 EU Member States from 1 February 2021) and G7 countries, only marginally below the United States of America, and it is estimated that one in five people in the United Kingdom live in poverty.

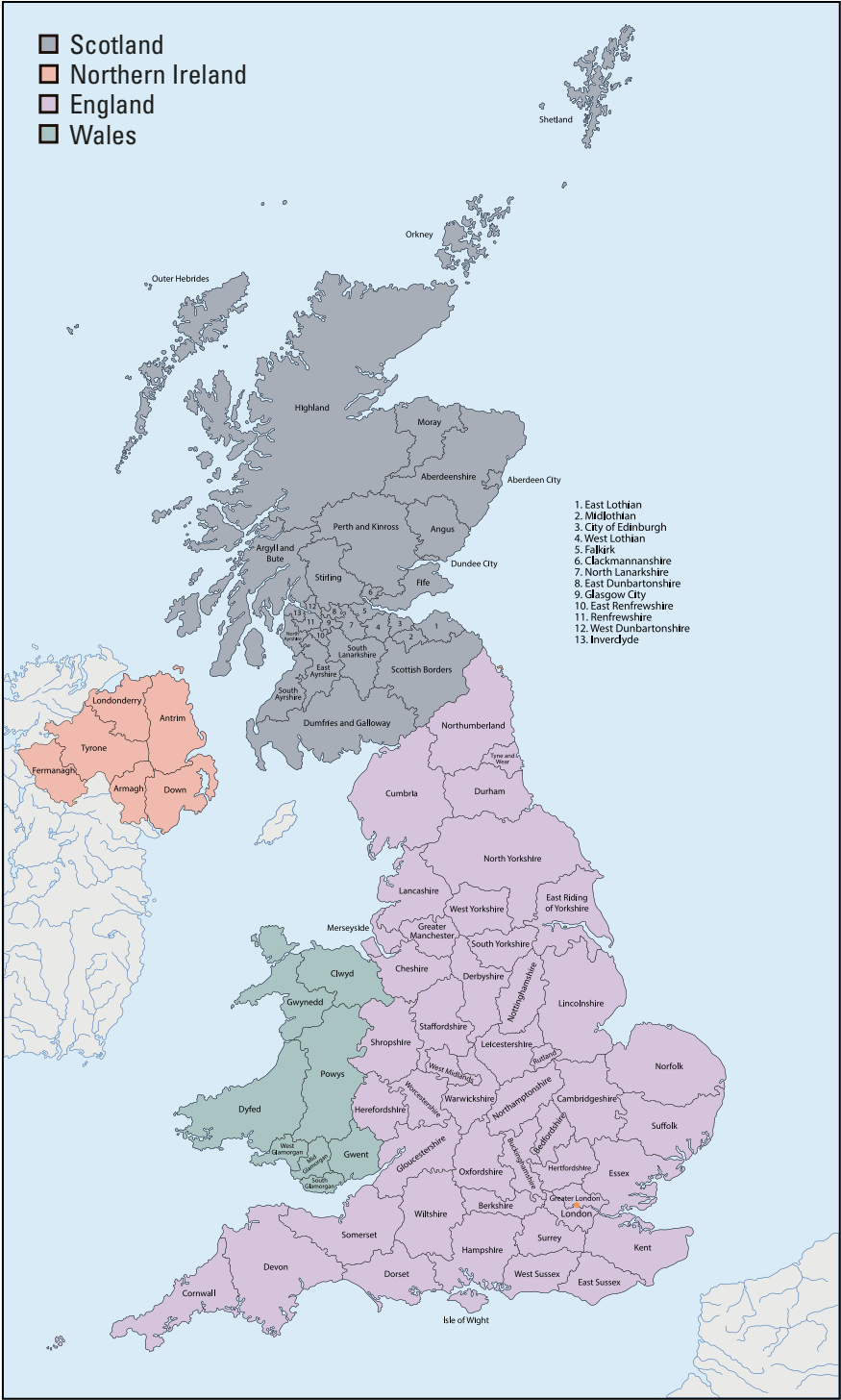
- The United Kingdom is a constitutional monarchy, with two houses of parliament. From 1997, many powers have been devolved from the central United Kingdom Government to separate administrations in Scotland, Wales and Northern Ireland, including responsibility for health and social care.
- Life expectancy in the United Kingdom increased between 1995 and 2020 from 76.8 to 81.2 years, with major declines in mortality rates from circulatory diseases, respiratory diseases and malignant neoplasms. However, increases in life expectancy have stalled and the United Kingdom now lags behind many other comparable high-income countries.
- The United Kingdom initially experienced one of the highest death rates associated with COVID-19 in the world; however, the success and speed of the United Kingdom's vaccination programme has improved the United Kingdom's performance in this respect.
- The percentage of adults who smoke has fallen from 20.2% in 2011 to 14.1% in 2019, but tobacco remains the leading health risk factor in the United Kingdom. The United Kingdom also has the highest levels of obesity of all EU-27 and G7 countries, with the exception of Canada and the United States.

## ■ 1.1 Geography and sociodemography

The United Kingdom of Great Britain and Northern Ireland, commonly referred to as the United Kingdom, consists of the isle of Great Britain and the northeastern section of the isle of Ireland (Fig. 1.1). These islands are separated from Scandinavia to the east by the North Sea, and from the European continent to the south by the English Channel; to the west is the Atlantic Ocean. Great Britain comprises England, Scotland and Wales; these three plus Northern Ireland make up the United Kingdom (Cylus et al., 2015).

From 1995 to 2020 the population of the United Kingdom increased by 12.2%, rising from 58.0 million to 65.1 million (Table 1.1). Population growth peaked at around 0.8% per annum in the early 2010s and has since decreased to 0.6% per annum in 2020. This increase has been driven by

FIG. 1.1 Map of the United Kingdom



Source: Authors' compilation.

a level of immigration that exceeds levels of emigration, combined with a birth rate that continues to outweigh the death rate. The birth rate has exceeded the death rate every year since 1976 with the exception of the calendar year 2020, when, due to over 90 000 registered deaths attributed to COVID-19, the number of deaths exceeded the number of births recorded (ONS, 2021b). The fertility rate in the United Kingdom peaked at around 1.9 births per woman in 2010 and has been declining since to levels previously seen in the early 2000s (Table 1.1). The share of the population over the age of 65 years has been increasing, reaching 18.7% in 2020, which is now above the share of the population aged 0–14 years (17.7%), which was falling until 2010, and has been stagnant since. The share of population over the age 65 years is expected to continue to increase, with projections indicating this will reach one in four people (23.9%) by 2039 (ONS, 2021f).

Around 84.3% of the United Kingdom's population lives in England, with a population of 56.6 million in 2020, followed in size by Scotland, with 5.5 million (8.1%), Wales, with 3.2 million (4.7%) and Northern Ireland, with 1.9 million (2.8%) (ONS, 2021g). The population density for the United Kingdom as a whole was 275.0 people per square kilometre in 2019 (Table 1.1). This is significantly above the average population density for EU-27 countries, which was 109.0 people per square kilometre in the same year (European Commission, 2021). However, this varies significantly between the United Kingdom's constituent countries, at 432 people per square kilometre in England, 70 people per square kilometre in Scotland, 152 people per square kilometre in Wales and 137 people per square kilometre in Northern Ireland (ONS, 2020d). There has been an ongoing trend towards greater urbanisation of the population, with the proportion of the population in urban areas in the United Kingdom increasing from 78.4% in 1995 to 83.9% in 2020 (Table 1.1). This is above the average for EU-27 countries, which was 75.0% in the same year (World Bank, 2021). This creates complexities in delivering health services for many rural areas, which have low levels of population densities, and a higher proportion of older patients with more complex health care needs. In particular, the Mid and Northwest of Wales and Scottish Highlands have more remote populations, which are increasingly reliant upon air ambulance and telemedicine services.



**TABLE 1.1** Trends in population/demographic indicators, 1995–2020, selected years

|   | 1995  | 2000  | 2005  | 2010  | 2015  | 2020<br>or latest<br>available year |
|---|-------|-------|-------|-------|-------|-------------------------------------|
| <b>Total population (millions)</b>                    | 58.0  | 58.9  | 60.4  | 62.8  | 65.1  | 67.2                                |
| <b>Population aged 0–14 (% of total)</b>              | 19.5  | 19    | 18    | 17.5  | 17.6  | 17.7                                |
| <b>Population aged 65 and above (% of total)</b>      | 15.9  | 15.9  | 16    | 16.6  | 18    | 18.7                                |
| <b>Population density (people per km<sup>2</sup>)</b> | 239.8 | 243.4 | 249.7 | 259.4 | 269.2 | 275.0 (2019)                        |
| <b>Population growth (average annual growth rate)</b> | 0.3   | 0.4   | 0.7   | 0.8   | 0.8   | 0.6                                 |
| <b>Fertility rate, total (births per woman)</b>       | 1.7   | 1.6   | 1.8   | 1.9   | 1.8   | 1.7 (2019)                          |
| <b>Distribution of population (% urban)</b>           | 78.4  | 78.7  | 79.9  | 81.3  | 82.6  | 83.9                                |

Source: World Bank (2021).

## ■ 1.2 Economic context

As of 2020, the United Kingdom has the fifth biggest economy in the world, behind the United States, China, Japan and Germany (Aldrick, 2020). GDP in current prices increased from \$1341.6 billion in 1995 to \$2.7 trillion in 2020, or equivalently, \$40 284.6 per person (in current US\$) (Table 1.2). GDP in current prices decreased during the COVID-19 pandemic, falling 9.7% in 2020, the largest reduction of all G7 countries (ONS, 2021c). This means that GDP in current prices was in fact greater in 2015, at \$2.9 trillion. GDP has begun to recover since the lifting of social distancing measures; however, as of the first quarter of 2021, GDP remains below pre-pandemic levels and is not expected to return to these levels until at least 2022 (OBR,

2021). Government borrowing also reached £355 billion in 2020, levels not seen since the Second World War (OBR, 2021). Government borrowing as a percentage of GDP in 2021 was 13.1% above the EU-27 average, but 32% below the average of G7 countries (ONS, 2021h). This strain on public finances, combined with an imperative to increase public spending on the health service to address backlogs of elective care created by the COVID-19 pandemic, has resulted in the incumbent government announcing tax increases for both employee and employer national insurance contributions and dividends from stocks and shares (BBC, 2021).

The 2008 financial crisis significantly impacted the United Kingdom, when after 63 quarters of successive growth since 1992, from April 2008 the United Kingdom economy shrunk for five successive quarters resulting in a 6% reduction in GDP (ONS, 2018). It took 5 years for the United Kingdom economy to recover, and unemployment rates peaked at 8.4% in 2012 (ONS, 2018), the highest rate since 1995 (Table 1.2). So far, the COVID-19 pandemic has not significantly impacted employment rates, largely due to the United Kingdom Government's furlough scheme, whereby the government covered the majority of the costs of employing staff not required to work during the COVID-19 pandemic. The furlough scheme ended on the 30 September 2021, and it remains to be seen how this will impact employment rates.

Income inequality as measured by the Gini coefficient has remained steady since at least the mid-1990s, at a value in the mid-30s (Table 1.2). This level of income inequality is one of the highest of all EU-27 and G7 countries, only marginally lower than the United States, which had a Gini coefficient of 39 in 2017 (OECD, 2021a). Data availability on the at risk of poverty rate in the United Kingdom is poor, although from what data are available, it appears to be relatively stable, at around one quarter of the population (Table 1.2). In 2019, the United Nations Special Rapporteur on extreme poverty and human rights published a report on poverty in the United Kingdom, which found that 14 million people, one fifth of the population, live in poverty, largely driven by policies of austerity introduced by the government in 2010 in an attempt to curb public spending and reduce government borrowing (United Nations, 2019).

**TABLE 1.2** Macroeconomic indicators, 1995–2020, selected years

|   | 1995     | 2000     | 2005     | 2010     | 2015     | 2020<br>or latest<br>available year |
|---|----------|----------|----------|----------|----------|-------------------------------------|
| <b>GDP (current US\$, billions)</b>   | 1341.6   | 1658.2   | 2532.8   | 2481.6   | 2932.8   | 2707.7                              |
| <b>GDP per capita (current US\$)</b>  | 23 123.7 | 28 156.3 | 41 932.9 | 39 536.8 | 45 039.2 | 40 284.6                            |
| <b>GDP per capita, PPP (current international \$)</b>                                     | 20 504.9 | 26 421.0 | 32 592.5 | 36 464.5 | 42 567.6 | 44 916.2                            |
| <b>GDP growth (annual %)</b>  | 2.5      | 3.5      | 3.0      | 2.1      | 2.4      | –9.7                                |
| <b>General government final consumption expenditure (% of GDP)</b>                        | 17.1     | 16.8     | 19.8     | 21.6     | 19.5     | 22.8                                |
| <b>Government deficit/surplus (% of GDP)</b>  | –4.8     | 1.7      | –2.7     | –9.1     | –4.5     | –1.9<br>(2019)                      |
| <b>General government gross debt (% of GDP)</b>   | 43.9     | 42.6     | 44.3     | 81.5     | 105.0    | 115.0<br>(2016)                     |
| <b>Unemployment, total (% of labour force; national estimate)</b>                         | 8.7      | 5.6      | 4.8      | 7.8      | 5.3      | 3.7<br>(2019)                       |
| <b>Poverty rate (people at risk of poverty or social exclusion as % total population)</b> | –        | –        | 24.8     | 23.2     | 23.5     | –                                   |
| <b>Income inequality (Gini coefficient of disposable income)</b>                          | 36.3     | 38.4     | 34.3     | 34.4     | 33.2     | 35.1<br>(2017)                      |

Source: European Commission (2021); World Bank (2021).

Note: GDP, gross domestic product; PPP, purchasing power parity.

## ■ 1.3 Political context

The United Kingdom is a constitutional monarchy with a parliamentary system, with two houses of parliament. Members of the House of Commons (the lower house) are democratically elected, whereas members of the House of Lords (the upper house) are mostly appointed, although some

are ‘hereditary peers’ in that they inherit their seats in the house along with their aristocratic titles (Cylus et al., 2015). The head of state is a hereditary monarch (since 1952, Queen Elizabeth II). The head of government in the United Kingdom is the prime minister, who is the leader of the party that can command a majority in the House of Commons. In the last general election of December 2019, the Conservatives won a significant majority, with Boris Johnson elected as prime minister. All four nations are represented in the United Kingdom Parliament. In 1997, a majority of those voting in referenda in Scotland and Wales supported the creation of a Scottish Parliament and a National Assembly for Wales (Civil Service, 2021). In Northern Ireland, devolution was a key element of the Belfast (Good Friday) Agreement and was supported in a referendum in 1998. The United Kingdom Government has also devolved some functions to city regions in England. The United Kingdom Government reserved some matters to itself, such as constitutional issues, foreign affairs, trade policy, defence, immigration and energy (Civil Service, 2021). Other matters including health and social care, education and training, agriculture, and transport are taken up by the devolved administrations in Scotland, Wales and Northern Ireland and in England’s case, by the United Kingdom Parliament. Local authorities or councils are responsible for the delivery of most public services, including social care and (in England) public health, but not for the health service.

The constitutional arrangements for devolution often preclude United Kingdom-wide mechanisms for agreeing common elements of public policy (Anderson M et al., 2021b), which has enabled differences in charges faced by patients (see Section 3.4.1, *Cost sharing (user charges)*). For example, prescription charges only exist in England. Entitlement to social care varies, with Scotland providing free access to personal and nursing care for all adults, unlike the other United Kingdom constituent countries (see Section 3.4.2, *Direct payments*). Within England, the Greater Manchester combined authority has agreed with NHS England to pool health and social care to enable integrated joint commissioning (Walshe et al., 2016). There have also been divergent approaches by each United Kingdom constituent country during the COVID-19 pandemic. Although all United Kingdom constituent countries implemented an enforced lockdown on 23 March 2020, supported by legislation, the Coronavirus Act 2020 (UK Government, 2020b), and promoted the ‘Stay at home’ message, the response of United Kingdom constituent countries began to significantly diverge when on 10

May 2020, the United Kingdom Prime Minister announced a new slogan, ‘Stay alert’, and a phased lifting of lockdown measures from 13 May 2020, guided by a newly established Joint Biosecurity Centre (UK Government, 2020c). Amid complaints about a lack of consultation by devolved administrations, Scotland, Wales and Northern Ireland chose not to endorse this message or the proposed timeline for lifting the lockdown and instead chose to develop their own policies in relation to social distancing measures and travel restrictions (Stewart, Carrol & Brooks, 2020) as well as on the use of “Covid passports” and guidance on working from home.

In September 2014 a referendum was held on whether Scotland would become an independent country and leave the United Kingdom. The referendum, which had a turnout of 85%, resulted in a “no” vote, with 55.3% against and 44.7% for independence (BBC, 2014). The Scottish National Party (SNP), the largest political party in Scotland, has continued efforts for a further referendum on Scottish independence following the result of the United Kingdom-wide 2016 Brexit referendum, when every council in Scotland voted to remain in the European Union. In January 2021, the SNP stated that, if pro-independence parties won a majority in the upcoming Scottish Parliament election, the Scottish Government would pass a bill allowing a referendum to take place without the permission of the United Kingdom Parliament (Brooks, 2021). In the subsequent May 2021 election, the SNP again won a majority; however, it is unclear whether the Scottish Government can legally hold a referendum without the consent of the United Kingdom Government, and it remains to be seen whether this will happen. In Northern Ireland, 58% of voters voted to remain in the EU, and this has led to calls to revisit the country’s constitutional position (Institute for Government, 2019). There is an explicit part of the Belfast Agreement that states the Secretary of State for Northern Ireland is able to call a border poll at any time they think it might be appropriate, for example, if they think the majority of the population would vote for reunification with the Republic of Ireland (Institute for Government, 2019).

The United Kingdom is a member of various international organisations, including the Organisation for Economic Co-operation and Development (OECD), the United Nations (UN), the World Health Organization (WHO) and the World Trade Organization (WTO) (Cylus et al., 2015). The government signed the European Convention on Human Rights into law in 1998 and has also signed international treaties that affect health. The

United Kingdom was a member of the European Union (EU) from 1973, until it became the first country to voluntarily end its membership on 31 January 2020 after the aforementioned 2016 Brexit referendum, which resulted in 51.9% of voters opting to leave (BBC, 2016). The full impact of the United Kingdom leaving the EU is yet to be fully realised; however, most projections indicate that growth of the United Kingdom economy will be smaller now that it has left the EU than it would have been with continuing membership of the EU (Tetlow & Stojanovic, 2018). Moreover, Brexit has contributed to a significant decline of nurses who trained in the EU registering to practice in the United Kingdom, and challenges for the social care sector, which is reliant upon EU workers for many low-paid care worker roles (Anderson M et al., 2021a).

## ■ 1.4 Health status

Average life expectancy at birth in the United Kingdom increased from 76.8 to 81.2 years between 1995 and 2019 (Table 1.3) (slightly above 81.1 years in 2019, the average of EU-28 countries). Women persistently have a higher life expectancy than men, although this gap has narrowed slightly from 5.2 years in 1995 to 3.7 years in 2019 (Table 1.3). Provisional 2020 data for life expectancy at birth has been submitted to the OECD by gender, showing that life expectancy dropped to 78.4 years for men and 82.4 years for women, largely due to the impact of the COVID-19 pandemic. Increases in life expectancy were already stalling in the United Kingdom before the pandemic, and while life expectancy is comparable to the average of EU-28 countries, it is now lagging behind many other comparable high-income countries such as France (82.6 years in 2019), Italy (83.2 years in 2019) and Sweden (83.0 years in 2019) (World Bank, 2021) (see Section 7.5, *Health system outcomes*).

There is considerable variation between the United Kingdom constituent countries in relation to life expectancy (see Section 7.5, *Health system outcomes*), which is reported over a 3-year period to account for yearly variation. For the period of 2018 to 2020, life expectancy for men was 79.3 in England, 76.8 in Scotland, 78.3 in Wales and 78.7 in Northern Ireland (ONS, 2020c). For the same period, life expectancy for women was 83.1 in England, 81.0 in Scotland, 82.1 in Wales and 82.4 in Northern Ireland (ONS, 2021e).

**TABLE 1.3** Mortality and health indicators, 1995–2020, selected years

|  | 1995  | 2000 | 2005  | 2010  | 2015  | 2020<br>or latest<br>available year |
|--|-------|------|-------|-------|-------|-------------------------------------|
| <b>Life expectancy (years)</b>                                       |       |      |       |       |       |                                     |
| <b>Life expectancy at birth, total</b>                               | 76.8  | 77.7 | 79.0  | 80.4  | 81.0  | 81.2 (2019)                         |
| <b>Life expectancy at birth, male</b>                                | 74.3  | 75.4 | 77    | 78.5  | 79.2  | 78.4                                |
| <b>Life expectancy at birth, female</b>                              | 79.5  | 80.2 | 81.2  | 82.4  | 82.8  | 82.4                                |
| <b>Life expectancy at 65 years, male</b>                             | 14.7  | 15.9 | 17.1  | 18.2  | 18.6  | 18.8 (2019)                         |
| <b>Life expectancy at 65 years, female</b>                           | 18.4  | 19.1 | 19.8  | 20.8  | 20.8  | 21.1 (2019)                         |
| <b>Mortality, deaths per 100 000 population (standardised rates)</b> |       |      |       |       |       |                                     |
| <b>Circulatory diseases</b>  | 462.3 | —    | 319.2 | 248.7 | 203.2 | 192.6 (2016)                        |
| <b>Respiratory diseases</b>  | 169.6 | —    | 124.2 | 104.9 | 108.7 | 102.2 (2016)                        |
| <b>Malignant neoplasms</b>   | 264.7 | —    | 237.9 | 226.3 | 217.7 | 216.4 (2016)                        |
| <b>Certain infectious and parasitic diseases*</b>                    | 7.0   | —    | 10.8  | 8.4   | 8.8   | 8.6 (2016)                          |
| <b>Tuberculosis</b>  | 0.8   | —    | 0.7   | 0.5   | 0.5   | 0.4 (2016)                          |
| <b>External causes of death</b>                                      | 32.6  | —    | 33.1  | 30.9  | 34.6  | 34.9 (2016)                         |
| <b>All causes</b>  |       |      |       |       |       |                                     |
| <b>Infant mortality rate (per 1000 live births)</b>                  | 6.2   | 5.6  | 5.1   | 4.2   | 3.9   | 3.7 (2019)                          |
| <b>Maternal mortality rate (per 100 000 live births)</b>             | 7.0   | 6.8  | 5.7   | 5.0   | 4.5   | 6.5 (2017)                          |

Source: OECD (2021c); World Bank (2021).

Note: \*These are diseases generally recognised as communicable or transmissible with the International Classification of Diseases, 10<sup>th</sup> revision codes A00–B99.

It is challenging to analyse trends in causes of mortality for the United Kingdom because this is not routinely recorded, with the latest data available from 2016 (Table 1.3). For these overall statistics, there have been significant declines in deaths from circulatory diseases from 462.3 deaths per 100 000 people in 1995 to 192.6 deaths per 100 000 people in 2016. Similarly, for respiratory diseases, deaths have declined from 169.6 deaths per 100 000 people in 1995 to 102.2 per 100 000 people in 2016. There have been steady declines in deaths from malignant neoplasms (cancer) from 264.7 deaths per 100 000 people in 1995 to 216.4 deaths per 100 000 people in 2016, but deaths from malignant neoplasms have now overtaken deaths associated with circulatory and respiratory diseases. Deaths from communicable diseases, except for deaths caused by COVID-19, have remained relatively stable over the last two decades. Similarly, external causes of death, such as accidents, assault and intentional self-harm, have also remained stable.

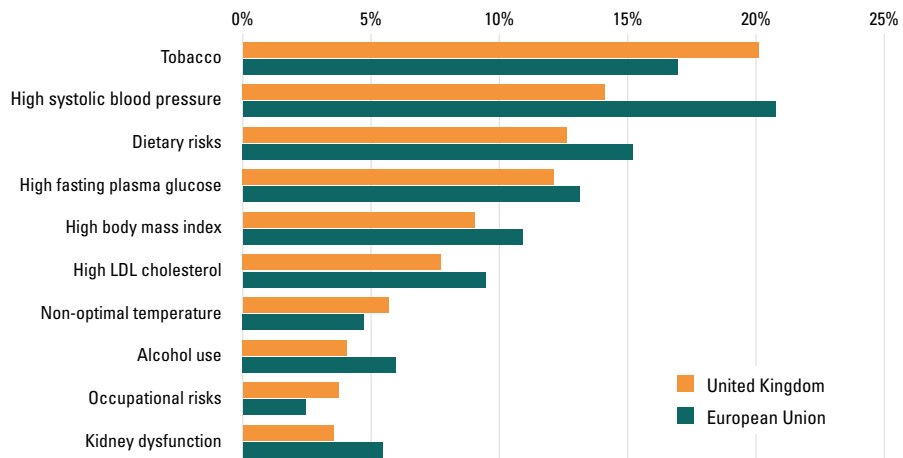
There are more detailed and recent data at the level of United Kingdom constituent countries, with causes of death routinely published at the disease level. For the 5-year average of age-standardised death rates for 2015 and 2019 in England, the leading causes of deaths were dementia and Alzheimer disease with 104.1 deaths per 100 000 people, ischaemic heart diseases with 99.0 deaths per 100 000 people and cerebrovascular diseases with 55.4 deaths per 100 000 (ONS, 2021d). For the same period in Wales, the leading causes of death were, ischaemic heart diseases with 116.0 deaths per 100 000 people, dementia and Alzheimer disease with 99.5 deaths per 100 000 people, and influenza and pneumonia with 66.2 deaths per 100 000 people (ONS, 2021d). Although both Scotland and Northern Ireland routinely report causes of death, they only published unstandardised figures, which are not comparable.

The United Kingdom did initially experience one of the highest death rates associated with COVID-19 in the world, whether measured as deaths directly attributable to the virus or as excess deaths (Anderson M et al., 2021b; Cuthbertson, 2021; Tallack & Krelle, 2021). However, the success and speed of the United Kingdom's vaccination programme has curbed increases in deaths associated with COVID-19, and as of September 2021, the United Kingdom had the ninth highest death rate in the European Economic Area, at 196.1 deaths per 100 000 people since the pandemic started (Worldometer, 2021).



The mortality rate for children under the age of 5 years, including infants and neonates, has fallen steadily over the last two decades. The infant mortality rate has nearly halved since 1995, from 6.2 deaths per 1000 births in 1995 to 3.7 in 2019 (Table 1.3). However, this is still significantly above many other comparable high-income countries such as Germany (3.2 deaths per 1000 births), Italy (2.4 deaths per 1000 births) and Sweden (2.1 deaths per 1000 births) (OECD, 2020). The maternal mortality rate fell from 7.0 deaths per 100 000 births in 2000 to a low of 4.5 deaths per 100 000 births in 2015, but has since increased to 6.5 deaths per 100 000 births in 2017 (the latest year with available data) (OECD, 2020).

**FIG. 1.2** Risk factors affecting health status, 2019



Source: IHME (2020).

Note: LDL, low-density lipoprotein.

Although the percentage of the United Kingdom population who are current smokers has fallen from 20.2% in 2011 to 14.1% in 2019 (ONS, 2020a), tobacco remains the leading health risk factor, contributing to poor performance for many cancers and chronic obstructive pulmonary disease. Smoking rates in the United Kingdom are close to the OECD average, but are higher than many other comparable high-income countries such as Canada, Sweden and Ireland (OECD, 2020). Moreover, data from the global burden of disease study reveals that tobacco use contributes to around one in five deaths in the United Kingdom, which is higher than the EU

average (Fig. 1.2). High blood pressure, poor diet, uncontrolled diabetes (high fasting plasma glucose) and obesity (high body mass index) are other important health risk factors (Fig. 1.2). It is estimated that just over one quarter of adults in the United Kingdom, around 14.4 million people, have high blood pressure (BHF, 2019). Of these, around nine million people have been diagnosed with high blood pressure by their general practitioner (GP), and 5.5 million adults remain undiagnosed. The Health Survey for England 2019 estimated that 28.0% of adults in England are obese and a further 36.2% are overweight but not obese (NHS Digital, 2020c). In 2019, it was estimated that 66% of adults in Scotland were overweight or obese, of which 29% were living with obesity (Scottish Government, 2020). United Kingdom-wide estimates of obesity are not routinely produced; however, a 2017 study estimated that the United Kingdom had the highest levels of obesity, at 27.88% of its population, of all EU-27 and G7 countries, with the exception of Canada and the United States (Abarca-Gómez et al., 2017).

# Organisation and governance

## ■ Chapter summary

- The National Health Service (NHS) was established in 1948 with the underlying principles that care should be comprehensive, and access based on clinical need not ability to pay.
- The United Kingdom Government allocates a set budget for health care in England, whereas Scotland, Wales and Northern Ireland have received a general block grant for public spending; since devolution in the late 1990s, this is distributed according to funding priorities decided by each devolved administration separately.
- The health ministers of Scotland, Wales and Northern Ireland are responsible for setting the strategic direction and policy for the NHS in their respective countries. In England, this function is shared between the health minister and NHS England, an arm's-length, executive non-departmental public body.
- Clinical Commissioning Groups (CCGs) in England (to be replaced by Integrated Care Systems by July 2022), Health Boards in Scotland and Wales, and the Health and Social Care Board in Northern Ireland are responsible for commissioning or planning services in their respective areas.

- All United Kingdom constituent countries rely upon a system whereby local CCGs, Health Boards or Health and Social Care Trusts are required to develop local plans that align with national plans or strategies such as the NHS Long-Term Plan in England, the National Performance Framework in Scotland, A Healthier Wales: long term plan for health and social care in Wales, and Commissioning Plan Directions in Northern Ireland.
- There has been a growing focus on integration between health and social care in all United Kingdom constituent countries, through Integrated Care Systems in England and Northern Ireland, Integration Joint Boards in Scotland, and Regional Partnership Boards and (local) Public Services Boards in Wales.
- The NHS in all United Kingdom constituent countries has developed advanced information gathering systems; however, several barriers including a lack of capacity and data science expertise among the workforce, limited data-linkage, long delays in accessing data and high access charges, prevent these data from being used routinely for planning and quality improvement purposes.
- A complex landscape of regulators monitors the NHS and associated organisations; some regulators oversee all of the United Kingdom (such as the General Medical Council for medical professionals), whereas others are specific to one nation (such as the Care Quality Commission in England, which assesses the quality and safety of health care providers).
- The United Kingdom has developed a rigorous and transparent system of health technology assessment through the efforts of the National Institute for Health and Care Excellence (NICE) in England, Scottish Medicines Consortium (SMC) in Scotland and All Wales Medicines Strategy Group (AWMSG) in Wales, using the cost per quality-adjusted life-year (QALY) and the threshold approach.
- Patients' rights are outlined by the NHS Constitution in England, and the Charter of Patient Rights and Responsibilities in Scotland. Equivalent constitutions or charters do not exist in Wales or Northern Ireland, but there is certain United Kingdom-wide legislation relevant for patient rights such as the Equality Act 2010.

## ■ 2.1 Historical background

The NHS of the United Kingdom was established in 1948 with the underlying principles that the NHS should be funded predominantly through general taxation, that care should be comprehensive and that access be based on clinical need and not ability to pay. The NHS had been preceded by the 1911 National Insurance Act, which provided health insurance for industrial workers, allowing them access to a developing family doctor service (Abel-Smith, 1988). The Second World War had also seen some nationalisation of health services, as hospitals were registered and centrally run from 1938 (Abel-Smith, 1964; Greengross, Grant & Collini, 1999). In Scotland, the Highlands and Islands Medical Service had been providing a state-funded and administered service to an area equivalent to half the land mass of Scotland since 1913 (Wellings et al., 2020). In Wales, schemes such as the Tredegar Workmen's Medical Aid Society, which provided health care on the basis of weekly contribution, had grown in coverage from the start of the 1900s up to the foundation of the NHS (Thompson, 2018). The NHS built on these existing schemes to provide a national system that was locally delivered.

From 1948, the NHS served England, Scotland and Wales in a similar manner, while the Northern Ireland's health system operated semi-autonomously. There were differences in the NHS across the constituent countries, including in legislation and parliamentary accountability, but from a patient's perspective, minimal differences were evident until devolution in 1999 (Greer, 2016). Cylus et al. (2015) provide an account of important changes occurring through the 1970s to 1990s. Before devolution, the then Conservative Government passed the 1990 National Health Service and Community Care Act, which introduced the "internal market", separating the purchasing and provision of care. GP fundholding was also introduced, which allowed larger GP practices to hold their own NHS budgets to cover a range of costs including staff, prescribing and a limited range of hospital services; in essence, becoming the purchasers of services for their patients. Hospitals and community and mental health services were organised into semi-independent NHS trusts.

The devolution settlement in 1999 saw powers for health transferred from the Westminster (United Kingdom) Parliament to the Scottish Parliament, Welsh Assembly (now known as the Welsh Parliament or Senedd) and

Northern Ireland Assembly, each with a distinctive historical and political history (Bevan et al., 2014). Major differences between the countries have been the rejection of competition and the purchaser–provider split by Wales and Scotland with development of systems based on collaboration (see Section 6.1, *Analysis of recent reforms*). Northern Ireland has maintained the purchaser–provider split but, as there are limited options of providers for a relatively small population, the relationship between purchasers and providers is more similar to governance and oversight rather than commissioning (Anderson et al., 2021b). Northern Ireland remains the only system where health and social care are fully integrated, with other countries moving towards integration, perhaps most notably the 2014 Public Bodies (Joint Working) (Scotland) Act, which allowed health boards and local authorities to integrate health and social care services. In 2016, the Scottish Government legislated to bring together health and social care into a single, integrated system and Integration Joint Boards have been established across Scotland. The Scottish Government has committed to creating a National Care Service on a par with the NHS that will change how care is managed, structured and reported on.

More recently, England has also moved away from competition towards collaboration. Integrated Care Systems (ICSs) have evolved in England, which involve partnerships between local councils and NHS organisations in planning and delivering services (see Section 6.2, *Future developments*). A White Paper published by the Department of Health & Social Care (DHSC) in 2021 set out legislative change to further facilitate integration (UK Government, 2021d).

## ■ 2.2 Organisation

An overview of the organisational structure of the health system in the United Kingdom is provided in Table 2.1.

### ■ 2.2.1 *The United Kingdom Government*

The United Kingdom's Her Majesty's (HM) Treasury allocates a block grant, calculated using the Barnett formula (see Section 3.3.3, *Pooling and allocation*

**TABLE 2.1** Comparative structure of the National Health Service across the United Kingdom's constituent countries

|                          | ENGLAND  | SCOTLAND  | WALES  | NORTHERN IRELAND  |
|--------------------------|--|---|--|---|
| GOVERNMENT DEPARTMENT    | Department of Health & Social Care   | Scottish Government Health and Social Care Directorates   | Welsh Government/ Department of Health and Social Services   | Department of Health, Social Services and Public Safety   |
| COMMISSIONING/ PLANNING  | NHS England<br>Clinical commissioning groups   | Local Authorities<br>NHS Boards (14)<br>Special Health Boards<br>Integration Joint Boards   | Department of Health and Social Services<br>Hosted bodies<br>Local Authorities<br>NHS trusts (public health, ambulance, and specialist cancer services)<br>Local Health Boards | Health and Social Care Board<br>Local Commissioning Groups (5)  |
| PROVIDING                | NHS trusts<br>NHS foundation trusts<br>Primary care providers<br>Private providers<br>Third sector   | Hospitals<br>Primary care providers<br>Third sector   | Tertiary care providers<br>Secondary care providers<br>Primary care providers<br>Community services<br>Third sector  | Health & social care trusts<br>Ambulance Trust<br>Primary care providers<br>Third sector                    |
| REGULATING/ SCRUTINISING | Care Quality Commission<br>National Audit Office   | NHS Scotland Planning Board<br>Scottish Health Technologies Group<br>Scottish Health Council<br>Audit Scotland<br>Healthcare Improvement Scotland | Health care Inspectorate Wales<br>Community health councils<br>Audit Wales   | Regulation and Quality Improvement Agency<br>Patient and client council<br>Northern Ireland Audit Office    |
| ADVISING/ SUPPORTING     | National Institute for Health and Care Excellence<br>NHS Business Services Authority<br>NHS Supply Chain<br>UK Health Security Agency<br>Office for Health Improvement and Disparities | NHS National Services Scotland<br>Scottish Intercollegiate Guidelines Network<br>Scottish Medicines Consortium<br>Public Health Scotland          | All Wales Medicines Strategy Group<br>National Delivery Group<br>National Advisory Board<br>Public Health Wales  | National Institute for Health and Care Excellence<br>Business Services organisation<br>Public Health Agency |

Source: Adapted from Doheny (2015).

*of funds*), to devolved administrations. In England, the DHSC is accountable to HM Treasury for financial performance. Whereas in Scotland, Wales and Northern Ireland, the Ministry of Health is accountable to relevant assemblies (Wales and Northern Ireland) or parliament (Scotland) (Bevan, 2010).

### ■ 2.2.2 NHS in England

The DHSC has responsibility for health and social care in England and also some United Kingdom-wide matters. The DHSC sets the overall strategy, and funds and oversees the health and social care system working with a large number of agencies and public bodies to deliver. Operational management of the NHS lies largely with NHS England, an arm's-length, executive non-departmental public body (National Audit Office, 2016). Since 2018, there has been greater integration between NHS England and NHS Improvement, the arm's-length body responsible for overseeing NHS trusts and independent providers. From 2019, NHS England and NHS Improvement merged to become one organisation with the aim of supporting local health systems to provide safe, high-quality care while being financially sustainable.

NHS England directly commissions some specialised services, military and veteran health services, health services for people in prisons, some public health functions (for example, national immunisation and screening programmes) and primary care. Around two thirds of the NHS budget is devolved to CCGs, which are clinically led statutory NHS bodies with responsibility for planning and commissioning services for their local population. CCGs have accountability to the Secretary of State for Health (which is equivalent to the Minister of Health in other countries) through NHS England and have to adhere to annual reporting processes. Increasingly, primary care services and some specialised services are co-commissioned between CCGs and NHS England.

System level planning increased and evolved in England through the 2010s. Currently, 42 ICSs bring together a wide range of providers and commissioners, including local authorities, to plan services. Recommendations for legislative change to establish ICSs in law were made in February 2021 (UK Government, 2021d), and CCG numbers will decrease to align with these ICS areas (see Section 6.2, *Future developments*). At a smaller level, Primary Care Networks have taken responsibility for providing a variety of



**TABLE 2.2** Bodies working with the Department of Health & Social Care and NHS England

| NAME OF BODY  | KEY RESPONSIBILITIES  |
|---|---|
| <b>Central support functions and sector improvement</b>   |   |
| <b>National Institute for Health and Care Excellence (NICE)</b>   | Providing national guidance (including clinical guidelines and health technology appraisal) and advice to improve health care (covering health care, public health and social care).  |
| <b>Health Education England (to be merged with NHS England into single organisation)</b>                | Providing oversight and leadership for workforce planning, education and training.  |
| <b>NHS Digital (to be merged with NHS England into single organisation)</b>                             | Supplying information, data and technological infrastructure to the health service.   |
| <b>NHSX (to be merged with NHS England into single organisation)</b>                                    | Overall responsibility for the national digital strategy.   |
| <b>NHS Resolution</b>   | Provide expertise to the NHS on resolving concerns and disputes with functions including managing claims for compensation; concerns about performance of doctors, dentists or pharmacists; disputes between primary care contractors. |
| <b>NHS Business Services Authority (NHS BSA)</b>  | Provides central services such as managing NHS pension scheme and administering payments to pharmacists and dentists.   |
| <b>NHS Blood and Transplant</b>   | Manages supply of donated blood, organs and tissues and seeks to improve blood and transplant services.   |
| <b>Regulators (Executive non-departmental public bodies)</b>  |   |
| <b>NHS Improvement (now works jointly with NHS England as single organisation)</b>                      | Oversees NHS foundation trusts, NHS trusts and independent providers.   |
| <b>Care Quality Commission</b>  | Regulates health and social care providers. Registers, monitors, inspects and rates services.   |
| <b>Human Fertilisation and Embryology Authority (HFEA)</b>  | Oversees use of gametes and embryos in fertility treatment and research.  |
| <b>Health Research Authority (HRA)</b>  | Protects and promotes the interests of patients and public in health research. Research ethics body.  |
| <b>Human Tissue Authority</b>   | Ensures that human tissue is used safely and ethically, and with proper consent.  |
| <b>Executive agencies – undertaking some of functions of the Department of Health &amp; Social Care</b> |   |
| <b>Medicines and Healthcare products Regulatory Agency (MHRA)</b>                                       | Regulates medicines, medical devices and blood components in the United Kingdom.  |
| <b>United Kingdom Health Security Agency (UK HAS)</b>   | Provides health protection services and advice and infectious disease capability.   |
| <b>Office for Health Improvement and Disparities (OHID)</b>   | Leads national efforts to improve population health and reduce health inequalities.   |

Source: Authors' own.

community services such as social prescribing and mental health support for populations of 30 000–50 000.

Alongside NHS England and NHS Improvement, a number of arm's-length bodies are in place to provide central support functions and sector improvement (National Audit Office, 2017b, 2017c). Table 2.2 provides an overview of executive non-departmental public bodies, executive agencies and locally based bodies working with the DHSC and NHS England. In November 2021, the United Kingdom Government announced a major re-organisation of these institutions with plans to merge Health Education England, NHS Digital and NHS X with NHS England and Improvement into a single organisation. The rationale is to improve collaboration and coordination between these institutions to better integrate workforce planning and digital transformation into the long-term strategy for the NHS (Department of Health & Social Care, 2021c).

### ■ 2.2.3 *NHS in Scotland*

The legislative framework for the NHS in Scotland is set by the Scottish Parliament. The Health and Social Care directorates then set strategic direction and allocate resources for health and social care (see Section 3.3.3, *Pooling and allocation of funds*). Prime responsibility for local health services rests with 14 territorial NHS Boards (NHS Scotland, 2021a), responsible for the protection and the improvements of their population's health and for the delivery of frontline health services. They are supported by seven National Boards and one public health body (Public Health Scotland). Special Health Boards cover functions such as health care improvement, education, the Scottish ambulance services and blood transfusion services. National services such as heart and lung surgery, neurosurgery and forensic psychiatry are planned and commissioned through boards working together regionally and nationally.

Since 2016 and following the Public Bodies (Joint Working) (Scotland) Act in 2014, NHS Boards have had to jointly submit integration plans with their respective local authorities (see Section 2.4, *Planning*). This is achieved mainly through delegation of functions to Integration Joint Boards (IJBs), which bring together health boards and local authorities to plan and deliver adult community health and social care services, including services for older

people. IJBs are accountable to the chief executives of the health board and local authority. Only one area, Highland, has selected to delegate functions for health and social care delivery separately between the health board and the local authority under a “lead agency” arrangement, without the use of an IJB.

#### ■ 2.2.4 *NHS in Wales*

The Department for Health and Social Services funds the NHS in Wales and leads on the development of policy and strategy. Three national NHS trusts arrange ambulance, specialist cancer and public health services across the whole of Wales (NHS Wales, 2021b). Seven Local Health Boards (LHBs) plan, secure and deliver health care services in their areas. This structure replaced 22 LHBs and seven NHS trusts in 2009 and saw the removal of the purchaser–provider split. There is a statutory requirement that LHBs form formal partnerships with local authorities for the improvement of health and well-being outcomes through pooled resources. This is achieved through Regional Partnership Boards, which aim to improve the well-being of the population and how health and social care services are delivered. They are required to produce a regional area plan, report annually and demonstrate meaningful citizen engagement (see Section 2.4, *Planning*). At a national level, there are three NHS trusts, which have an all-Wales function covering ambulance services, cancer and public health. This NHS Wales Shared Services Partnership provides support bodies such as LHBs and NHS trusts in areas such as the streamlining of processes, procurement and digital and technology services.

#### ■ 2.2.5 *Health and social care in Northern Ireland*

The Department of Health, one of the nine Executive Departments in Northern Ireland, has overall responsibility for health and social care services as well as public health and public safety (NI HSC, 2021). The Health and Social Care Board, a statutory organisation, is accountable to the Health Minister, and commissions services from five geographically defined health and social care trusts, which provide integrated health and social care services with the exception of family health services, provided through GPs, dentists,

opticians and community pharmacists. The Health and Social Care Board also manages contracts for these services and has broader responsibility for performance improvement. Local commissioning groups are aligned with the five health and social care trusts and have responsibility, devolved from the Health and Social Care Board, to assess, plan and meet the health and social care needs of their local populations. Health and social care trusts then have a duty to improve the health and social well-being and reduce inequalities within their population (Anderson M et al., 2021b). The Northern Ireland Ambulance Trust operates as a sixth trust and covers the whole of Northern Ireland. The Public Health Agency works with the Department of Health, the Health and Social Care Board, and health and social care trusts, to offer public health support for commissioning and policy development, to improve health and social well-being and for health protection.

## ■ 2.3 Decentralisation and centralisation

There have been differences in the NHS across the constituent countries of the United Kingdom since its establishment in 1948 (see Section 2.1, *Historical background*), but these have hastened following the devolution settlement in 1999. Scotland, Wales and Northern Ireland can determine their own spending within allocations made through the Barnett formula (see Section 3.3.3, *Pooling and allocation of funds*). The responsibility for collecting revenues has remained largely with the United Kingdom Government, although Scotland and Wales have been granted some autonomy in tax raising powers (see Section 3.3.2, *Collection*).

In 1999, the devolution settlement transferred powers for health from the Westminster Parliament to the Scottish Parliament, Welsh Parliament and Northern Ireland Assembly. Before devolution, the NHS was taken to imply a single system across the four constituent countries of the United Kingdom, that is, England, Wales, Northern Ireland and Scotland. From its foundation there were differences. The NHS in England and Wales was accountable to the Secretary of State for Health (United Kingdom Parliament). There was a separate National Health Service in Scotland Act (1947) leading to the creation of a separate NHS, accountable to the Secretary of State for Scotland (United Kingdom Parliament). Northern Ireland similarly had its own legislation (National Health Service Act (Northern Ireland)), and the

NHS was merged with the broader social care system. It took until 1969 for the NHS in Wales to be formed, distinct from the NHS in England (Greer, 2016). From a patient's perspective, there were minimal differences to be noticed between the countries before devolution in 1999. However, the NHS in each country operates within a distinctive historical and political backdrop and differing models of governance have contributed to changes following devolution.

In terms of regulation, health has undergone a period of de-centralisation with arm's-length bodies taking responsibility for licensing and professional regulation and quality and safety (Table 2.2). In England, except for some specialist services, general medical services contracts (contracts with GPs) and public health services, commissioning has been at a local level since the 1990s. Most recently, those contracts are commissioned through CCGs, created following the Health and Social Care Act (2012), although CCGs will be subsumed into ICSs by the end of 2021 (see Section 6.2, *Future developments*). Overall responsibility for running the NHS was also transferred to NHS England from the DHSC following the 2012 Health and Social Care Act. There was hope that moving responsibility for running the NHS from a government ministry to an executive non-departmental public body would, to some degree, de-politicise NHS decision-making. This arrangement was more conducive to long-term planning (as political terms are usually 4–5 years, which limits the foresight of government departments), which contributed to the development of the NHS Long-Term Plan (see Section 6.1, *Analysis of recent reforms*). However, the 2021/2022 Health and Care Bill published in summer 2021 outlines proposals to increase the power of the national government in its mandate with the NHS (UK Government, 2021d).

In Scotland, NHS boards have responsibility for strategic planning and service delivery (Cylus et al., 2015). The structure in NHS Scotland has been noted to allow more diversity in responsibilities and roles for planning services at a local level, compared with a strong and centralised chain of command in England (Hudson & Hardy, 2001). The other countries in the United Kingdom have relied to a lesser extent on performance management than England, but Cylus et al. (2015) note that the smaller size of the other United Kingdom constituent countries also facilitates closer working between central and local levels.

In Wales, seven LHBs are responsible for the delivery of hospital, and community services. They were established after a major structural

reorganisation in 2009 and replaced 22 LHBs and NHS hospital trusts that performed these functions in the past. Two reviews of the Welsh healthcare system in 2016 by the OECD (OECD, 2016), and by the Welsh Government in 2018 (Welsh Parliament, 2018b), recommended “stronger” central governance of the NHS. The Welsh Government responded by making a commitment to establish a central NHS Wales Executive (NHS Wales, 2019a), although as of January 2022 this has not yet happened because these plans have been delayed indefinitely as a result of the COVID-19 pandemic.

In terms of the private provision of publicly funded services, the 2012 Health and Social Care Act extended competition and promoted diversity in providers, and although this led to a larger number of contracts being awarded to the private sector, spending on the private sector did not increase significantly (see Section 3.1, *Health expenditure*). Large contracts, including the private sector operating whole hospitals or segments of care (for example, end of life care), have proved challenging to tender and for the private sector to manage and maintain. The private sector accounts for around 10% of elective care, which has remained at a steady level over recent years, with approximately half being NHS patients treated in the private sector and half private paying patients. Spending on private providers has shown most growth in relation to elective care services and mental health (Kelly & Stoye, 2020). Use of private providers in the provision of NHS care is common in all the United Kingdom’s constituent countries, but accounts for a lower proportion of spending in Scotland, Northern Ireland and Wales. All United Kingdom constituent countries have to some extent made use of the private sector during the COVID-19 pandemic, partly, to help provide capacity for elective care (Neville & Plimmer, 2021), and partly, the outsourcing of elements of the pandemic response, including functions of the test and trace system (Iacobucci, 2020b).

## ■ 2.4 Planning

England, Scotland, Northern Ireland and Wales have their own planning mechanism, with different roles for their own government, and the NHS, at both national and local levels (Table 2.3).

**TABLE 2.3** The role of government and the NHS in planning and commissioning healthcare in the United Kingdom's constituent countries

|   | ENGLAND   | SCOTLAND   | WALES  | NORTHERN IRELAND  |
|---|---|--|--|---|
| <b>Role of government</b>                                     | DHSC issues the "NHS Mandate" annually, which sets out objectives and requirements of the NHS and sets the budget.  | The Scottish Government determines the resources allocated to the NHS in Scotland and sets its strategic direction and delivery priorities.  | The Minister for Health and Social Services sets the overall policy context and direction for the NHS through national strategies and delivery plans. In partnership with NHS Wales, the government sets out an "NHS Wales Planning Framework" and a National Clinical Framework.                                    | Minister of Health's priorities and targets for health and social care are set out annually in the "Commissioning Plan Directions".   |
| <b>Role of the NHS</b>  | NHS England sets (with partner organisations) strategic direction and overall commissioning strategy, currently through "The NHS Long Term Plan".   | Planning and delivery responsibilities are devolved to 14 territorial NHS Boards, seven National Boards (LHBs) and three NHS trusts: public health, ambulance and specialist cancer services.  | Planning and delivery responsibilities are devolved to seven Local Health Boards (LHBs) and three NHS trusts: public health, ambulance and specialist cancer services.   | The Health and Social Care (HSC) Board and the Public Health Agency are required to respond to the "Direction" by producing an annual "Commissioning Plan".   |
| <b>Accountability of the NHS to the parliament/government</b> | The Chief Executive of NHS England is accountable to the DHSC and the parliament on the basis of objectives, goals and deliverables specified in the NHS Mandate and the NHS Outcomes Framework.                          | The Scottish Government measures performance against Local Delivery Plan Standards, which are priorities set and agreed between the Scottish Government and NHS Boards.  | LHBs are accountable to the Minister for Health and Social Services. The Welsh Government monitors and reviews Integrated Medium-Term Plans and performance against quality indicators contained in the National Clinical Framework.   | Progress of the HSC Board is monitored according to a set of core performance indicators, the "Indicators of Performance Direction", set alongside the "Commissioning Plan Directions".   |
| <b>Planning/Commissioning at national level</b>               | NHS England directly commissions specialised services (e.g. secure mental health care), military and veteran health services, health services for people in prisons and some public health functions.                     | The National Planning Board in Scotland is used by NHS Boards and the Scottish Government Health and Social Care Directorates to jointly plan services on a national level. National and Specialist services are commissioned by NHS National Services Scotland's National Services Division.  | The Welsh Health Specialised Service Committee takes on some of the duties of LHBs for functions that are best organised at a national level, such as specialised mental health services.  | The HSC Board commissions care and manages the performance of five geographic Health and Social Care Trusts, the Ambulance Trust and primary care organisations working with five Local Commissioning Groups.   |
| <b>Planning/Commissioning and at local level</b>              | Clinical Commissioning Groups (CCGs) are responsible for commissioning services for their local populations. Around 60% of the budget is devolved to CCGs. CCGs will be replaced by Integrated Care Systems in July 2022. | NHS Boards produce annual Delivery Plans aligned with government priorities and objectives. This process is under review. The Scottish Government is working towards commissioning 3-year operational plans from 2022/2023. NHS Boards also work with Local Authorities as part of Integration Joint Boards to achieve health and well-being objectives through strategic joint commissioning plans. | LHBs and NHS trusts produce Integrated Medium-Term Plans guided by the NHS Wales National Planning Framework, updated annually. LHBs also partner with local authorities as part of Regional Partnership Boards and Public Service Boards that produce integrated plans to achieve health and well-being objectives. | Local Commissioning Groups assess the needs of the population and identify priorities for both health and social care services. They can secure services to meet that need from any appropriate provider, although Health and Social Care Trusts are the main provider. |

Source: Authors' own.

### ■ 2.4.1 *NHS in England*

Operational responsibility for the NHS in England has sat with NHS England since 2013. The United Kingdom Government sets legally binding objectives and budget for NHS England through an annual mandate, supported by detailed criteria and metrics. The mandate also sets out the capital and revenue resource limits for NHS England. As a mechanism for national level accountability, the NHS Outcomes Framework sets out national outcome goals that the Secretary of State for Health uses to monitor the progress of NHS England. Indicators are grouped in five domains: preventing people from dying prematurely; enhancing quality of life for people with long-term conditions; helping people to recover from episodes of ill health or following injury; ensuring that people have a positive experience of care; treating and caring for people in a safe environment; and protecting them from avoidable harm (NHS Digital, 2021a).

The NHS Long Term Plan, to which the mandate refers, was published in 2019 and sets out a plan for the NHS over a decade to 2029 (NHS England, 2019d). The Long-Term Plan is the first on a 10-year horizon, spanning beyond government terms and planning cycles. The Plan sets out priorities for improvements in care, including for infants and children, in relation to improving care, for the leading causes of morbidity and mortality and in supporting the population to age well.

At the local level, the 10-year plan provides the framework from which Sustainability and Transformation Partnerships and now ICSs develop and implement 5-year plans locally. ICSs are intended to be operational by July 2022, and will replace CCG, which were previously responsible for commissioning and planning health care services for the local population (see Section 6.2, *Future developments*). ICSs will be responsible for bringing together a wider set of system partners to promote partnership arrangements to address the broader health, public health and social care needs of the population (see Section 6.1, *Analysis of recent reforms*). Membership will be determined locally, but as a minimum representatives will be required from local government, NHS trusts and primary care organisations, and it is likely that there will be further representatives of local voluntary and third-sector organisations, social care providers, housing providers and independent sector providers (Charles, 2021).



## ■ 2.4.2 NHS in Scotland

The Scottish Government is responsible for setting the strategic direction for the NHS in Scotland as well as priorities for delivery. The Scottish Government National Performance Framework, first introduced in 2007, guides government policy generally, including for health. The aims of the framework are centred on creating a more successful country, providing opportunity to all, increasing the well-being of the population, creating sustainable and inclusive growth and reducing inequalities (Scottish Government, 2021c).

The Scottish Government devolves responsibility for delivery of health services to 14 local NHS boards, who are required to develop annual delivery plans that align with Scottish Government priorities and provide the delivery contract between the Scottish Government and NHS boards in Scotland (Scottish Government, 2016b). This process is under review as we emerge from the pandemic. For the last 18 months, NHS boards have produced and worked to implement Remobilisation Plans, but as these expire, NHS boards are moving towards the introduction of 3-year operational plans. These plans support the delivery of the National Performance Framework, and performance against objectives is measured using standards set by agreements between the Scottish Government and NHS boards. Standards include indicators around diagnosis, access, time to treatment and maternal, reproductive and child health (Scottish Government, 2019b). Since 2016, NHS boards have also been required to work with local authorities as part of the IJBs to plan and deliver integrated care services through the development of a strategic joint commissioning plan that is aligned with the achievement of nine national health and well-being outcomes published in 2015 (see Section 2.5, *Intersectorality*).

Since 2018, NHS Scotland has convened an NHS Scotland National Planning Board (NHS Scotland, 2021b), which is intended to provide oversight, governance and decision-making in relation to national planning of NHS services, with a particular focus on financing, workforce, digital health and health care infrastructure. The national planning agenda is only intended to encompass services that need to be planned nationally, with criteria based on volume and workforce (specialists or scarce skills). Membership of the board includes Chief Executives of health boards, Executive Group Representatives (for example, Directors of Finance) and Scottish Government Directors/Deputy Directors.

### ■ 2.4.3 NHS in Wales

In Wales, the Minister for Health and Social Services sets the overall policy context and direction for the NHS through national strategies and delivery plans. There is a 10-year strategy for health and social care in Wales, “A Healthier Wales: Health and Social Care Action Plan”, published in 2018, which outlines a long-term vision of a “whole system approach to health and social care”, which is focused on health and well-being, and preventing illness (Welsh Government, 2018a).

The implementation of national strategies is supported by the publication of 3-year action plans by the LHBs, called Integrated Medium-Term Plans (IMTPs), which are reviewed annually by the Welsh Government, and, if IMTPs are approved as aligning with national priorities LHBs are rewarded with 3-year financial allocations and a measure of freedom in expenditure within the 3-year period. Guidance is provided to LHBs through the NHS Wales Planning Framework (Welsh Government, 2019), and LHBs are expected to align their IMTPs within priorities outlined within the National IMTP, which is developed by the NHS Executive. There is also a statutory requirement that LHBs form formal partnerships with local authorities to coordinate provision of health and care services through Regional Partnership Boards, and to improve population health outcomes and well-being through Public Service Boards. Both Regional Partnership Boards and Public Service Boards involve joint membership from LHBs and local authorities, which produce integrated plans that align with priorities outlined within the 2014 Social Services and Well-being (Wales) Act and the 2015 Well-being of Future Generations (Wales) Act (see Section 2.5, *Intersectorality*).

In tandem with these processes, the Welsh Government has developed a National Clinical Framework, which is a novel approach to governance and planning of high-quality services in Wales (Welsh Government, 2021a). The NHS Executive oversees the implementation of the National Clinical Framework and provides further support through its national programmes and networks. The National Clinical Framework is underpinned by the introduction of quality statements that set out in more detail the standards and outcomes expected from particular clinical services. All NHS organisations are expected to adopt quality management systems and provide annual reports on quality, in line with indicators outlined within each quality

statement. In 2020, the Welsh Government also introduced legislation that outlines a duty of candour for NHS organisations to be open and honest regarding any failures to provide high-quality and safe services (Welsh Government, 2020).

#### ■ 2.4.4 *Health and social care in Northern Ireland*

In Northern Ireland, the Minister for Health is responsible for setting priorities for health and social care in annual “Commissioning Plan Directions, Indicators and the Programme for Government” (Department of Health Northern Ireland, 2018), and through national plans and strategies. National policy continues to be guided by the 10-year strategy published in 2016: “Health and Well-being 2026: Delivering Together 2026” (Department of Health Northern Ireland, 2016), which was published in response to a review chaired by Professor Rafael Bengoa in 2016 (see Section 6.1, *Analysis of recent reforms*). This review outlined some of the persistent structural, financial and demographic challenges faced by the Northern Ireland health system (Bengoa, 2016).

The Health and Social Care Board and Public Health Agency are required to respond to Commissioning Plan Directions by producing annual commissioning plans (HSCB Northern Ireland, 2019a). Performance against Commission Plan Directions is monitored using an agreed outcomes framework, the “Indicators of Performance Direction” (HSCB Northern Ireland, 2019b). The Health and Social Care Board commission health and social care and reviews the performance of five health and social care trusts and the Northern Ireland Ambulance Service, in conjunction with five local commissioning groups, which are also responsible for commissioning social care services. While local commissioning groups can technically commission services from any appropriate provider, health and social care trusts are the main provider by default, and in reality, the relationship between local commissioning groups and health and social care trusts is linked to planning rather than commissioning.

Northern Ireland is currently developing a new planning model for health and social care services, which is due to be implemented in April 2022, centred around developing an ICS model (Department of Health Northern Ireland, 2021). A regional board will be established under the direction of

the Department of Health in partnership with the Public Health Agency, which will oversee five separate Area Integrated Partnership Boards, one for each pre-existing health and social care trust (see Section 6.2, *Future developments*).

## ■ 2.5 Intersectorality

Over the last two decades there has been a growing focus on cooperation in all United Kingdom constituent countries among different branches of government and across sectors to improve health and reduce inequalities.

In England, a high-profile cross-governmental national strategy to reduce health inequalities, implemented between 1997 and 2010, was associated with reductions in geographical inequalities in life expectancy (Barr, Higgerson & Whitehead, 2017). However, since the scheme has ended, inequalities have widened again (Barr, Higgerson & Whitehead, 2017). A major shift in policy has transferred responsibility for public health services to local authorities from the NHS from 2013, with local public health departments expected to work in partnership with other sectors such as housing, education and social services to implement a “health in all policies” approach to improve health and reduce inequalities. As part of these reforms, health and well-being boards were established to provide a forum to facilitate cross-sector partnerships between the NHS, local governments and voluntary sector. Looking to the future, the 2021 Health and Care Bill includes commitments to develop ICSs (see Section 6.2, *Future developments*).

In Scotland, the 2014 Public Bodies (Joint Working) (Scotland) Act, resulted in the establishment of IJBs from 2016, and a legislative mandate for NHS boards and local authorities to work together as part of IJBs to achieve nine health and well-being outcomes centred around improving health, patient experience, patient safety, patient engagement and reducing health inequalities (Scottish Government, 2015). More broadly, national policy in Scotland is heavily influenced by the Scottish Government National Performance Framework, which encourages cross-sectoral collaboration to make progress on a series of indicators (see Section 2.4, *Planning*), many of which are related to improving health and well-being, and reducing inequalities (Scottish Government, 2021c).

In Wales, national and local policy is shaped by the 2015 Well-being of Future Generations Act, which provides the Welsh Government and its 44 public bodies, including local government and health boards, with a legally binding commitment to sustainable development including improving health, equity and well-being of the population (Welsh Government, 2015). At local level, all public bodies must commit to well-being objectives and form local partnerships through public services boards with the responsibility to publish local well-being assessments (WHO, 2017). At national level, the Auditor General for Wales has a duty to carry out examinations of public bodies. Welsh ministers set out 46 indicators to assess progress towards well-being goals, and within 12 months of an election, the incumbent government is required to produce a report looking at the future social, economic, environmental and cultural well-being trends to inform planning and policy (WHO, 2017). Finally, the Act established the post of Future Generations Commissioner to safeguard the interests of future generations by supporting public bodies in working towards achieving the well-being goals.

In Northern Ireland, a ten-year strategy to promote a whole-system approach to public health called *Making Life Better* was published in 2014, to cover the period 2013–2023 (Department of Health Northern Ireland, 2013). The strategy was designed to promote cross-departmental action to achieve a number of indicators related to health and well-being and reduce inequalities. A governance structure was outlined including an overarching ministerial committee for public health, an all-departments official group on public health with membership from every government department, and annual reports on progress in improving health and well-being to be published by the Northern Ireland Department of Health. However, it appears that initial progress was hampered by the suspension of the Northern Ireland Assembly between January 2017 and January 2020 (see Section 6.1, *Analysis of recent reforms*), and only one progress report is publicly available (Department of Health Northern Ireland, 2015). More recently, Northern Ireland has made more progress since the re-opening of the Northern Ireland Assembly, including the pending reforms on development of integrated partnership boards that will involve health and social care trusts and local authorities working together to develop and implement local health and well-being plans (see Section 2.4, *Planning*).

## ■ 2.6 Health information systems

Providers of healthcare in all United Kingdom constituent countries are required to collect data on activity, workforce and performance indicators to feedback to their respective health care information organisations, NHS Digital in England, Public Health Scotland in Scotland (formerly undertaken by the Information Services Division), Digital Health and Care Wales in Wales, and the Information and Analysis Directorate within the Department of Health in Northern Ireland. In England, there was a separate health care information organisation, known as NHSX, which has overall responsibility for the national digital strategy (see Section 4.1.3, *Information technology and eHealth*) and commissioned NHS Digital to manage certain data flows. However, as mentioned above, NHSX and NHS Digital are due to be merged with NHS England and Improvement. Many data flows are used for financial planning purposes, such as for Payment by Results in England and for Quality and Outcomes Framework programmes across the United Kingdom (see Section 3.7.1, *Paying for health services*). However, many data sets, such as the National Public Health Profiles, Atlases of Variations and the Patient Safety Incident Management System, have been developed to understand a broader set of issues such as inequalities in health outcomes and access to care, unwarranted clinical variation and patient safety (Anderson M et al., 2021b; Sheikh et al., 2021). There has also been greater attention in recent years to understanding outcomes in social care, particularly by NHS Digital in England, which has developed the Adult Social Care Outcomes Framework. The workforce intelligence unit of Skills for Care also collated data on the social care workforce on an annual basis (Skills for Care, 2020). In Wales, Digital Health and Care Wales has also been working with Social Care Wales to develop a national data resource for social care, in line with objectives outlined in the Social Care Wales data strategy (Social Care Wales, 2021). Since 2016, all providers of care for privately funded patients across the United Kingdom have been mandated to supply data on fees, activity, outcomes and patient experience to the nominated health care information organisation, the Private Healthcare Information Network (PHIN), although data submission for privately funded care remains inconsistent and of a lower quality than data submissions to NHS Digital for publicly funded care (Anderson M et al., 2020).

Despite the significant health care data assets available, the United Kingdom has struggled to maximise the use of health care data to improve policy and planning. The recently published LSE-Lancet Commission on *The Future of the NHS* highlighted several barriers to routinely using data for quality improvement purposes, including capacity and expertise among the workforce, limited data-linkage, long delays in accessing data, and high access charges (Anderson M et al., 2021b). In terms of accessing data, there have been significant efforts by the United Kingdom's constituent countries to streamline processes, such as the Secure Anonymised Information Linkage (SAIL) Databank developed by Swansea University Medical School in Wales (Jones et al., 2019), which can now facilitate access to linked data sets on average in 12 weeks. Health Data Research UK (HDR UK) has also facilitated collaboration between United Kingdom countries, including the deployment of UK Secure eResearch Platform (used by the SAIL Databank in Wales) to Northern Ireland to facilitate remote access to health care data (HDR UK, 2021). The COVID-19 pandemic has also accelerated progress in this area, where application processes were sometimes relaxed for projects that supported the response to the pandemic (Sheikh et al., 2021). There has also been significant investment in developing capacity and expertise through the NHS Digital Academy, and the introduction of new roles such as Chief Clinical Information Officers and clinical informaticists. Despite these challenges, there are many successful examples of using routinely collected data for quality improvement purposes in the United Kingdom such as National Clinical Audits, the Getting it Right the First Time programme, and the NHS Evidence-Based Interventions Programme (see Section 7.2, *Accessibility*). There are also growing efforts to use routinely collected health care data to develop artificial intelligence (AI) technologies, including the NHS AI laboratory, which was established by NHSX in 2019 with £250 million of funding.

## ■ 2.7 Regulation

Regulatory bodies set standards, monitor organisations to ensure compliance with those standards, and enforce consequences for providers that fail to meet standards. The major arm's-length bodies of the DHSC with a regulatory role are the Care Quality Commission and NHS England in England, the



National Institute for Health and Clinical Excellence (NICE), and the Medicines and Health care products Regulatory Agency (MHRA) (see Section 2.2, *Organisation*).

### ■ 2.7.1 *Regulation and governance of third-party payers*

In England, third-party payers are the CCGs, which negotiate contracts to purchase mental health and community health services from public and private service providers, and NHS England, which negotiates contracts for most primary care services and specialist services. CCGs are due to be replaced with ICSs from July 2022, which will undertake similar functions, but for all health and social care services for predefined local populations in conjunction with local authorities (see Section 2.2, *Organisation*). The financial sustainability of CCGs is monitored by NHS England, which sets efficiency targets and provides additional support through the Commissioner Sustainability Fund to CCGs, which persistently post deficits (NHS England, 2020f). In Wales and Scotland, health boards are essentially integrated purchasers and service providers and are answerable to their respective national governments (see Section 2.4, *Planning*). In Northern Ireland, the Health and Social Care Board is the default commissioner for all health and social care services, although due to a limited choice of providers, the relationship between the Health and Social Care Board and providers is understood more as governance and oversight, rather than commissioning. Similar to Wales and Scotland, the Health and Social Care Board in Northern Ireland is accountable to the Minister of Health. In all four United Kingdom constituent countries, there is a National Audit Office, which has a key role in scrutinising public spending, including public spending by local commissioners and health boards.

### ■ 2.7.2 *Regulation and governance of provision*

England, Scotland, Wales and Northern Ireland each has its own regulatory bodies, including the Care Quality Commission and NHS England, Health care Improvement Scotland, Health care Inspectorate Wales, and the Regulation and Quality Improvement Authority in Northern Ireland (Table 2.1).



In England, the Care Quality Commission registers, monitors, inspects and regulates both NHS and independent sector services in England to ensure that they meet fundamental standards of quality and safety (Cylus et al., 2015). The remit of the Care Quality Commission extends to health and social care, including hospitals, dentists, GPs, ambulances, care homes and the care given in people's own homes. The Care Quality Commission sets the minimum standards of care, as well as determining what constitutes good and outstanding care. If services fall below the minimum standards, the Care Quality Commission has the power to define what providers need to do to improve the quality of care or, if necessary, can limit a provider's activities until the necessary changes have been made. Its regulatory powers include issuing cautions and fines, and where patients have been harmed or put at risk, they can also prosecute.

Similar to CCGs, NHS England is the economic sector regulator for all providers, including private and not-for-profit groups that provide NHS-funded care. Between 2004 and 2016, this function was undertaken by Monitor, an executive non-departmental public body of the DHSC. The function was transferred to NHS Improvement in 2016, and since 2019, NHS Improvement was incorporated into NHS England. NHS England monitors the financial sustainability of providers and setting efficiency targets. For those providers that persistently post deficits, there is increased scrutiny of financial planning and financial targets, which if met, release additional financial support through the Provider Sustainability Fund (NHS England, 2021d). Since 2002, NHS hospitals that meet criteria around financial sustainability and managerial structures have been allowed to apply for Foundation Trust status, which allowed a degree of higher autonomy in financial planning (Collins, 2016). However, since the financial crisis, when over half of NHS hospitals persistently posted deficits, there has been greater regulation of financial planning, and there is little distinction between NHS hospitals with or without Foundation Trust status in terms of regulatory oversight from NHS England.

In Scotland, Health-care Improvement Scotland oversees quality of care delivered by both the NHS and the independent sector (Cylus et al., 2015). The remit of Health-care Improvement Scotland inspections is health care services, whereas the Care Inspectorate is responsible for inspections for social care providers. Health care Improvement Scotland drives health care practice improvements, scrutinises care to ensure quality and safety, and develops

guidelines, advice and standards for effective clinical practice. Health care Improvement Scotland inspects every acute hospital in Scotland at least once every 3 years and more often if needed. NHS boards are expected to adhere to the Scottish Intercollegiate Guideline Network (now part of Health care Improvement Scotland) guidelines, and Health care Improvement Scotland conducts performance reviews to ensure this. Health care Improvement Scotland does not have enforcement powers against NHS boards, although it does have such powers against independent sector providers.

In Wales, Health care Inspectorate Wales monitors NHS and independent sector services in order to ensure safety and quality (Cylus et al., 2015). Health care Inspectorate Wales focuses on improving patient experience and strengthening the voice of the public in reviewing health services. Like its counterpart in Scotland, the remit of Health care Inspectorate Wales is health care services only, and Health care Inspectorate Wales does not have enforcement powers against NHS hospitals but does have such powers against independent sector providers. A separate Care Inspectorate for Wales is responsible for inspecting social care providers.

In Northern Ireland, the Regulation and Quality Improvement Authority monitors the availability and quality of health and social care services, ensuring that services meet standards and are easy to access, whereas the Department of Health is responsible for setting safety and quality standards (Cylus et al., 2015). The Regulation and Quality Improvement Authority inspects services ranging from children's homes to nursing agencies, as well as health and social care trusts and agencies. It has a range of powers including issuing notices of failure to comply with regulations, placing conditions of registration, imposing fines and closing services.

### ■ 2.7.3 *Regulation of services and goods*

#### **BASIC BENEFIT PACKAGE**

Unlike some countries, constituent countries of the United Kingdom have neither a legally enforceable right to health nor a defined benefit package setting out their entitlements (Mason, 2005). As a result, since establishment, there has been a progressive withdrawal by the NHS from certain types of care, most notably a large share of dental care and optometry. There has

also been growing efforts to disinvest in low-value care, most notably the Evidence-Based Interventions programme in England, Prudent Healthcare in Wales and Realistic Medicine in Scotland (see Section 3.3.1, *Coverage*), which has explicitly outlined certain procedures, such as breast reduction and surgical intervention for snoring, which will not be routinely funded via the NHS. There are also a growing number of other procedures of low clinical value that will only be funded under certain circumstances, and activity levels are closely monitored to assess for unwarranted clinical variation. For procedures that are not routinely funded through the NHS, the only mechanism to secure NHS funding is through an independent funding request, whereby local commissioners review evidence on the potential benefit for individual patients, taking into account their specific context.

## HEALTH TECHNOLOGY ASSESSMENT

For novel health technologies, a rigorous and transparent system of health technology assessment has been developed in the United Kingdom, using the cost per QALY and threshold approach (Charlton, 2020). In England, NICE undertakes this function and has several programmes for appraising new technologies, including drugs, devices, diagnostic procedures and public health interventions. All the programmes, except for the Interventional Procedures Programme (which considers only clinical evidence), consider both clinical and cost-effectiveness. The central feature of NICE's approach for appraising technologies is the calculation of the incremental cost per QALY gained, over and above the current standard of care, and to compare this with a decision-making threshold, currently set between £20 000 and £30 000 per QALY (NICE, 2015). The QALY is intended to provide a generic measure of "health gain" and combines data on extension of and quality of life. The decision-making threshold is intended to represent the opportunity cost of the current NHS budget constraint. However, there are a number of additional circumstances under which this threshold changes, for example for therapies that add more than 3 months to the life expectancy of patients having no more than 24 months to live (Bovenberg, Penton & Buyukkaramikli, 2021). In practice, this has resulted in NICE valuing QALYs gained at end-of-life at 2.5 times "standard" QALYs, implying a decision-making threshold of £50 000 per QALY. There are also circumstances in

which NICE may deviate from this threshold, for example when agreeing management access agreements with the pharmaceutical industry that may involve confidential financial discounts or requirements to collect additional data to establish cost-effectiveness. The remit of NICE also extends to pre-existing technologies through its clinical guidelines programmes, which explicitly consider costs through a systematic review of economic evaluation literature and identify candidates for disinvestment. However, unlike the technology appraisal programmes, adoption of recommendations is not mandatory for the NHS (Drummond, 2016).

Similar bodies assess health technologies in other parts of the United Kingdom, most notably the Scottish Medicines Consortium (SMC) and Scottish Health Technologies Group (SHTG), both part of NHS Healthcare Improvement Scotland, in Scotland. SMC assesses medicines and SHTG assesses non-medicine devices. The All Wales Medicines Strategy Group (AWMSG) in Wales, assesses pharmaceuticals. The remit of AWMSG is complementary to that of NICE, only including the assessment of new pharmaceuticals that are not on the 12-month work programme of NICE (Varnava et al., 2018). Moreover, NICE guidance can supersede AWMSG recommendations (Varnava et al., 2018). In contrast, the scope of SMC and SHTG are not complementary to NICE, and each organisation issues separate recommendations on new pharmaceuticals and devices. Northern Ireland does not have an equivalent body; instead, the Northern Ireland Department of Health endorses NICE guidance, unless it is not found to be locally applicable.

#### ■ 2.7.4 *Regulation and governance of pharmaceuticals*

The manufacture, licensing and regulation of medicines and the control of pharmaceutical prices is all done at United Kingdom level (Cylus et al., 2015). From 1 January 2021, following the withdrawal of the United Kingdom from the European Union, the MHRA became the United Kingdom's stand-alone medicines and medical devices regulator. Before this, medicines could be launched in the United Kingdom via the European Medicines Agency centralised authorisation procedure (Criado & Bancsi, 2021). The MHRA is an executive agency of the DHSC; it authorises clinical trials of drugs, assesses the results of trials, monitors the safety and quality of products and

can remove products from the supply chain if it finds sufficient evidence that they are substandard.

The 2012 Human Medicines Regulations is the main legislation that governs medicines in all four United Kingdom constituent countries, replacing the previous 1968 Medicines Act. The regulations are concerned with processes for the authorisation of medicinal products for human use; for the manufacture, import, distribution, sale and supply of those products; for their labelling and advertising; and for pharmacovigilance (UK Government, 2021c). The regulations list three types of pharmaceutical products: those on the General Sale List, which do not need a pharmacist and can be sold over the counter; those dispensed through pharmacists only; and prescription-only medicines. There is a formulary of licensed medicines, known as the British National Formulary, that contains available medicines, dosages, known side-effects and monitoring requirements. Health care professionals are required to report suspected adverse effects to the MHRA through the Yellow Card Scheme, which is the system for recording adverse incidents with medicines and medical devices in the United Kingdom (MHRA, 2021). Advertising of prescription drugs is not allowed and advertisements for non-prescription medicines are strictly regulated.

Pharmacies in England and Wales are reimbursed through the NHS Prescription Services, which is part of the NHS Business Services Authority, according to the NHS Drug Tariff (NHS Business Service Authority, 2021). A similar system exists in Northern Ireland, operated by the Health and Social Care Business Services Organisation, and in Scotland, operated by the Chief Medical Officer Directorate of the Scottish Government. The NHS Drug Tariff details reimbursement levels for drugs and medical devices supplied to patients and rules to follow when dispensing. This includes a black list of pharmaceutical products that should not be prescribed or supplied to patients, and a grey list of pharmaceuticals that may be prescribed under certain circumstances, or for certain groups of patients or certain conditions only. Pharmacies are encouraged to procure medicines at cheaper prices than reimbursement levels set out in the NHS Drug Tariff, because they can retain the difference as profit. There is, however, a clawback mechanism to ensure that a proportion of the difference between the price paid for the drugs by the pharmacy and what is reimbursed goes back to the NHS. Although the average clawback across all medicines is not routinely reported, according to the

Pharmaceutical Services Negotiating Committee it is usually around 8% (PSNC, 2021).

In addition to the clawback mechanism for pharmacies, the DHSC claws back a proportion of NHS pharmaceutical expenditure via the Voluntary Scheme for Branded Medicines Pricing and Access (VPAS), dependent upon the profit margins of the pharmaceutical industry (DHSC & ABPI, 2018). In 2020, this amounted to £594 million, a reduction from £844 million in the previous year (UK Government, 2021g). VPAS, and its predecessor, the Pharmaceutical Price Regulation Scheme, were developed to limit the costs of pharmaceuticals to the United Kingdom NHS in ways that would not undermine national interests in the pharmaceutical sector. They place a limit on the profits that individual companies can earn from supplying medicines to the NHS, estimated to allow a return on capital within certain limits. However, innovators remain free to set the prices of new products as they decided. Generic medicines are not subject to VPAS. Prices of generics can change over time to reflect the average market price of manufacturers or wholesalers after discounts. Generic manufacturers are regulated according to an anti-competition legislation, which is enforced by the Competition and Market Authority. Despite this, there have been some high-profile cases of gaming of prices of generic medicines; for example, an investigation by the Competition and Market Authority into the supply of fludrocortisone in 2019 exposed anti-competition agreements, resulting in a payment of £8 million to the NHS (UK Government, 2019).

The VPAS also includes a range of measures for the NHS to support innovation and better patient outcomes through improved access to novel and cost-effective medicines (DHSC & ABPI, 2018). This includes commitments by NICE to the accelerated assessment of novel medicines, including speeding up appraisals of non-cancer medicines to be in line with cancer medicine appraisal timelines, and for the NHS to invest in data infrastructure to understand and promote the uptake of cost-effective medicines. The Accelerated Access Collaborative, a partnership among NHS England, NICE and the pharmaceutical industry, set up in 2018, works to achieve these objectives by identifying medicines that are considered as highly cost-effective to be designated as “rapid update products” that are prioritised for widespread adoption across the NHS (NHS England, 2021m). There is also an MHRA scheme, the Early Access to Medicines Scheme, to accelerate regulatory approval for medicines that do not yet have a marketing authorisation

when there is a clear unmet medical need for patients with life-threatening or seriously debilitating conditions (UK Government, 2021a). Under this scheme, patients can access medicines that receive a “Promising Innovation Medicine” designation up to 12–18 months before receiving formal marketing authorisation.

### ■ 2.7.5 *Regulation of medical devices and aids*

The MHRA is responsible for assessing the safety of novel medical devices, and post market surveillance and vigilance. Although it is compulsory that all medical devices, including in vitro diagnostic medical devices, placed on the United Kingdom market need to be registered with the MHRA, it is not compulsory that they are assessed by a health technology assessment agency before reaching the market. In 2010, NICE introduced the Medical Technologies Evaluations Programme to assess the cost-effectiveness of novel medical technologies (NICE, 2021). Manufacturers can volunteer to submit medical technologies to ask for a positive NICE recommendation if their device can be shown to reduce NHS costs, for example, by switching care from an inpatient to an outpatient (ambulatory) basis.

The procurement of medical devices and aids in England and Wales is conducted by health care providers through the centralised NHS Supply Chain service, which manages the procurement and delivery of a wide range of products. From 2018, logistics and operational management of the NHS Supply Chain service has been provided by Supply Chain Coordination Limited, a company wholly owned by the Secretary of State for Health and Social Care. Supply Chain Coordination Limited contracts with a variety of private logistic companies, whereas before this, DHL held a 10-year contract for NHS logistics. In Scotland, procurement is undertaken by NHS National Services Scotland, and in Northern Ireland by the Procurement and Logistics Service, part of the Health and Social Care Business Services Organisation.

In recent years, there have been efforts to accelerate the adoption of cost-effective medical technologies in the NHS. This includes the introduction of the MedTech Funding Mandate from April 2021, an NHS England commitment to give patients access to selected NICE-approved cost-saving devices, diagnostics and digital products more quickly (NHS England, 2021k). The Mandate aims to direct the NHS on which medical technologies



are effective and likely to give savings on investment, with dissemination of medical technologies monitored at the local level. Criteria for inclusion in the MedTech funding mandate includes a positive recommendation from NICE, estimated savings to the NHS of over £1 million over 5 years, and the budget impact to the NHS should not exceed £20 million in any of the first 3 years (NHS England, 2021k).

## ■ 2.8 Person-centred care

### ■ 2.8.1 *Patient information*

Patients have access to a variety of information on health conditions, their own records, and quality of care of alternative health care providers (Table 2.4). In England, while the NHS Choices website was removed in 2019, there is still information on mortality rates, Accident & Emergency (A&E) department performance, patient satisfaction, staff recommendations and Care Quality Commission inspection ratings on the NHS website (NHS England, 2021g). NHS Inform (Scotland), NHS 111 Wales and NI Direct websites all provide information on the location and contact information for different hospitals, dentists and GP practices, but they do not contain the same level of information on quality of care and patient experience as the NHS website England. All United Kingdom constituent counties operate a telephone helpline, NHS 111, and have associated web pages with advice for self-care if appropriate for common health complaints.

The Data Protection Act 1998, which is applicable to all United Kingdom constituent countries, firmly establishes how patients have the right to view their own medical records and have copies of them (UK Government, 1998). Access can only be limited or denied if it would be “likely to cause serious harm to the physical or mental health or condition of the data subject or any other person” (UK Government, 1998). All health care providers are required to have transparent and accessible processes in place for patients to apply for access to their own records within 40 days of receiving a request, or sooner if possible. Patients can be charged £50 for copies of paper records, or £10 for electronic records (including postage). All United Kingdom constituent countries have committed to develop electronic health records with capabilities that allow patients to freely access their own medical records (Sheikh et al., 2021). The



**TABLE 2.4** Patient information

| TYPE OF INFORMATION   | IS IT EASILY AVAILABLE?    | COMMENTS   |
|---|----------------------------|--|
| Information about statutory benefits  | No                         | There is no clearly defined benefits package for NHS services (see Section 2.7.3, <i>Regulation of services and goods</i> )  |
| Information on hospital clinical outcomes                                       | Yes                        | Data on the Summary Hospital-level Mortality Indicator are available in England and on the Hospital Standardised Mortality Ratio in Scotland. These data were published in Wales until 2014, when a government commissioned review recommended that it should be replaced by mortality reviews at the local level (Welsh Government, 2014b). |
| Information on hospital waiting times   | Yes                        | Yes, data on hospital waiting times are routinely published in all United Kingdom constituent countries.   |
| Comparative information about the quality of other providers (for example, GPs) | Yes – in England           | In England, data are published on quality indicators and waiting times for individual GP practices. Similar data are not available in other United Kingdom constituent countries   |
| Patient access to own medical record  | No                         | All patients in the United Kingdom have a legal right to access their own medical records, but the process to apply is challenging to navigate. The NHS App in England has provided patients access to a rudimentary medical record online.  |
| Interactive web or 24/7 telephone information                                   | Yes                        | All United Kingdom constituent countries operate a telephone helpline, NHS 111, and have associated web pages with advice for common health complaints.  |
| Information on patient satisfaction collected (systematically or occasionally)  | Yes                        | Surveys on patient experience are used routinely in all United Kingdom constituent countries.  |
| Information on medical errors   | Yes – in England and Wales | Data on Organisation Patient Safety Incident Reports are available in Wales and England, generated by the National Reporting and Learning System. Systems exist to report and collate adverse events in Scotland and Northern Ireland. However, these data are not publicly available.   |

Source: Authors' own.

most progress in this regard can be seen in England, with the development of the NHS App, which allows access to a rudimentary medical record online.

All four United Kingdom constituent countries have systems to report, collate and analyse medical errors, including the National Reporting and Learning System in England and Wales (soon to be replaced by the Patient Safety Incident Management System). There are also specific systems in place to report, collate and analyse adverse events associated with medical devices coordinated by the MHRA in England and Wales, the Incident Reporting and Investigation Centre in Scotland, and the Northern Ireland Adverse

Incident Centre. The development of these systems has positively changed the culture around reporting and learning from adverse events, however, data from these systems are only made publicly available by the National Reporting and Learning System in England and Wales.

### ■ 2.8.2 *Patient choice*

Patients in the United Kingdom cannot opt out of coverage by the NHS, irrespective of whether they may choose to access services in the independent sector through out-of-pocket payments or through supplementary private medical insurance (Table 2.5). The relevant commissioning body in England, health board in Scotland or Wales, and health and social care trust in Northern Ireland, is based upon their geographical location and can be only changed if they move. Patients can register with any GP surgery, irrespective of location, and many choose to do so; however, GP surgeries can refuse registration if they are not taking new patients or it is too far away to undertake home visits. It is also technically feasible for patients to choose any NHS hospital as long as their GP is willing to refer them. Patient choice has been promoted as a lever to facilitate competition and improve quality of care in England (Brekke et al., 2021), however, patient choice has not been promoted in Scotland, Wales or Northern Ireland (although these countries are substantially smaller than England and there are a smaller number of providers, particularly for specialist services).

Shared decision-making is now being actively encouraged by policy-makers in all four United Kingdom constituent countries, including through initiatives such as the Evidence Based Interventions Programme in England (NHS England, 2020c), Realistic Medicine in Scotland (NHS Scotland, 2018), and Prudent Healthcare in Wales (Addis et al., 2019). The General Medical Council (GMC) has long recommended this approach in its guidance for doctors, and shared decision-making gained legal support in 2015 when the United Kingdom Supreme Court decided that patients with adequate mental capacity must be properly advised about their treatment options and the risks associated with each so they can make more informed decisions (Chan et al., 2017). Patients can request a second opinion if their GP is willing to refer them to an alternative specialist; however, patients do not have a legal right to a second opinion.

TABLE 2.5 Patient choice

| TYPE OF CHOICE  | IS IT AVAILABLE? | DO PEOPLE EXERCISE CHOICE?  |
|---|------------------|---|
| <b>Choices around coverage</b>                                  |                  |   |
| <b>Choice of being covered or not</b>                           | No               | People cannot opt out of the public system  |
| <b>Choice of public or private coverage</b>                     | No               | People can purchase supplementary private medical insurance but cannot opt out of the public system   |
| <b>Choice of purchasing organisation</b>                        | No               | Commissioning bodies in England, health boards in Wales and Scotland, and health and social care trusts in Northern Ireland cover geographically defined populations, and people can only change by moving location.  |
| <b>Choices of provider</b>                                      |                  |   |
| <b>Choice of primary care practitioner</b>                      | Yes              | People can register with a GP surgery not in the area they live, and many choose to do so; however, GP surgeries can refuse registration if they are not taking new patients or if it is too far away to undertake home visits.   |
| <b>Direct access to specialists</b>                             | No               | There is a primary care gatekeeping mechanism to access specialists in all United Kingdom constituent countries.  |
| <b>Choice of hospital</b>                                       | Yes              | Patient choice has been promoted in England to drive competition. Although technically feasible in Scotland, Wales and Northern Ireland, patient choice has not been promoted.  |
| <b>Choice to have treatment abroad</b>                          | No               | Patients cannot opt to seek NHS-funded treatment abroad.  |
| <b>Choices of treatment</b>                                     |                  |   |
| <b>Participation in treatment decisions</b>                     | Yes              | Shared decision-making is promoted in all four United Kingdom constituent countries, including through initiatives such as the Evidence Based Interventions Programme in England, Realistic Medicine in Scotland and Choosing Wisely in Wales.                          |
| <b>Right to informed consent</b>                                | Yes              | Informed consent is a legal requirement for any medical treatment and is reinforced by professional guidelines issued by the GMC.   |
| <b>Right to request a second opinion</b>                        | No               | Patients can request that a GP arranges a second opinion. However, the GP does not have to do this if they do not think it necessary.   |
| <b>Right to information about alternative treatment options</b> | Yes              | According to United Kingdom law, health care professionals need to take "reasonable care to ensure that the patient is aware of any material risks involved in any recommended treatment and of any reasonable alternative or variant treatments" (NHS England, 2021n). |

Source: Authors' own.

### ■ 2.8.3 *Patient rights*

Implementation of the WHO Declaration of Patients' Rights in Europe (1994) has been devolved from the United Kingdom level (Cylus et al., 2015) (Table 2.6). The NHS Constitution, which was published in England in 2009, outlines the principles and values of the NHS, as well as the rights and responsibilities of patients and NHS staff in England (Department of Health & Social Care, 2021b). The Scottish Charter of Patient Rights and Responsibilities was published in 2012, as required by the Patient Rights Act 2011 (Scotland) (Scottish Government, 2019c). There is no equivalent constitution or charter for patient rights in either Wales or Northern Ireland.

All four United Kingdom constituent countries have processes for receiving and responding to patient complaints regarding NHS services. Nearly all health care providers have a complaints department, referred to as the Patient Advice and Liaison Service in England and in Wales. Patients can receive advice and guidance through either the Citizens Advice Bureau, which operates in each United Kingdom constituent country, their local Healthwatch branch in England, Community Health Councils in Wales (soon to be replaced by a national Welsh Citizen Voice Body from April 2023 (Welsh Government, 2021b)), or the Patient Client Council in Northern Ireland. In England, during 2020/2021, there were 83 899 new written complaints for Hospital and Community Health Services compared with 113 241 in 2019/2020. Around 80 206 complaints were resolved, of these 21 502 (26.8%) were upheld, 28 722 (35.8%) were partially upheld and 29 982 (37.4%) were not upheld (NHS Digital, 2021c). Where a patient complaint cannot be resolved by the NHS or service providers, it is referred to the Parliamentary Health Service Ombudsman in England or to the Public Services Ombudsmen in Scotland, Wales and Northern Ireland.

The GMC clearly outlines that it is a legal requirement that a doctor must have adequate and appropriate insurance or indemnity in place when they start to practise medicine in the United Kingdom. All NHS trusts and health boards in England, Scotland and Wales are members of the state-backed NHS medical indemnity schemes. In Northern Ireland, each health and social care trust provides its own indemnity, funded by the Department of Health, Social Security and Public Safety. All patients have the right to legal action and monetary recompense when treatment has been proven to be harmful. The system for legal action in the United Kingdom is a

TABLE 2.6 Patient rights

| YES/NO  |                              | COMMENTS  |
|---|------------------------------|---|
| <b>Protection of patient rights</b>   |                              |   |
| <b>Does a formal definition of patient rights exist at national level?</b>  | Yes, in England and Scotland | In England, the NHS Constitution, and in Scotland, the Scottish Charter of Patient Rights and Responsibilities, set out patients' rights.   |
| <b>Are patient rights included in legislation?</b>  | Yes, in England and Scotland | The Health Act 2009 requires all providers to abide by the NHS Constitution. The Patient Rights Act 2011 (Scotland) requires providers to abide by the Scottish Charter of Patient Rights and Responsibilities. There is also United Kingdom-wide legislation, which governs access to NHS services, for example the 2010 Equality Act. |
| <b>Does the legislation conform with the WHO's patient rights framework?</b>  | Yes, in England and Scotland | The contents of the NHS Constitution in England, and the Scottish Charter of Patient Rights and Responsibilities, incorporate freedom of health and health care information, consent in health care procedures and disclosure of information, protection of confidentiality and privacy, and patient choice in care and treatment.      |
| <b>Patient complaints avenues</b>   |                              |   |
| <b>Are hospitals required to have a designated desk responsible for collecting and resolving patient complaints?</b>        | Yes                          | All hospitals are required to have a complaints department for this purpose   |
| <b>Is a health-specific ombudsman responsible for investigating and resolving patient complaints about health services?</b> | Yes, in England              | In England, there is a Parliamentary and Health Service Ombudsman. In Scotland, Wales and Northern Ireland there is a non-specific Public Services Ombudsman. Their involvement is only usually required for complaints cases not resolved locally.   |
| <b>Are there other complaint avenues?</b>   | Yes                          | Many patients choose to raise complaints with their local members of parliament, who can raise issues in United Kingdom or devolved parliaments.  |
| <b>Liability/compensation</b>   |                              |   |
| <b>Is liability insurance required for physicians and/or other medical professionals?</b>                                   | Yes                          | Under the law, a doctor must have cover against liabilities that may be incurred in practising medicine having regard to the nature and extent of the risks.  |
| <b>Can legal redress be sought through the courts in the case of medical error?</b>   | Yes                          | Patients have the right to legal action when negligent treatment has been proven to be harmful.   |
| <b>Is there a basis for no-fault compensation?</b>  | No                           | There is a tort system, where the claimant – the injured patient – must take legal action to prove duty of care, injury, causation and negligence.  |
| <b>If a tort system exists, can patients obtain damage awards for economic and non-economic losses?</b>                     | Yes                          | Patients can receive monetary recompense when treatment has been proven to be harmful.  |
| <b>Can class action suits be taken against health care providers, pharmaceutical companies, etc.?</b>                       | Yes                          | This frequently occurs, for example, when multiple patients have experienced harm due to a negligent physician or surgeon, or faulty equipment or medical devices.  |

fault-based model, also known as a tort system, whereby the claimant – the injured patient – must take legal action to prove that there was a duty of care, injury, causation and negligence. If they are successful, they can seek monetary compensation for economic and non-economic losses experienced as a result of clinical negligence.

#### ■ 2.8.4 *Patients and cross-border health care*

United Kingdom residents may receive treatment anywhere in the United Kingdom. Many patients in Wales use hospitals across the border in England (see Section 5.4.3, *Inpatient care*). Cross-border care between England and Wales is governed according to a statement of values and principles agreed between the two countries, and regulations contained within the 2010 Equality Act and the Public Sector Equality Duty (NHS England & NHS Wales, 2018). These regulations outline how residents in border regions are eligible to receive either primary or secondary care in either England or Wales, and relevant financial arrangements for transfers of care. There is also an arrangement for patients from Northern Ireland travelling to the Republic of Ireland for treatment, called the Cross Border Healthcare Directive, which runs until at least 1 July 2022. This allows patients to seek and pay for routinely commissioned treatment in the Republic of Ireland and have the costs, up to the cost of the treatment in the NHS in Northern Ireland, reimbursed (HSCB Northern Ireland, 2021).

# Financing

## ■ Chapter summary

- Total health spending in the United Kingdom remains slightly above the average for EU-15 countries (the 15 EU Member States up to 1 May 2004), but below many other comparable high-income countries such as Germany, France and Canada.
- Health services in the United Kingdom are mainly funded through general taxation, with the remainder coming from private medical insurance and out-of-pocket payments. Analysis has shown that, overall, this system is progressive, and facilitates redistribution between the rich and the poor.
- The NHS provides care that is free at the point of access, therefore United Kingdom citizens enjoy a high level of protection against the financial consequences of ill-health. However, important exceptions exist for social care, dental care, optometry and (in England) prescriptions.
- The United Kingdom has developed a centralised and systematic method of resource allocation to allocate fixed annual budgets to local commissioning bodies or health boards guided by formulae that are continually refined and takes account of local needs, resulting in financial control and consideration of equity of access.
- In England, a system of activity-based payments for hospitals has been developed but is currently being replaced by a blended

- payment model combining block contracts with some activity payments to encourage integration and prevention.
- Broadly, the terms and conditions of health care professionals are similar across the United Kingdom. There are, however, some differences in reimbursement and contractual arrangements for some professional groups, most notably for junior doctors and GPs.

## ■ 3.1 Health expenditure

Over the last few decades, health spending in the United Kingdom has gone through cycles of sustained growth and austerity, often termed by the media as periods of “feast and famine”. The most recent and particularly prolonged period of austerity was between 2010 and 2017, heralded by the advent of the 2008 financial crisis (see Section 1.2, *Economic context*, and Table 1.2). This lack of stability in funding has hampered investment in long-term priorities such as capital, leaving the United Kingdom under-resourced in terms of hospital beds, workforce and diagnostics (Anderson M et al., 2021b).

From 2000 to 2009, there was a significant increase in health expenditure because of a political commitment to raising health care spending as a percentage of GDP to a level that corresponded more closely with the EU average. In real terms, total health spending in the United Kingdom grew 5.3% per year on average between 1997 and 2009 (ONS, 2020b). The policy of austerity from 2010 following the economic crisis of 2008 resulted in less significant increases in health spending, although health spending was relatively protected when compared with spending for other public services such as social care and local authorities, which experienced real-term decreases in spending. In real terms, total health spending grew 1.9% per year on average between 2009 and 2018. With around half of NHS expenditure spent on staff, the budget constraints have had an impact on the NHS workforce. NHS England salaries had an annual 1% cap on pay rises between 2013 and 2017, which was preceded by a freeze on public sector pay between 2011 and 2013 (Powell & Booth, 2021). In June 2018, the government acknowledged that such modest increases in health care spending were not sustainable in the long term and announced a £20.5 billion increase in NHS England’s budget in June 2018 to be phased in over the 5-year period to 2023/2024. This represents an average per annum increase of around 3.4% in expenditure



in real-terms (UK Government, 2018b), which is still below the historical average increase in health spending, at around 3.7% per year in real-terms (Charlesworth & Johnson, 2018).

Over the last decade we have seen total health expenditure increase both in terms of spending per capita, as percentage of GDP, and as percentage of general government expenditure (Table 3.1). Now approximately £1 in every £5 of government spending is on health. The majority of funding for health in the United Kingdom comes from public sources of revenue collected through general taxation: the three largest taxes being income tax, national insurance contributions and value-added taxation. The proportion of public funding for health has remained relatively unchanged over the last two decades at around 80% (Table 3.1). Private sources of revenue account for around 20% of health spending, through private medical insurance and

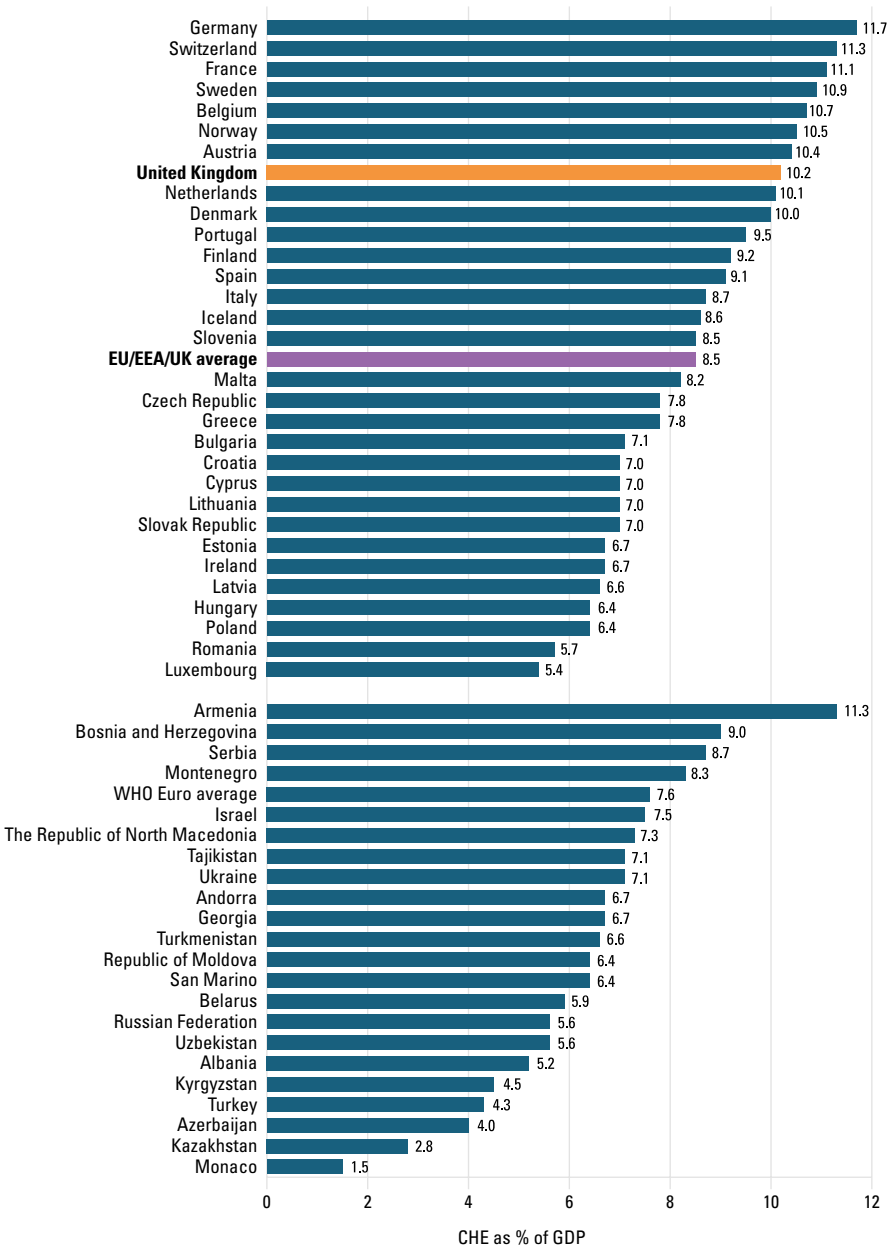
**TABLE 3.1** Trends in health expenditure in the United Kingdom, 2000–2019 (selected years)

| EXPENDITURE  | 2000 | 2005 | 2010 | 2015 | 2019 |
|--|------|------|------|------|------|
| <b>Current health expenditure per capita in International US\$ (Purchasing Power Parity)</b>   | 1927 | 2798 | 3645 | 4228 | 5087 |
| <b>Current health expenditure as % of GDP</b>  | 7.3  | 8.5  | 10.0 | 9.9  | 10.2 |
| <b>Public expenditure on health as % of total expenditure on health</b>                        | 76.8 | 81.3 | 82.3 | 80.1 | 79.5 |
| <b>Public expenditure on health per capita in International US\$ (Purchasing Power Parity)</b> | 1481 | 2276 | 2999 | 3389 | 4043 |
| <b>Private expenditure on health as % of total expenditure on health</b>                       | 23.2 | 18.6 | 17.7 | 19.8 | 20.5 |
| <b>Public expenditure on health as % of general government expenditure</b>                     | 15.8 | 16.8 | 17.3 | 18.8 | 19.7 |
| <b>Government health spending as % of GDP</b>  | 5.6  | 6.9  | 8.2  | 7.9  | 8.1  |
| <b>Out-of-pocket payments as % of total expenditure on health</b>                              | 17.1 | 13.3 | 12.9 | 15.1 | 17.1 |
| <b>Private insurance as % of total expenditure on health</b>                                   | 4.2  | 3.9  | 3.5  | 3.3  | 2.8  |
| <b>Capital health expenditure as % of total expenditure on health</b>                          | 3.8  | 4.5  | 4.1  | 3.0  | N/A  |

Source: WHO (2021).

out-of-pocket payments. Capital health expenditure peaked at 4.5% of total health spending in 2005 and has been decreasing since.

**FIG. 3.1** Current health expenditure as a share (%) of GDP in the WHO European Region, 2019



Source: WHO (2020).

Note: CHE, current health expenditure.

In 2019, the United Kingdom spent above the EU/European Economic Area (EEA) average on health as a share of GDP (Fig. 3.1), but less than other comparable high-income countries like Germany and France (Fig. 3.1). Per capita expenditure is lower than most western European countries, but at over \$5000 per person (purchasing power parity US\$), it is comparable to the EU/EEA average, despite the rate of increase slowing since 2010 following the financial crisis (Table 3.1). There is some variation between the countries in the United Kingdom: in 2018/2019 per capita spending was highest in Northern Ireland, at £2436, and lowest in England, at £2269, whereas in Scotland and Wales, spending per capita was £2396 and £2402, respectively (Table 3.2). Of note, each country experiences different health needs, with Wales and Scotland having a higher proportion of their populations aged 65 years and over (at 21.1% and 19.3%, respectively) than England (18.6%) (ONS, 2021g). There is also considerable variation across England, with per capita spending ranging from £2773 in London to £2021 in the South-East (Table 3.2).

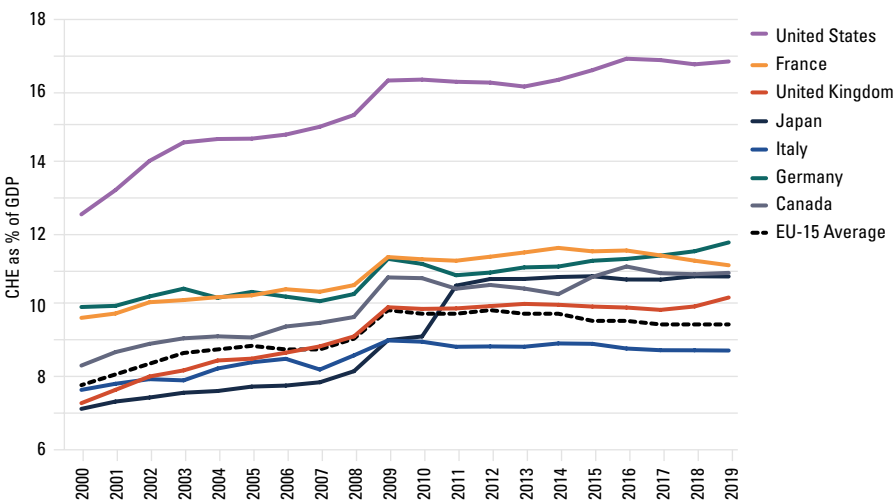
**TABLE 3.2** Health and social care spending per person across the United Kingdom (2018/2019)

| COUNTRY/<br>REGION       | HEALTH EXPENDITURE<br>PER HEAD (£) |
|--------------------------|------------------------------------|
| <b>United Kingdom</b>    | 2291                               |
| <b>Scotland</b>          | 2396                               |
| <b>Wales</b>             | 2402                               |
| <b>Northern Ireland</b>  | 2436                               |
| <b>England</b>           | 2269                               |
| North East               | 2445                               |
| North West               | 2460                               |
| Yorkshire and The Humber | 2203                               |
| East Midlands            | 2022                               |
| West Midlands            | 2244                               |
| East England             | 2031                               |
| London                   | 2773                               |
| South East               | 2021                               |
| South West               | 2109                               |

Source: HM Treasury (2020).

Total health expenditure as a share of GDP in the United Kingdom has consistently been below other high-income countries such as Germany, France, the United States and Canada (Fig. 3.2). When measured as health spending per capita, the United Kingdom remains below Germany and France, but is above the EU/EEA average (Fig. 3.3) The percentage of total health expenditure in the United Kingdom coming from public funds is above the EU/EEA average, similar to Germany but below most Scandinavian nations including Sweden, Norway and Denmark (Fig. 3.4). The percentage of public health expenditure as a share of total government spending is one the highest of all EU/EEA countries, with only Germany and Ireland being higher (Fig. 3.5). However, this needs to be interpreted in the context of the United Kingdom having relatively lower levels of government spending and taxation as a share of GDP compared with many other high-income countries (OECD, 2019a).

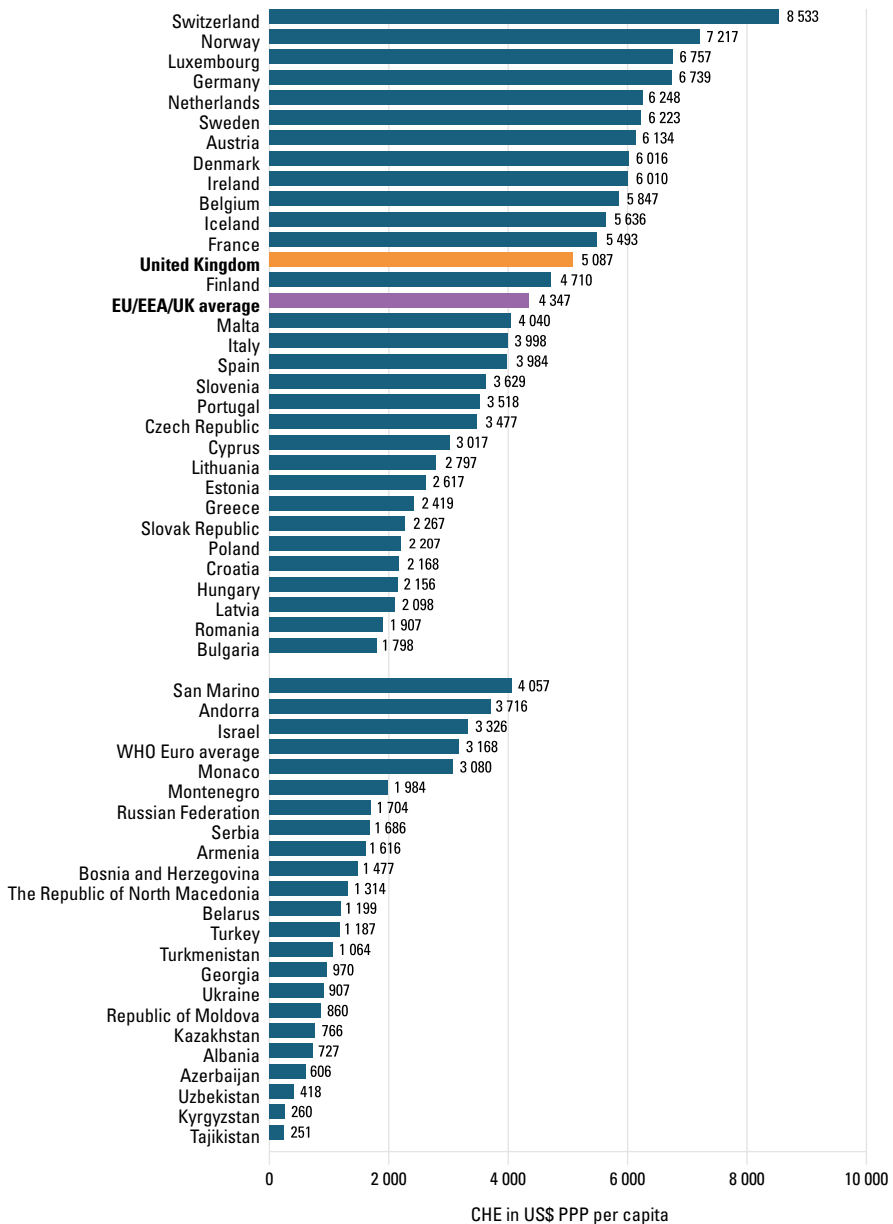
**FIG. 3.2** Trends in total public and private health expenditure as a share (%) of GDP in country and selected countries, 2000–2019



Source: WHO (2021).

Note: CHE, current health expenditure.

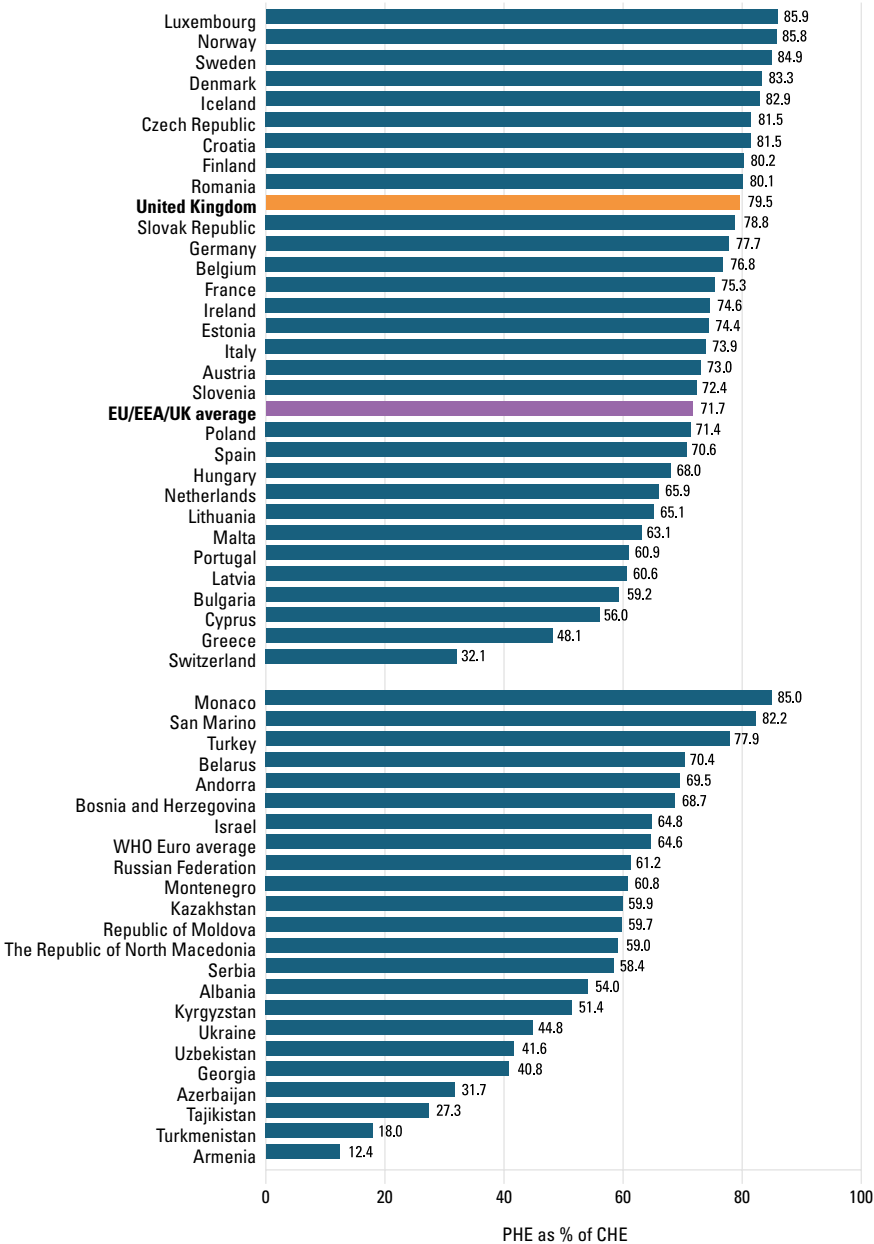
**FIG. 3.3** Current health expenditure in US\$ PPP per capita in the WHO European Region, 2019



Source: WHO (2020).

Note: CHE, current health expenditure; PPP, purchasing power parity.

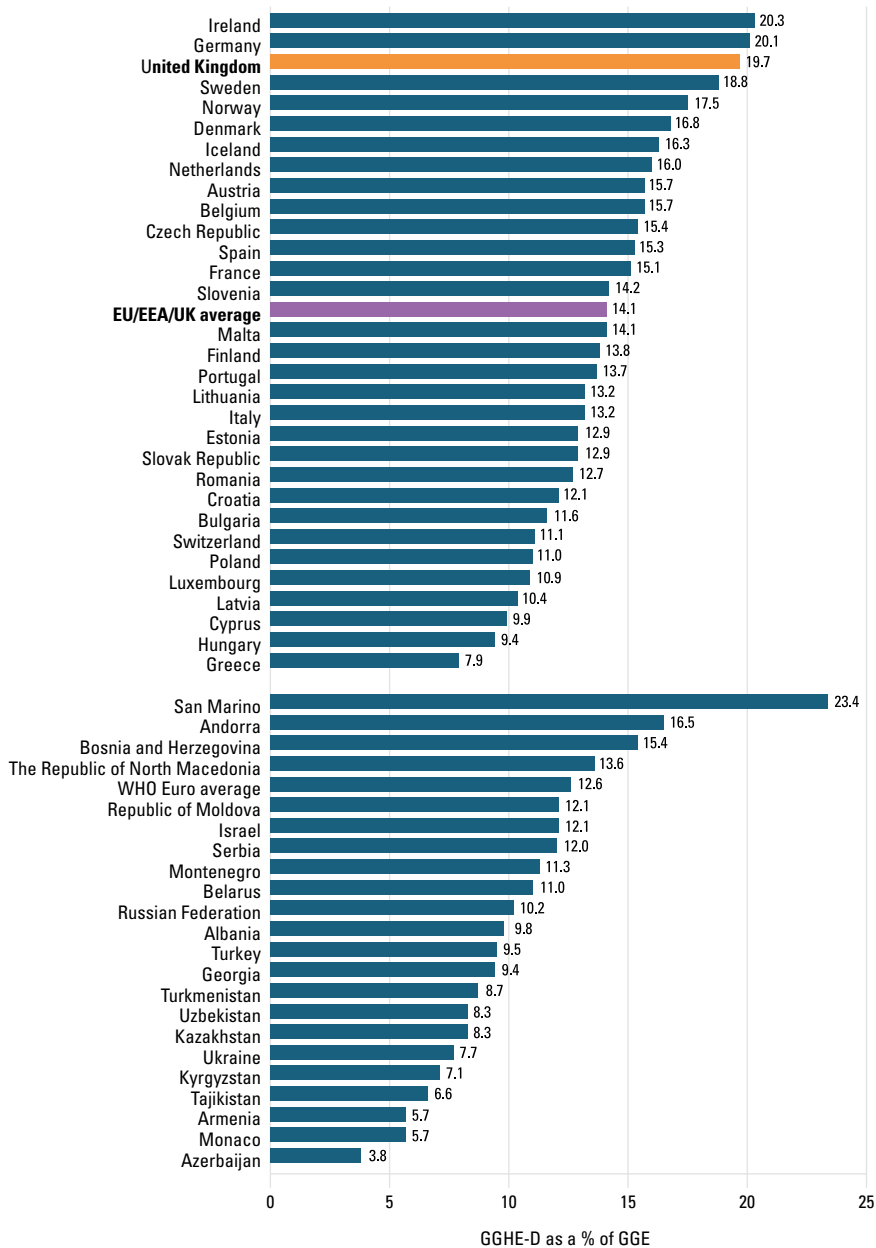
**FIG. 3.4** Public expenditure on health as a share (%) of current health expenditure in the WHO European Region, 2019



Source: WHO, 2020.

Note: CHE, current health expenditure; PHE, public health expenditure.

**FIG. 3.5** Public expenditure on health as a share (%) of general government expenditure in the WHO European Region, 2019



Source: WHO, 2020.

Note: CHE, current health expenditure; PHE, public health expenditure.

Focusing on the distribution of health expenditure across sectors, a benefit of a centralised NHS-based system is that only approximately 2% of health expenditure is spent on administration (Table 3.3), which is much lower than other social or private health insurance-based systems. The United Kingdom spends approximately 12% of health expenditure on pharmaceuticals, and approximately 5% on preventive care. Two thirds of health spending is accounted for by inpatient, outpatient and long-term care, therefore what the OECD classifies as health spending incorporates aspects of both health and social care spending. However, the definitions used by the OECD System of Health Accounts correlate poorly to what is traditionally understood as the hospital, primary and social care sectors in the United Kingdom (OECD, 2017). For example, a large proportion of what is classified as long-term care by the OECD System of Health Accounts reflects NHS-funded rehabilitation and community services, rather than just social care, which covers personal care and nursing home services. According to the DHSC annual accounts (Department of Health & Social Care, 2021d), approximately 50% of total public health expenditure is spent on the hospital sector, which provides both inpatient and outpatient care. However, as health and care become increasingly integrated, and pooled budgets emerge (such as the Better Care Fund, see Section 3.3.3, *Pooling and allocation of funds*), it is becoming increasingly difficult to ascertain the proportion of health expenditure between sectors.

**TABLE 3.3** Expenditure on health and care (as % of current health expenditure) according to function and type of financing, 2018

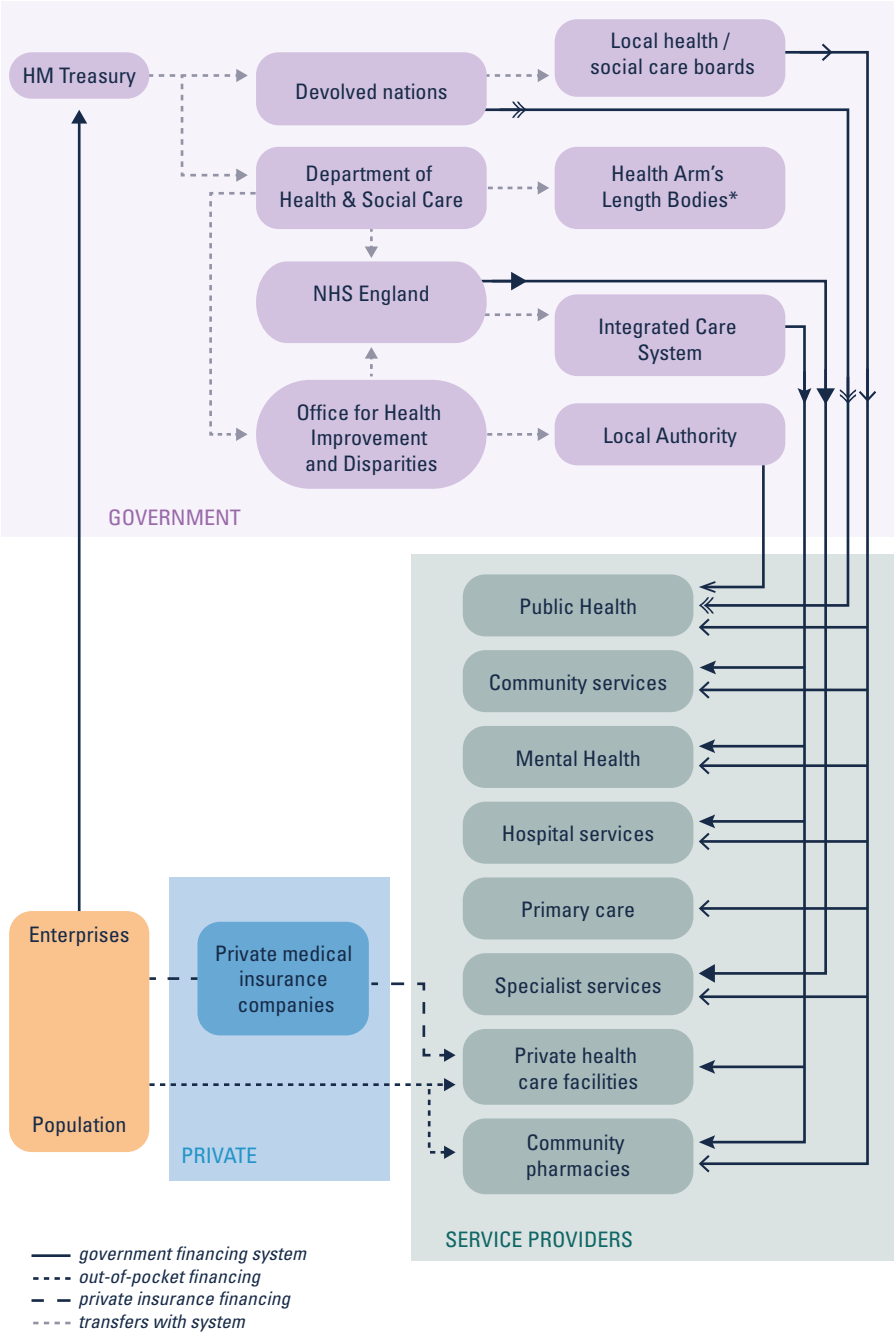
|                    | INPATIENT CARE | OUTPATIENT CARE | LONG-TERM CARE | ANCILLARY SERVICES | PHARMACEUTICALS | PUBLIC HEALTH | ADMINISTRATION | OTHER SERVICES | TOTAL |
|--------------------|----------------|-----------------|----------------|--------------------|-----------------|---------------|----------------|----------------|-------|
| General government | 21.5           | 21.7            | 11.7           | 1.8                | 7.0             | 3.7           | 1.0            | 2.4            | 77.8  |
| Private insurance  | 1.1            | 1.1             | 0.9            | 0.1                | ..              | 0.6           | 0.9            | 0.1            | 5.5   |
| Out-of-pocket      | 0.3            | 3.0             | 5.3            | ...                | 5.2             | 0.7           | ..             | ..             | 16.7  |
| Total expenditure  | 22.9           | 25.8            | 17.9           | 1.8                | 12.3            | 5.1           | 1.9            | 2.5            | 100.0 |

Source: OECD (2020).

Note: Out-of-pocket payments include dental care and prescriptions, as well as self-pay in outpatient for the private sector.



FIG. 3.6 Financial flows



Source: Authors' own.

Note: \*Health Related Arm's Length Bodies include the United Kingdom Health Security Agency, Care Quality Commission, Health Education England, NHS Digital, and National Institute for Health and Care Excellence.

## ■ 3.2 Sources of revenue and financial flows

As noted above, public financing, collected through general taxation, is the primary source of funding for health in the United Kingdom. The three largest taxes, which account for approximately two thirds of revenue, are income tax, national insurance contributions and value-added tax. The United Kingdom announced in 2021 a health and social levy, which from 2022/2023 would be funded by a 1.25% increase in national insurance contributions (UK Government, 2021h). Once revenue is collected by Her Majesty's Revenues and Customs (HMRC), it is distributed by HM Treasury to the DHSC in England and the devolved administrations according to the Barnett formula (Fig. 3.6). The DHSC then allocates funding to NHS England and arm's-length health agencies (see Section 3.3.3, *Pooling and allocation of funds*). In England, the specifics of these arrangement are currently the subject of proposals for legislative reform. Alongside public financing, private sources of funding for health care come mostly from a combination of private medical insurance (see Section 3.5, *Voluntary health insurance*, for more information) and out-of-pocket payments in the form of co-payments and direct payments (see Section 3.4, *Out-of-pocket payments*, for more information). Co-payments are costs shared with the NHS, and can include dental care and, in England, outpatient prescription charges. Direct payments can include private treatment, social care, general ophthalmic services and over-the-counter medicines.

## ■ 3.3 Overview of the statutory financing system

### ■ 3.3.1 Coverage

#### **BREADTH: WHO IS COVERED?**

A founding principle of the NHS is that health care is accessible to all legal United Kingdom residents, based on clinical need, regardless of their ability to pay. This major strength of the NHS means that United Kingdom residents enjoy one of the highest levels of protection against the financial consequences of ill-health in the world (see Section 7.3, *Financial protection*). Any resident can use NHS health care services, usually without paying at the point of access. Rules vary slightly across the United Kingdom in the

definitions, but generally, “ordinarily” resident people can access health care anywhere in the United Kingdom. “Ordinarily” means that the residence is not temporary and that the individual is in the country legally. “Overseas visitors” can receive emergency medical treatment for free, but subsequent care is usually charged. Other services provided free of charge irrespective of residence status include primary care services, family planning services, treatment for some infectious diseases and compulsory psychiatric treatment (UK Government, 2021e). Despite lobbying by the Royal College of Midwives (Wise, 2019), maternity care results in charges for non-ordinarily residents, creating barriers for many vulnerable and pregnant women to access cost-effective and preventive care.

Before the United Kingdom leaving the EU, members of the EEA were able to access all NHS services free of charge, with reciprocal arrangements in place for United Kingdom nationals living abroad. However, after 31 December 2020, EEA nationals are subject to the same rules as non-EEA nationals when accessing NHS services (UK Government, 2020e). Certain groups are exempt from charges when accessing NHS services irrespective of their nationality, including refugees, asylum seekers, children looked after by a local authority and victims of modern slavery or human trafficking (UK Government, 2021e). Barriers exist for undocumented migrants accessing NHS services, such as the fear that their data would be shared with immigration authorities. However, in 2018, after significant public backlash, the United Kingdom Government suspended a memorandum of understanding with the NHS Digital whereby patient data were being shared with the Home Office to track people breaking immigration rules (Campbell, 2018).

### **SCOPE: WHAT IS COVERED?**

The NHS does not have an explicit list of benefits; instead there is legislation that outlines broad categories of health care services that should or could be provided in the NHS (Mason, 2005). As discussed, there are benefits that are explicitly excluded, including prescription charges in England, dental care and optometry (NHS England, 2021p). However, exemptions exist for young and older people, and for those on low incomes. The NHS Constitution for England in 2009 established a set of rights for people working for and using the NHS, but this constitution mostly pulled together laws and rights that

were already established (see Section 2.8.3, *Patient rights*). Similar constitutions do not exist in Scotland, Wales or Northern Ireland. Instead, a set of published core principles and values are intended to guide governance and service delivery in these countries. Increasingly as ICSs and sustainability transformation partnerships have been developed across England, there have been calls to clarify and strengthen legislation regarding their responsibilities and patient rights.

Through delegation, the various health boards in England, Scotland, Wales and Northern Ireland decide what treatments will be funded when commissioning (purchasing) and delivering (providing) services. At the local level, commissioning bodies or health boards also have some autonomy in making decisions about what services they will provide to their populations, given budgetary constraints. This has led to complaints of postcode lotteries, wherein some areas will cover certain services or treatments that are not available in a neighbouring region. This is the case for services such as fertility treatment (Fertility Fairness, 2021), and some elective surgical procedures (Royal College of Surgeons of England, 2014). Several initiatives have been developed, which aim to even out postcode lotteries, address unwarranted clinical variation and improve equity between regions. From the health technology assessment perspective, NICE provides NHS organisations in England, Northern Ireland and Wales with cost-effectiveness analyses that can serve as guidance on how to allocate resources most efficiently (see Section 2.7.2, *Regulation and governance of provision*). Scotland refers to the Scottish Intercollegiate Guidelines Network for such guidance. Initiatives to address unwarranted clinical variation and reduce provision of low-value care, include the Getting it Right the First Time (NHS England, 2021h) and the Evidence-Based Interventions programme in England (NHS England, 2020c), Realistic Medicine in Scotland (NHS Scotland, 2018) and Prudent Healthcare in Wales (NHS Wales, 2019b).

## DEPTH: HOW MUCH OF BENEFIT COST IS COVERED?

As noted above, NHS provides care, free at the point of access to all, covering the spectrum from prevention, treatment, rehabilitation and palliation. Out-of-pocket payments do exist and include co-payments, and costs shared with the NHS for dental care and, in England, outpatient prescription charges

(Table 3.4). Direct payments can include private treatment, social care, general ophthalmic services and over-the-counter medicines. In total, out-of-pocket payments account for 16.7% of health expenditure in the United Kingdom (Table 3.3). It should be noted that the largest component is on long-term care, which is likely to reflect out-of-pocket payments to access adult social care, accounting for 5.3% of total health expenditure in the United Kingdom. For these reasons, out-of-pocket payments to access NHS services are likely to reflect a much lower percentage of total health expenditure. Broadly, the NHS provides a high level of protection from the financial consequences of ill-health, but important exceptions do contribute to inequity of access (Box 3.1).

### **BOX 3.1** What are the key gaps in coverage?

The existence of an NHS across the United Kingdom whereby services are generally accessed free at the point of delivery, irrespective of ability to pay, largely protects people from the risk of financial hardship resulting from medical expenses, with the United Kingdom reporting some of the lowest rates of catastrophic health spending in the world (Wagstaff et al., 2018). These crucial benefits are generally enjoyed across the United Kingdom, but exceptions provide stark reminders of the potential for adverse consequences. The major gaps in coverage in the United Kingdom health and care system relate to social care, prescription charges (in England), dental care and ophthalmic services. The exact cost, and terms and conditions for exemptions related to out-of-pocket payments for these gaps in coverage are discussed in Section 3.4, *Out-of-pocket payments*. Despite these exemptions, there is evidence of substantial difference in access to dental services by socioeconomic groups (Appleby, Merry & Reed, 2017). For social care, public funding is restricted (to a lesser extent in Scotland) so the potential for significant financial costs being borne by individuals is substantial. The Dilnot Commission on social care in England found that one in 10 older people could face catastrophic care costs of £100 000 in their lifetime (Dilnot, 2011). Nevertheless, access to social care is means tested, and only those with assets lower than a certain threshold are eligible to access publicly funded social care services (Table 3.5). To mitigate against the risk of catastrophic costs for social care, in late 2021, the United Kingdom Government announced that it would introduce a cap on the maximum amount that individuals would have to pay for social care services in England over their lifetime – initially set at £86 000 (€101 824) (see Section 6.2, *Future developments*). In 2021, both the Welsh and the Scottish Government launched consultations on the prospect of developing a National Care, free at the point of use for all citizens (see Section 6.2, *Future developments*).

### ■ 3.3.2 Collection

Nearly all public funds are sourced from taxes, collected by HMRC, the three largest being, income tax (26% of revenue), national insurance contributions (19% of revenue), and value-added tax (18% of revenue) (Adam, 2019). This financing system has been shown to be progressive overall (Box 3.2). Collecting funds via general taxation means that the cost of collection is low; however, so is the degree of transparency in how individual payments are linked to individual benefits. Scotland, Wales and Northern Ireland receive funding from HM Treasury in block grants determined by the Barnett formula (see Section 3.3.3, *Pooling and allocation of funds*). However, since devolution, the United Kingdom Parliament has passed legislation granting the devolved administrations increasing autonomy in their tax raising powers (Institute for Government, 2021). For some time, these were not used. However, in recent years they have resulted in small differences in stamp duty rates in Wales and Scotland, and most notably in income tax rates in Scotland (Institute for Government, 2021).

#### **BOX 3.2** Is health financing fair?

Analysis of United Kingdom taxation has concluded that the system is progressive overall (Adam, 2019). Broadly, the rich subsidise the poor and the employed subsidise the unemployed; and due to the positive association between health and income, the more healthy subsidise the less healthy, further reducing inequality. This is because of the impact of direct taxation, which imposes a higher tax rate for high-income earners compared with low-income earners. Indirect taxes, such as value-added tax, are not progressive, and instead have been shown to take up a roughly constant fraction of household budgets across the income distribution (Adam, 2019). The redistributive effect also depends on the utilisation of health care. Evidence from the NHS in England (Asaria, Doran & Cookson, 2016), estimates the lifetime hospital costs as substantially higher in more deprived populations, thereby increasing the redistributive effect. Other analysis has shown that the distribution of NHS resources is generally poverty reducing, with some notable exceptions including preventive care, diagnostic services and a few specific treatments (Cookson et al., 2016).

### ■ 3.3.3 *Pooling and allocation of funds*

Once funds are collected, they are pooled by the HMRC at the United Kingdom level. HMRC allocates a block grant to the DHSC. Further block grants that fund all devolved services (not only health), are also allocated to Northern Ireland, Scotland and Wales, which subsequently allocate a portion of funding to health.

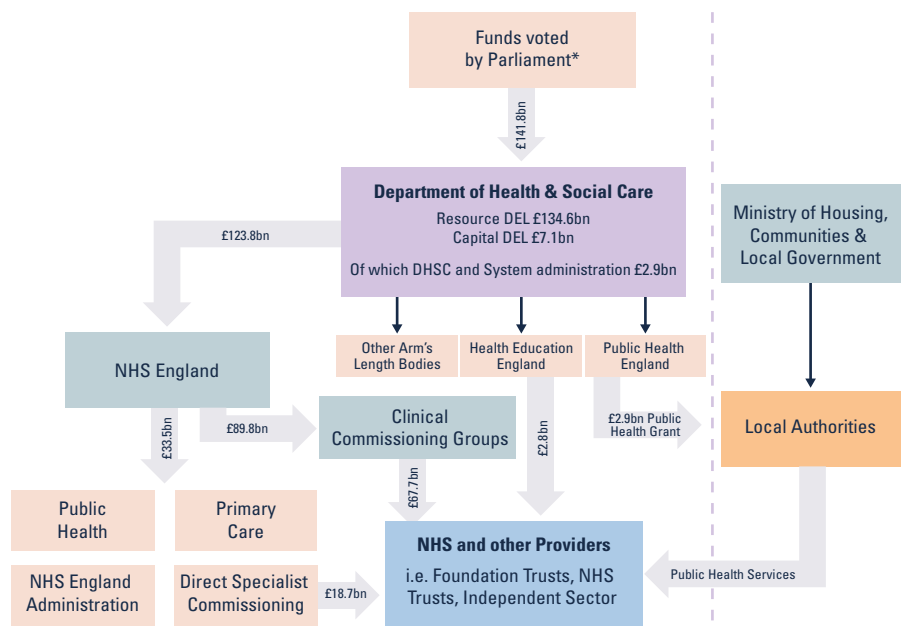
#### **ENGLAND**

In England, the DHSC allocates funds to the Office for Health Improvement and Disparities (previously Public Health England), which distributes the public health grant to local authorities, and to NHS England, which distributes funds to CCGs as well as to specialist and primary care services (Fig. 3.7). Further allocations are made to Health Education England, which is responsible for workforce development, and to other arm's-length bodies, such as NICE, the Care Quality Commission and NHS Resolution (National Audit Office, 2017b).

The public health grant allocated to local authorities is intended to be ring fenced for specific public health services; however, some local authorities have resorted to diverting ring-fenced funds to wider council services such as trading standards, citizens' advice bureaux, domestic abuse services, housing, parks and green spaces, and sport and leisure centres, all of which have experienced significant reductions in their budget (Iacobucci, 2014). It is difficult to ascertain to what extent this has occurred, because these reallocations have taken place under the remit of improving public health, and in many cases may have achieved their stated goals. However, the combined effect of these reallocations, and continued reductions in public health funding (it is estimated that, by the end of 2020/2021, the public health grant will require an additional £1 billion per year to restore it to 2015/2016 levels) (Buck, 2020), has resulted in challenges in adequately funding statutory public health services, such as those for substance misuse, sexual health, smoking cessation, obesity and school nursing (Buck, 2020).

CCGs, which receive block grants from NHS England, subsequently contract for community and mental health services, as well as for general hospital services in their districts. As of April 2015, following a recommendation

FIG. 3.7 Funding flows in the health and social care system, 2019/2020



Source: Department of Health & Social Care (2021d).

Note: This flow chart is correct for the year 2019/2020. In 2021, Public Health England was replaced by the Office for Health Improvement and Disparities and the United Kingdom Health Security Agency. From July 2022, Health Education England will be merged into NHS England, and Clinical Commissioning Groups will be replaced by Integrated Care Systems (see Section 2.2.2, *NHS in England*).

contained in the NHS Five Year Forward View (NHS England, 2014), CCGs have also been able to play a greater role in commissioning primary care services, if they choose to do so. NHS England uses weighted capitation to determine funding levels for CCGs. The needs of each CCG population are weighted according to age, input costs (such as staff and building expenses), social factors (such as deprivation) and measures of health status, as regularly reviewed and altered by the Advisory Committee on Resource Allocation. The level of funding for CCGs remained relatively unchanged from establishment until 2018/2019; however, allocations are expected to increase annually by 2.3% in real terms between 2018/2019 and 2023/2024 (Harker, 2019). As allocations for public health and Health Education England are separate to CCGs, and they were not included within the most recent NHS funding settlement in 2018 (UK Government, 2018b), their funding has not increased in line with broader NHS funding.



In an effort to provide more integrated social and health care, especially for older and disabled people, the Better Care Fund was announced in 2013. As of 2020/2021, the fund consists of £6.7 billion, collected from CCGs and local authorities. CCGs and local authorities are expected to agree a combined spending plan, which focuses on integrating care and avoiding hospital admissions by supporting people at home. Subsequent evaluations have concluded that while the fund has not achieved the expected reductions in emergency admissions to hospital or delayed transfers of care, the fund has encouraged integration of health and social care at the local level (National Audit Office, 2017a).

### The Barnett formula

The Barnett formula was devised in 1978 as a temporary measure, but it has carried through to this day as the main method by which the Treasury allocates funding to Northern Ireland, Scotland and Wales. The Treasury determines what changes in spending will be made in England, and then distributes funds according to a comparability percentage, which takes account of which powers are devolved, and population proportions. Each devolved administration receives a block grant, which is then distributed to departments such as health and education according to its own priorities and processes. This means that if England were to make increases to the NHS budget, overall funding to Scotland, Wales and Northern Ireland would be increased as well, but the devolved administrations do not have to make increases in funding to the same department.

The formula is controversial because it is not based on the assessed needs of each United Kingdom constituent country but instead on the aforementioned devolved powers and population proportions. For example, the formula does not take account of differing health needs between United Kingdom constituent countries, despite significant differences in health outcomes (see Section 7.5, *Health system outcomes*). As the formula only applies to uplifts in funding rather than historical allocations, it has resulted in higher spend per capita in the devolved nations compared with England (Keep, 2020). Although, over time there has been a convergence in spending per capita between all four United Kingdom constituent countries, referred to as the Barnett squeeze. The rate of this convergence has slowed over the last decade as public spending has grown only marginally in real terms. The Holtham Commission, established

in 2008, emphasised how funding for Wales was continuing to converge to levels seen in England despite higher need (Independent Commission on Funding & Finance for Wales, 2010). The Commission recommended the replacement of the Barnett formula with a needs-based formula; taking into account poverty levels, age of population and other factors, it estimated that Wales's additional need mean that its relative block grant funding per head needs to be around 114% to 117% of equivalent funding per head in England. In response, the United Kingdom and Welsh governments have agreed to gradually implement a needs-based factor for Wales, currently set at 105%, and it is intended to gradually increase this to 115% (Keep, 2020). To date, similar arrangements do not exist for Northern Ireland or Scotland.

### **NORTHERN IRELAND, SCOTLAND AND WALES**

Northern Ireland, Scotland and Wales, similar to England, allocate funds to their health boards and trusts (in the case of Wales) using weighted capitation formulae. In Northern Ireland, the approach differs in some respects, notably in the inclusion of an economies-of-scale adjustment that effectively links funds to the local hospital stock (McGregor & O'Neill, 2014). In Scotland, approximately 70% of health funding is distributed by the Health and Social Care Directorate to regional health boards according to a weighted capitation resource allocation formula designed and continually refined by the NHS Scotland Resource Allocation Committee (Public Health Scotland, 2021d). In Wales, there has been ongoing controversy regarding this resource allocation formula and whether it adequately reflects the costs of providing health services in rural and deprived areas, and before the COVID-19 pandemic there had been ongoing consultation regarding a potential reform (Public Accounts Committee: Revisiting NHS Finances, 2019).

#### ■ **3.3.4 *Purchasing and purchaser–provider relations***

There is no purchaser–provider split in Scotland and Wales, meaning that the NHS boards in Scotland and the LHBs in Wales both plan and fund services. In Northern Ireland, the purchaser–provider split has been maintained, in principle, but generally not enacted.

**BOX 3.3** Are resources put where they are most effective?

Although the United Kingdom has developed robust methods of health technology assessment, based on the cost per QALY threshold approach, this has not necessarily translated to broader, national-level decisions about how to allocate resources between sectors. For example, there appears to be bias towards treatment over prevention, despite analyses showing that the marginal spend on public health is three to four times more effective than NHS spending on health services, in terms of additional QALYs gained (Martin, Lomas & Claxton, 2020). This continued prioritisation of treatment over prevention has contributed to the reduction in public health capacity, as funding for public health services has fallen relative to front-line services (Finch, Bibby & Elwell-Sutton, 2018), over the last decade. However, in contrast, a major strength of the NHS in all four United Kingdom constituent countries is resource allocation to local commissioning bodies or health boards that explicitly accounts for differing geographic needs. Each country has its own resource allocation formulae that are continually refined drawing upon routinely collected data to ensure they are responsive to changing health needs. The benefits gained through systematic resource allocation in all four countries are generally good financial control, and consideration of equity of access by allocating resources based on need.

The purchaser–provider split also remains in place in England. Under the 2012 Health and Social Care Act in England, the internal market, which was established in 1991 by a Conservative government and adjusted in 1997 by a Labour government (after it had tried to abolish it), was reinforced. The more recent internal market in England consists of the purchasers (CCGs) and the providers of mostly non-primary care services. Section 75 of the 2012 Health and Social Care Act requires CCGs to put out to tender all medium to large size contracts (UK Government, 2012). The intended aim of encouraging competition among providers was to incentivise improving quality of service and containing costs. However, as the agenda has shifted more towards encouraging integration of services, the direction of travel in England has been to encourage partnerships at local level rather than competition. In November 2020, NHS England published a series of proposals to encourage integration, including the creation of 42 ICSs, each responsible for the planning and delivery of health and care services to populations of 1–3 million people, and revoking Section 75 of the 2012 Health and Social

Care Act (NHS England, 2020e). In 2021, the government published proposals for a Health and Care Bill which, among other measures, outlined a commitment to revoke Section 75 of 2012 the Health and Social Care Act (UK Government, 2021d).

The Any Qualified Provider (AQP) policy was introduced in 2012 in England, in an effort to give patients more choice of which service providers they access for a variety of community services and routine elective care. The policy pre-dates the 2012 Health and Social Act, as it was initially developed but not widely implemented under the previous Labour administration as the Any Willing Provider policy. In order to be on the AQP list, a provider must meet the following requirements: be registered with the Care Quality Commission; meet the terms and conditions of the NHS Standard Contract; accept NHS pricing (pricing is standard across AQP providers, so that patient choice is based on quality, not price); be able to deliver the agreed services; and assist local commissioners in meeting referral thresholds and patient protocols. It remains unclear to what degree the AQP policy has impacted patient choice, competition or quality of care. Some qualitative research has indicated confusion among managers and commissioners regarding their role in implementing the AQP policy (Jones & Mays, 2013; Walumbe, Swinglehurst & Shaw, 2016).

## ■ 3.4 Out-of-pocket payments

NHS care is mostly free at the point of access, but in some cases, patients do have to make co-payments (for goods and services covered by the NHS but requiring cost sharing) and direct payments (for services not covered by the NHS or for private treatment). However, as noted in Section 3.3.1, *Coverage*, some populations, such as individuals under 16 or over 60 years old, and those on low income, have recourse to reimbursement or exemption for some co-payments, although this varies across the United Kingdom.

### ■ 3.4.1 Cost sharing (user charges)

NHS dental care carries a charge throughout the United Kingdom, although exemptions exist for certain populations. In England, a three-tiered charging

bands system exists to cap charges for NHS dental care dependent on the complexity of the treatment received (Table 3.4). As of 2020/2021, Band 1 treatments cost £23.80, and include examination, diagnosis and advice. Band 2 treatments cost £65.20, and cover additional treatments such as fillings, root canal treatment and tooth extractions. Band 3 treatments cost £282.80, and including complex procedures such as crowns, dentures and bridges (NHS England, 2021i). Wales also uses a three tiered charging bands system, although with slightly lower charges than in England (Welsh Government, 2021c). As of 2020/2021, there is no tier system in Scotland and Northern Ireland, and instead patients pay up to 80% of the cost of their specific treatments up to a maximum of £384 per course of treatment.

**TABLE 3.4** User charges for health services (England)

| HEALTH SERVICE                       | TYPE OF USER CHARGE | EXEMPTION   | CAP ON OOP SPENDING (2020/21)   |
|--------------------------------------|---------------------|---|---|
| <b>Outpatient prescription drugs</b> | Co-payment          | <ul style="list-style-type: none"> <li>Under 16 years</li> <li>Between 16 and 18 years and in full-time education</li> <li>Above 60 years</li> <li>Eligible diagnoses including cancer, diabetes, epilepsy, hypothyroidism</li> <li>Unemployed</li> <li>Low household income (Authority)</li> </ul>   | £9.15 per item or £105.90 per year  |
| <b>Dental care</b>                   | Co-payment          | <ul style="list-style-type: none"> <li>Pregnant women</li> <li>Under 18 years</li> <li>Under 19 years and in full-time education</li> <li>Unemployed</li> <li>Low household income</li> </ul>   | £23.30 to £282.80 per treatment depending upon complexity   |
| <b>Ophthalmic services</b>           | Direct              | <p>The following groups are eligible for a voucher (ranging from £39.10 to £215.50, depending on the strength of the lenses) to help towards the cost of glasses or contact lenses:</p> <ul style="list-style-type: none"> <li>Under 16 years</li> <li>Between 16 and 18 years and in full-time education</li> <li>Eligible for an NHS complex lens voucher (a complex lens is of a high power)</li> <li>A prisoner on leave from prison</li> <li>Low household income</li> </ul> | NHS Hospital Eye Service: £70.00 for single vision lenses; and £113.80 in any other case. £57.00 per contact lens |

Source: Adapted from Department of Health & Social Care (2020b); NHS Business Service Authority (2020); NHS England (2020g).

Note: OOP, out-of-pocket.

NHS prescription charges in England are set at a flat rate of £9.15 per item as of 2020/2021. Patients can also pay for a yearly subscription service capped at £105.90 per year (Table 3.3). Exemptions cover a broad range of people, including individuals under 16 and over 60 years of age, those with low incomes, during pregnancy, and for chronic diseases such as diabetes or epilepsy, so that about 90% of all prescriptions are distributed free of charge (NHS England, 2021q). Prescription charges were abolished in Wales in 2007, in Scotland in 2011 and in Northern Ireland in 2010 (Kulakiewicz, Parkin & Powell, 2022). To date, there is no evidence that this has affected the growth rate of prescription items dispensed before and after the abolishment of charges (National Statistics, 2018; Williams, Henley & Frank, 2018). During the 2019 general election, the Labour Party proposed abolishing the prescription charge, estimating that approximately £575 million income would be forgone if the policy was implemented (Nicholas, 2019).

### ■ 3.4.2 *Direct payments*

Basic ophthalmic services are generally not covered under the NHS. Free eye tests are available to all in Scotland, and to eligible groups such as children and people over 60 years in England, Northern Ireland and Wales. Eligible patients can also get vouchers to help with the costs of corrective contact lenses or glasses. Over-the-counter medicines, by definition, are purchased directly and are not covered by the NHS. Travel costs incurred to get to NHS appointments may be reimbursed, so long as the patient has a referral and meets other conditions related to low income.

As discussed in Section 1.3, *Political context*, and Section 2.1, *Historical background*, the devolved administrations of the United Kingdom are responsible for social care within their jurisdictions. This has led to variations in eligibility criteria, and differences in direct payments for social care. For example, in Scotland, personal and nursing care are free, whereas in England all social care is means-tested (Table 3.5). This often leads to substantial costs incurred by older people needing social care support. The Dilnot Commission (2011) on Fairer Care Funding in England found that one in 10 people, at age 65 years, would face future lifetime social care costs of £100 000 (Dilnot, 2011). To provide improved financial protection, the Commission

recommended implementing a lifetime cap of individual contributions of £35 000, and a means-tested threshold of £100 000 (Dilnot, 2011). In late 2021, the United Kingdom Government finally announced that it would introduce a cap on the maximum amount that individuals would have to pay for social care services in England over their lifetime in 2023, initially set at £86 000 (€101 824) (see Section 6.2, *Future developments*).

TABLE 3.5 Social care eligibility criteria across the United Kingdom

|                                     | ENGLAND               | SCOTLAND             | WALES                | NORTHERN IRELAND                |
|-------------------------------------|-----------------------|----------------------|----------------------|---------------------------------|
| Number of responsible organisations | 152 local authorities | 32 local authorities | 22 local authorities | 5 health and social care trusts |
| Needs test?                         | Yes                   | Yes                  | Yes                  | Yes                             |
| Income test?                        | Yes                   | Yes                  | Yes                  | Yes                             |
| Asset test?                         | Yes                   | Yes                  | Yes                  | Yes                             |
| Lower asset test threshold          | £14 250               | £16 500              |                      | £14 250                         |
| Upper asset test threshold          | £23 250               | £26 500              | £30 000*             | £23 250                         |
| Services covered by the means test  |                       |                      |                      |                                 |
| Personal care                       | Yes                   | No                   | Yes                  | Yes                             |
| Nursing care                        | Yes                   | No                   | Yes                  | Yes                             |
| Residential care                    | Yes                   | Yes                  | Yes                  | Yes                             |

Source: HF/IFS (Charlesworth & Johnson, 2018).  
Note: \*The upper means test of £30 000 applies to those in receipt of residential care. The corresponding number for recipients of domiciliary care is £24 000. However, there is a cap on weekly payments of £70 for domiciliary care recipients.

■ 3.5 Voluntary health insurance

Private medical insurance or voluntary health insurance (VHI) can be purchased by individuals or by employers for their employees. Approximately 2 million people are covered by employer-paid private medical insurance, and 1 million are covered by independently purchased policies (Blackburn, 2020). People who are covered by private medical insurance cannot opt out of the public system, and private medical insurance is usually used to finance

a few select services not offered by the NHS or to access NHS-covered services more quickly. Coverage and utilisation of VHI is predominantly concentrated in London and the South East of England, accounting for nearly half of the total United Kingdom spending on VHI (Blackburn, 2020). Insurance companies charge premiums based on the scope of coverage, product options such as fixed-price or excess-charge policies, the nature and degree of risk the insurer takes on, and the loading charge related to the insurer's profits.

The Prudential Regulation Authority regulates financial institutions and is the overall regulator of private insurance companies in financial matters. The Prudential Regulation Authority's approach to failing insurers is to allow them to fail in a way that has as little impact as possible on policyholders. The Financial Conduct Authority seeks to protect consumers by ensuring that relevant markets function well and that consumers are treated fairly.

## ■ 3.6 Other financing

Charitable contributions are an additional source of funding for the health system in the United Kingdom. For example, NHS trusts and boards can run separate registered charities and accept donations in addition to public funds. These funds can be used for expenses such as medical equipment, medical research and specialist training to improve patient facilities. Community hospitals, that provide step-down care for frail and older patients following discharge from hospital, are also reliant on volunteers and charitable donations from organisations such as League of Friends. Some services, like air ambulances in Wales, depend entirely on charitable funding, and others, like hospice care, are heavily dependent, resulting in significant inequity in access to end-of-life care (see Section 5.10, *Palliative care*) (Dixon et al., 2015).

## ■ 3.7 Payment mechanisms

Methods of payment for commissioning (that is, purchasing) services from hospitals have remained consistent in Scotland, Wales and Northern Ireland,



but significant changes to equivalent services have been made in England since 2003. Meanwhile, the varying systems of payment for health care personnel were reformed in 2003 and 2004, with the intention that the resulting contracts for GPs, consultants (that is, hospital specialists), junior doctors, other NHS staff, dentists and pharmacists would be mostly uniform throughout the United Kingdom. However, in recent years there has been greater divergence in systems of payments for health care professionals across the United Kingdom, most notably for junior doctors and GPs, for example, the junior doctor contract agreed between the British Medical Association (BMA) and the United Kingdom Government in 2016 has still only been introduced in England and not in Scotland, Wales or Northern Ireland (BMA, 2020c). A brief overview of provider payment mechanisms is provided in Table 3.6.

TABLE 3.6 Provider payment mechanisms

| PROVIDER              | MECHANISM  |
|-----------------------|--|
| GPs                   | Predominantly paid via risk-adjusted capitation, with some fee-for-service activities such as vaccination and decreasing use of pay-for-performance as part of quality outcomes framework. Increasing trend for GPs to work as salaried doctors.   |
| Hospital consultants  | Salaried doctors with top-up payments to incentivise performance, known as clinical excellence awards in England, distinction awards in Scotland and commitment awards in Wales.   |
| Dentists              | Activity-based payments; however, increasing experimentation with blended payment methods across the United Kingdom, which include a combination of capitation and activity-based payments.  |
| Community pharmacists | A combination of retained profits (difference between what they pay for drugs and the amount the DHSC reimburses them), fixed budgets, fee-for-service, pay-for-performance and payments for over-the-counter medications.   |
| Hospitals             | Activity based payments for units of care delivered based upon tariffs set out within the Payment by Results programme (in England) for both inpatient and outpatient care. Currently, the NHS in England is midway through reforming this system to introduce a blended payment system that includes a combination of a fixed budget and pay-for-performance. |
| Social care           | Care homes operate as independent private institutions that are paid on a per diem basis.  |

Source: Authors own analysis.

### ■ 3.7.1 *Paying for health services*

The major differences in purchasing of health services across the United Kingdom are between England and the devolved administrations. Over the last two decades, England has developed a system of activity-based payments for hospitals, called the Payment by Results (PbR) programme. Whereas, in Wales and Scotland funds are allocated to health boards who are expected to manage their own funds when delivering health services. In Northern Ireland, the Health and Social Care Board negotiates contracts with each health and social care trust. There are more complex arrangements for specialised and emergency ambulance services, which vary between devolved administrations. For example, in Wales each health board makes an annual financial contribution to the Welsh Health Specialised Services Committee, to cover the costs of specialist treatment for their residents (NHS Wales, 2021a).

#### **PAYMENT BY RESULTS IN ENGLAND**

In 2002, the government introduced the idea of a national tariff on hospital activity in England. Until that point, commissioners paid hospitals in block contracts. These contracts did not take into account how much activity hospitals actually saw, or what type of health issues they treated, whereas the new tariff would do that. In 2003, the Payment by Results tariff system was put into place. The system started with some elective inpatient procedures, and has since expanded to include most acute care, covering about 60% of the activity in an average hospital (Marshall, Charlesworth & Hurst, 2014).

Hospital stays, from admission to discharge, are assigned to a Healthcare Resource Group code; if there are various episodes of care within one hospital stay, the dominant episode is the one coded for. Tariffs are determined by taking national average costs (providers submit their own costs), adjusting for changes in costs over time due to factors like technology updates, and finally, adjusting according to the market forces factor, which factors in differences in costs by location (Marshall, Charlesworth & Hurst, 2014).

Some critics argue that the tariffs do not accurately reflect hospital costs, particularly for specialist care for complex patients, and in response, a system of top-up payments has been developed. Recently, there has been increasing debate about whether the PbR system is fit for purpose. Although

PbR has been effective in incentivising increased activity, it has provided less incentive for the integration of care or prevention of ill health (Marshall, Charlesworth & Hurst, 2014). NHS England has acknowledged these issues and in 2020 it began a long overdue reform of the PbR system into a blended payment system, which includes a combination of a fixed block payment, a quality-based or outcomes-based element, and a “variable” element, which would reflect to what degree waiting lists are reduced for elective care (NHS England, 2020b). This new payment system was originally introduced for emergency care and adult mental health services in 2019/2020, and intended to be gradually phased in for other services over several years. However, steps have been taken to accelerate implementation after block contracts for hospitals were introduced during the COVID-19 pandemic.

## **PAY FOR PERFORMANCE IN ENGLAND**

In addition to PbR, Pay for Performance schemes have been introduced in order to encourage improved quality of care.

The Commissioning for Quality and Innovation programme makes a proportion of an NHS provider income contingent upon meeting a series of both nationally and locally agreed quality indicators across four key areas: prevention of ill health, mental health, patient safety and best practice pathways (NHS England, 2019b). The scheme covers NHS providers across acute care, mental health, primary care and specialised services. The value of Commissioning for Quality and Innovation has historically been 2.5% of the total contract value, but from 2019/2020 onwards this has been reduced to 1.25% (NHS England, 2019b).

Best practice tariffs were introduced in 2010 with the aims of increasing the use of best practice and reducing the variation in quality of care in high impact cases such as acute stroke care, myocardial infarction, heart failure and major trauma (NHS England, 2019a). The DHSC allows for best practice tariffs to be established in areas for which there is strong evidence for, and clinical consensus on, what constitutes best practice. They typically involve designating a proportion of PbR tariff payments dependent upon meeting a series of pre-agreed quality measures. Best practice tariffs are reviewed and refined each year, and progress is monitored through a series of national audits such as the Myocardial Ischaemia National Audit Project.

### ■ 3.7.2 *Paying health workers*

Despite devolution, each constituent country draws on a common United Kingdom, European and global labour market, with United Kingdom-wide regulatory and professional standards facilitating the movement of workers from one constituent country to another. To avoid creating perverse incentives that could lead to a relative over or undersupply of workforce in each constituent country, the terms and conditions of health care professionals are broadly similar across the United Kingdom. For example, the remit of the Agenda for Change (AfC) agreement, introduced in 2004, which applies to all NHS staff except some senior managers, doctors, dentists and community pharmacists is United Kingdom-wide (NHS Employers, 2004). Similarly, so is the remit of the Doctors' and Dentists' Pay Review Body. However, in recent years there has been some divergence between constituent countries, most notably for GPs and junior doctors.

#### **GPS**

GPs work under the General Medical Services (GMS) Contract negotiated between the BMA and NHS Employers, first introduced in 2004. The contract is held with practices, not individual GPs, which was the previous arrangement. A fixed national global sum funds the essential services portion of the contract. The global sum is determined according to the Carr-Hill formula, which is a refined weighted capitation formula that takes into account the sex and age of the patients, the number of new patients, the morbidity profile of the population, rurality and the market forces factor. Despite being one of the stated objectives of the formula, subsequent analysis of the impact of deprivation on practice payments has shown little effect (Levene et al., 2019). In 2018, a new GMS contract was agreed by the BMA, Scottish Government, integration authorities and health boards, which included several components such as a new funding formula with £23 million additional investment, a minimum income guarantee, and a plan for health boards to gradually take ownership of GP premises over a period of 25 years (BMA, 2020b).

Since the implementation of the GMS contract there have been relatively small increases in earnings for GPs, and in real-terms using 2018/2019

prices, pay peaked in 2005/2006 at £146 000 in England, reducing to £117 300 in 2018/2019 for partners (NHS Digital, 2020b). This could be one factor contributing to a growing number of GPs choosing to work on a salaried basis rather than as a partner, who have organisational and financial responsibility for running a practice. However, other factors have been suggested as contributing, including increased flexibility, better work–life balance, as well as an increasing trend of vertical integration between hospitals and GP services, whereby hospitals employ GPs on a salaried basis (Oxtoby, 2019).

Alongside GMS contracts, it is also possible to pay for GP services through either Personal Medical Services or Alternative Provider Medical Services (APMS) contracts (Beech & Baird, 2020). Personal Medical Services agreements are entirely negotiated at the local level without input from the Department of Health or the BMA. In Scotland, these are known as Section 17c practices. There are no Personal Medical Services agreements in Wales or Northern Ireland. These contracts are gradually being phased out but in 2018/19, 26% of practices in England held one (Beech & Baird, 2020). The APMS contract typically involves organisations such as private companies or third-sector providers providing primary care services that are perceived as beyond that of “core” general practice. A review of APMS contracts found significant variation in how they were used, but examples included for out-of-hour services, walk-in services, prison health and specialist services for asylum seekers, refugees or persons who were homeless (Heins, Pollock & Price, 2009). In 2018/2019, 2% of practices held this type of contract (Beech & Baird, 2020).

In addition to these three core contracts, GP practices can agree to provide enhanced services, which may meet specific needs of the local population, support patient choice and otherwise provide additional services. These include nationally negotiated Directed Enhanced Services that all GPs must offer, such as vaccination programmes, and the locally negotiated Local Enhanced Services, such as mental health support programmes, that vary by area (Beech & Baird, 2020). In many cases, groups of GP practices, usually through the aforementioned Primary Care Networks, will develop arrangements to provide these additional services to local populations collectively.

The Quality and Outcomes Framework (QOF), established in 2004, is a voluntary extra payment structure intended to link payments to quality of

care, and has been used across the United Kingdom with some variation in the choice of indicators. QOF has four domains: Clinical, Public Health, Additional Services and Quality Improvement. Each domain consists of a set of achievement measures, known as indicators, against which practices score points according to their level of achievement. As of 2020/2021, practices score points based on achievement against indicators, up to a maximum of 567 points worth £194.83 each (BMA, 2021b). The QOF programme was more expensive than anticipated because the government underestimated baseline quality of care. In the first year, most practices achieved maximum performance and therefore total income increased up to 25% (Roland & Guthrie, 2016). Slowly over time, the proportion of funding allocated to QOF has reduced. Although this increase in income did initially improve engagement from GPs, the scheme has become increasingly unpopular as GPs have struggled with the administrative burden at a time when their workloads were already increasing due to increased demand and workforce shortfalls. In 2016, Scotland chose to drop the QOF scheme, and instead replace it with “quality circles”, which are networks of 10–15 practices who work collaboratively on quality improvement projects (Roland & Guthrie, 2016). Evaluation of the QOF scheme has found mixed findings but generally concluded that QOF resulted in relatively limited additional improvements in quality, but reduced socioeconomic inequalities in delivery of care (Roland & Guthrie, 2016).

## CONSULTANTS/SPECIALISTS

Since 1948, when the system was founded, NHS consultants (that is, hospital specialists), who are salaried employees, have also been allowed to work in private practice in addition to their work for the NHS. Full-time consultants could earn up to 10% of their NHS pay via private practice, and part-time consultants could earn without restriction, provided they gave up one-eleventh of their NHS salary. From 2000, the Department of Health pushed for a change in the contract to more directly manage consultants' performance. Doctors resisted the new contract, which was seen as restrictive, but it was signed in 2003. The contract defined what constitutes full-time employment, introduced new elements that made up a consultant salary, including merit awards, and removed all restrictions on earnings from private

practice. There are concerns that the new contract has not achieved its goal of increased productivity among consultants, and that the lack of objective measures used in awarding the clinical excellence payments is problematic (National Audit Office, 2007). The basic salary scale was raised by the new contract, and the average consultant salary has increased since then. As of 2020/2021, the NHS Consultant pay scale starts at £82 096 and rises to £110 683 after 19 years of service (BMA, 2021a). In addition to the basic salary and any income from private practice, consultants' income can also be supplemented by merit awards (known as clinical excellence awards in England, distinction awards in Scotland and commitment awards in Wales). The Consultant contract has been subject to negotiations between the BMA, NHS Employers and the government for several years; however, negotiations have stalled because each side has been unable to agree on suitable pay rises (BMA, 2020a).

## JUNIOR DOCTORS

Junior doctors (that is, doctors in training) hold their own contract, negotiated between the BMA and NHS Employers. Following industrial action in England, which resulted in 2 separate days when junior doctors withdrew their labour for routine care, and 1 day when they withdrew their labour for both routine and emergency care, a new junior doctor contract was agreed in 2016. The BMA compromised on the largest point of disagreement, which was classifying Saturday and Sunday as normal working days. However, the BMA negotiated other terms including a 10% increase in basic pay, and the creation of a new role, "guardians of safe working" to ensure hospitals do not force junior doctors to work excessive hours (BMA, 2020d). The contract was revised again in 2019, with additional terms including improvements to rest and safety entitlements, and a guaranteed annual pay uplift of 2% (BMA, 2020d). Northern Ireland, Wales and Scotland are yet to implement this new junior contract and junior doctors in these countries continue to work under the previous contract. Junior doctors may train to be GPs or consultants, and their pay bands differ according to length of training. As of 2020/2021, pay scales vary from £28 243 for junior doctors in the first year after graduation to £52 036 for junior doctors 6 years into a specialty training programme (BMA, 2020e).

## **NURSES, MIDWIVES, HOSPITAL PHARMACISTS AND OTHER NHS STAFF**

All staff in the NHS, except for doctors, dentists, community pharmacists and some managers, are paid salaries according to the AfC pay structure. Staff begin on one of nine pay bands depending on the skill level and experience necessary for the job; the Job Evaluation Scheme determines where each job falls in the pay bands, and staff can progress in annual increments along the pay points found within each band. Nurses who work in GP practices may be paid under the same pay structure, but the GP practice they work for may choose to deviate from this pay structure. Health care assistants are typically paid according to the Band 3 AfC pay scale, between £19 737 and £21 142 as of 2020/2021 (NHS Employers, 2020). Newly qualified nurses begin on the Band 5 AfC pay scale, between £24 907 and £30 615 as of 2020/2021 and newly qualified midwives and hospital pharmacists begin on the Band 6 AfC pay scale, between £31 365 and £37 890 as of 2020/2021. However, these staff groups can progress onto higher bands if they take on more senior roles.

## **NHS DENTISTRY**

Dentists are private contractors, and so may work entirely within the NHS, entirely outside it, or a mix of the two. Dentists in the United Kingdom have historically been reimbursed according to activity-based payments, which has not incentivised prevention of poor oral health. Most dentists in England and Wales continue to operate under a contract agreed in 2006, which reimburses dentists according to the units of dental activity that they complete, which correspond to a points system set up for banded dental activities. There appears to be consensus between the dental profession and the government that dentists should move to a blended payment model that combines capitation and activity payments more closely aligned to the GP payment model, but that this reform should be gradually phased in to avoid disruptions in income (British Dental Association, 2021). Several prototype reimbursement models remain in pilot phase in both England and Wales, with plans to extend a mandated blended contract once full evaluation of the pilot programme is completed. In 2018/2019, self-employed dentists (both principal and associate dentists) in England had on average, a taxable



income of £68 600, with similar earnings in Wales, Northern Ireland and Scotland (NHS Digital, 2020a).

## COMMUNITY PHARMACISTS

Community pharmacists are paid from a combination of retained profit of their pharmacies (the difference between what they pay for drugs and the amount the DHSC reimburses them), the global sum and the budgets of their commissioning bodies. Pharmacies receive a dispensing fee per item (negotiated by the Pharmaceutical Services Negotiating Committee). Pharmacies receive practice payments from their commissioning bodies; these payments are related to the quantity of prescriptions dispensed, at fixed fees within pay bands.

Over the last decade, amendments to the community pharmacy contracts across the United Kingdom have focused on expanding their role and facilitated greater integration with primary care. In England, quality payments were introduced in 2016 to incentivise additional action across several domains including infection prevention and control, antimicrobial stewardship, prevention and risk management (NHS England, 2020h). In 2019, a new 5-year contract was agreed, which also included the development of an NHS Community Pharmacist Consultation Service, via which NHS providers can refer service users to community pharmacists (NHS England, 2019c). Similar contracts have also been agreed in Wales (PSNC, 2020), Northern Ireland (Department of Health Northern Ireland, 2020d) and Scotland (Community Pharmacy Scotland, 2021).

# 4

## Physical and human resources

### ■ Chapter summary

- The number of hospital beds in the United Kingdom has declined over several decades, reflecting increasing use of day surgery, reduced length of stay, and an intention to shift to provide care closer to home in the community; however, the United Kingdom has been left with little spare capacity to respond to acute shocks such as the COVID-19 pandemic.
- The United Kingdom has lower levels of diagnostic equipment than most other high-income countries, which contributes to how the United Kingdom continues to report poorer cancer survival than most other high-income countries.
- Primary care has developed relatively comprehensive electronic health record systems, but many hospital departments still rely heavily on paper notes. The COVID-19 pandemic has accelerated progress in this area but more needs to be done to achieve improved levels of digital health maturity.
- The United Kingdom has lower levels of doctors and nurses than most other high-income countries; although, the United Kingdom compares more favourably when focusing on total health and social

care employment, all United Kingdom countries still report significant vacancies, particularly for nursing staff.

- There have been larger increases in the hospital workforce compared with the community workforce, both for doctors and nurses, despite a policy agenda to provide care closer to home in the community; this reflects misaligned incentives between the two sectors and insufficient long-term workforce planning.
- The United Kingdom health and care system has a long history of reliance on foreign staff. Brexit has already impacted the ability of the United Kingdom to recruit health and care staff from the European Union, and even with increases in domestic recruitment, the sustainability of the United Kingdom health and care workforce is likely to depend upon how competitive the United Kingdom is within the international health and care labour market.

## ■ 4.1 Physical resources

### ■ 4.1.1 *Infrastructure, capital stock and investments*

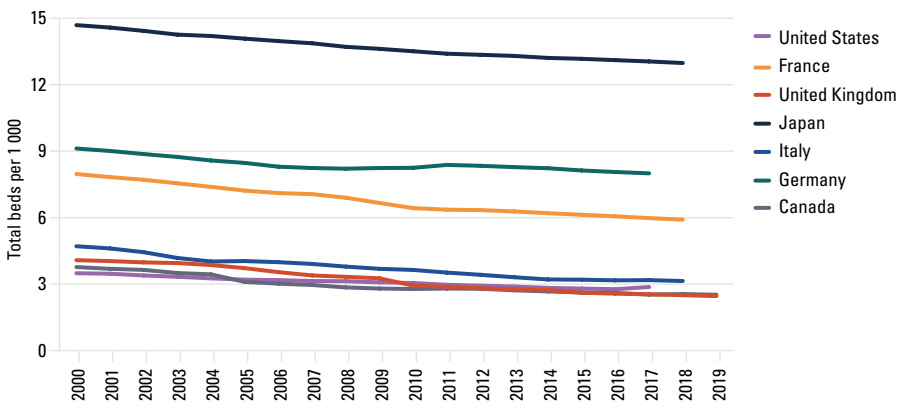
#### INFRASTRUCTURE

The overall number of hospital beds in the United Kingdom is lower than most other high-income countries, and has decreased between 2000 and 2018, from 4.1 to 2.5 beds per 1000 people (Fig. 4.1). This trend is seen in most high-income countries, and in part, reflects trends such as an increasing use of day surgery, reduced length of stay and a shift to provide care closer to home in the community. Numbers of hospital beds do also vary across the United Kingdom (Box 4.1), with England having lower numbers of hospitals beds per 1000 people than in Scotland, Wales and Northern Ireland. During the COVID-19 pandemic it became clear that the NHS in each United Kingdom country had little excess capacity, particularly in critical care (Rocks & Idriss, 2020). In response, the United Kingdom quickly expanded critical capacity, and invested in the development of temporary hospitals known as Nightingale Hospitals, which were often converted convention centres, although these were ultimately underutilised.

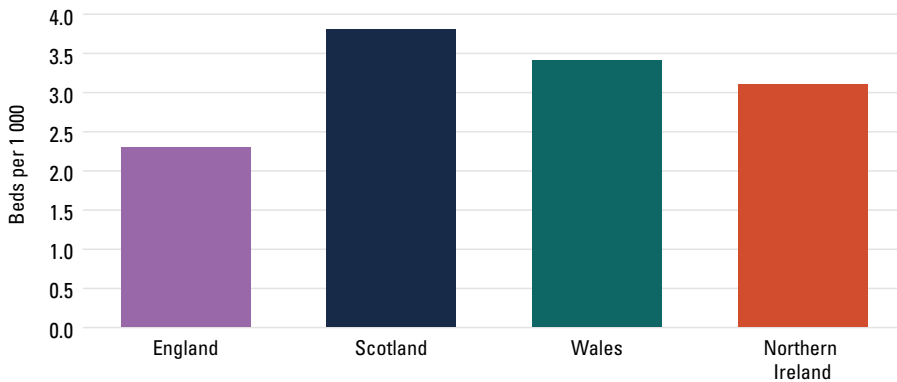
**BOX 4.1** Distribution of health facilities across the United Kingdom

Across the United Kingdom, England has 2.3 hospital beds per 1000 people compared with 3.8 per 1000 in Scotland, 3.4 per 1000 in Wales and 3.1 per 1000 in Northern Ireland (Fig. 4.2). It is difficult to explain these variations; however it is likely that a combination of political, historical, managerial and financial factors has contributed. As discussed in Chapter 3, there is a higher level of public spending per capita in Northern Ireland, Scotland and Wales, than in England. However, even with the highest level of funding per capita, Northern Ireland still has a lower number of hospital beds than in Scotland and Wales. There have also been limited opportunities for leadership and strategic vision to support hospital building programmes in Northern Ireland between 2017 and 2020, a period of 3 years when Northern Ireland has been without a government (Griffin, 2019). In England, the government has committed to a hospital building programme over the next decade, which aims to build 40 “new” hospitals by 2030 (UK Government, 2020d).

**FIG. 4.1** Total hospital beds per 1000 population in the United Kingdom and selected countries, 2000–2019



Source: OECD (2020).

**FIG. 4.2** Hospital beds per 1000 population across the United Kingdom, 2020

*Source:* Authors using data from Department of Health Northern Ireland (2020a); NHS England (2021c); NHS Wales (2020); ONS (2020d) and Public Health Scotland (2020).

## CURRENT CAPITAL STOCK

No figures exist for the total land size and value of NHS properties across the United Kingdom, but the Naylor Review, conducted in 2017, found that NHS provider trusts in England occupy over 1200 sites across 6500 hectares of land (Naylor, 2017). The same review found that 18% of the NHS estate predates the formation of the NHS, and that approximately £5 billion was required to address maintenance backlogs.

Since the beginning of the NHS in 1948, there has been a decline in the number of hospitals across the United Kingdom as a whole. This is mainly the result of two reasons: the shift of acute medical and surgical care from smaller hospitals to larger ones, in the interests of quality and safety; and the closure of long-stay hospitals for older people with continuing care needs, mental health and learning disabilities, because those services have moved into the community.

As of 2017, there were 135 acute non-specialist NHS trusts, 17 acute specialist NHS trusts, and 54 mental health trusts in England, most of which consist of several hospital sites and are concentrated in urban areas (NHS Confederation, 2017). Although the total number of hospitals has declined, there have been several hospital building programmes. The latest being the Health Infrastructure Plan, launched in 2018, which has committed £3.7

billion of funding to build new hospitals and upgrade outdated facilities (UK Government, 2020d). Broadly, there is a nationwide focus on increasing the number of fit-for-purpose hospitals sited properly for optimal use, rather than attempting to update old buildings that may never be fit for purpose and may be sited in the wrong place for current and future needs.

## **REGULATION OF CAPITAL INVESTMENT**

There is a new capital regimen in England reflecting recent change in how organisations are expected to work in ICSs and a desire to enable faster access to capital for critical safety issues. In 2021, £3.9 billion was allocated to ICSs for operational investments (NHS England, 2020d). The allocation is determined based on asset values and backlog maintenance. A further £1.5 billion is for large-scale strategic projects and £0.8 billion is for national investments in information technology. Providers remain legally responsible for maintaining estates and delivering their own capital investment plans. The ICSs are responsible for the financial control of capital across all providers and hold and allocate capital for primary care and learning disability services. GPs may work in buildings provided by the NHS but may also finance these privately with the costs being reimbursed on the basis of the rental value of the building.

## **INVESTMENT FUNDING**

Capital expenditures are funds used to acquire land and premises, and works on buildings, equipment and so forth. Investment in NHS capital generally comes from public funds and the use of public–private partnership models of funding for major rebuilding has now ceased following an announcement by the United Kingdom Government in 2018 (Booth, 2018). The NHS Estates and Facilities Division maintains an asset register for all NHS estates in England, and it monitors and reports on all transactions related to NHS property. In Scotland, the Capital and Facilities Division within the Health Finance and Infrastructure Team undertakes a similar function.

When an NHS trust, health board or CCG wants to use capital above a certain budget threshold, they must present a business case to the appropriate

authority and obtain permission. In England, that means that applicants, with support from commissioning support units, present business cases to a specialist Project Appraisal Unit (NHS England, 2020a). Potential candidates for investment could include new and replacement health care facilities, clinical equipment or health information systems. Similar arrangements exist in each United Kingdom constituent country; in Northern Ireland, for health and social care trusts; in Scotland, for health boards; and in Wales, for health boards and trusts.

Large schemes are dependent upon building a business case and multiple approval processes. Prioritisation is by the DHSC and can be subject to political influence. There is no agreed masterplan for major redevelopment of hospitals or other major buildings and the prioritisation process is only linked to the service planning system within the NHS to the extent that proposals for major investment require the support of local stakeholders and to be consistent with the ICS strategy. Major schemes require approval by HM Treasury (Booth, 2018; Steel & Cylus, 2012).

#### ■ 4.1.2 *Medical equipment*

Medical products and services were purchased piecemeal before 2000 but, after the formation of the NHS Purchasing and Supply Agency in England, purchasing was largely centralised until the Agency was disbanded in 2010. All non-clinical purchasing was passed to the public sector procurement agency, Government Procurement Service, while pharmaceuticals procurement was passed to the Commercial Medicines Unit under the DHSC. The purchasing of other medical supplies, including personal protective equipment, is undertaken by NHS Supply Chain. In Scotland, all procurement is undertaken by NHS National Procurement, which is part of NHS National Services Scotland. In Wales, the Shared Services Partnership purchases on behalf of the LHBs and trusts. In Northern Ireland, the Procurement and Logistics Service, part of the Business Services Organisation, which is an organisation that provided business support functions to the health and social care sector in Northern Ireland, manages procurement.

According to the latest available data, the United Kingdom has fewer computed tomography (CT) scanners and magnetic resonance imaging (MRI) units per capita than other countries in Europe (Table 4.1). As

the United Kingdom continues to have poorer cancer survival than most other high-income countries (Allemani et al., 2018), in part due to delayed diagnosis, there is a growing need to review diagnostic capacity across the United Kingdom. This will be challenging because a significant proportion of diagnostic capacity in the United Kingdom, particularly for MRI scanners, is supplied through private providers, rather than within NHS hospitals.

**TABLE 4.1** Items of functioning diagnostic imaging technologies (MRI units, CT scanners) per 1000 population in the United Kingdom, 2019

|             | PER MILLION POPULATION | EU-15 AVERAGE |
|-------------|------------------------|---------------|
| MRI units   | 7.4                    | 29.6          |
| CT scanners | 8.8                    | 41.5          |

Source: OECD (2021b).

■ **4.1.3** *Information technology and eHealth*

The United Kingdom, unlike many other countries, has a more mature digital infrastructure in primary care than in the hospital sector. United Kingdom general practice successfully implemented relatively comprehensive electronic health record systems in the early 2000s, predominantly supplied by three major vendors; EMIS (56% market share), SystemOne (34% market share) and Vision (9% market share) (Kontopantelis et al., 2018). These include a range of embedded functionalities including drop-down menus of available diagnostic, prescribing and referral options. Other functions include computerised decision support and the ability to record details of clinical encounters, order, track and interpret investigations, and organise referrals to secondary care and other community and specialist providers. The hospital sector has a broader array of international and national vendors that provide a choice of comprehensive, modular electronic health records and more standalone packaged solutions (for example, focusing on ePrescribing). The result is a range of different systems with poor interoperability, and in many cases, certain hospital departments still rely upon paper notes. However, the emergence of the COVID-19 pandemic has



accelerated the shift towards electronic record systems because of their benefits in relation to infection control. Policy-makers and NHS stakeholders in all four United Kingdom constituent countries remain wary of health information technology initiatives, after witnessing the fallout of England's £12.8 billion, now abandoned, National Programme for Information Technology (NPfIT). A public inquiry emphasised how poor contracting decisions led to limited scope to renegotiate contracts despite weak programme management and oversight and delays in developing and deploying health information technology systems (House of Commons, 2013). Other factors contributed to the NPfIT's downfall such as poor usability of the electronic health records deployed (some of which were based on United States billing systems), the failure of health information technology systems to adapt to local needs and contexts, and the lack of NHS expertise in transformative change management. Some parts of the programme remain, and other programmes have been introduced as well. These include Summary Care Records, in which patient information is stored to allow emergency and out-of-hours staff faster access to clinical data; Choose and Book, an online booking system for appointments; the Electronic Prescription Service; NHSmail for internal mail; Picture Archiving and Communications Systems to store and transmit patient imaging; and a GP payment system.

All four United Kingdom constituent countries maintain a national strategy to strengthen the implementation of health information technology systems, and have national health information organisations responsible for the collation, analysis and reporting of health care data (see Section 2.6, *Health information systems*). In 2015, Wales published *Informed Health and Care – A Digital Health and Social Care Strategy for Wales* (NHS Wales, 2015). Wales is positioned to become the first United Kingdom country to offer a patient-controlled personal health record to all citizens, using a privately developed platform known as Patient Knows Best (Limb, 2017). In 2016, Northern Ireland published an *eHealth and Care Strategy* (Northern Ireland Health and Social Care Board, 2016), and is investing in a single digital health record known as ENCOMPASS, expected to be fully implemented by 2025. In 2018, Scotland published *Scotland's Digital Health and Care Strategy: Enabling, Connecting and Empowering* (Digital Health & Care Scotland, 2018), and intends to consolidate its IT systems into a national platform. In England, the DHSC published *The Future of Health care: Our*

*Vision for Digital, Data and Technology in Health and Care* (Department of Health & Social Care, 2018a), followed by NHS England publishing the NHS Long-Term Plan in 2019 (NHS England, 2019d). The latter includes an overarching commitment to provide an interoperable “local health and care record” to all citizens by 2024. Positively, the development of health information technology has accelerated in each United Kingdom constituent country during the COVID-19 pandemic through, for example, the rapid increase in availability of remote consultations to minimise transmission of infection, efforts to develop mobile applications to monitor the spread of disease, and the development of shielded patients lists to issue guidance to vulnerable patients.

## ■ 4.2 Human resources

### ■ 4.2.1 *Planning and registration of human resources*

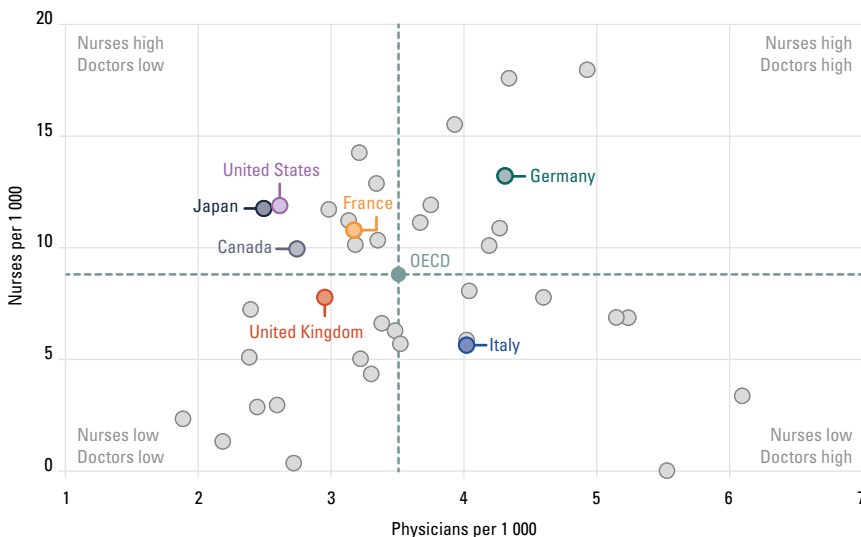
Overall planning for the health and care workforce across the United Kingdom is the responsibility of its four constituent countries. With a view of improving both recruitment and retention, each United Kingdom constituent country maintains a long-term workforce strategy (Anderson M et al., 2021a). Workforce planning for United Kingdom-trained clinical staff in the NHS begins with recruitment to higher education programmes in medicine, nursing, pharmacy and many other health and care professions. The numbers of publicly funded places on such programmes, apart from a small number associated with private university entry, are determined by bodies including Health Education England, NHS Education for Scotland, Health Education and Improvement Wales and the Northern Ireland Medical & Dental Training Agency. Regulatory standards are shared across constituent countries, with the remit of regulatory bodies such as the GMC, General Dental Council (GDC) and Nursing & Midwifery Council (NMC) being United Kingdom-wide. Furthermore, the scope of the medical royal colleges extends across the United Kingdom, and they play a crucial role in setting educational standards and issuing guidance.

## ■ 4.2.2 Trends in the health workforce

The NHS in England is the world's fifth largest employer, with, as of 2020, around 1.5 million employees (Rolewicz & Palmer, 2021). In Scotland, as of 2021, the NHS employs around 178 000 staff (Public Health Scotland, 2021c); in Wales, as of 2020, it employs around 100 000 (StatsWales, 2021b) and in Northern Ireland, as of 2020, it employs around 70 000 (Department of Health Northern Ireland, 2020b). A further 2 million people in the United Kingdom are employed to deliver social care services. In the figures below, note that because of differences in the way data are recorded and physicians are defined, they are not fully comparable across United Kingdom constituent countries.

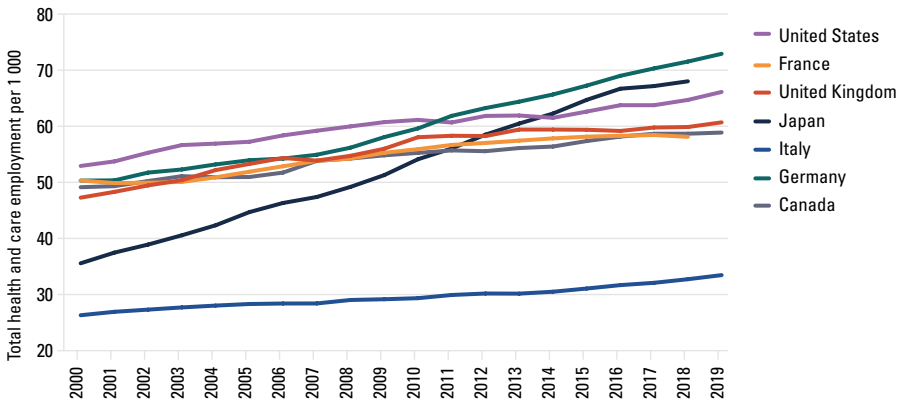
The United Kingdom is exceptional among other high-income countries, in having lower levels of both nurses and doctors per 1000 population (Fig. 4.3). The degree to which this impacts quality and/or access to health care is unclear. It is possible that this discrepancy is explained by the fact that the United Kingdom makes greater use of non-clinical staff and allied health care professionals, as the United Kingdom compares more favourably to other high-income countries when looking at total numbers of the health and care workforce (Fig. 4.4).

**FIG. 4.3** Practising nurses and physicians per 1000 population in OECD countries, 2018



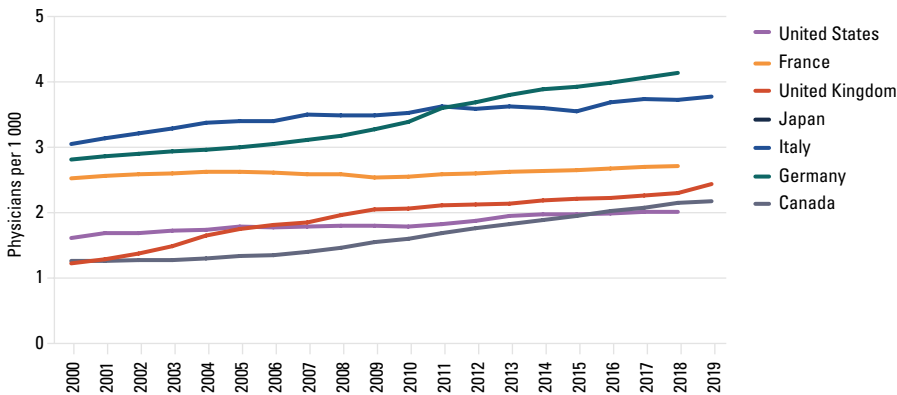
Source: OECD (2021c).

**FIG. 4.4** Total health and social care employment per 1000 population in the United Kingdom and selected countries, 2000–2019



Source: OECD (2021c).

**FIG. 4.5** Practicing physicians per 1000 population in the United Kingdom and selected countries, 2000–2019

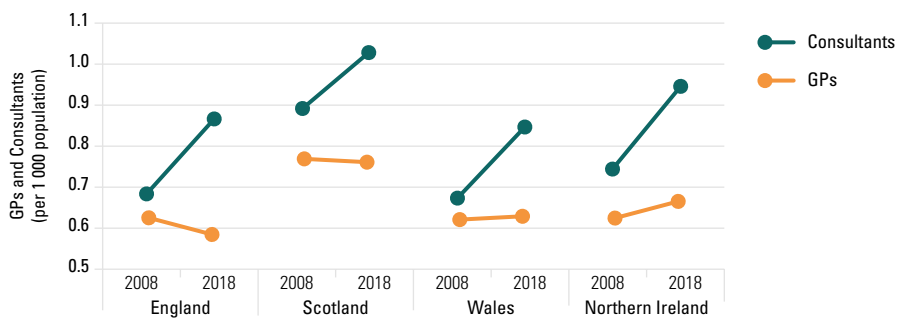


Source: OECD (2021c).

The number of physicians working in the United Kingdom has been steadily increasing for the past 20 years, as shown in Fig. 4.5. In 2000, there were 1.98 physicians per 1000 people, and by 2019 that number had risen to 2.95. However, the United Kingdom still has lower numbers of physicians than many other high-income countries. Despite an ongoing policy agenda to shift care from hospital closer to home within the community, the majority of this increase in physician numbers has been concentrated in hospital consultants (Fig. 4.6). This is a trend seen in all United Kingdom constituent

countries, which all continue to experience challenges in improving recruitment and retention of the GP workforce. There have been ongoing attempts to increasing training numbers for GPs across the United Kingdom, and in England there were 4000 training places filled in 2021 compared with 3157 in 2017 (HEE, 2021); however, it will take several years for this increase in training places to impact the GP workforce.

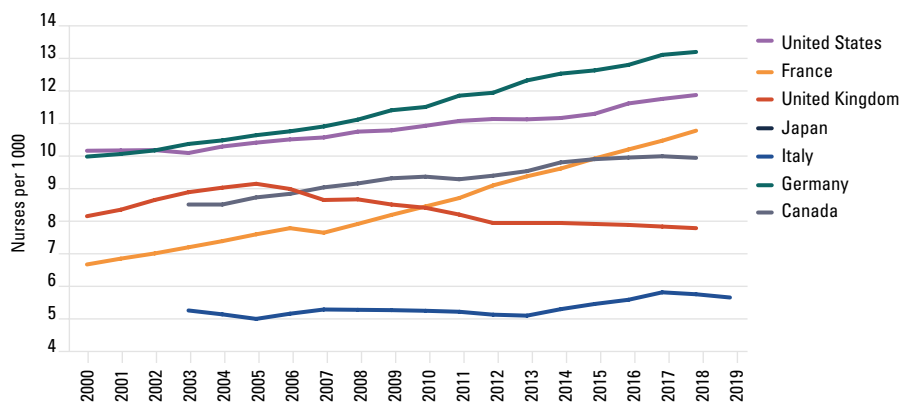
**FIG. 4.6** Numbers (headcount) of GPs and hospital consultants across the United Kingdom per 1000 population, 2008–2018



Source: Authors’ analysis using data from Department of Health Northern Ireland (2020c); NHS Digital (2020g); ONS (2020d); Palmer (2019); Public Health Scotland (2019); StatsWales (2021b).

Note: These data only show headcount of GPs, as full-time equivalent data are not available in all United Kingdom countries.

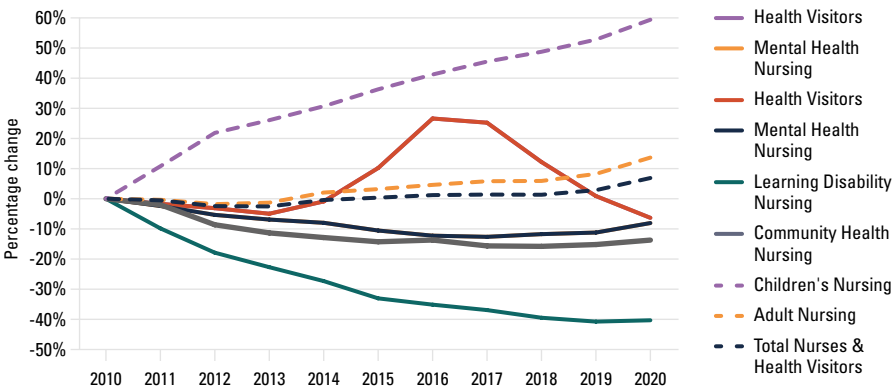
**FIG. 4.7** Practicing nurses per 1000 population in the United Kingdom and selected countries, 2000–2019



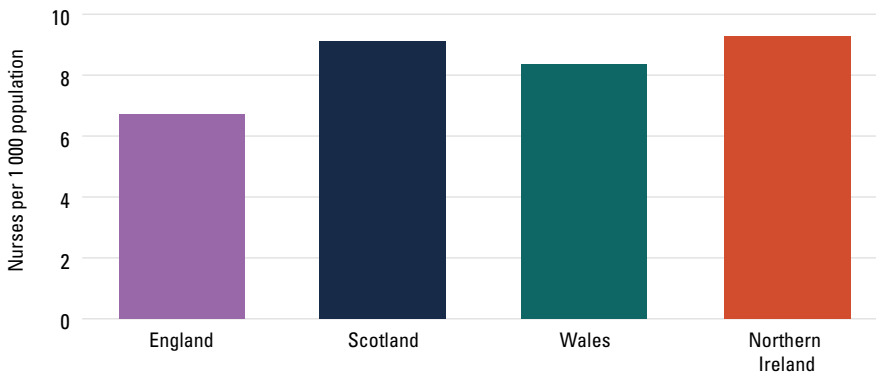
Source: OECD (2021c).

The United Kingdom has lower levels of nurses per 1000 population than most other high-income countries (Fig. 4.7), and this trend has continued over the last decade. These reductions in nursing numbers are more acute among different types of registered nurses. In England, between 2010 and 2020, adult and children’s registered nursing numbers (full-time equivalent) increased by 14% and 59%, respectively, whereas mental health nurses and learning disability registered nurses fell by 8% and 40% respectively (Fig. 4.8). However, some mental health nurses and learning disability nurses are employed by independent organisations that are commissioned by the NHS and therefore are not captured by these data. This outcome may have been driven partially by the Francis Inquiry published in 2013 (Francis, 2013), launched in response to concerns about patient safety in an NHS hospital, that recommended an increase in hospital nursing numbers, thus distorting the employment of nurses to the acute sector at the expense of community health services. There are also different nursing staffing levels across the United Kingdom, with lower numbers of nurses per 1000 population in England, compared with Scotland, Wales and Northern Ireland (Fig. 4.9).

**FIG. 4.8** Total percentage change in registered nursing numbers (full-time equivalent) in England, 2010–2020



Source: NHS Digital (2020g).

**FIG. 4.9** Numbers of nurses per 1000 across the United Kingdom, 2019

Source: Authors' analysis using data from Department of Health Northern Ireland (2020c); NHS Digital (2020g); ONS (2020d); Public Health Scotland (2019); StatsWales (2021b).

#### **BOX 4.2** Distribution of health workers

As with capital, there are lower numbers of nurses in England, compared with Scotland, Wales and Northern Ireland (Fig. 4.9). For doctors, England has lower numbers compared with Scotland and Northern Ireland, but similar numbers to Wales. Nursing vacancy rates are higher in England, at 10% in 2020 (NHS Digital, 2021d), than Scotland at 6% in 2019 (Public Health Scotland, 2019) and Northern Ireland, at 4% in 2020 (Department of Health Northern Ireland, 2020c). There are also substantial regional differences in nursing vacancy rates at 13% in London and 8% in the North of England in 2020 (NHS Digital, 2021d). However, vacancy rates should be interpreted with caution, as they also reflect mobility of workforce, and should be interpreted in conjunction with turnover and total fill rate (Buchan, 2010). This variation could, in part, be explained by funding levels, (see Section 3.3.3, *Pooling and allocation of funds*), and higher levels of need in each country. England was also the only country to remove nursing bursaries from 2017, which reportedly has led to 31% reduction in applications for nursing courses (RCN, 2020). Since 2016, Wales has also had legislation of safe staffing levels for nurses in hospital, which may also contribute to higher nursing staffing levels (Welsh Government, 2016). An alternative explanation is that these different staffing levels are due to relative differences in economy-wide average earnings between United Kingdom constituent countries and regions, with higher average earnings in England than in Scotland, Wales and Northern Ireland (Francis-Devine, 2021), and in London/South East compared with the North of England. This impacts recruitment as except for a London supplement, pay of NHS staff is uniform across the United Kingdom, and therefore in regional labour markets with higher economy-wide average earnings, workers may seek employment in other sectors than the health care sector, where reimbursement is more lucrative (see Section 3.7.1, *Paying for health services*).

### ■ 4.2.3 *Professional mobility of health workers*

The NHS has a long history of a heavy reliance on foreign staff. Data collected from OECD countries show that the United Kingdom is second only to the United States in being the main destination for foreign-trained doctors and nurses (OECD, 2019c). The largest proportion of foreign-trained doctors in the United Kingdom originate from India (Baker, 2021), with whom the United Kingdom Government has a formal arrangement (NHS Employers, 2022). However, a substantial number also originate from Pakistan and Nigeria (Baker, 2021), countries the United Kingdom has committed to not actively recruit from (for example, targeting individuals through actions by recruitment agencies) as part of the DHSC Code of Practice for International Recruitment (Department of Health & Social Care, 2021a). The NHS and social care sectors are also heavily reliant on the supply of EU workers, which before Brexit, was facilitated by the free movement directive. In 2019, approximately 6% of the health and care workforce in England were from Europe, compared with 6% in Northern Ireland, 5% in Scotland and 3% in Wales (ONS, 2019). Within England, approximately 12% of the health and care workforce in London are from Europe, compared with 3% in the North East. The impact of Brexit on the United Kingdom health and care workforce is yet to be fully realised and is unclear because of concurrent changes such as the introduction of a compulsory English language test and the emergence of the COVID-19 pandemic, but the United Kingdom has already seen a considerable drop in the number of EU-trained nurses registering to work in the United Kingdom (NMC, 2020). The United Kingdom Government has introduced a new Health and Care Visa so that the NHS can hire non-United Kingdom workers; however, many essential social care roles are not eligible, which has created a significant barrier to addressing social care staffing shortfalls (Portes, Oommen & Johnson, 2020).

In terms of professional mobility between United Kingdom constituent countries, most professional groups can move freely as United Kingdom-wide regulatory and professional standards ensure that United Kingdom-trained and accredited staff can move from one United Kingdom constituent country to another.



#### ■ 4.2.4 *Training of health personnel*

There are minor variations between England, Scotland, Wales and Northern Ireland, but generally the training and career paths of health workers are as below.

### **PHYSICIANS**

To train in medicine, students spend 4–6 years, dependent upon whether they have already completed an undergraduate degree or choose to do an optional intercalated degree (a further undergraduate degree undertaken in 1 year instead of 3 years), on an undergraduate degree course, which takes place under the supervision of the United Kingdom GMC. Continuing professional development is required of all doctors. Doctors show their proficiency in continuing professional development by two methods: the annual appraisal process (one for GPs and one for hospital consultants), and the 5-yearly revalidation process, which is more detailed than the annual appraisal, requiring more in-depth evidence, introduced in 2012.

### **DENTISTS**

To train as dentists, students attend 5 years of undergraduate dental school. After undergraduate school, they register with the United Kingdom GDC to practise as a dentist. More training is required for dental specialists, such as orthodontists. Specialists usually work in hospitals. Dentists are revalidated through the GDC, a process that began in 2011.

### **NURSES AND MIDWIVES**

To train as nurses or midwives, students attend a 3- or 4-year pre-registration degree course. Midwives must have a midwifery degree, or, if they are already a nurse, they can do a short additional training programme. After training, nurses and midwives register with the United Kingdom NMC to practise. Nurses and midwives have to re-register annually, and every 3 years revalidate

with the NMC to illustrate that they have met the standards required for safe practice in their chosen area of work. In 2018, a new nursing associate role has been introduced with the intention to support registered nurses and free them up to focus on more complex care. A nursing associate completes a 2-year training programme and, although not implemented yet, there is an expectation that nursing associates will at some point be allowed to progress to graduate level nursing.

## PHARMACISTS

To train as pharmacists, students must obtain a 4-year Master of Pharmacy postgraduate degree. After that, they spend a year training in a community or hospital pharmacy, and then register with the Great Britain General Pharmaceutical Council in order to practise.

### ■ 4.2.5 *Physicians' career paths*

Once graduated, physicians enter a 2-year foundation programme, including placements in several specialty and health care settings. Specialist training begins after F1 and F2 rotations. Applications to specialty training are coordinated on a United Kingdom-wide basis, with candidates scored according to interviews and predefined criteria that reflect previous experience and academic achievements. Medical royal colleges create curricula and assessments for specialist training. The GMC approves curricula, assessments and the distribution of training posts (specialty registrar posts).

Specialists train in hospitals for another 5–8 years, and then join the GMC Specialist Register and can be appointed to a consultant post. GPs train for at least another 3 years – 1 year in hospitals and 2 years in a GP practice. They then join the GMC's GP Register and can work as a GP. Employers offer a range of other contracts to meet service needs and the choices of doctors. These contracts are recruited through competitive entry and require various levels of experience and training. Once qualified, doctors can also choose to develop managerial roles such as becoming a clinical director, or within local CCGs (see Section 2.2, *Organisation*, for an overview of the role of CCGs).

#### ■ 4.2.6 *Other health workers' career paths*

There are many different career paths for nurses. They can take roles as specialist nurses in most branches of medicines and surgery, and have increasingly been granted more autonomy in their practice, developing competences in undertaking procedures and prescribing (Imison, Castle-Clarke & Watson, 2016). Nurses can also undergo additional training to become advance nurse practitioners who are increasingly used as independent clinicians in their own right to provide primary care services and out-of-hour cover in hospitals. Similarly, there have been efforts to expand the role of pharmacists, paramedics, physician associates and a range of other clinicians, particularly in primary care, as part of a broader initiative to maximise the use of multidisciplinary teams to meet changing demand for health care services.

# 5

## Provision of services

### ■ Chapter summary

- The Office for Health Promotion and Disparities and the United Kingdom Health Security Agency have recently replaced Public Health England as the agencies responsible for health promotion and protection. Public Health Scotland, Public Health Wales and the Public Health Agency in Northern Ireland exist in the other United Kingdom constituent countries to undertake these functions.
- Despite ongoing funding and workforce issues, the United Kingdom enjoys a high-quality primary care service that provides continuous and comprehensive care, while acting as a first point of contact to access other health care services.
- The last two decades has seen a trend towards greater independent sector provision of publicly funded elective care in England as the government has sought to promote competition between health care providers. However, Scotland, Wales and Northern Ireland have chosen not to adopt this policy.
- The United Kingdom has developed multiple triage mechanisms to prioritise and manage demand for patients accessing emergency and urgent care services based upon whether their illness is life-threatening or time-sensitive. A United Kingdom-wide target that 95% of patients should be seen and provided with a management plan

within 4 hours has been used over the last two decades, although it has been argued it should be replaced in favour of a broader collection of access and quality measures.

- Northern Ireland is the only United Kingdom constituent country where NHS and social care is fully organisationally integrated, although efforts to promote integration in England, Scotland and Wales have accelerated in recent years. Despite this, several barriers persist across all United Kingdom constituent countries to facilitate meaningful integration.
- Specialist and non-specialist palliative care services are provided in hospitals, hospices and in patients' homes, and are reliant upon a combination of NHS funding and charitable donations. As a result, there is patchy provision and inequities in access to services across the United Kingdom.
- There have been historical disparities in funding, priority, respect and political will afforded to mental health compared with physical health since the NHS's inception. Legislation in England has begun to address this through the concept of "parity of esteem" between mental and physical health services.

## ■ 5.1 Public health

The Office for Health Promotion (England), Public Health Scotland, Public Health Wales and the Public Health Agency for Northern Ireland exist in their respective nations for health protection, health promotion and health improvement (see Section 2.2, *Organisation*). The United Kingdom Health Security Agency exists to monitor and control communicable diseases and coordinate the United Kingdom's approach to preparedness planning and response. The United Kingdom Health Security Agency is located in London, but it collaborates with Public Health Scotland, Public Health Wales and the Public Health Agency for Northern Ireland for a United Kingdom-wide approach to achieve these objectives. The Office for Health Promotion (England), and the United Kingdom Health Security Agency, were only established in April 2021, and replaced Public Health England.

At the local level, in 2013, some parts of the public health function in England were re-located from the NHS to local authorities as part of

widespread structural reforms triggered by the Health and Social Care Act 2012. Public health departments within local authorities became responsible for commissioning some sexual health services, smoking, alcohol and drug addiction services, and the early years healthy child programme. In Scotland, Wales and Northern Ireland, public health has continued to remain structurally part of the NHS. The reforms in England were highly controversial. Although the reforms facilitated closer working with schools under local authority control and with some elements of social services, they reduced opportunities for public health professionals and NHS organisations to work together (Peckham et al., 2015). This lack of effective collaboration between the NHS and public health was exposed during the pandemic, with local public health teams struggling to access test data and having limited capacity to contribute to contact tracing and infection control (Vize, 2020).

People whose work contributes to public health include: specialists (such as senior scientists), the wider community (teachers, social workers, doctors) and public health practitioners (health visitors, consultants in public health medicine, and those who use research, science or health promotion skills in specific public health fields) (Cylus et al., 2015). The United Kingdom Faculty of Public Health maintains professional standards and oversees the quality of training and professional development of public health specialists and revalidation methods for public health workers, who no longer also need to be medically qualified.

The public health priorities for all of the United Kingdom have been heavily influenced by the COVID-19 pandemic and there is a strengthened focus on preparedness planning and response to protect against major threats to health. However, even before the pandemic, increases in life expectancy were stalling in the United Kingdom (see Section 1.4, *Health status*), and the United Kingdom performed poorly in terms of life expectancy against many other comparable high-income countries (see Section 7.5, *Health system outcomes*). To address this, the Scottish Government and Convention of Scottish Local Authorities published Scotland's Public Health Priorities in 2018 (Scottish Government, 2018), which were jointly agreed areas of focus for the whole system over the next 10 years. Many policy-makers and non-governmental organisations have leveraged the pandemic to draw attention to other major public health issues including smoking, alcohol, diet and obesity, mental health and health inequalities. The United Kingdom Government has also historically prioritised a number of other issues such

as antimicrobial resistance, alcohol and drug harm reduction, air pollution, homelessness, infant mortality, response to sexual violence, sexual health and teenage pregnancy, and screening uptake (Public Health England, 2020). There are also positive examples of many policies implemented by United Kingdom devolved governments that have resulted in reductions in smoking, alcohol use and sugar content in drinks (Box 5.1). There are now growing attempts to refocus on these issues after some received less attention during the pandemic. The United Kingdom Government also has a well-publicised target to achieve five extra years of healthy life expectancy by 2035 (Department for Business, 2021), although to date, the United Kingdom has made little progress in achieving this goal. The ambitions of the United Kingdom Government in improving the health of the population are often not supported by additional funding, and public health has historically struggled to compete for resources with mainstream health services. The public health grant in England, for example, has reduced by £1 billion (€1.2

#### **BOX 5.1** Are public health interventions making a difference?

The United Kingdom and its devolved administrations have introduced several national policies that have demonstrated benefit in terms of improving population health or impacting health behaviour change. The United Kingdom introduced a smoking ban in public places in July 2007 (March 2006 in Scotland), and subsequent analyses have demonstrated this had a positive effect of declining smoking rates and improving cardiovascular health (Frazer et al., 2016). In 2018, the United Kingdom Government introduced a tax on manufacturers of soft drinks related to sugar content, which 1 year after implementation, resulted in a 10% reduction in sugar content in soft drinks, without impacting sales (Pell et al., 2021). Scotland introduced minimum unit pricing for alcohol purchases in 2018, and Wales followed suit in 2020 (Anderson P et al., 2021), with subsequent analysis demonstrating an 8% reduction in alcohol sales in both of these countries (Anderson P et al., 2021). There is also evidence from the United Kingdom that several specific public health programmes or interventions are either cost-saving or cost-effective, for example, pre-conception care (Public Health England, 2018), case management programmes (Hughes et al., 2013), and chronic disease management programmes (Thomas et al., 2017). However, the degree to which these interventions can be implemented is dependent upon funding and while the economic case for investment in prevention is strong (Masters et al., 2017), too often policy-makers ignore this evidence and have prioritised funding for treatment over prevention.

billion) in real terms, an approximately 24% reduction, between 2015/2016 and 2020/2021 (Finch, 2021).

The devolved administrations in each United Kingdom constituent country may also choose to develop independent public health strategies and have the power to introduce their own public health policies. A notable example of this is the introduction of minimum unit pricing for alcohol purchases in Scotland in 2018, and in Wales in 2020 (Anderson P et al., 2021). Scotland is also committed to a systematic public health approach to combatting harm from drugs, based on evidence of what works and on the experience of people who use drugs and their families. The Scottish Government has been seeking greater devolution of relevant powers from Westminster in order to fully implement this approach, for instance by opening safe drug consumption facilities in Glasgow. Wales has also centred its public health strategy around sustainable development and has passed the 2015 Well-being of Future Generations (Wales) Act, which provides the Welsh Government and its 44 public bodies, including local government and health boards, with a legally binding commitment to sustainable development including improving health, equity and the well-being of the population.

The Joint Committee on Vaccination and Immunisation is a standing advisory committee, independent of the DHSC, with statutory responsibility to advise the Secretary of State (that is, the Minister) for Health (Cylus et al., 2015). Immunisations are not compulsory in the United Kingdom, but they are strongly encouraged. Health care professionals who work with immunisations and vaccines receive special training in those areas. The MHRA monitors vaccine quality under their remit. Immunisation programmes cover children, older people and people with particular conditions or lifestyles, as well as health care and laboratory staff.

The United Kingdom National Screening Committee (NSC) recommends programmes that screen for potential problems or diseases in all of the United Kingdom (Cylus et al., 2015). In determining which screening programmes will be most effective, the NSC takes into account the standard criteria: condition (it should be a serious and detectable condition, and one for which cost-effective prevention has been used as much as possible first); test (the test should be simple, safe, precise and validated); treatment (treatment should be effective, and there should be evidence for which people should receive treatment); and screening (there should be strong evidence that screening reduces mortality or morbidity, and that the benefit



outweighs the physical and psychological harm of the screening itself). The NSC recommends systematic screening for adults, children, newborns and pregnant women. England, Scotland, Wales and Northern Ireland adopt the NSC's recommendations for their own screening programmes, with some local variations. Private sector health screening, for example blood tests and scans, are widely available across the United Kingdom, including some screening tests for conditions such as aneurysms or heart failure that are not recommended by the NSC. Such tests are regulated by the Care Quality Commission.

## ■ 5.2 Patient pathways

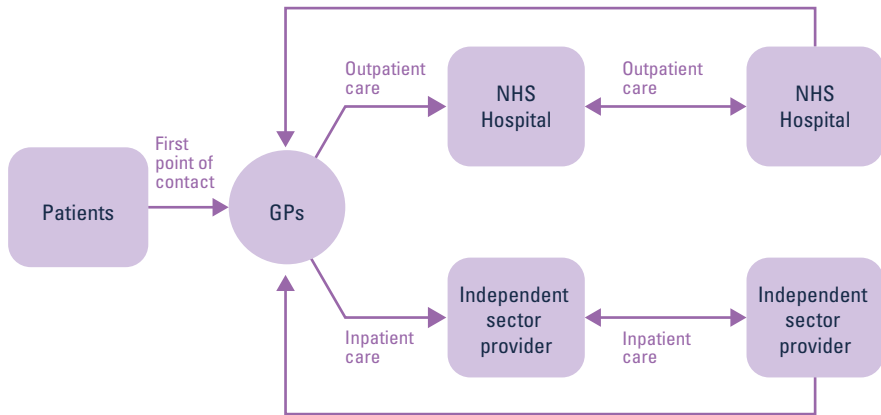
Patient pathways are fairly similar across the United Kingdom. Patients can access care through a variety of first point-of-contact mechanisms, either through their GP, emergency departments, walk-in centres or dentists. From here, they can be referred onwards for more specialised care, either as an outpatient or as an inpatient within hospitals. GPs may also refer patients to a number of community services delivered by allied health professionals such as physiotherapists, occupational therapists, speech and language therapists or community psychiatric nurses. Increasingly, GPs also signpost patients to social support such as charities, helplines, social services, although social prescribers are being introduced into primary care to undertake this purpose and reduce burden on GPs.

There are, however, differences between the United Kingdom's constituent countries in terms of choice of provider for secondary care services. From the mid-2000s, a series of reforms in England expanded the use of independent sector provision of NHS-funded services. To promote competition in the health care sector, the 2012 Health and Social Care Act formalised the right for patients to seek care in any quality provider, whether they were an NHS or independent sector hospital. The result is that, as of 2018/2019, independent sector providers accounted for 6% of total NHS-funded elective activity (Stoye, 2019), although for some procedures such as hip replacements and inguinal hernia repairs, this proportion was much higher, at 30% and 27% respectively (Stoye, 2019). Similar changes have not occurred in other United Kingdom constituent countries, and NHS-funded care remains predominantly in NHS hospitals. Patients that have access to

privately funded care, either through supplementary private health insurance, or out-of-pocket payments, are still required to access care through their GP.

To consider patient pathways in more detail, it is useful to consider the pathway of a patient in need of a hip replacement (Fig. 5.1):

- A patient who is experiencing hip pain visits their GP, who diagnoses them with hip arthritis, either clinically or through imaging. This is typically managed conservatively initially, through physiotherapy and weight loss. If these measures fail, the patient and GP collectively agree that a referral to a hospital orthopaedic department is warranted.
- In England, this patient will be given a choice of local hospitals, both NHS and independent sector providers. The patient is likely to make a choice based on reputation of hospital and waiting times to access care. In Scotland, Wales and Northern Ireland, patients will typically be referred directly to the local NHS hospital.
- At this stage, patients can request that their GP write them a letter to refer them for privately funded treatment. The patient can then approach their independent hospital of choice for treatment, where they will be expected to fund their treatment through either supplementary private health insurance or out-of-pocket payments.
- The patient will then attend an outpatient hospital appointment, where they will be examined by a specialist, and appropriate diagnostic tests will be arranged. Surgical options will be discussed with the patient, and if they agree this is appropriate, the patient will be consented for surgery and added to a waiting list.
- Waiting times are variable between and within United Kingdom constituent countries and within regions. Targets exist, and hospitals aim to treat patients within 12 weeks in Scotland, within 18 weeks in England and within 26 weeks in Wales. No similar targets exist in Northern Ireland.
- Once surgery and primary rehabilitation are completed at the hospital, patients are discharged home to the care of their GP, who receives a copy of the discharge summary.
- Depending upon the patient, some patients may receive a follow-up outpatient appointment in the hospital to monitor postoperative recovery.

**FIG. 5.1** Patient pathways for elective care

Source: Authors own elaboration.

### 5.3 Primary care

Primary care in the United Kingdom has three main roles (Cylus et al., 2015). It serves as the first point of contact for patients, provides continuing access for common conditions and acts as a gatekeeper to more specialised care. The model in the United Kingdom has remained broadly similar throughout the lifetime of the NHS and in constituent countries following devolution. Although a gatekeeper function is common for primary care, this is more formalised and pronounced in the United Kingdom than other countries (Baird et al., 2018). There is broad consensus that the United Kingdom enjoys a comprehensive and high-quality primary care system (see Box 5.2), that contributes to reported high levels of patient satisfaction (Box 5.3).

Primary care increasingly means not only a GP but a whole team of doctors, nurses, midwives, health visitors and other health care professionals such as dentists, pharmacists and optometrists in a community setting (Cylus et al., 2015). There is also an increasing use of the voluntary sector in some situations, such as those involving mental health or long-term conditions. Primary care nurses include both practice and district nurses; practice nurses work in GP practices, whereas district nurses work for community health service providers to provide care in patients' homes.

**BOX 5.2** What are the key strengths and weaknesses of primary care?

An international comparison conducted in 2013 indicated that the United Kingdom had a strong primary care system, with the United Kingdom scoring highly on all indicators of primary care quality, with the exception of continuity of care in which the United Kingdom was scored as moderate (Kringos et al., 2013) (see Section 7.4, *Health care quality*). No more recent studies exist, and while the United Kingdom primary care system may have been weakened since due to significant workforce pressures (see Section 4.2.2, *Trends in the health workforce*), the United Kingdom still performs well on many other aspects of primary care quality indicators including relatively low rates of avoidable hospital admissions for congestive heart failure, hypertension and diabetes-related complications (see Section 7.4, *Health care quality*). These priorities have been promoted through the Quality and Outcomes Framework (see Section 3.7.2, *Paying health workers*), which incentivises regular health checks and medication reviews for patients with several chronic diseases. GPs are also trained in a manner whereby they are equipped with the generalist skills required for the changing health needs of the population that are becoming increasingly complex and experiencing higher levels of multi-morbidity. This is in contrast to some other countries, whereby some primary care services are provided by physicians who have undergone specialist rather than generalist training (Kringos et al., 2015). However, there are some important weaknesses to the primary care system in the United Kingdom. Although the gatekeeping mechanism provided by GPs may improve health system efficiency, it has been cited as a factor contributing to the delayed diagnosis and poor cancer survival reported by the United Kingdom (Rose et al., 2015). Moreover, significant workforce pressures and geographical variation in density of GPs (Nuffield Trust, 2021b), have resulted in significant inequities in access to GPs across the United Kingdom (see Section 7.2, *Accessibility*).

People ordinarily resident in the United Kingdom can register with a GP and consult their GP practice without charge (Cylus et al., 2015). GPs can reject an applicant (unless the applicant has been assigned to them), but they can only do so if it is not discriminatory, or if the patient is out of the practice boundary and the practice has no capacity or feels it would not be clinically appropriate (Practice Index, 2016). GP surgeries provide a range of services, including routine diagnostic services, minor surgery, family planning, on-going care for patients with chronic conditions, antenatal care, preventive services, health promotion, outpatient pharmaceutical prescriptions, sickness certification and referrals for more specialised care. Not all

surgeries provide all of these services. Historically, between 80% and 85% of GP consultations have taken place face-to-face on GP premises, which are called surgeries (NHS Digital, 2021b). However, during the COVID-19 pandemic, approximately 50% of GP consultations were conducted remotely to prevent the transmission of coronavirus (NHS Digital, 2021b). This has increased access for certain working-age adults who previously may have struggled to access appointments, although concerns have been raised that older patients with lower levels of digital literacy have not been served well through this model. Increasingly, GPs are now seeking to adapt the provision of GP services towards a hybrid model involving a combination of face-to-face and remote consultations that best meet patients' needs (see Box 6.1).

Historically, GPs were responsible for out-of-hours care, but following a new contract agreed with GPs in 2004, responsibility for commissioning out-of-hours care shifted to commissioning (that is, purchasing) bodies, with services provided by GP cooperatives or private sector providers. Out-of-hours care consists of call handling, phone assessment and triage, and in-person consultations. Patients in England, Scotland, Wales and Northern Ireland can dial 111 to access information and advice 24 hours a day and to access out-of-hours primary care services, or they can consult the FAQs and symptom checkers online. NHS walk-in centres were introduced in 2000 as an alternative means of accessing primary care without the need to book an appointment. They are heavily reliant on advance nurse practitioners, who are nurses that can independently diagnose and treat patients, and typically are open for extended hours during the day, rather than being open 24 hours a day. Many walk-in centres are located either within or close to emergency care departments, and patients are often signposted to use walk-in centres for minor complaints rather than using emergency care inappropriately.

There is significant variation in the number of GPs to patients across the United Kingdom, as of 2020, ranging from 2826 patients per GP in North East Essex CCG, to 1768 patients per GP in Vale of York CCG (Nuffield Trust, 2021b). However, there are challenges in ascertaining reliable estimates of the GP workforce across the United Kingdom, as England is the only country that routinely records data on a full-time equivalent basis. Efforts have been made to have an equitable distribution of GPs, with England, Wales and Scotland all having Targeted Enhanced Recruitment Schemes for GP trainees offering a one-off salary supplement of £20 000 (€23 589) to physicians willing to make a commitment to train and work

in underserved regions (NHS England, 2021o). The number of GPs across all United Kingdom constituent countries has remained relatively stagnant over the last decade, during a period when the number of hospital consultants has increased by approximately 40% (Anderson M et al., 2021a). In response, the government has now pledged to recruit an additional 6000 GPs by 2024/2025 by expanding training places, increasing international recruitment and improving retention (Department of Health & Social Care, 2020a). Increasing efforts across all United Kingdom constituent countries are focused on addressing workforce pressures in primary care through the introduction of a broader multidisciplinary team, including advance nurse practitioners, physician associates, paramedics, pharmacists and social prescribers. In England and Wales as part of their national strategies (see Section 6.1, *Analysis of recent reforms*), these efforts are consolidated around primary care networks or clusters, that share a common pool of some staff and work together to provide care for populations of around 50 000.

## ■ 5.4 Specialised care

Specialised care is provided across the United Kingdom by NHS or independent sector hospitals. In England and Northern Ireland, NHS-owned hospitals are called trusts. Most hospitals in Wales are managed by LHBs, except for the leading cancer centre, in Cardiff, which is part of an NHS trust (Cylus et al., 2015). In Scotland there have been no trusts since 2004; instead, health boards plan and oversee the hospitals, while operating divisions handle their day-to-day management. Foundation trusts are found only in England; they are independent corporations that are locally run, with more control over budgets than non-foundation trusts. The cap on income that foundation trusts can generate from private sources is currently set at 49% of all income.

### ■ 5.4.1 *Specialised ambulatory care*

As noted in Section 5.2, *Patient pathways*, for patients to receive care from specialists (that is, hospital consultants), they must be referred by a GP. Patients may also pay privately for a private consultation, but they still require

a GP referral. The majority of specialised ambulatory care services are conducted within NHS hospital sites, although many NHS hospitals have satellite clinics to provide these services closer to patients. This is particularly the case in parts of the United Kingdom with large rural areas, such as Scotland, where there has been a well-established focus on using remote consultations when appropriate. Similar to primary care, many outpatient appointments in secondary care were conducted remotely during the COVID-19 pandemic to prevent transmission of coronavirus. The implication of these changes on groups such as older people that are vulnerable to digital exclusion are yet to be determined.

Over the last two decades there have been efforts in England to promote competition through facilitating choice of provider for ambulatory and elective care (see Section 5.2, *Patient pathways*). This means that patients in England will often have the choice of accessing care at a variety of local NHS and independent sector hospitals. This is usually not the case in Scotland, Wales and Northern Ireland, and patients usually receive care in their local hospital. However, during the COVID-19 pandemic some patients in these countries have been referred to hospitals at greater distances because of the designation of some hospitals as health care facilities for COVID-19 patients.

#### ■ 5.4.2 Day care

Over several decades, the United Kingdom has seen a significant shift to increase the proportion of elective surgery cases conducted as day cases, defined as the admission of patients for a planned surgical procedure, returning home on the same day. This shift has been promoted through financial incentives and clinical guidance, as a mechanism to save costs for the health service (Appleby, 2015). Common procedures that are conducted as day cases include tonsillectomies, cataract surgery, inguinal hernia repair and laparoscopic cholecystectomy. Relative to other high-income countries, the United Kingdom has some of the highest rates of day-case surgeries, with 57.4% of tonsillectomies and 98.8% of cataract surgeries conducted as day cases in 2017 (OECD, 2019b).

Many NHS hospitals have developed surgery day-case units to facilitate the efficient provision of day-case surgery. Moreover, the expansion

of independent sector provision of NHS-funded services from the mid-2000s, driven by the establishment of several independent sector treatment centres, has focused heavily on day-case surgery except for joint replacements, which are not usually conducted as day-case surgeries. As of 2018/2019, 20% of cataract surgeries and 27% of inguinal hernia repairs funded by the NHS were conducted by the independent sector in England (Stoye, 2019).

### ■ 5.4.3 *Inpatient care*

Secondary inpatient care is accessed on either an emergency or an elective basis. Independent sector hospitals are typically not equipped to manage emergency care, and if patients experience postoperative complications following surgery, they are typically transferred to NHS hospitals. In Wales, especially, patients use hospitals across the border in England if they are actually closer than the nearest one in Wales (Cylus et al., 2015). In the north and central parts of Wales, where the population is sparser, people make use of the specialised hospitals in England when necessary, whereas in south Wales there are enough people for there to be specialised services. Cross-border care between England and Wales is governed according to a statement of values and principles agreed between the two countries, and regulations contained within the Equality Act 2010 and the Public Sector Equality Duty (NHS England & NHS Wales, 2018). These outline how residents in border regions are eligible to receive primary or secondary care in either England or Wales, and relevant financial arrangements for transfers of care. As Northern Ireland's health care system is so small, there are times when complex or difficult specialist conditions need to be referred to other health care systems in the United Kingdom or Ireland that are better equipped to deal with those issues.

Tertiary services offer more specialised care, which is often also at higher cost. They are generally found in higher density areas and are often linked to medical schools or teaching hospitals. Tertiary care services often focus on the most complex cases and on rarer diseases and treatments. Across the United Kingdom there has been a move to concentrate specialised care in fewer centres in order to improve quality.



**BOX 5.3** What do patients think of the care they receive?

While public confidence in the NHS is still high in comparison to health systems in other countries (Schneider et al., 2017), several headlines in recent years have reported drops in confidence, particularly with general practice (63% satisfaction in 2018, the lowest since 1983, although this recovered to 68% in 2019), inpatients (64% satisfaction in 2019) and emergency services (54% satisfaction in 2019) (Wellings et al., 2020). Overall satisfaction with the NHS was 60% in 2019, with patients citing the quality of care received, accessing care free at the point of use and a good range of services, as key reasons for high satisfaction (Wellings et al., 2020). The main reasons people gave for being dissatisfied with the NHS were staff shortages, waiting times for GP and hospital appointments, and the perception that the government does not spend enough money on the NHS (Wellings et al., 2020). Surveys also indicate that 90% of the public support the founding principles of the NHS and that two thirds (66%) were willing to pay more of their own taxes to support the NHS (Wellings & Evans, 2017). In contrast, satisfaction with social care services is markedly lower than with the NHS, with only 29% satisfaction in 2019 (Wellings et al., 2020).

## ■ 5.5 Urgent and emergency care

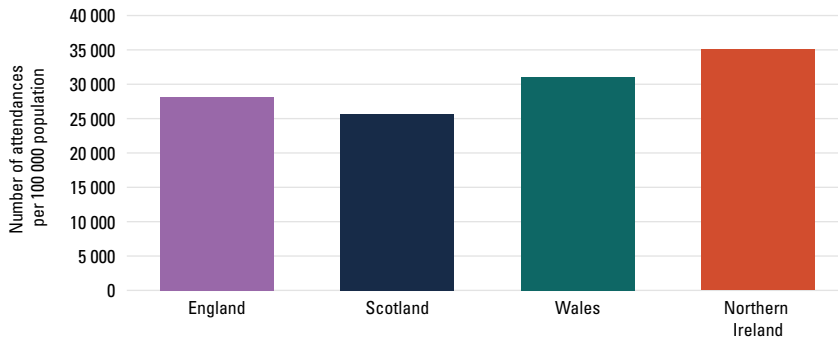
The NHS in England defines health issues that warrant emergency care as “life-threatening illnesses or accidents which require immediate, intensive treatment”, and those which warrant urgent care as “illnesses or injuries that require urgent attention but are not life-threatening” (NHS England, 2021a). Emergency services should be accessed through ambulances (via 999), and emergency departments, and urgent services include phone consultation through the NHS 111 (NHS 24 in Scotland) Clinical Assessment Service, pharmacy advice, out-of-hours GP appointment and/or referral to urgent treatment centres, minor injury units and walk-in centres (Box 5.4). There is variation in the urgent and emergency care services offered in England, Scotland, Wales and Northern Ireland. If patients are unsure which service they need, they are encouraged to ring 111 to help assess and direct to the appropriate service.

There are 10 ambulance services in England and one each in Scotland, Wales and Northern Ireland. Because of the large sparsely populated areas

in Scotland with poor road access, there is also an air ambulance service operating there. There are also air ambulance services in England, Wales and Northern Ireland, but these are provided by charities. There are 21 air ambulance charities in the United Kingdom – 18 of these are in England (Air Ambulances UK, 2021). Emergency medical dispatchers triage calls in England into three categories. Emergency calls are prioritised and targets exist according to four categories: category 1 (to be seen within 7 minutes on average), immediately life-threatening; category 2 (to be seen within 18 minutes on average), an emergency that requires rapid assessment; category 3 (90% seen within 120 minutes), urgent but not immediately life-threatening, and category 4 (90% within 180 minutes), not urgent but needs assessment or transport (Nuffield Trust, 2021a). Whereas, Scotland, Wales and Northern Ireland have similar but slightly different categories. Generally, ambulance services have been achieving or close to achieving these targets; however, since the emergence of the COVID-19 pandemic, performance has worsened (Nuffield Trust, 2021a).

All United Kingdom constituent countries have a target that 95% of patients should be admitted, discharged or transferred from A&E departments within 4 hours. This is considered a safety target and is supported by evidence of poorer outcomes experienced within 1 year of long waits over 6–12 hours (Royal College of Emergency Medicine, 2021). Although the target has successfully reduced waiting times, critics have argued that the target creates perverse incentives to manipulate the classification of patients, and to deprioritise some complex patients once they breach the target (Trivedy, 2021). The target has been consistently not met in all four United Kingdom constituent countries for several years, and this target is set to be replaced in England (target to be retained in Scotland based on Royal College of Emergency Medicine recommendations) by a broader range of access standards, including the average waiting time in A&E, time to initial clinical assessment and time to emergency treatment for critically ill and injured patients (Nuffield Trust, 2021a). All United Kingdom constituent countries record data on the number of the attendances to A&E, with Northern Ireland consistently reporting the highest numbers of attendances per 100 000 population (Fig. 5.2). The reasons driving this are complex and not fully understood, but they may be related to the relatively higher waiting times and low numbers of GPs in Northern Ireland (see Section 7.2, *Accessibility*).

**FIG. 5.2** Number of emergency department attendances per 100 000 population across the United Kingdom, 2019/2020



Source: NHS Digital (2020d).

#### **BOX 5.4** Patient pathway in an emergency care episode

A patient experiencing a suspected emergency illness may access care through multiple mechanisms. They may directly refer themselves through direct attendance at an emergency department or through calling 111 or 999. If the illness is deemed as urgent rather than an emergency, the patient may be signposted to either a GP, a community pharmacist, a minor injury unit or, in England, a walk-in centre. A GP may also call 999 on a patient's behalf if an emergency illness is identified during a home visit, or an appointment at a GP surgery. The ambulance service will triage response times according to the history given via the phone, according to whether the emergency illness is deemed life-threatening or not. Once the ambulance arrives, paramedics will undertake an initial assessment of the patient. If they believe hospital admission is warranted, they will take the patient to an appropriate emergency department. Here the patient will be reviewed by a doctor and, if appropriate, admitted to hospital. Paramedics are also trained to recognise emergency illnesses that require time-sensitive and specialist treatment such as a ST-segment elevation myocardial infarction or ischaemic stroke. In these scenarios, paramedics will take patients to specialist centres with the appropriate facilities to undertake percutaneous coronary intervention or reperfusion therapy. These hospitals are alerted in advance, and quality standards exist to monitor the time taken to receive treatment for these patients. In Scotland, major trauma patients will now also be directed to the four major trauma sites with air ambulance support for the more geographically dispersed areas of Scotland.

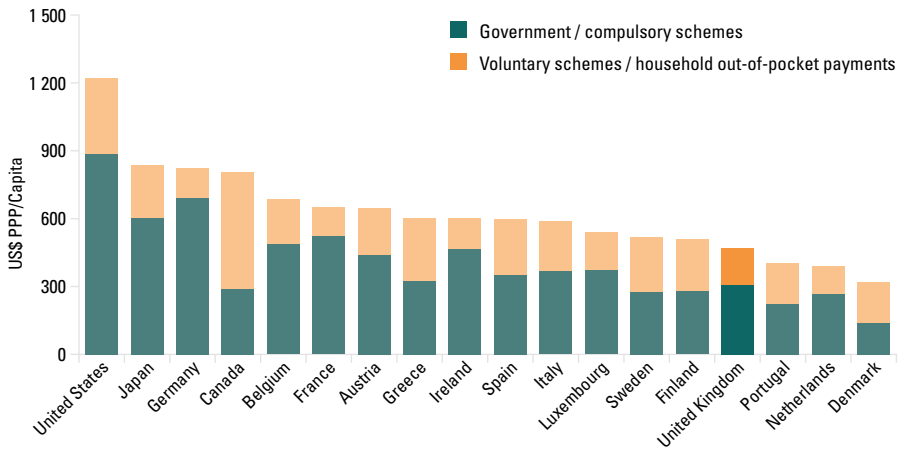
## ■ 5.6 Pharmaceutical care

Patients are not charged for pharmaceuticals used in inpatient care. Patients in England are however charged for prescriptions in the community at a fixed flat rate of £9.15 (€10.80) per item as of 2020/2021 (see Section 3.4.1, *Cost sharing (user charges)*). Patients can also pay for a yearly subscription service capped at £105.90 (€125) per year (NHS England, 2021q). Exemptions cover a broad range of people, including individuals under 16 and over 60 years of age, those with low incomes, during pregnancy, and for chronic diseases such as diabetes or epilepsy, so that about 90% of all prescriptions are distributed free of charge (NHS England, 2021q). Prescription charges were abolished in Wales in 2007, in Scotland in 2011 and in Northern Ireland in 2010 (Kulakiewicz, Parkin & Powell, 2022) (see Section 3.4.1, *Cost-sharing (user charges)*).

The United Kingdom is a major producer of pharmaceuticals, and the government is acutely aware of the pharmaceutical industry's contribution, adding around £14 billion (€16.5 billion) to the economy and creating 60 000 jobs (ABPI, 2021). Data on per capita spending on pharmaceuticals show that the United Kingdom is towards the lower end of the distribution of other high-income countries and has a comparably lower proportion of private spending (Fig. 5.3). There are several factors that contribute to these trends (see Box 5.5 and Section 2.7.3, *Regulation of services and goods*). The first is the work of health technology assessment agencies, such as NICE, on making cost-effectiveness recommendations about selected products and the impacts that patient access schemes have on their affordability (see Section 2.7.3, *Regulation of services and goods*). The second is the commercial capabilities of NHS England and parallel bodies in other United Kingdom constituent countries to purchase medicines and allied specialised care items at costs below NHS list prices and those accepted by health technology assessment agencies as cost-effective. Third, the purchasing and prescribing activities of individual pharmacies and pharmacists and members of the medical profession and the institutions in which they work, which can involve importing products from outside the United Kingdom if they are cheaper.

Over the last two decades, the NHS community pharmacy model has gradually changed towards providing a greater role for community pharmacists as independent health care providers. Alongside a shift towards greater corporate/chain ownership, this has, in England, involved the introduction of supplementary and independent pharmacist prescribing together with

**FIG. 5.3** Per capita expenditure (US\$, purchasing power parity) on pharmaceuticals and other medical non-durable goods, 2018



Source: OECD (2020).

Note: PPP, purchasing power parity

innovations such as Medicines Use Reviews and the delivery of NHS Health Checks in pharmacies. In Scotland, Wales and Northern Ireland, there are NHS Minor Ailment Schemes/Services which have also allowed community pharmacists to play a more effective part in primary health care provision. In England, a new 5-year contract has recently been agreed, which includes the development of an NHS Community Pharmacist Consultation Service, via which service users can be referred to community pharmacists by other NHS providers (PSNC, 2019). This builds on pilots such as the GP2Pharmacy service in South Tyneside. The latter enabled GPs' receptionists to book fixed time appointments in community pharmacies for patients thought to have self-limiting conditions. The Community Pharmacist Consultation Service will also allow for planned pharmacy appointments to be made for community pharmacists to assist with chronic disease management by, for instance, measuring blood pressure and undertaking more extensive medication reviews than those offered by the Medicines Use Reviews. Alongside these changes, more primary care (as distinct from independently located community) pharmacists will also be working in Primary Care Networks. The latter will typically serve local populations of around 50 000 and employ six pharmacists seeking to optimise medicines use.

**BOX 5.5** Is there waste in pharmaceutical spending?

The United Kingdom has relatively low levels of pharmaceutical spending per capita when compared with other high-income countries. For novel pharmaceuticals, the United Kingdom has developed a robust and transparent system of health technology assessment (see Section 5.6, *Pharmaceutical care*, and Section 2.7.3, *Regulation of services and goods*), which, coupled with frequent confidential price discounts negotiated as part of patient access schemes, has achieved the dual benefits of facilitating access to patients and limiting the potential budget impact of introducing novel and expensive pharmaceuticals. For established pharmaceuticals, the United Kingdom is a relatively high prescriber of generic medicines when compared with other high-income countries, accounting for 85.3% of all prescriptions in terms of volume in 2017, compared with 30.2% in France, and 29.2% in Germany (OECD, 2020). Medical professionals are trained to prescribe exclusively using generic names, and for the rare circumstances in which a prescriber may use brand names, community or hospital pharmacists will typically substitute for generic alternatives. NICE also produces widely used clinical guidance that explicitly considers the cost-effectiveness of alternative medications, to encourage evidence-based practice. There have been other efforts to curb waste in pharmaceutical spending across the United Kingdom, such as an initiative by NHS England called “items which should not be routinely prescribed in primary care”, that have worked with local commissioners and GP practices to reduce prescribing of medicines of low clinical effectiveness or where more cost-effective alternatives exist (NHS England, 2021j).

## ■ 5.7 Rehabilitation/intermediate care

Rehabilitation services in the United Kingdom provide care that aims to cure, improve or prevent a condition, whereas intermediate care is short-term health and social care that aims to facilitate earlier discharge or prevent admission to hospital by providing support at a level between primary and secondary care. In many cases, rehabilitation services can be considered as a form of intermediate care. Intermediate care providers include rapid response teams, hospital-at-home services, residential rehabilitation units, supported discharge and day-care rehabilitation (Cylus et al., 2015). Care takes place in various wards of hospitals, community housing, nursing homes, outpatient

clinics, day facilities and patient's homes. Intermediate care is mostly used for older people who may have complex health and social care needs; however, it has been used increasingly in other contexts with an emphasis on reducing length of stay in hospital, for example, through the provision of intravenous antibiotics at home rather than in hospital. An overarching goal of all intermediate care is to help patients remain in their homes rather than go to hospital or residential care.

Several reports and audits have highlighted rehabilitation as an area with limited provision across the United Kingdom. For example, it has been estimated that 14 600 neurorehabilitation inpatient beds are required for approximately 300 000 acquired brain injuries per year; however, as of 2018 there were only 4600 beds available across the United Kingdom (UKABIF, 2018). Moreover, only one in five hospitals provide people who have had a hip fracture with rehabilitation on discharge from hospital (Royal College of Physicians, 2018), despite evidence that it can significantly improve their recovery, and in 2020 only 43% of hospitals reported that they were offering rehabilitation services to at least 90% of eligible heart failure patients (BHF, 2020). Staffing appears to be a major issue, with no region in England meeting a British Society of Rehabilitation Medicine requirement of a minimum of six full-time equivalent rehabilitation medicine consultants per million population (NHS Digital, 2020g).

One measure of the accessibility of such care is whether patients experience a delayed discharge from hospital while waiting for such care, whether provided by the NHS or social care. The total number of bed days attributed to delayed transfers in England peaked at over 200 000, and 5.7% of available bed days, in October 2016 (NHS England, 2021f). Growing national attention on this issue resulting in an additional £2 billion (€2.4 billion) of funding to support adult social care allocated in the 2017 budget, and a target to reduce delayed transfers to the level where they occupy no more than 3.5% of available bed days (Maguire, 2018). Delayed transfers steadily declined since 2017, however, they have begun increasing again since the emergence of the COVID-19 pandemic (NHS England, 2021f). In Wales, delayed discharges have remained fairly constant at approximately 4% of available bed days over the last decade (StatsWales, 2021a), which may be related to how the Welsh Government has protected social care funding. Scotland has a higher proportion of delayed discharges than England and Wales, with 8.9% of all available bed days occupied by patients awaiting

discharge in 2019/2020 and with delays in social care placement or assessment for placement accounting for 65% of delayed discharges (Public Health Scotland, 2021a). The proportion of available bed days occupied by patients awaiting discharge has been relatively stable over the last decade, remaining at approximately 8%. Data on delayed transfers are not routinely published in Northern Ireland.

## ■ 5.8 Long-term care

Long-term care in the United Kingdom is a blend of health and social care, provided in a combination of residential/institutional care and care provided in the community within people's homes (Cylus et al., 2015). The NHS funds long-term care for patients with “complex health needs”, through schemes such as NHS Continuing Health care in England, and Hospital-Based Complex Clinical Care in Scotland. However, the NHS will not fund “non-health care” aspects of long-term care, known as social care, which is funded through a mixture of public and private funds according to varying eligibility criteria across the United Kingdom's constituent countries (see Section 3.4.2, *Direct payments*). The distinction between long-term non-health care and long-term health care needs is dependent upon a multidisciplinary assessment that takes account of the intensity and complexity of the support required across a series of care domains (Department of Health & Social Care, 2018b). Long-term care is provided to older people; people with physical disabilities, frailty and sensory impairment; people with learning disabilities; people with mental health problems; people who misuse substances and to other vulnerable people.

Residential or nursing care is provided in homes specifically for that purpose, provided by a range of for-profit and not-for-profit independent providers. “Supported” residents are those who are deemed as eligible to receive financial support from local authorities to live in their residential or nursing care home (see Section 3.4.2, *Direct payments*). However, eligibility criteria have remained unchanged for over a decade, meaning that due to inflation, each year fewer people are eligible for financial assistance for their social care needs. The Care Quality Commission regulates and inspects all social care providers in England, including care homes, nursing agencies and home-care agencies, based on standards established by the



### **BOX 5.6** Barriers to meaningful organisational integration: learning from Northern Ireland

Northern Ireland has operated an integrated system of health and social care since 1973. Limited assessments of the health system's performance indicate that structural integration is not as fully reflected in practice as it might be (Bengoa, 2016). This may partly explain why the Northern Ireland system has at times fallen short of the expectations of the public, providers and policy-makers in respect of outcomes. The barriers to organisational integration achieving its potential are numerous. We mention four here:

- 1. Developing a system-wide approach.** The integration of health and social care must take a system-wide approach that includes better integration between primary and secondary care. Overemphasis on the hospital sector has inhibited integration and meaningful reform in Northern Ireland and has dominated the policy discussion for decades.
- 2. Information systems.** Health information technology systems must match the needs of service users, providers and planners, to allow efficient coordination of activity and enable planning for the future. While Northern Ireland has embraced the electronic health care record, this is not comprehensive, focusing largely on health services. The evolution of multiple IT systems for different aspects of care and geographic populations has inevitably impeded care coordination, planning and service evaluation, again preventing the realisation of the full benefits of integration. A new comprehensive digital system, Encompass, has recently been commissioned, which is expected to extend coverage across health and care.
- 3. Leadership.** Leadership at all levels of the system is necessary if the opportunities of and for integration are to be recognised and realised. Implicit in recent attempts to make leadership everyone's responsibility is a tacit recognition that that has not previously been the case, though it is unclear if Northern Ireland is unique in this regard. The development of a Transformation Implementation Group has created a body to provide strategic leadership to oversee and make decisions on the design development and implementation of the Delivering Together Implementation Programme.
- 4. Political will.** Achieving the potential of an integrated system requires political courage, co-operation and stability, qualities lacking under direct rule from London during a period of communal violence in Northern Ireland (a conflict in Northern Ireland and the United Kingdom between nationalists and unionists that took place between the 1960s and 1998). However, these problems have persisted since devolution, as the local Assembly has been suspended on five occasions in less than 20 years, once for an entire Assembly term.

*Source:* Provided by Ciaran O'Neill (Professor of Health Economics, Queen's University Belfast) at the request of co-authors.

### **BOX 5.7** Barriers to meaningful organisational integration: learning from Scotland

The move towards health and social care integration as embodied in the Public Bodies (Joint Working) (Scotland) Act 2014, challenges local delivery organisations, IJBs, to work together to integrate services and improve outcomes for local communities. Similar to Northern Ireland, although based on a shorter trajectory, familiar challenges have arisen to achieving the policy objectives. A review of progress in 2019 relating to six areas (Scottish Government, 2019a), revealed a number of challenges (listed below).

1. **Governance.** Despite the responsibility for decisions about the planning and strategic commissioning of delegated health and social care functions sitting wholly with the IJB as a statutory public body, IJBs are faced with powerful NHS health boards on the one hand and (elected) local authorities on the other. This has resulted in duplication in governance arrangements and some confusion on the part of IJB members who have struggled to view decision-making in joint terms.
2. **Integrated finances and financial planning.** Although the legislation created pooled budgets for £9 billion (€10.6 billion) (2017/2018) delegated to IJBs, for which they are legally responsible, it has proved difficult for them to view this as a collective resource for allocation across the whole health and social care journey. This has resulted in financial plans continuing to be described in organisational and sectoral terms.
3. **Ability and willingness to share information.** Even though linked health and social care data are available for each IJB (at a level not routinely available in other United Kingdom constituent countries), it is not being used to its full potential to inform strategic planning or share learning of good practice between IJBs.
4. **Leadership.** The integrated arrangements are complex and require system leadership beyond immediate organisational interests, but this has proved to be challenging. In addition, there is a lack of capacity available from health boards and local authorities to support IJB chief officers in their roles.
5. **Strategic planning and improvement.** Despite this being a key function of IJBs, chief officers have generally not had sufficient support from health boards and local authorities for this role. There is also a need for improved inspection procedures with respect to progress-monitoring of integration and for improvement bodies to work more collaboratively to support the IJBs.
6. **Meaningful engagement of communities.** Despite a legal duty to involve service users, carers and local communities in planning services, their engagement has not been as central as required, and future arrangements require the necessary associated support.

*Source:* Provided by Cam Donaldson (Professor of Health Economics, Glasgow Caledonian University) at the request of co-authors.

Department of Health in 2000 and amended in later legislation. The Care Inspectorate registers and inspects care homes in Scotland, whereas the Care Inspectorate Wales (a separate institution) registers and inspects care homes in Wales. The Regulation and Quality Improvement Authority is responsible for registering and inspecting all health and social care services in Northern Ireland.

Northern Ireland remains the only system where health and social care are fully organisationally integrated, although several barriers to meaningful integration remain (Box 5.6). All United Kingdom constituent countries are converging towards greater integration of health and social care services. In England, efforts include the Better Care Fund, under which health and social care budgets are pooled locally, and the creation of ICSs and Sustainability and Transformation Partnerships, which intend to draw together the main NHS and local authority bodies relevant to health and care (NHS England, 2020e). A proposed Health and Care Bill is intended to give these bodies a statutory basis. In Scotland, the 2014 Public Bodies (Joint Working) Act, established IJBs, which are responsible for health and social care delivery for local populations, and have a statutory duty for co-production with the voluntary and independent sectors. Similar to Northern Ireland, despite progress, many barriers have impeded further advancement towards greater integration (Box 5.7). In Wales, the government has used the Integrated Care Fund to encourage health and social care services to work together to support people with complex needs. The 2014 Social Services and Well-being Act (Wales) also provided a statutory basis for regional partnership boards that bring together health, social services, housing and the third sector to provide integrated care, and gives the Welsh Government the power to compel integration between health and social care services where it deems local progress to be inadequate.

## ■ 5.9 Services for informal carers

Informal or unpaid care is that which is provided to family members, partners, friends or others who are suffering from a long-term illness or disability, or who have problems relating to old age. In 2020, it was estimated that around 9.1 million people in the United Kingdom are unpaid (so-called “informal”) carers, notably family members, providing unpaid care support (Carers Week,

2020). During the COVID-19 pandemic, this increased to over 13.6 million people. It is also known that the United Kingdom has a relatively high reliance on unpaid carers compared with most other high-income countries (OECD, 2019b). The last census of unpaid carers in England and Wales in 2011 revealed that 63% of unpaid carers provided less than 20 hours of care per week, 14% provided 20–49 hours of care per week, and 23% provided 50 or more hours of care per week (ONS, 2013). Some 58% of these carers are women and 42% are men. They perform a wide range of tasks, including personal care, emotional and practical support and monitoring of medications. Unpaid carers make a fundamental contribution to the health and social care sector, and estimates of the financial value of this contribution in the United Kingdom varies from £57 billion (€67 billion) to £132 billion (€156 billion) (Buckner & Yeandle, 2015).

Most carers intrinsically value the opportunities to provide care and may not even self-identify as carers (Carduff et al., 2014). However, there is significant evidence that the intensity of provision of informal care is associated with poorer physical and mental health (Roth, Fredman & Haley, 2015). Projections of supply and demand of unpaid carers suggest a widening gap, reaching 2.3 million unpaid carers in England by 2035 (Brimblecombe et al., 2018). However, these projections were undertaken before the COVID-19 pandemic, which has increased the burden on unpaid carers with negative effects on their mental health, and therefore it is possible that this gap may have increased further (Dunn et al., 2021). There have been efforts to identify informal carers, and to provide them with information and training. England developed a carers strategy in 2008 and passed the 2014 Care Act, and Scotland passed the 2016 Carers (Scotland) Act. In Wales, the 2014 Social Services and Well-being (Wales) Act, and in Northern Ireland, the 2002 Carers and Direct Payments Act (Northern Ireland) 2002, cover the rights of unpaid carers. Under these legislations, carers have a legal right to needs assessment and support. This requires local authorities or health and social care trusts to assess carers' needs for support if they appear to have such needs. Informal carers can receive assessments of their needs, breaks from caring (in the form of day-care services for the individual requiring care and short-term institutional respite care), services for the person being cared for to ease the burden on the carer, and Jobcentre (the working-age employment support service) support so that carers can update their skills and knowledge level if they

want to obtain employment while caring. Despite legislation, the provision of respite support for unpaid carers in England has been restricted, reducing from around 57 000 recorded instances in 2015/2016 to 42 300 in 2018/2019 (NHS Digital, 2019).

The Carer's Allowance, worth £67.60 (€80) per week in 2021/2022, is available to all carers in the United Kingdom, but it has strict eligibility requirements: the carer must provide care for 35 hours or more per week; the person being cared for has to be significantly disabled according to their own disability benefit; the carer must be over 16 years and not in full-time school; and the carer must not earn more than £128 (€151) per week or receive most other types of benefit (UK Government, 2021i).

## ■ 5.10 Palliative care

Palliative care aims to ensure the best possible quality of life for people in advanced illness and at end of life, and for their families, by actively managing pain and other symptoms and providing psychological, social and spiritual support. Palliative care may be delivered by specially trained, multidisciplinary specialist teams or by generalist providers such as GPs, district nurses, hospital doctors and nurses, allied health professionals, care home staff, social care staff, social workers, chaplains and others (Dixon et al., 2015). Palliative care is provided in NHS hospitals, hospices or at home. Hospital care is predominantly provided by specialist liaison teams comprised of specialist hospital consultants and palliative care nurses. Residential palliative care is mostly provided in voluntary sector hospices, although a limited number of NHS facilities do exist. Non-residential palliative care includes hospice-at-home services and day-care centres. Day-care centres are often contained within hospices, and transfer can be arranged to admit patients for residential care if necessary. In addition to trained medical staff, volunteers provide invaluable support in hospices.

The funding for palliative care is a combination of NHS resources and charitable donations. One survey in 2017, for example, found that charitable donations accounted for 71.2% of funding for hospice-at-home services (Rees-Roberts et al., 2019). This mixed economy has led to patchy, fragmented and poor-quality care towards the end of life for many individuals (Dixon et al., 2015). A systematic review of the cost of palliative care in the

United Kingdom undertaken in 2017 was unable to produce reliable estimates and has argued for improved data collection to understand and monitor the costs and resources involved in the provision of palliative care in the United Kingdom (Gardiner, Ryan & Gott, 2018).

## ■ 5.11 Mental health care

The NHS, local authorities and voluntary and private sector organisations provide mental health services in the United Kingdom (Cylus et al., 2015). Clinical commissioning groups and their equivalent bodies in Scotland, Wales and Northern Ireland can commission or provide mental health services, while local authorities fund housing and social services for people with mental health needs, often in partnership with mental health services. All United Kingdom constituent countries maintain a national mental health strategy, and there is broad consensus that the mental health of the population has suffered during the COVID-19 pandemic.

Inpatient mental health care can take place in psychiatric hospitals or wards within acute hospitals (both of which provide residential care and support for acute illness). There are also secure facilities that provide inpatient treatment for people who need high levels of security. Community-oriented accommodation options also exist, such as supported housing, group homes and short-term hostels.

Community mental health teams can include different groups of medical and community health staff, and they support primary care mental health services, working in teams to help GPs treat people with common mental health problems. There are many types of community mental health services, including: crisis resolution teams that provide short-term intensive care; assertive outreach teams that provide on-going intensive help; early intervention teams that provide assessment and care during a person's first psychotic episode; home or community support services that support patients and their families; rehabilitation or continuing care teams that care for long-term patients; gateway workers who assess and triage in mental health emergencies; and psychiatric nurses who assist GPs in managing and treating common mental health problems with therapy.

Criminal offenders with mental health problems, or those who need high levels of security, may receive forensic mental health services, which are

provided in secure hospitals. Forensic mental health services assess, manage and treat high-risk individuals in hospitals, prisons and the community; provide advice to GPs, psychiatrists, lawyers, police officers, prison staff, social workers and probation officers; and provide evidence and testimony for legal purposes. Some forensic services are provided in private sector units and in prisons, but mostly they are provided in medium- and low-security NHS units.

Legislation regarding the rights of mentally ill patients who are involuntarily detained has gone through three major steps: the 1959 Mental Health Act, which moved the decision-making process for compulsory admittance from the courts to the medical profession; the 1983 Mental Health Act, which restricted the amount of time patients might be detained without their consent, and allowed for the patient's nearest relative to consent if the patient could or would not; and since devolution, separate approaches to meeting the mental health needs of the population. The 2007 Mental Health Act in England protects the rights of people with mental health issues and allows compulsory treatment for people who threaten their own safety or that of others, either in the community or in institutions. The 2003 Mental Health (Care and Treatment) Act in Scotland strengthened the rights of detained individuals and established a tribunal to review compulsory detention. The 2010 Mental Health Measure in Wales enshrines various additional rights, for example, with respect to access to primary mental health services, and the use of care and treatment planning. The 2016 Mental Capacity Act in Northern Ireland has provided a statutory framework for people who lack capacity to make a decision for themselves and for those who now have capacity but wish to prepare for a time in the future when they lack it.

Historically, there have been disparities in funding, priority, acknowledgement of and political will afforded to mental health compared with physical health since the NHS's inception. This has meant that despite growing needs, funding for mental health services have often not kept pace with funding for physical health services (Millard & Wessely, 2014). This issue has been compounded by an out-dated payment system, which is still predominantly focused on block contracts, as it has been particularly problematic to capture the complexity of presentations to mental health services within national tariffs (Marshall, Charlesworth & Hurst, 2014). In England, this has begun to be addressed through legislation, specifically the

2012 Health and Social Care Act, which involved the principle of “parity of esteem” between physical and mental health services, and how clinical commissioning groups in England must not increase funding for physical health services relative to mental health services.

## ■ 5.12 Dental care

Dental services in the United Kingdom consist of a three-part system: general dental services in the community; secondary and tertiary dental services in acute hospitals for difficult problems; and community dental services in clinics and nursing homes, provided for those who cannot use general dental services, and also in schools to screen children for problems (Cylus et al., 2015). Local commissioning groups must ensure that NHS dental care is available within the geographic area for which they are responsible. Charges exist to access dental care in all United Kingdom constituent countries. In England, a three-tiered charging bands system exists to cap charges for NHS dental care dependent on the complexity of the treatment received (see Section 3.4.1, *Cost sharing (user charges)*). Wales also uses a three tiered charging bands system, although with slightly lower charges than in England (Welsh Government, 2021c). As of 2020/2021, patients pay up to 80% of the cost of treatment up to a maximum of £384 (€453) per course of treatment in both Scotland and Northern Ireland. Many people are eligible for exemptions from dental charges including pregnant women, children and those on low incomes (see Section 3.4.1, *Cost sharing (user charges)*). For individuals who access dental services privately, they pay for private dental care through private insurance plans or directly out-of-pocket.

Dental services for NHS patients have historically been reimbursed on a fee-for-service basis (Cylus et al., 2015). Dentists may subcontract their work, which results in some dentists being providers (they contract with the NHS), providing performers (they contract with the NHS and deliver services) and performers (they deliver services but do not contract with the NHS). There is broad consensus that the historic payment systems for dental care did not sufficiently incentivise prevention of poor oral health. As a result, dental contracts have been subject to recent reform across the United Kingdom. For example, in England and Wales to encourage a more



preventive approach, several prototype contract models have been piloted incorporating capitation and pay-for-performance reimbursement (UK Government, 2018a). An initial evaluation has indicated promising results in terms of improving quality, incentivising prevention and maintaining access (UK Government, 2018a).

## Principal health reforms

### ■ Chapter summary

- Following devolution in the late 1990s, health policy began to diverge among United Kingdom constituent countries, with Scotland and Wales dismantling the internal market and England emphasising choice and competition as levers to improve quality of care.
- In England, the 2012 Health and Social Care Act strengthened the role of the internal market, positioning local CCGs as responsible for commissioning most health care services.
- There has been greater focus on integration of health and social care services in the last decade, and CCGs are soon to be replaced by ICSs, which will be responsible for delivering health and social care services to local populations of 1 to 3 million people.
- The United Kingdom Government has also published a white paper on social care, which includes a plan to introduce a cap on costs for social care over an individual's lifetime at £86 000 from 2023.
- In Scotland, legislation over the last two decades has focused on creating bodies to facilitate joint work for health and social care between the NHS and local authorities, and responsibilities for managing joint budgets for local populations.
- Six Public Health priorities were published in 2018 that were jointly agreed by the Scottish Government and Convention of Scottish

Local Authorities having engaged widely across Scotland to develop a set of priorities for the whole system. They represented a focus for public services to improve population health, reduce inequalities and increase healthy life expectancy. Public Health Scotland was subsequently established in 2020 as the lead national agency for improving and protecting the health and well-being of all of Scotland's people.

- In Scotland and Wales, there is also currently a consultation on the development of a “National Care System” for social care in Scotland, to put social care on an equal footing with the NHS, with accountability for social care moving from local to national government.
- In Wales, the 2014 Social Services and Well-being (Wales) Act established regional partnerships boards with responsibility for planning and developing local services to improve health and well-being in their area.
- Cross-sectoral collaboration has been further emphasised by the 2015 Well-being of Future Generations (Wales) Act, which established a duty on public bodies to consider their long-term impact on health and well-being and contribute to public service boards that produce annual plans that align with a set of national well-being goals.
- In Northern Ireland, progress against a 10-year plan published in 2016 that aims to strengthen preventive services, provide more support in primary care, develop new models of hospital and community care, has been hampered by limited funding, the suspension of the Northern Ireland Parliament between 2017 and 2020, and the emergence of the COVID-19 pandemic.
- There is currently a consultation on the development of a new planning model for Northern Ireland centred around the creation of five Area Integrated Partnership Boards, that will be responsible for improving health and well-being of local populations, with progress monitored against agreed key performance indicators at the national level.
- The COVID-19 pandemic has been responsible for major setbacks in objectives outlined in national strategies and plans leading to growing backlogs of elective care, reducing life expectancy and

widening inequalities. However, in other respects, the pandemic has accelerated developments such as the use of teleconsultation and online tools to access primary care services, and greater integration between health and social care services.

## ■ 6.1 Analysis of recent reforms

Health policy has been devolved in the United Kingdom since the late 1990s, with governments in England, Scotland, Wales and Northern Ireland taking different approaches to health care reform. A review of major policy reforms is contained in Table 6.1. Health policy diverged in the 2000s, as reforms in England emphasised choice and competition as the route to improve quality of care, while governments in Scotland and Wales dismantled the internal market and promoted cooperation. There has been some policy convergence in recent years, as reforms in all countries encouraged collaboration between local agencies and integration of health and social care services. The COVID-19 pandemic has had mixed impacts on the progress of major health reforms across the United Kingdom, and this is discussed in Box 6.1.

### ■ 6.1.1 *England*

In 2012, the Conservative–Liberal Democrat Coalition Government introduced major reforms to the NHS in England. New Labour governments in the 2000s had used a mix of market-based approaches to try to improve NHS care, including supply-side reforms (for example, by giving patients more choice of health care provider), demand-side reforms (for example, more diversity in health care providers), transactional reforms (for example, new fixed price activity-based payments for hospitals) and changes to the health system management and regulation (for example, by the enforcement of quality standards) (Mays & Jones, 2011). The 2012 Health and Social Care Act sought to strengthen the role of competition in the English NHS and devolve decision-making (UK Government, 2012).

The 2012 Act meant widespread changes to the structure of the NHS. Various agencies responsible for managing services at a local and regional level, such as Primary Care Trusts and Strategic Health Authorities, were

**TABLE 6.1** Major health reforms

| YEAR                    | POLICY REFORM  |
|-------------------------|--|
| <b>England</b>          |  |
| <b>2012</b>             | Health and Social Care Act                             |
| <b>2014</b>             | Care Act   |
| <b>2014</b>             | NHS Five Year Forward View                             |
| <b>2019</b>             | NHS Long-Term Plan                                     |
| <b>2021</b>             | Health and Care Bill (Pending)                         |
| <b>Scotland</b>         |  |
| <b>2004</b>             | NHS Reform Act   |
| <b>2010</b>             | The Healthcare Quality Strategy for NHS Scotland       |
| <b>2014</b>             | Public Bodies (Joint Working) (Scotland) Act           |
| <b>2016</b>             | National Clinical Strategy for Scotland                |
| <b>2018</b>             | Public Health Priorities for Scotland                  |
| <b>2020</b>             | Establishment of Public Health Scotland                |
| <b>2022–2026</b>        | Establishment of “National Care Service” (Pending)     |
| <b>Wales</b>            |  |
| <b>2014</b>             | Social Services and Well-being (Wales) Act             |
| <b>2015</b>             | Well-being of Future Generations (Wales) Act           |
| <b>2018</b>             | A Healthier Wales: our Plan for Health and Social Care |
| <b>2023</b>             | Establishment of “National Care Service” (Pending)     |
| <b>Northern Ireland</b> |  |
| <b>2016</b>             | Health and Well-being 2026: Delivering Together        |
| <b>2021</b>             | Health and Social Care Bill (Pending)                  |

Source: Authors' own.

abolished, and CCGs were established to commission most local health care services (see Section 2.7.1, *Regulation and governance of third-party payers*). National governance also changed. NHS England was established to lead the NHS commissioning system. Monitor, which was replaced by NHS Improvement in 2016, was given an expanded role as the economic regulator for health and social care (see Section 2.7.2, *Regulation and governance of*

*provision*). The NHS Trust Development Authority was also established as an executive non-departmental public body of the Department of Health with the objective of offering support to NHS hospitals that were seeking to be granted Foundation Trust status (see Section 2.7.2, *Regulation and governance of provision*). Public Health England was created to improve public health at a national level (although Public Health England has since been replaced by the United Kingdom Health Security Agency and Office for Health Improvement and Disparities; see Section 2.2, *Organisation*), and local responsibilities for public health were transferred from the NHS to local governments.

An initial independent assessment of the Act in 2015 concluded that the changes had been “damaging and distracting” for the NHS (Ham et al., 2015). A gap emerged between the formal rules governing the NHS – set out in the 2012 Health and Social Care Act – and the way the health system was managed in practice. The *NHS Five Year Forward View* was published in 2014, and rejected the notion of promoting competition between health care providers in favour of encouraging collaboration and integration of services within the NHS and between health and social care (NHS England, 2014). Despite having no place in the formal NHS structure, national NHS leaders established regional partnership boards of NHS commissioners, providers and local governments – first called sustainability and transformation plans, in 2015, then ICSs – to plan local services and jointly manage constrained resources (see Section 2.2, *Organisation*) (Alderwick & Ham, 2017).

In 2019, NHS England and other national agencies published the *NHS Long Term Plan* – a 10-year strategy for NHS improvement and reform (NHS England, 2019d) (see Section 2.4, *Planning*). The Plan aimed to expand primary and community care (through the development of primary care networks among other measures), strengthen action on prevention and health inequalities, and improve care quality. ICSs were expected to be established to lead service improvements across populations of around 1 to 3 million people. To help deliver the plan, national NHS bodies called on government to amend NHS legislation to formally establish ICSs as statutory bodies and remove requirements to competitively tender clinical services (Alderwick et al., 2019, 2021). The United Kingdom Government responded to these calls by NHS bodies by proposing legislation (see Section 6.2, *Future developments*), and these and other changes are planned to be introduced from July 2022.

The adult social care system in England has experienced less major reform. In 2014, the United Kingdom Government passed the Care Act, which defined the purpose of adult social care as promoting well-being – including: improving people’s physical and emotional health, relationships with others, control over their life, participation in work, education, training

**BOX 6.1** The impact of the COVID-19 pandemic on major health reforms

The COVID-19 pandemic has brought major delay and disruption to the improvements promised in national health care strategies and plans across the United Kingdom, including growing backlogs of elective care in all United Kingdom constituent countries, falling life-expectancy despite a United Kingdom Government commitment to add five extra healthy years to life expectancy by 2035 (UK Government, 2020a), and widening inequalities in outcomes and access to health care services (Anderson M et al., 2021b). However, in other respects, the COVID-19 pandemic has accelerated objectives in national strategies and plans such as the rapid expansion of teleconsultation and online tools to access primary care services, greater use of routinely collected health care data to inform policy and planning, and encouraging collaboration between health and social care services to facilitate the rapid discharge of medically fit patients to free up hospital capacity (Anderson M et al., 2021b; Sheikh et al., 2021). In England, specifically, NHS England suspended the use of activity-based payments for many services in favour of block contracts in response to the suspension of large quantities of elective care and the unknown costs of treating patients with COVID-19 (NHS England, 2020i). This aligned, however, with intentions outlined by NHS England before the pandemic to make more use of block payments to incentivise greater integration between health care services (NHS Providers, 2020). The pandemic also solidified the development of primary care networks that were established before the pandemic, as they were required to work together to deliver vaccinations and address workforce shortfalls created by sickness and isolation following exposure to COVID-19 (Anderson M et al., 2021b). In Scotland, a report of lessons identified from the health and social care response to the pandemic during March to September 2020 highlighted some benefits such as greater integration of public health professionals across the health care system, a positive culture towards a whole system approach to working, and strengthened implementation of consistent health information technology infrastructure (Scottish Government, 2021a). In Wales, a similar report highlighted benefits such as the rapid deployment of resources and funding to support innovation, greater collaboration between multidisciplinary teams and reduced bureaucracy when implementing novel ways of working (NHS Confederation Wales, 2021).

or recreation, sustainability of housing, and more (UK Government, 2014). The 2014 Care Act also legislated for a cap on the maximum amount an individual would need to pay towards their adult social care services – following the approach recommended by the Dilnot Commission in 2011 (Dilnot, 2011). But the cap was not introduced, and the social care system continued receiving limited state funding (Anderson M et al., 2021b). In 2021, the United Kingdom Government announced that a lifetime cap on care costs of £86 000 would be introduced in 2023 (see Section 6.2, *Future developments*).

### ■ 6.1.2 Scotland

After devolution, reforms in Scotland dismantled the NHS internal market and focused on collaboration between agencies and integration of services. The 2004 NHS Reform Act required local NHS boards to establish community health partnerships, responsible for coordinating planning and delivery of services in the NHS and between health and social care (Scottish Government, 2004). However, a review of the partnerships by Audit Scotland in 2011 found that governance and accountability arrangements for community health partnerships were complex and not always clear (Audit Scotland, 2011).

In 2014, the Scottish government created a new legal framework for health and social care integration, through the 2014 Public Bodies (Joint Working) (Scotland) Act (Scottish Government, 2014). Health boards and local governments were required to establish integration authorities (replacing community health partnerships) by 2016, responsible for coordinating health and social care services and improving health against nationally agreed outcomes (see Section 2.4, *Planning*). Nearly all the 31 integration authorities opted to establish IJBs between the NHS and local governments, responsible for planning local services and managing joint budgets. A review in 2018 identified some progress in joining up services, but also found a lack of integration in financial planning and challenges related to leadership and governance (Audit Scotland, 2018).

NHS reforms in Scotland have been underpinned by a longstanding and systematic approach to quality improvement (OECD, 2016). In 2008, Scotland launched the world's first national patient safety programme,



initially focused on preventing avoidable mortality and harm in acute hospitals (Healthcare Improvement Scotland, 2021). There is widespread use of small-scale testing and revision of new health care quality improvement initiatives (Dayan & Edwards, 2017). A long-term strategy for improving quality in the Scottish NHS was published in 2010, with goals to 2020 (NHS Scotland, 2010). This strategy was complemented by the publication of the National Clinical Strategy for Scotland, which reviewed progress to date, and outlined further objectives towards a longer time scale, up to 2025–2030 (Scottish Government, 2016a).

In 2016, a Public Health Review emphasised the cost-effectiveness of preventive approaches and the need for a more proactive public health effort in Scotland, including rationalised organisational arrangements. Public Health Priorities for Scotland (Scottish Government, 2018) were subsequently published in 2018 and national public health functions were consolidated into a new body, Public Health Scotland, in 2020.

The Centre for Sustainable Delivery was launched in 2021 and is focused on delivering transformation and innovation in the NHS (Scottish Government, 2021d). It brings together a range of established programmes including Modernising Patient Pathways, Scottish Access Collaborative, Detect Cancer Early and Unscheduled Care. It is also developing new capabilities, including hosting a new innovation adoption function for NHS Scotland.

### ■ 6.1.3 *Wales*

As in Scotland, reforms to the Welsh NHS after devolution led to the removal of the internal market and a focus on cooperation to improve services. The 2014 Social Services and Well-being (Wales) Act introduced a mix of changes to strengthen local partnership working, promote prevention and early intervention, place people and their needs at the heart of services and support people to improve their well-being (Welsh Government, 2014a). The Act also introduced a new legal duty on local authorities to promote integration of services. Regional partnership boards were established between health boards and local authorities, responsible for planning and developing local services to improve health and well-being in their area (see Section 2.4, *Planning*). Regional partnership boards have also been supported by

the establishment of a transformation fund and integrated care fund, which have funded the development of specific projects and novel models of care locally. A process evaluation of the reforms found widespread support for the principles of the Act, but also identified some challenges for successful implementation of the reforms, such as lack of parity of funding between health and social care, inconsistency in the approach to integration and limited awareness of the Act (Welsh Government, 2021d).

The 2015 Well-being of Future Generations (Wales) Act also encouraged collaboration between local agencies to improve health and well-being (see Section 2.5, *Intersectorality*). All local authority areas in Wales are required to establish a public service board, with representatives from local governments, health boards and other public and voluntary sector agencies. Each public service board designs and delivers a local well-being plan every 5 years to contribute to a set of national well-being goals – including a healthier, more equal and resilient Wales. Public bodies also have a duty to consider the long-term impact of their decisions on health and well-being.

#### ■ 6.1.4 Northern Ireland

Since 2000, there has been a series of major reviews of the health system in Northern Ireland. The verdict offered by each has been similar, including the need to reduce reliance on acute hospital care, centralise some services, and place greater focus on prevention and improving health (Heenan & Appleby, 2017). Yet progress on the changes needed has been limited in the last decade. Complex political issues characterised by polarised political parties have slowed health policy change.

In 2016, the Bengoa review – the latest major report on the health system – identified a process of review fatigue: significant time and resources had been spent analysing issues in the health system and making recommendations for change, followed by failure to enact the changes needed (Bengoa, 2016). Bengoa's report was used to inform a new 10-year plan for the health system in Northern Ireland, *Health and Well-being 2026: Delivering Together*, which set out an ambitious programme for improvement and reform – including to strengthen preventive services, provide more support in primary care, develop new models of hospital and community care,

and create new partnerships between agencies to help deliver the changes (Department of Health Northern Ireland, 2016). According to the plan, cooperation rather than competition is the intended mechanism to achieve improvements. However, progress against the plan appears to be slow, and is particularly hampered by limited funding, the suspension of the Northern Ireland devolved government between 2017 and 2020 (Dayan & Heenan, 2019) and the COVID-19 pandemic.

## ■ 6.2 Future developments

All United Kingdom constituent countries experienced major health policy changes in 2020 as part of the COVID-19 response (see Box 6.1) (Dunn et al., 2020). Questions about future health system reform are taking place in the context of broader policy debates about the shape of public services as the country recovers from the pandemic.

### ■ 6.2.1 *England*

In July 2021, the United Kingdom Government published the Health and Care Bill 2021/2022 (UK Government, 2021b), which outlines major changes to NHS rules and structures in England. The Bill is the largest legislative overhaul of the NHS in a decade – and undoes many of the changes introduced by the 2012 Health and Social Care Act (see above).

The main measures in the Bill cover two areas. The first is a set of changes to promote collaboration within the health system, largely following the direction already set within the NHS Long-Term Plan (see above) (Anderson M et al., 2021c). Under these plans, England will be covered by 42 ICSs (which currently exist informally). Each system will be made up of two new bodies: integrated care boards – area-based NHS agencies, responsible for controlling most NHS resources to improve health and social care for their population – and integrated care partnerships – looser collaborations of NHS, local governments and other agencies, responsible for developing an integrated care plan to guide local decisions. Clinical commissioning groups will be abolished, and their functions taken on by integrated care boards (see Section 2.2, *Organisation*). The role of competition will be reduced as Section

75 of the 2012 Health and Social Care Act, which required commissioners to competitively tender some clinical services, will be repealed.

The second area includes a set of changes to strengthen central political control over the day-to-day running of the health system in England – something that the 2012 Health and Social Care Act had sought to loosen. The bill gives the Secretary of State for Health and Social Care wide-ranging new powers. These include the power to direct NHS England over almost all its functions and intervene more freely in local service reconfigurations. These proposals have been controversial and are currently being debated in the United Kingdom Parliament (Alderwick, Gardner & Mays, 2021). The changes outlined in the Bill are due to be implemented from July 2022.

The public health system is also undergoing reform (Anderson M et al., 2021b). The United Kingdom Government disbanded Public Health England in 2021, dividing national public health responsibilities between several new agencies. The United Kingdom Health Security Agency has been established to focus on health protection and security, modelled on the Robert Koch Institute in Germany (Iacobucci, 2020c). A new Office for Health Improvement and Disparities has been created in the DHSC, taking on Public Health England's responsibilities for health improvement and reducing inequalities at the national level. This dismantling and reorganisation of Public Health England has been questioned as unnecessary and potentially disruptive at a time when the United Kingdom is still coordinating its response to the COVID-19 pandemic (Iacobucci, 2020c).

Reform has also been proposed to adult social care funding. In late 2021, the United Kingdom Government announced that it would introduce a cap on the maximum amount that individuals would have to pay for social care services over their lifetime – a decade after the policy was first proposed by the Dilnot Commission. The cap is planned to be introduced in 2023, initially set at £86 000 (€101 824). Once individuals hit the limit, the state will cover care costs. The proposed changes will help address the issue of catastrophic care costs for some people using care, but not wider issues related to access to care, quality, poor working conditions and other problems faced by the social care system. The cap on costs is also less generous than what was proposed in the 2014 Care Act (£72 000), and in practice provides little changes to catastrophic costs compared with current arrangements for those with low to moderate wealth up to around £100 000 (Tallack, 2021). A further white paper has been published by the United Kingdom Government on

changes to the adult social care system, but the white paper did not propose any significant policy changes or major additional investment (Wise, 2021).

### ■ 6.2.2 *Scotland*

The Scottish Government is considering major changes to its social care system. An independent review of adult social care in Scotland was published in 2021 (Feeley, 2021). It argued that a “national care service” should be created on an equal footing to the NHS, with accountability for social care moving from local governments to the Scottish Government. The Scottish Government accepted the recommendations and published a consultation on its more detailed proposals. Under the proposed National Care Service, standards for services and terms and conditions for care workers would be set nationally, new simplified outcome measures for health and social care would be established. Local IJBs would be replaced by directly funded bodies, with boards representing local care users, workers, unpaid carers and service providers, which would take responsibility for planning and commissioning of social care services. Legislation to establish the National Care Service is due to be brought forward in 2022, with the NCS established over the lifetime of the current Scottish Parliament. (Scottish Government, 2021b).

### ■ 6.2.3 *Wales*

National health policies in Wales continue to focus on coordinating services to improve health and well-being. As mentioned above, parliamentary review in 2018 called for a clearer vision to guide health and social care services in Wales – focused on creating “one seamless system for Wales” – a greater focus on quality improvement, and testing and development of new care models (Welsh Government, 2018b). In response, the Welsh Government published a new plan for health and social care in 2018, *A Healthier Wales: our Plan for Health and Social Care* (Welsh Government, 2018a). The plan sets out how services would be supported to deliver the quadruple aim of improved population health and well-being, better quality services, higher value health and social care, and a motivated and sustainable workforce. The parliamentary review also recommended the implementation of “stronger”

central governance of the NHS, and there are now plans to introduce a central NHS Wales Executive to strengthen national leadership (see Section 2.3, *Decentralisation and centralisation*). The Welsh Government has also passed legislation that supports the national strategy, specifically the 2020 Health and Social Care (Quality and Engagement) (Wales) Bill (see Section 2.4, *Planning*).

The Welsh Government updated their vision to deliver effective, high quality and sustainable health care in their programme for 2021 to 2026 that includes several commitments including greater integration of community services, establishing a national social care framework, and investment in a new generation of integrated health and social care centres across Wales (Welsh Government, 2021e). Similar to Scotland, the Welsh Government also announced in 2021 that it would set up an expert group to support an ambition to create a “National Care Service”, free at the point of need (Welsh Government, 2021f). There are plans to agree an implementation plan by the end of 2023.

#### ■ 6.2.4 Northern Ireland

Northern Ireland has launched a consultation on the development of a new planning model for health and social care services in Northern Ireland (see Section 2.4, *Planning*), which will be supported by proposed legislation, the Health and Social Care Bill (Department of Health Northern Ireland, 2021). A Regional Board will replace the pre-existing Health and Social Care Board from April 2022 and will oversee five separate Area Integrated Partnership Boards, one for each pre-existing health and social care trust. Area Integrated Partnership Boards will be expected to work with local councils, GP networks and voluntary organisations through collaboration and partnership in the design, delivery and management of health, social and community services. The Regional Board will produce an annual population health and well-being plan that aligns with the strategic direction set by the Minister and the Department of Health. Progress of Area Integrated Partnership Boards in achieving the objectives outlined in this plan will be monitored against agreed key performance indicators that reflect improving health and well-being and reducing health inequalities for their respective populations.

# Assessment of the health system

## ■ Chapter summary

- United Kingdom residents do not have a legally enforceable right to health or defined benefits package, which had led to progressive withdrawal by the NHS from certain types of care such as dental care, optometry and long-term care.
- There is often a lack of transparency and accountability in national and local-level decision-making, exacerbated by limited public involvement.
- The United Kingdom reports relatively high levels of unmet need for health-care services, which is probably driven by growing waiting lists to access elective care services and how some benefits are not covered by the NHS. Unmet need for health-care has increased during the COVID-19 pandemic and there are now over 5 million people on waiting lists for elective care in England alone.
- The NHS provides citizens with a high level of protection from the financial consequences of poor health, with the United Kingdom reporting one of the lowest levels of catastrophic expenditure in Europe.

- The United Kingdom enjoys a high-quality and well-developed primary care system, evidenced by low levels of hospitals admissions for many ambulatory sensitive conditions; however, the United Kingdom reports relatively high mortality rates following acute myocardial infarction and stroke, and lower levels of cancer survival than many other high-income countries.
- Increases in life expectancy have stalled in the United Kingdom, and the health of the population is lagging behind that of many other high-income countries. Scotland has consistently reported poorer health outcomes than England, Wales and Northern Ireland. The COVID-19 pandemic has exacerbated this issue, with ongoing health inequalities emphasised and the United Kingdom experiencing one of the highest death rates attributed to COVID-19 in the world.
- The United Kingdom health care systems have been reported as some of the most efficient in the world, as result of factors such as low levels of expenditure per capita, and low administrative costs derived from a single payer system.

## ■ 7.1 Health system governance

Devolution has led to some notable differences in NHS and social care policy between the United Kingdom's constituent countries, but each country retains the fundamental and founding principles that the NHS should provide care, free at the point of service, based on clinical need. The NHS in England chose to formalise this right with the publication of the NHS Constitution in 2009 (Department of Health & Social Care, 2021b), and in Scotland with the publication of the Charter of Patient Rights and Responsibilities in 2012 (Scottish Government, 2019c), and while Wales and Northern Ireland do not have similar constitutions, they outline this within statements on their principles and values. However, unlike some countries, residents in United Kingdom constituent countries do not have a legally enforceable defined benefit package setting out their entitlements (Mason, 2005). As a consequence, there has been a progressive withdrawal of NHS funding, to different degrees between United Kingdom constituent countries, from certain types of care, most notably a large share of dental



care, optometry and the long-term care of people with extreme frailty and dementia, in a process that has not attracted adequate or systematic political attention. The eligibility criteria for accessing these services on the NHS, including exemption criteria for user charges, is discussed in further detail in Section 3.4.1, *Cost sharing (user charges)* and Section 3.4.2, *Direct payments*. Withdrawal of NHS funding for certain types of care has also occurred in an implicit manner, specifically due to growing waiting lists to access elective surgery, which as of September 2021 had grown to over 5 million people in England, meaning that many more people are choosing to resort to accessing privately funded care in the independent sector (Woodcock, 2021).

At the local level, despite the significant and growing powers of local bodies such as health boards, CCGs and, from July 2022, ICSs to plan and deliver health care services, decision-making often lacks transparency and accountability (see Section 2.2, *Organisation*, for a comparative description of the organisation and structure in the United Kingdom's constituent countries). For example, as discussed in Section 3.3.1, *Coverage*, many CCGs in England have identified procedures that will no longer be funded by the NHS, leading to geographical inequities in access to many treatments and what has been called a postcode lottery (that is, different eligibility criteria to access certain treatments based on postcode of residence) (Royal College of Surgeons of England, 2014). There have been periodic efforts to offer some forums for a local voice in the NHS, such as in the form of patient watchdogs known as Healthwatch in England, and Community Health Councils in Wales – soon to be replaced by a national Welsh Citizen Voice Body from April 2023 (Welsh Government, 2021e). However, these organisations have very limited resources, and their effectiveness is open to question. Elected local government representatives are often appointed to the boards of local NHS organisations; however, the role of formal local democracy in the NHS has been very limited in general. Moving forward, there have been calls to use resource management frameworks to guide local-level decision-making in a more structured manner that facilitates public participation.

At the national level, despite efforts for broader public involvement in NHS accountability such as the publication of performance measures, and initiatives to promote patient choice in England (see Sections 2.8.1, *Patient information*, and 2.8.2, *Patient choice*), these have not translated into public involvement in policy-making. The NHS in England has consistently

undergone several cycles of re-organisation without any evidence of benefit, or meaningful change in services for patients. These repeated “re(dis)-organisations” have been criticised as costly, disruptive, and lacking public scrutiny (Oxman et al., 2005, Alderwick et al., 2021). The almost continuous cycles of government policy reform have often been operationally disruptive in England, but Northern Ireland has struggled with an absence of government to respond to shortcomings in the Northern Ireland health care system, such as growing waiting lists, unsafe staffing levels and lack of strategic direction (Moberly, 2020). This political inertia has been created by a mandatory coalition between political parties and a lack of functional executive, leading to the suspension of the Northern Ireland Parliament for 3 years between 2017 and 2020.

Concerns have also been raised about the gradually increasing involvement of independent sector provision of NHS-funded services in England (Anderson M et al., 2020). These include questions regarding the profit-maximising institutional culture that is inherent to independent sector providers compared with NHS providers, as well as the lack of transparency exemplified by inconsistent data collection between the two sectors. The COVID-19 pandemic has exacerbated these tensions, with several aspects of the NHS response outsourced to private providers, involving contracts worth several billions of pounds without competitive tendering (Iacobucci, 2020a).

## ■ 7.2 Accessibility

All individuals, irrespective of their nationality or immigration status, are eligible to access primary, emergency and compulsory psychiatric care, free of charge. Whether someone is covered by the NHS for secondary care services is determined by whether they are classified as “ordinarily resident”. The United Kingdom law defines this as any person, which is “normally residing in the United Kingdom (apart from temporary or occasional absences), and their residence here has been adopted voluntarily and for settled purposes as part of the regular order of their life for the time being, whether for short or long duration” (UK Government, 2021f). This means that undocumented migrants are left without access to many NHS services, including maternity care services, a policy that has been described by Maternity Action as

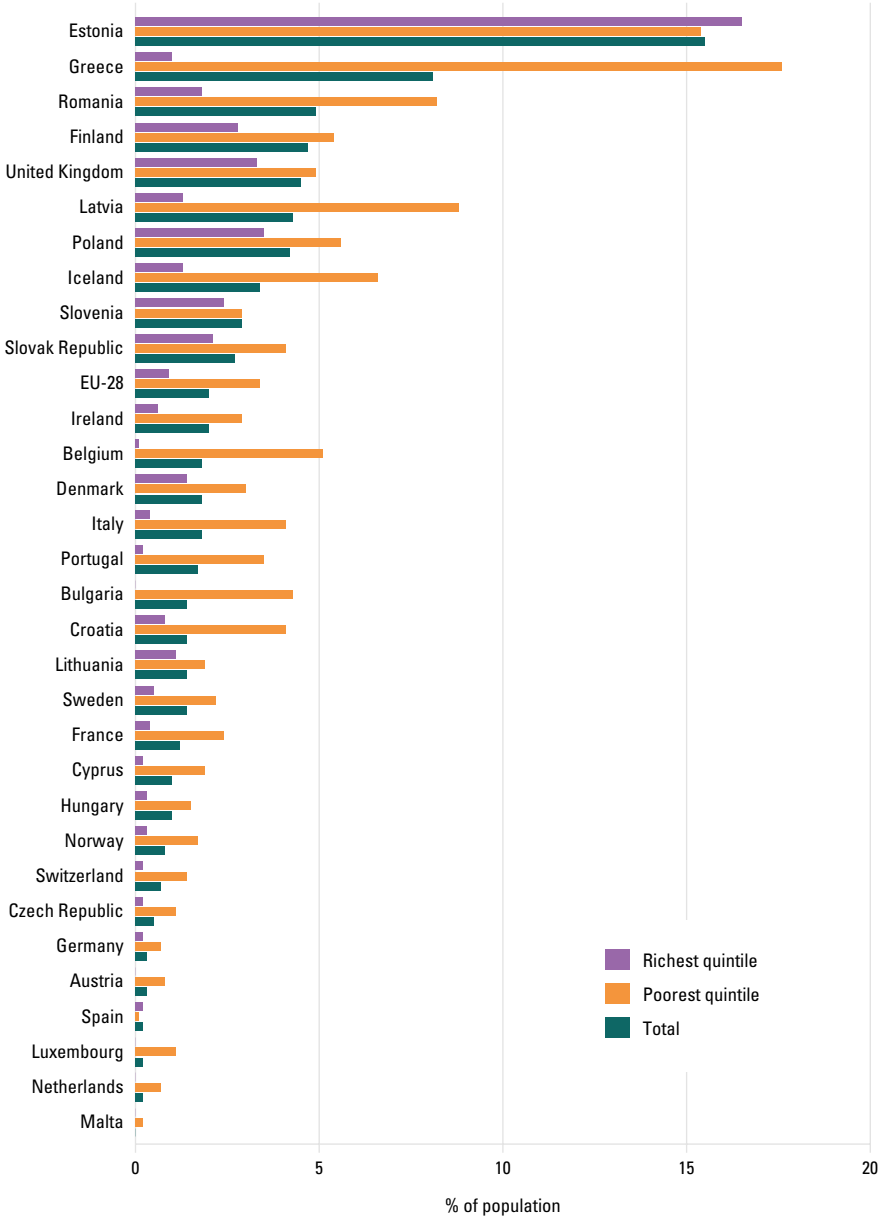
undermining trust and creating a climate of fear among vulnerable pregnant women (Wise, 2019). It is not known exactly how many undocumented migrants are in the United Kingdom. Estimates from the Greater London Authority report 594 000–745 000 undocumented migrants in the United Kingdom in 2017 (Jolly, Thomas & Stanyer, 2020), whereas the Pew Research Center estimates between 800 000 and 1.2 million undocumented migrants in the same year (Pew Research Center, 2019).

As discussed in Section 3.3.1, *Coverage*, there are some benefits that are not covered by the NHS. Benefits that are explicitly excluded are: prescription charges in England, dental care and optometry (see Box 3.1). However, exemptions exist for young and older people, and those on low incomes. There are also variations in local commissioning policies for certain types of care, including fertility treatments and some types of elective surgical care, resulting in so-called postcode lotteries (see Section 7.1, *Health system governance*), wherein some areas will cover certain services or treatments that are not available in a neighbouring region. In addition to this, initiatives such as “do not do” recommendations from NICE (NICE, 2014), and the NHS England Evidence Based Interventions programme (NHS England, 2020c), that aim to reduce the provision of low-value where there is limited or no evidence of clinical or cost-effectiveness, result in the denial of certain types of care to patients. Access to these types of care, often called procedures of low clinical value through the NHS is often strictly adjudicated, and subject to independent funding requests whereby an independent board assesses individual cases and decides whether reimbursement using public funds is appropriate.

The United Kingdom reports one of the highest levels of unmet need for a medical examination due to cost, waiting times or travel distances, at 4.5% in 2019 (Fig. 7.1). This differs between high-income and low-income households, with 3.3% of high-income households reporting unmet need compared with 4.9% of low-income households.

Understanding the trends in accessibility shown in Fig. 7.1 is a complex issue with a number of explanatory factors. Although care is largely free at the point of service across the United Kingdom, there are often substantial waiting times, particularly for elective care. Before the COVID-19 pandemic, there were around 4 million people on an NHS waiting list in England alone, and the number of people waiting longer than 18 weeks had risen from a historic low point of 6% in 2012 to 17% in February

**FIG. 7.1** Unmet need for a medical examination (due to cost, waiting time, or travel distance), by income quintile, EU/EEA/UK, 2019



Source: European Commission (2021).

2020 (NHS England, 2021e). This situation has worsened during the pandemic as noted above, with approximately 5 million people on an NHS waiting list in England as of September 2021 (NHS England, 2021e). For primary care, data from June 2021 in England reveal that approximately 46% of booked appointments are conducted on the same day, and 76% are conducted within 1 week (NHS Digital, 2021b). Apart from during the beginning of the COVID-19 pandemic, when demand for primary care services reduced and the proportion of patient appointments conducted the same day peaked at 63% in April 2020, these statistics have remained relatively stable over the last 5 years.

Waiting times also vary across the United Kingdom constituent countries, with the highest waiting times experienced in Northern Ireland, where before the pandemic, 100 times more people were waiting over a year for a consultant-led outpatient appointment than in England, despite having a considerably smaller population (FactCheckNI, 2019). Wales and Scotland use different targets, but waiting times are more comparable to England, with 16% of people waiting more than 26 weeks for elective care in Wales in February 2020 (StatsWales, 2021c), and 20% of people waiting more than 18 weeks for elective care in Scotland in February 2020 (Public Health Scotland, 2021b). Waiting times for primary care services in each United Kingdom constituent country are not published in a consistent manner, and therefore cross-country comparisons are not feasible.

For the many individuals who are subject to long waiting times or who seek care not routinely available on the NHS, the alternative is to seek care in the private health care sector, either through out-of-pocket payments or supplementary private medical insurance (see Section 3.5, *Voluntary health insurance*). Analysis of the United Kingdom private health care market has shown that revenue generated from these out-of-pocket payments grew in real terms by an average of 7% per annum between 2010 and 2019 (Heath, 2021), showing a growing demand for accessing elective care in the private health care sector through self-payment mechanisms. As this option is more freely available to those with higher incomes, this will contribute to disparities in unmet need for health care experienced by different income quintiles, as highlighted in Fig. 7.1.

The United Kingdom is known to have lower levels of hospital beds, and staff than other comparable high-income countries (see Section 4.1.1, *Infrastructure, capital stock and investments*, and Section 4.2.2, *Trends in the*

*health workforce*). There is also significant variation between the United Kingdom's constituent countries. In 2020, England had 2.3 hospital beds per 1000 population compared with 3.8 per 1000 population in Scotland, 3.4 per 1000 population in Wales and 3.1 per 1000 population in Northern Ireland (Fig. 4.2). In 2019, England had 6.7 nurses per 1000 population, compared with 9.1 per 1000 population in Scotland, 8.4 per 1000 population in Wales and 9.3 per 1000 population in Northern Ireland (Fig. 4.9). The factors behind these disparities are not fully understood, but a combination of different levels of funding per capita in each United Kingdom constituent country (see Table 3.2), and poor planning in relation to capital investment and training places are likely to have contributed. There are also substantial in-country differences, with nursing vacancy rates in 2020, varying between 13% in London and 8% in the North of England (NHS Digital, 2021d). The number of patients per GP also varies greatly between regions in England, from 1768 patients per GP in the Vale of York CCG to 2862 per GP in the North East Essex CCG (Nuffield Trust, 2021c).

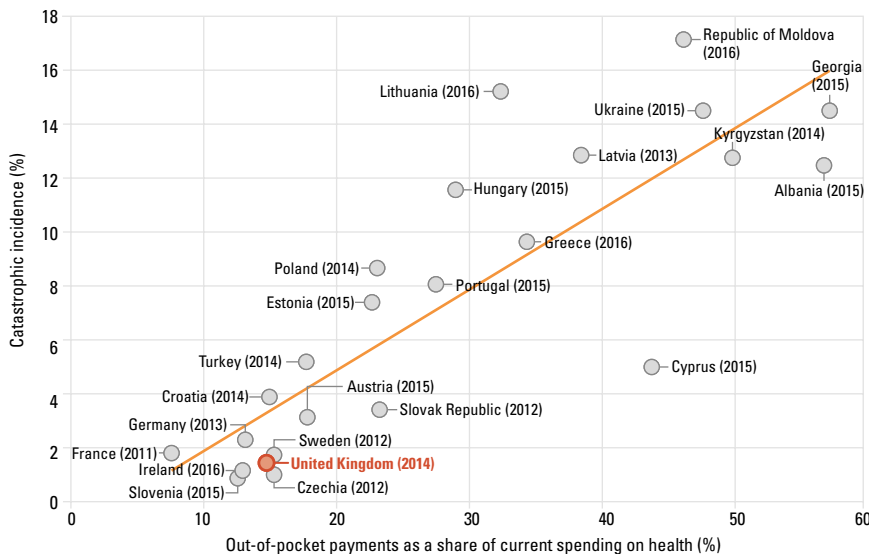
## ■ 7.3 Financial protection

The NHS provides care across the United Kingdom, covering the spectrum from prevention, treatment, rehabilitation to palliation. Services are generally free at the point of delivery and are provided irrespective of ability to pay. This coverage protects people from the risk of financial hardship resulting from medical expenses, with the United Kingdom reporting some of the lowest rates of out-of-pocket expenditure and catastrophic health spending in Europe (Fig. 7.2), as well as internationally (Wagstaff et al., 2018).

While these crucial benefits are generally enjoyed across the United Kingdom, exceptions provide stark reminders of the potential for adverse consequences. There are charges for NHS dentistry for adults not eligible for exemptions, leading to significant differences in access by socioeconomic groups (Appleby, Merry & Reed, 2017). For social care, public funding is restricted (to a lesser extent in Scotland), so the potential for significant financial costs being borne by individuals is substantial. The Dilnot Commission on social care in England found that one in 10 older people could face catastrophic care costs of £100 000 in their lifetime (Dilnot, 2011),

although individuals with wealth below a specific threshold are protected from these costs (see Section 3.4.2, *Direct payments*). However, the eligibility criteria have remained unchanged since 2011 (although a cap of costs is planned to be introduced from 2023 (see Section 6.2, *Future developments*), meaning that with inflation rises each year, fewer people are eligible for financial support to meet their social care needs. Prescription charges apply only in England, with several exemptions covering low incomes, old age, pregnancy and several chronic diseases, so that about 90% of all prescriptions are distributed free of charge (NHS England, 2021q). Despite this, 33% of non-exempt individuals with a long-term condition report not collecting a prescription due to its cost (Prescription Charges Coalition, 2017). Prescription charges were abolished in Wales in 2007, in Scotland in 2011 and in Northern Ireland in 2010 (Kulakiewicz, Parkin & Powell, 2022) (see Section 3.4.1, *Cost sharing (user charges)*). To date, there is no evidence that this has affected the growth rate of prescription items dispensed before and after the abolishment of charges (National Statistics, 2018; Williams, Henley & Frank, 2018).

**FIG. 7.2** Incidence of catastrophic spending on health and out-of-pocket share of total spending on health in selected European countries, latest available year

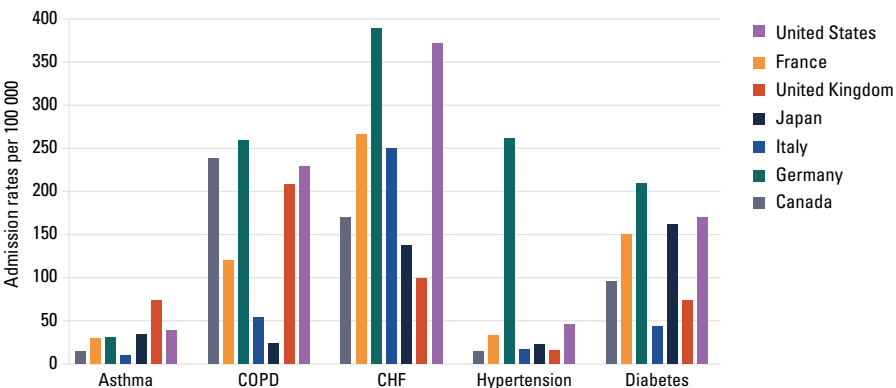


Source: Cooke O'Dowd, Kumpunen & Holder (2018).

■ 7.4 Health care quality

There is consensus that United Kingdom citizens have access to a high-quality and well-developed primary care system, evidenced by relatively low rates of avoidable hospital admissions for congestive heart failure, hypertension and diabetes-related complications (Fig. 7.3). This thinking is further supported by international comparisons that indicate the United Kingdom has a relatively strong primary care system compared with other European countries (Kringos et al., 2013), and evidence that the greater concentration of GPs in England correlates to improved quality of care across a number of indicators related to cardiovascular disease, arthritis and diabetes (Vallejo-Torres & Morris, 2018). As discussed in Box 5.3, patient satisfaction is also higher for primary care services, than for inpatient or emergency services. The United Kingdom does, however, report relatively high avoidable hospital admission rates for respiratory diseases including asthma and chronic obstructive pulmonary disease (Fig. 7.3). Suggested factors driving these trends include limited availability of pulmonary rehabilitation, poor adherence to inhaler therapy and delayed referral to specialist services (Taskforce for Lung Health, 2018).

**FIG. 7.3** Avoidable hospital admission rates for asthma, chronic obstructive pulmonary disease, congestive heart failure, hypertension and diabetes-related complications, the United Kingdom and selected countries, 2017



Source: OECD (2020).

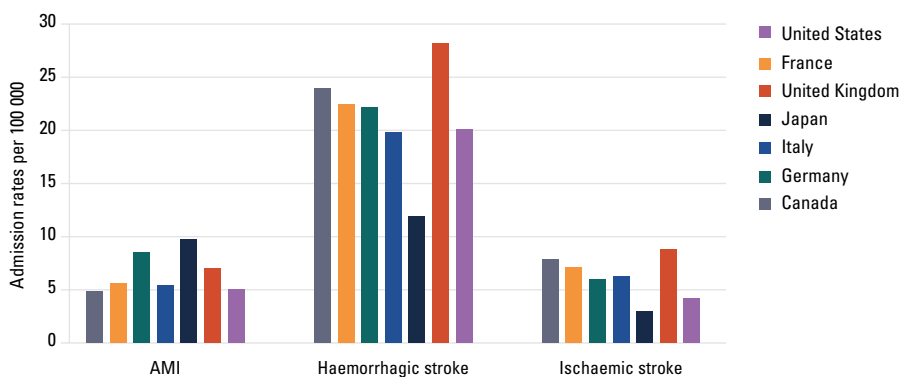
Note: CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease.



For hospital care, the United Kingdom reports particularly poor performance in terms of mortality following hospital admission associated with ischaemic and haemorrhagic stroke when compared with other high-income countries (Fig. 7.4). Mortality rates are also poor for hospital admission associated with acute myocardial infarction when compared with other high-income countries, and only lower than those reported in Japan and Germany (Fig. 7.4). National audits of stroke care have identified several areas for improvement across the patient pathway, including increasing the number of patients receiving reperfusion treatment, admission to specialist stroke units and follow-up within 6 months (SSNAP, 2020). National audits of myocardial infarction care have also identified aspects of care that can be improved including shortening delays in accessing timely percutaneous coronary intervention for ST segment elevation myocardial infarction and increasing the proportion of non-ST segment elevation myocardial infarction patients receiving coronary angiography within 72 hours after admission to hospital (NICOR, 2020).

The United Kingdom also performs poorly in relation to cancer outcomes when compared with other high-income countries, with 5-year cancer survival rates for 2010–2014 being the lowest of G7 countries for colorectal

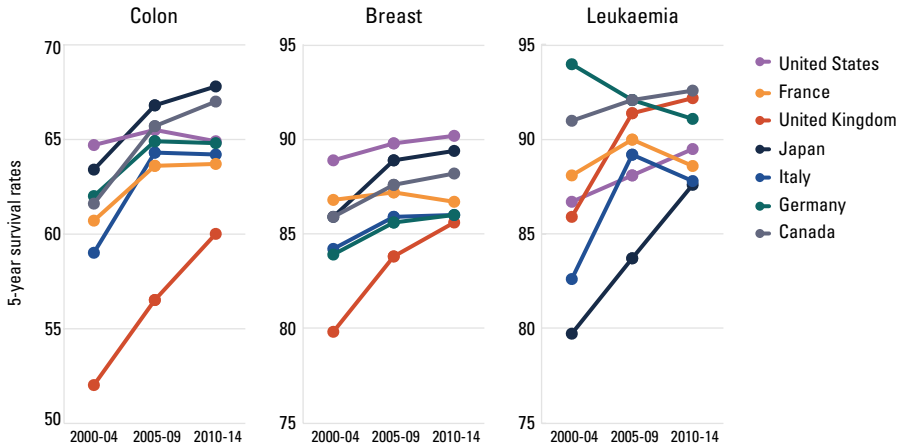
**FIG. 7.4** In-hospital mortality rates (deaths within 30 days of admission) for admissions following acute myocardial infarction, haemorrhagic stroke and ischaemic stroke, the United Kingdom and selected countries, 2017



Source: OECD (2020).

Note: AMI, acute myocardial infarction.

**FIG. 7.5** Cancer 5-year survival rates for colon cancer, breast cancer (among women) and leukaemia (among children), the United Kingdom and selected countries, 2000–2014



Source: Allemani et al. (2018).

and breast cancer (Fig. 7.5). This has been attributed to problems in access, including delays in referrals for specialist investigation and care and lack of diagnostic and imaging services, relative to other OECD countries (Maringe et al., 2012, 2013; Walters et al., 2013). However, for some cancers such as leukaemia, the United Kingdom has not only managed to bridge the gap with other high-income countries, but has overtaken many countries to report some of the highest survival rates in the G7 (Fig. 7.5).

Broadly speaking, the NHS in each United Kingdom constituent country has developed several mechanisms to monitor unwarranted clinical variation and patient experience. The NHS Atlas of Variation, for example, has demonstrated substantial variation in compliance with guidance and evidence-based standards across a variety of clinical areas such as for respiratory diseases, orthopaedics, cardiology and mental health (NHS England, 2021b). The United Kingdom's programme of national clinical audits, including the National Clinical Audit and Patient Outcomes Programme, also highlights variation in compliance against guidance but goes a step further by identifying targets for improvement and demonstrating sustained change over time (Rudd et al., 2018). The United Kingdom has also invested in several data sets to understand patient experience and satisfaction with the NHS.

The British Social Attitudes Survey, for example, which has been conducted on an annual basis since 1983, found, in its most recent survey conducted in 2019, an increase in overall public satisfaction with the NHS at 60%, a 7% increase from the previous year (Wellings et al., 2020). In England, the NHS Patient Survey Programme has also been in place since 2005, gathering data from a variety of settings including primary care, maternity services, mental health services and adult inpatients (NHS England, 2021l).

## ■ 7.5 Health system outcomes

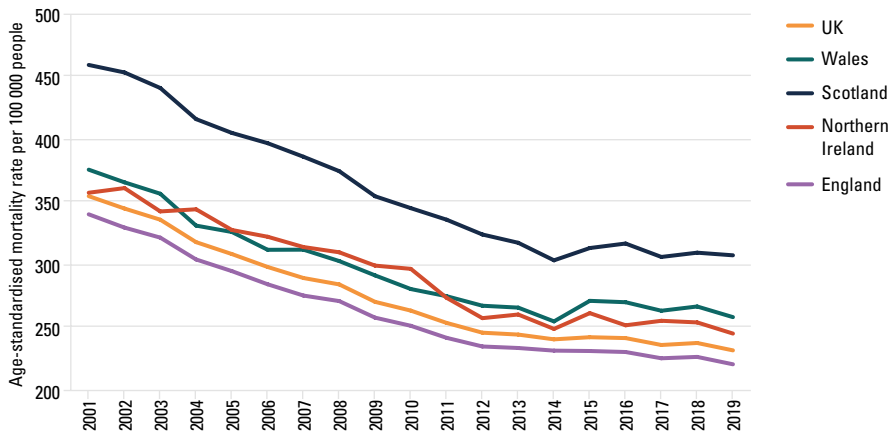
The previous iteration of the Health System in Transition United Kingdom report showed how life expectancy had improved for the United Kingdom over the previous decade (Cylus et al., 2015). This success was in part, driven by a national cross-governmental strategy to improve population health and reduce health inequalities (see Section 2.5, *Intersectorality*). However, since this report, increases in life expectancy have stalled in the United Kingdom, and now the health of the population is lagging behind that of many other comparable high-income countries (McKee et al., 2021). These trends in life expectancy are similar across the United Kingdom's constituent countries, although there remain significant differences in life expectancy between each United Kingdom constituent country, with life expectancy consistently reported as higher in England than in the other three nations, with Scotland lagging far behind (McKee et al., 2021). The latest available data, which are for the period 2018–2020, reveal that life expectancy for men was 79.3 years in England, 76.8 years in Scotland, 78.3 years in Wales and 78.7 years in Northern Ireland (ONS, 2021e). For the same period, life expectancy for women was 83.1 years in England, 81.0 years in Scotland, 82.1 years in Wales and 82.4 years in Northern Ireland (ONS, 2021e) (see Section 1.4, *Health status*). Analyses have indicated that this disparity is driven by a variety of factors including level of deprivation, obesity rates and smoking rates (McCartney et al., 2015; Minton et al., 2017).

Several factors have been suggested as contributing to the United Kingdom's stalling increases in life expectancy. The United Kingdom experienced significant excess deaths in 2015, attributed in part to a particularly virulent strain of influenza circulating that year, although this did also coincide with widespread capacity issues for acute beds across the United

Kingdom in NHS hospitals (Hiam et al., 2017). Some of the decline may also reflect historical trends, specifically the timing of the smoking epidemic peaking in the early 1970s (Leon, Jdanov & Shkolnikov, 2019), but there is also increasing evidence that links stalling increases in life expectancy with austerity measures introduced since 2010. For example, analyses have indicated that funding cuts for local authorities, and subsequent reductions in social care service provision have been associated with increased mortality rates, particularly affecting older people and those living in poverty (Loopstra et al., 2016; Hiam et al., 2018). There have also been considerable cuts to public health services in England over the last decade, as public health has struggled to compete for resources with frontline health services (see Section 5.1, *Public Health*). There have been growing inequalities in life expectancy, with differences between the richest and poorest people in the United Kingdom widening since 2011 (Marshall et al., 2019). The impact of the COVID-19 pandemic on life expectancy is yet to be determined, but as the United Kingdom has experienced one of the highest death rates attributable to the COVID-19 pandemic, the gap in life expectancy between the United Kingdom and other developed nations may grow in the coming years (McKee et al., 2021). The latest data on life expectancy in the United Kingdom reveal that life expectancy at birth in the United Kingdom in the 3-year period between 2018 and 2020 was 79.0 years for men and 82.9 years for women, which is a fall of 7.0 weeks for men and a slight increase of 0.5 weeks for women from the latest non-overlapping period of 2015–2017 (ONS, 2021e).

Avoidable mortality, a measure of deaths under 75 years, which are either considered to be amenable (deaths which should not occur if people have access to timely and effective health care) or preventable (deaths which could have been avoided through effective public health and primary prevention interventions), has been developed as an indicator of population health more attributable to the health system than other measures such as life expectancy. In 2019, 22.5% of all deaths in the United Kingdom were considered avoidable, and this is broadly in line with rates reported over the previous 5 years, which followed a significant reduction in avoidable mortality between 2001 and 2014 (Fig. 7.6). However, similar to life expectancy, Scotland is an outlier, and reported much higher rates of avoidable mortality than the other United Kingdom constituent countries. Reductions in avoidable mortality have been driven by decreases in deaths associated with diseases of the circulatory and

**FIG. 7.6** Age-standardised avoidable mortality rates per 100 000 people in the United Kingdom, 2001–2019



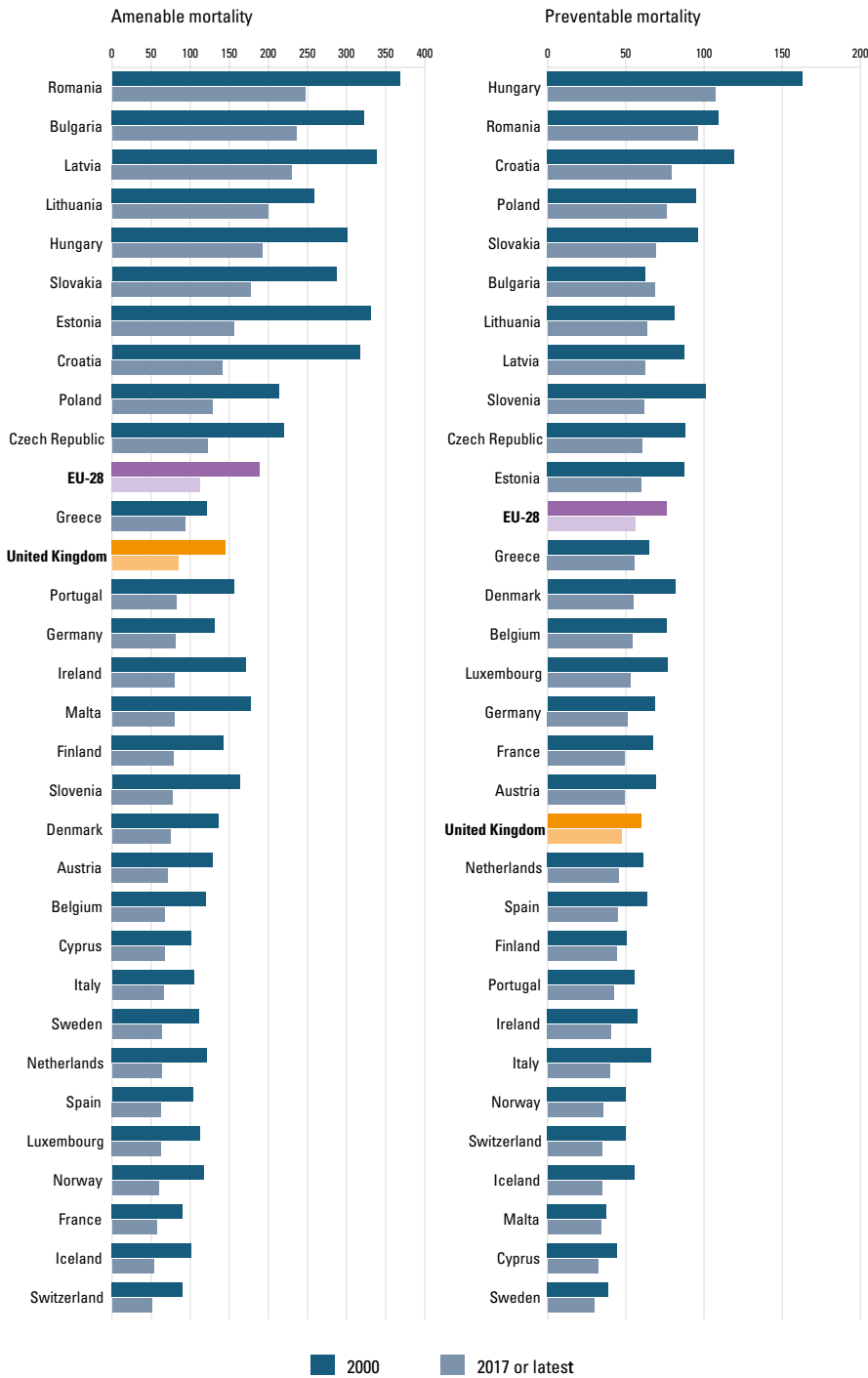
Source: ONS (2021a).

respiratory system, and from cancer. The notable exception is deaths that are alcohol-related or drug-related that have been increasing in all United Kingdom constituent countries over the last decade, particularly in Scotland, where they have increased from a low of 31.9 per 100 000 people in 2012 to 48.1 per 100 000 in 2019 (ONS, 2021a).

When focusing on international comparisons, the United Kingdom reports an age-standardised amenable mortality rate of 84.4 per 100 000 in 2016, which is above many other comparable high-income countries such as France and Germany (Fig. 7.7).

The United Kingdom performs better in relation to preventable mortality, reporting an age-standardised mortality rate of 47.3 per 100 000 in 2016, lower than France at 49.0 per 100 000 and Germany at 51.3 per 100 000, in the same year (Fig. 7.7). This may reflect a range of factors. Screening rates in the United Kingdom are among the highest in OECD countries, with 74.4% of women aged 20–69 years, and 75.1% of women aged 50–69 years undergoing screening in 2019 for cervical and breast cancer, respectively, compared with 58.2% and 48.8% in France, and 55.9% and 50.1% in Germany (OECD, 2019b). However, it should be noted that cervical screening rates have reduced from a peak of 83.7% in 2000. The United Kingdom also reports relatively low smoking rates, with 15.8% of the population aged above 15

**FIG. 7.7** Amenable and preventable mortality in country and selected countries, 2000–2017



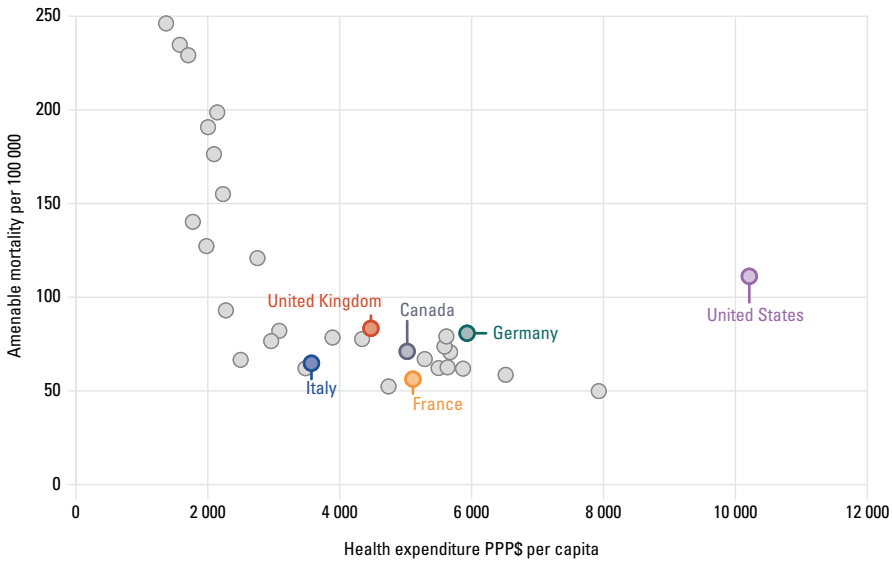
Source: WHO Mortality Database (WHO, nd). Amenable causes as per list by Nolte & McKee (2004).

years reported as daily smokers in 2019, below 24.0% in France and 18.8% in Germany (OECD, 2019b). The United Kingdom does have relatively high rates of obesity, with 64.2% of the population aged above 15 years self-reporting as being overweight or obese in 2019, compared with 45.3% in France and 52.7% in Germany (OECD, 2019b). As discussed in Box 5.1, the United Kingdom and devolved governments have also been committed to influencing healthy behaviour change through fiscal and pricing policies. For example, in 2018, the United Kingdom Government introduced a tax on manufacturers of soft drinks related to sugar content, which 1 year after implementation resulted in a 10% reduction in sugar content in soft drinks, without impacting sales (Pell et al., 2021). Scotland introduced minimum unit pricing for alcohol purchases in 2018, and Wales followed suit in 2020 (Anderson P et al., 2021), with subsequent analysis demonstrating an 8% reduction in alcohol sales in both of these countries (Anderson P et al., 2021).

## ■ 7.6 Health system efficiency

Health system efficiency is broadly concerned with maximising desired outcomes of the health system; that is, improving population health and reducing health inequalities, for a given level of inputs, such as funding and workforce (Cylus, Papanicolas & Smith, 2016). The Commonwealth Fund has consistently named the United Kingdom as the most efficient health system among 11 high-income countries as a result of factors such as relatively low expenditure levels per capita as a proportion of GDP and low administrative costs resulting from a single payer system based on general taxation (Schneider et al., 2017). Although the latest report from the Commonwealth Fund does also acknowledge the United Kingdom's poor performance in terms of health outcomes, with the United Kingdom performing second from worst on the composite indicator of healthy lives – due to relatively high rates of amenable mortality, comparatively high infant mortality rates and low healthy life expectancy at age 60 years (Schneider et al., 2017). These findings are reflected in Fig. 7.8, which shows that when compared with other G7 countries, the United Kingdom has the lowest per capita health expenditure, with the exception of Italy, and the highest amenable mortality per 100 000 population, with the exception of the United States.

**FIG. 7.8** Amenable mortality per 100 000 population versus health expenditure per capita, 2017



Source: WHO Global Health Expenditure Database (WHO, 2021) and WHO mortality data (WHO, nd).  
 Note: PPP\$, purchasing power parity in International dollars.

### ■ 7.6.1 Allocative efficiency

The allocation of funds at the national level to different health care sectors or inputs such as front-line services, capital, public health and training of health care professionals is heavily impacted by spending reviews undertaken by the government every 3–4 years. The development of robust methods of health technology assessment that incorporate considerations of allocative efficiency has not translated to broader national-level decisions about how to allocate resources between sectors (see Box 3.3). Ideally, to maximise allocative efficiency, spending reviews should take a long-term strategy to improving health system productivity and quality. However, over the last decade, funding increases have been prioritised for front-line services, at the expense of funding for training, capital and public health (UK Government, 2018b). Capital investment per NHS worker has fallen in real terms by 17% between 2010/2011 and 2017/2018 (Kraindler, Gerschlick & Charlesworth, 2019), and funding for public health in England has reduced by £1 billion



(€1.2 billion) in real terms between 2015/2016 and 2020/2021 (Finch, Bibby & Elwell-Sutton, 2018).

For frontline services, despite a policy agenda to shift care towards the community rather than the hospital, funding increases for secondary care services have been prioritised at the expense of primary and community care services (Tallack et al, 2020). As a result, primary and community care services have only experienced minimal growth or reductions in their workforce at a time when the secondary care workforce has grown significantly (Anderson M et al, 2021a). Historically, funding for mental health services has not kept pace with that for physical health, although since 2012 there has been legislation enacted based upon a principle of “parity of esteem” (Millard & Wessely, 2014), whereby CCGs must ensure that mental health budgets grow each year by at least the same percentage as their overall funding allocation. Despite the interrelated nature of the two sectors, funding for social care has fallen significantly relative to NHS funding, with mean per-person spending on social care for the over 65s falling by 31% between 2009/2010 and 2017/2018 (Crawford, Stoye & Zaranko, 2020).

Despite the aforementioned challenges when allocating resources to different sectors at the national level, a success of the NHS is the development of approaches for the systematic allocation of resources to commissioning bodies and health and social care providers at the local level. In all four countries, the dominant form of payment to local health authorities (that is, CCGs in England, health boards in Scotland and Wales, and the Health and Social Care Board in Northern Ireland; see Section 2.2, *Organisation*) is in the form of a fixed annual budget, determined by resource allocation formulae, intended to reflect the comparative health needs of the local population served by each local health authority. The exception being specialised services, which are typically funded either directly from the government or through collective arrangements between commissioners. The actual formulae for allocation to local health authorities undergo continual refinement and allocations draw upon routinely collected data to ensure that they are responsive to changing health needs (National Audit Office, 2014). The result is a resource allocation system that contributes to generally good financial control, considerations of cost-effectiveness and equity of access, and in combination with a progressive taxation, redistributing from the rich to the poor.

## ■ 7.6.2 Technical efficiency

Frequently used measures of technical efficiency include average length of stay in a hospital, day-case surgery rates, levels of generic prescribing, staff turnover, sickness absence rates and use of agency staff. For some measures, the United Kingdom compares favourably with other countries. For example, in 2018, the United Kingdom had an average length of stay for inpatient care of 6.8 days, below the OECD average of 8.1 days (OECD, 2020). The United Kingdom also performs a relatively high proportion of surgical procedures such as cataract surgeries, at 97.8%, and tonsillectomies, at 62.2%, in 2019, as day cases rather than inpatient procedures, compared with OECD averages of 37.8% and 76.6%, respectively (OECD, 2020). Historically, the United Kingdom is known as a country with one of the highest rates of generic prescribing in the world, at 85% as a share of volume in 2017, compared with the OECD average of 52% (OECD, 2019b).

International comparisons in staffing turnover, sickness or use of agency staff are not readily available, and are less informative because of differences in recording these data between countries. Having said this, it is clear that both the NHS and social care experience significant workforce shortfalls (see Section 4.2.2, *Trends in the health workforce*), with as of 2020, over 200 000 vacancies across both sectors in England alone (NHS Digital, 2020f; Skills for Care, 2020), and an average sickness absence rate of approximately 5% across all job roles in both sectors (NHS Digital, 2020e; Skills for Care, 2020). The result of this situation is an ongoing reliance on agency staff, which can impact negatively on patient experience, quality of care and staff satisfaction, as well as being detrimental to institutional learning and knowledge acquisition (Sizmur & Raleigh, 2018). Spending on agency staff as a proportion of total health care costs peaked in England at 7.2% in 2015, but has since decreased to 4.4% by 2019, after the government introduced price caps for agency staff to reduce costs (NHS Improvement, 2019). Turnover is measured by a stability index, that can be understood as the total proportion of staff who have remained in their post over a 1-year period. The stability index in England has remained relatively stable over the last decade at 90%, with only small differences between regions and with London typically having a stability index around two percentage points lower than regions in the North of England (NHS Digital, 2020g).

Countries across the United Kingdom increasingly have focused efforts on addressing waste in their health care system through initiatives to disinvest in low-value care and address unwarranted clinical variation, including the Evidence-based Interventions Programme in England (NHS England, 2020c), Realistic Medicine in Scotland (NHS Scotland, 2018) and Prudent Healthcare in Wales (NHS Wales, 2019b) (see Section 3.3.1, *Coverage*). These initiatives share similar principles in that they encourage shared decision-making between patients and clinicians to discuss the relative benefits and risks of treatments to make informed decisions about their own care, including options such as non-surgical management. In addition, the evidence-based interventions programme has taken a more prescriptive approach towards disinvestment in low-value care in England than in other United Kingdom constituent countries through the identification and monitoring of several low-value procedures in two categories; the first is for procedures that are shown to be ineffective and should no longer be offered to patients, whereas the second category is for interventions that are appropriate in clear circumstances (NHS England, 2020c).

## Conclusions

Established in 1948, the NHS led globally in terms of universal health coverage. The underlying principles, that the NHS should be funded predominantly through progressive general taxation, that care be comprehensive and access be based on clinical need and not on ability to pay, are still largely true. This has provided several key benefits including high levels of protection against the financial consequences of ill-health, the redistribution of wealth from the rich to the poor and relatively low administrative costs. Devolution in the late 1990s led to greater distinction between the health care systems in the United Kingdom, but these health care systems retain more commonalities than differences. They are facing the same challenges, with the NHS in each country struggling to meet increasing demand in the context of severe budget constraints, poor health outcomes in key areas including life expectancy, cancer and infant mortality, and ongoing shortfalls in staffing due to a lack of strategic workforce planning, and exacerbated by Brexit.

The United Kingdom initially experienced one of the highest death rates associated with the COVID-19 pandemic in the world and the COVID-19 pandemic has emphasised some of the enduring strengths and weaknesses of the NHS and the wider health care system across the United Kingdom. A lack of integration between health and social care, chronic underfunding, ongoing staffing shortfalls and challenges in getting data to flow in real-time were all major barriers to mounting an effective response to the pandemic. In contrast, as one of the most comprehensive health systems in the world,

providing free care at the point of delivery, the high level of financial protection provided by the NHS and an allocation of resources that explicitly accounts for differing geographic needs have to some extent mitigated the already significant effect of the COVID-19 pandemic on health inequalities.

Looking to the future it is important to remember that the NHS remains one of the major achievements of the United Kingdom. Established in a post-war context characterised by political and economic uncertainty, the United Kingdom chose to significantly increase its investment in health. Again, post COVID-19 pandemic, the United Kingdom is confronted by political and economic uncertainty. At the same time, significant investment is required to rectify the United Kingdom's poor performance in terms of health outcomes, address growing backlogs for elective care and develop more sustainable and resilient health care systems across the United Kingdom.

# Appendices

## 9.1 References

- Abarca-Gómez L et al. (2017). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults. *The Lancet*, 390(10113):2627–2642.
- Abel-Smith B (1964). *The Hospitals 1800–1948*. London, United Kingdom, Heinemann.
- Abel-Smith B (1988). The rise and decline of the early HMOs: some international experiences. *The Milbank Quarterly*, 66(4):694–719.
- ABPI (Association of the British Pharmaceutical Industry) (2021). UK Pharmaceutical market. (<https://www.abpi.org.uk/facts-and-figures/uk-pharmaceutical-market/>, accessed 10 March 2022).
- Adam S (2019). How high are our taxes, and where does the money come from? (<https://www.ifs.org.uk/uploads/BN259-How-high-are-our-taxes-and-where-does-the-money-come-from.pdf>, accessed 10 March 2022).
- Addis S et al. (2019). Implementing prudent healthcare in the NHS in Wales; what are the barriers and enablers for clinicians? *Journal of Evaluation in Clinical Practice*, 25(1):104–110.
- Air Ambulances UK (2021). About us. (<https://www.airambulancesuk.org/about-us/>, accessed 10 March 2022).
- Alderwick H, Ham C (2017). Sustainability and transformation plans for the NHS in England: what do they say and what happens next? *BMJ*, 356:j1541.
- Alderwick H, Gardner T, Mays N (2021). England's new health and care bill. *BMJ*, 374:n1767.
- Alderwick H et al. (2019). Proposed changes to NHS legislation. *BMJ*, 365:l1670.
- Alderwick H et al. (2021). Will a new NHS structure in England help recovery from the pandemic? *BMJ*, 372:n248.
- Aldrick P (2020, 26 December 2020). Britain is fifth-largest economy in world again after leapfrogging India. *The Times*. (<https://www.thetimes.co.uk/article/britain-is-fifth-largest-economy-in-world-again-after-leapfrogging-india-wccxxcqr>, accessed 10 March 2022).
- Allemani C et al. (2018). Global surveillance of trends in cancer survival 2000–14 (CONCORD-3): analysis of individual records for 37 513 025 patients diagnosed with one of 18 cancers from 322 population-based registries in 71 countries. *The Lancet*, 391(10125): 1023–1075.

- Anderson M et al. (2020). Improving transparency and performance of private hospitals. *BMJ*, 368:m577.
- Anderson M et al. (2021a). Securing a sustainable and fit-for-purpose UK health and care workforce. *The Lancet*, 397(10288):1992–2011.
- Anderson M et al. (2021b). LSE–Lancet Commission on the future of the NHS: re-laying the foundations for an equitable and efficient health and care service after COVID-19. *The Lancet*, 397(10288):1915–1978.
- Anderson M et al. (2021c). The UK Health and Care Bill: failure to address fundamental issues of coverage and funding. *The Lancet*, 397(10281):1259.
- Anderson P et al. (2021). Impact of minimum unit pricing on alcohol purchases in Scotland and Wales: controlled interrupted time series analyses. *Lancet Public Health*, 6(8):E557–E565.
- Appleby J (2015). Day case surgery: a good news story for the NHS. *BMJ*, 351:h4060.
- Appleby J, Merry L, Reed R (2017). Root causes: quality and inequality in dental health. (<https://www.nuffieldtrust.org.uk/research/root-causes-quality-and-inequality-in-dental-health>, accessed 10 March 2022).
- Asaria M, Doran T, Cookson R (2016). The costs of inequality: whole-population modelling study of lifetime inpatient hospital costs in the English National Health Service by level of neighbourhood deprivation. *Journal of Epidemiology and Community Health*, 70(10):990–996.
- Audit Scotland (2011). Review of Community Health Partnerships. ([https://www.audit-scotland.gov.uk/docs/health/2011/nr\\_110602\\_chp.pdf](https://www.audit-scotland.gov.uk/docs/health/2011/nr_110602_chp.pdf), accessed 10 March 2022).
- Audit Scotland (2018). Health and social care integration: update on progress. ([https://www.audit-scotland.gov.uk/uploads/docs/report/2018/nr\\_181115\\_health\\_socialcare\\_update.pdf](https://www.audit-scotland.gov.uk/uploads/docs/report/2018/nr_181115_health_socialcare_update.pdf), accessed 10 March 2022).
- Baird B et al. (2018). Innovative models of general practice. ([https://www.kingsfund.org.uk/sites/default/files/2018-06/Innovative\\_models\\_GP\\_Kings\\_Fund\\_June\\_2018.pdf](https://www.kingsfund.org.uk/sites/default/files/2018-06/Innovative_models_GP_Kings_Fund_June_2018.pdf), accessed 10 March 2022).
- Baker C (2021). NHS staff from overseas: statistics. (<https://commonslibrary.parliament.uk/research-briefings/cbp-7783/>, accessed 10 March 2022).
- Barr B, Higgerson J, Whitehead M (2017). Investigating the impact of the English health inequalities strategy: time trend analysis. *BMJ*, 358:j3310. doi:10.1136/bmj.j3310.
- BBC (2014). Scottish independence referendum – results. (<https://www.bbc.co.uk/news/events/scotland-decides/results>, accessed 10 March 2022).
- BBC (2016). EU referendum results. ([https://www.bbc.co.uk/news/politics/eu\\_referendum/results](https://www.bbc.co.uk/news/politics/eu_referendum/results), accessed 10 March 2022).
- BBC (2021). Boris Johnson outlines new 1.25% health and social care tax to pay for reforms. (<https://www.bbc.co.uk/news/uk-politics-58476632>, accessed 10 March 2022).
- Beech J, Baird B (2020). GP funding and contracts explained. (<https://www.kingsfund.org.uk/publications/gp-funding-and-contracts-explained>, accessed 10 March 2022).
- Bengoa R (2016). Systems, not structures: changing health and social care. (<https://www.health-ni.gov.uk/sites/default/files/publications/health/expert-panel-full-report.pdf>, accessed 10 March 2022).
- Bevan A (2010). *In Place of Fear*. Whitefish, Montana, Kessinger Publishing.
- Bevan G et al. (2014). The four health systems of the United Kingdom: how do they compare? (<https://www.nuffieldtrust.org.uk/files/2017-01/4-countries-report-web-final.pdf>, accessed 10 March 2022).
- Blackburn P (2020). Health Cover: UK Market Report. LaingBuisson. (<https://www.laingbuisson.com/shop/health-cover-uk-market-report-16ed/>, accessed 10 March 2022).
- BMA (2020a). Consultant contract negotiations. (<https://www.bma.org.uk/pay-and-contracts/contracts/consultant-contract/consultant-contract-negotiations>, accessed 10 March 2022).
- BMA (2020b). GP contract Scotland 2018/19. (<https://www.bma.org.uk/pay-and-contracts/contracts/gp-contract/gp-contract-scotland-201819>, accessed 10 March 2022).

- BMA (2020c). Junior doctor contract in England. (<https://www.bma.org.uk/pay-and-contracts/contracts/junior-doctor-contract/junior-doctor-contract-in-england>, accessed 10 March 2022).
- BMA (2020d). Junior doctor contract negotiations. (<https://www.bma.org.uk/pay-and-contracts/contracts/junior-doctor-contract/junior-doctor-contract-negotiations>, accessed 10 March 2022).
- BMA (2020e). Pay scales for junior doctors in England. (<https://www.bma.org.uk/pay-and-contracts/pay/junior-doctors-pay-scales/pay-scales-for-junior-doctors-in-england>, accessed 10 March 2022).
- BMA (2021a). Pay scales for consultants in England. (<https://www.bma.org.uk/pay-and-contracts/pay/consultants-pay-scales/pay-scales-for-consultants-in-england>, accessed 10 March 2022).
- BMA (2021b). Quality and outcomes framework (QOF). (<https://www.bma.org.uk/advice-and-support/gp-practices/funding-and-contracts/quality-and-outcomes-framework-qof#:~:text=QOF%20is%20a%20voluntary%20annual,latest%20frameworks%20for%202020%2F21>, accessed 10 March 2022).
- Booth L (2018). Goodbye PFI. (<https://commonslibrary.parliament.uk/goodbye-pfi/>, accessed 10 March 2022).
- Bovenberg J, Penton H, Buyukkaramikli N (2021). 10 years of end-of-life criteria in the United Kingdom. *Value in Health*, 24(5):691–698.
- Brekke KR et al. (2021). Hospital competition in a national health service: Evidence from a patient choice reform. *Journal of Health Economics*, 79:102509.
- Brimblecombe N et al. (2018). Unpaid care in England: future patterns and potential support strategies. Economics of Social and Health Care Research Unit. ([http://eprints.lse.ac.uk/90215/1/Brimblecombe\\_Fernandez\\_Knapp%20et%20al.\\_Unpaid%20care%20in%20England\\_Author%20%202018.pdf](http://eprints.lse.ac.uk/90215/1/Brimblecombe_Fernandez_Knapp%20et%20al._Unpaid%20care%20in%20England_Author%20%202018.pdf), accessed 10 March 2022).
- British Dental Association (2021). Dental contract reform across the UK. (<https://www.bda.org/contractreform>, accessed 10 March 2022).
- British Heart Foundation (BHF) (2019). Four million people are living with untreated high blood pressure, new estimates show. (<https://www.bhf.org.uk/what-we-do/news-from-the-bhf/news-archive/2019/may/four-million-people-are-living-with-untreated-high-blood-pressure>, accessed 10 March 2022).
- British Heart Foundation (BHF) (2020). National Audit of Cardiac Rehabilitation (NACR) Quality and Outcomes Report 2020. (<https://www.bhf.org.uk/informationsupport/publications/statistics/national-audit-of-cardiac-rehabilitation-quality-and-outcomes-report-2020>, accessed 10 March 2022).
- Brooks L (2021, 24 Jan 2021). Sturgeon: SNP will hold Scottish independence vote if it wins in May. (<https://www.theguardian.com/politics/2021/jan/24/scotland-independence-referendum-nicola-sturgeon-snp-wins-may->, accessed 10 March 2022).
- Buchan J (2010). Reviewing The Benefits of Health Workforce Stability. *Human Resources for Health*, 8(1):29.
- Buck D (2020). The English local government public health reforms: an independent assessment. ([https://www.kingsfund.org.uk/sites/default/files/2020-01/The\\_English\\_local\\_government\\_public\\_health\\_reforms\\_assessment\\_January\\_2020.pdf](https://www.kingsfund.org.uk/sites/default/files/2020-01/The_English_local_government_public_health_reforms_assessment_January_2020.pdf), accessed 10 March 2022).
- Buckner L, Yeandle S (2015) Valuing Carers 2015: the rising value of carers' support. Carers UK. (<https://www.carersuk.org/for-professionals/policy/policy-library/valuing-carers-2015>, accessed 10 March 2022).
- Campbell D (2018). NHS will no longer have to share immigrants' data with Home Office. (<https://www.theguardian.com/society/2018/may/09/government-to-stop-forcing-nhs-to-share-patients-data-with-home-office>, accessed 10 March 2022).
- Carduff E et al. (2014). Understanding the barriers to identifying carers of people with advanced illness in primary care: triangulating three data sources. *BMC Family Practice*, 15(1):48.



- Carers Week (2020). Carers Week 2020 Research Report: The rise in the number of unpaid carers during the coronavirus (COVID-19) outbreak. ([https://www.carersuk.org/images/CarersWeek2020/CW\\_2020\\_Research\\_Report\\_WEB.pdf](https://www.carersuk.org/images/CarersWeek2020/CW_2020_Research_Report_WEB.pdf), accessed 10 March 2022).
- Chan SW et al. (2017). Montgomery and informed consent: where are we now? *BMJ*, 357;j2224.
- Charles, A. (2021). Integrated care systems explained: making sense of systems, places and neighbourhoods. (<https://www.kingsfund.org.uk/publications/integrated-care-systems-explained>, accessed 10 March 2022).
- Charlesworth A, Johnson P (2018). Securing the future: funding health and social care to the 2030s (1911102990). (<https://www.ifs.org.uk/publications/12994>, accessed 10 March 2022).
- Charlton V (2020). NICE and Fair? Health Technology Assessment Policy Under the UK's National Institute for Health and Care Excellence, 1999–2018. *Health Care Analysis*, 28(3):193–227.
- Civil Service (2021). Devolution: Factsheet. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/770709/DevolutionFactsheet.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/770709/DevolutionFactsheet.pdf), accessed 10 March 2022).
- Collins B (2016). The foundation trust model: death by a thousand cuts. (<https://www.kingsfund.org.uk/blog/2016/02/foundation-trust-model>, accessed 10 March 2022).
- Community Pharmacy Scotland (2021). Financial Framework 20/21. (<https://www.cps.scot/financial-framework-2122>, accessed 10 March 2022).
- Cooke O'Dowd N, Kumpunen S, Holder H (2018). Can people afford to pay for health care? WHO Barcelona Office for Health Systems Strengthening. ([https://www.euro.who.int/\\_data/assets/pdf\\_file/0010/373690/uk-fp-report-eng.pdf](https://www.euro.who.int/_data/assets/pdf_file/0010/373690/uk-fp-report-eng.pdf), accessed 10 March 2022).
- Cookson R et al. (2016). Socio-economic inequalities in health care in England. *Fiscal Studies*, 37(3–4):371–403.
- Crawford R, Stoye G, Zaranko B (2020). What impact did cuts to social care spending have on hospitals? (<https://ifs.org.uk/publications/15214>, accessed 10 March 2022).
- Criado B, Bancsi M (2021). The UK regulatory landscape post Brexit. (<https://www.raps.org/news-and-articles/news-articles/2021/5/the-uk-regulatory-landscape-post-brexit>, accessed 10 March 2022).
- Cuthbertson A (2021). UK now has highest Covid death rate in the world. *The Independent*. (<https://www.independent.co.uk/news/health/uk-covid-death-rate-coronavirus-b1788817.html>, accessed 10 March 2022).
- Cylus J, Papanicolas I, Smith PC (2016). Health system efficiency: how to make measurement matter for policy and management. Copenhagen, World Health Organization Regional Office for Europe.
- Cylus J et al. (2015). United Kingdom Health system review. *Health Systems in Transition*, 17(5).
- Dayan M, Edwards N (2017). Learning from Scotland's NHS. (<https://www.nuffieldtrust.org.uk/files/2017-07/learning-from-scotland-s-nhs-final.pdf>, accessed 10 March 2022).
- Dayan M, Heenan D (2019). Change or collapse: Lessons from the drive to reform health and social care in Northern Ireland. (<https://www.nuffieldtrust.org.uk/files/2019-07/nuffield-trust-change-or-collapse-web-final.pdf>, accessed 10 March 2022).
- Department for Business, Energy and Industrial Strategy (2021). The Grand Challenge missions. (<https://www.gov.uk/government/publications/industrial-strategy-the-grand-challenges/missions#healthy-lives>, accessed 10 March 2022).
- Department of Health & Social Care (2018a). The future of healthcare: our vision for digital, data and technology in health and care. (<https://www.gov.uk/government/publications/the-future-of-healthcare-our-vision-for-digital-data-and-technology-in-health-and-care/the-future-of-healthcare-our-vision-for-digital-data-and-technology-in-health-and-care>, accessed 10 March 2022).
- Department of Health & Social Care (2018b). National Framework for NHS Continuing Healthcare and NHS-funded Nursing Care. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/746063/20181001\\_National\\_Framework\\_for\\_CHC\\_and\\_FNC\\_-\\_October\\_2018\\_Revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746063/20181001_National_Framework_for_CHC_and_FNC_-_October_2018_Revised.pdf), accessed 10 March 2022).

- Department of Health & Social Care (2020a). £1.5 billion to deliver Government commitment for 50 million more general practice appointments. (<https://www.gov.uk/government/news/15-billion-to-deliver-government-commitment-for-50-million-more-general-practice-appointments>, accessed 10 March 2022).
- Department of Health & Social Care (2020b). General ophthalmic services. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/878251/general-ophthalmic-services-fees-from-april-2020.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878251/general-ophthalmic-services-fees-from-april-2020.pdf), accessed 10 March 2022).
- Department of Health & Social Care (2021a). Code of practice for the international recruitment of health and social care personnel in England. (<https://www.gov.uk/government/publications/code-of-practice-for-the-international-recruitment-of-health-and-social-care-personnel/code-of-practice-for-the-international-recruitment-of-health-and-social-care-personnel-in-england>, accessed 10 March 2022).
- Department of Health & Social Care (2021b). The NHS Constitution for England. (<https://www.gov.uk/government/publications/the-nhs-constitution-for-england>, accessed 10 March 2022).
- Department of Health & Social Care (2021c). Major reforms to NHS workforce planning and tech agenda. (<https://www.gov.uk/government/news/major-reforms-to-nhs-workforce-planning-and-tech-agenda>, accessed 10 March 2022).
- Department of Health & Social Care (2021d). Annual Report and Accounts 2019–20. (<https://www.gov.uk/government/publications/dhsc-annual-report-and-accounts-2019-to-2020>, accessed 10 March 2022).
- Department of Health & Social Care & Association of the British Pharmaceutical Industry (DHSC & ABPI) (2018). The 2019 Voluntary Scheme for Branded Medicines Pricing and Access. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/761834/voluntary-scheme-for-branded-medicines-pricing-and-access-chapters-and-glossary.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/761834/voluntary-scheme-for-branded-medicines-pricing-and-access-chapters-and-glossary.pdf), accessed 10 March 2022).
- Department of Health Northern Ireland (2013). Making Life Better: A whole system strategic framework for public health 2013–2023. ([https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/making-life-better-strategic-framework-2013-2023\\_0.pdf](https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/making-life-better-strategic-framework-2013-2023_0.pdf), accessed 10 March 2022).
- Department of Health Northern Ireland (2015). Making Life Better: 1st Progress Report 2014/15. (<https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/making-life-better-1st-progress-report-2014-15.pdf>, accessed 10 March 2022).
- Department of Health Northern Ireland (2016). Health and Wellbeing 2026: Delivering Together. (<https://www.health-ni.gov.uk/sites/default/files/publications/health/health-and-wellbeing-2026-delivering-together.pdf>, accessed 10 March 2022).
- Department of Health Northern Ireland (2018). Ministerial priorities. (<https://www.health-ni.gov.uk/publications/ministerial-priorities>, accessed 10 March 2022).
- Department of Health Northern Ireland (2020a). Hospital statistics: inpatient and day case activity 2009/10 to 2019/20. (<https://www.health-ni.gov.uk/publications/hospital-statistics-inpatient-and-day-case-activity-200910-201920>, accessed 10 March 2022).
- Department of Health Northern Ireland (2020b). Northern Ireland health and social care (HSC) key facts workforce bulletin September 2020. (<https://www.health-ni.gov.uk/publications/northern-ireland-health-and-social-care-hsc-key-facts-workforce-bulletin-september-2020>, accessed 10 March 2022).
- Department of Health Northern Ireland (2020c). Northern Ireland health and social care (HSC) workforce vacancies June 2020. (<https://www.health-ni.gov.uk/publications/northern-ireland-health-and-social-care-hsc-workforce-vacancies-june-2020>, accessed 10 March 2022).
- Department of Health Northern Ireland (2020d). Landmark £13.25m funding and commissioning agreement announced for Community Pharmacy. (<https://www.health-ni.gov.uk/news/landmark-ps1325m-funding-and-commissioning-agreement-announced-community-pharmacy>, accessed 10 March 2022).

- Department of Health Northern Ireland (2021). Future planning model: Integrated Care System NI Draft Framework. (<https://www.health-ni.gov.uk/sites/default/files/consultations/health/doh-future-planning-model-annex-a.pdf>, accessed 10 March 2022).
- Digital Health & Care Scotland. (2018). Scotland's Digital Health and Care Strategy: enabling, connecting and empowering. (<https://www.gov.scot/publications/scotlands-digital-health-care-strategy-enabling-connecting-empowering>, accessed 10 March 2022).
- Dilnot A (2011). Fairer Care Funding: The Report of the Commission on Funding of Care and Support. (<https://webarchive.nationalarchives.gov.uk/20130221121529/https://www.wp.dh.gov.uk/carecommission/files/2011/07/Fairer-Care-Funding-Report.pdf>, accessed 10 March 2022).
- Dixon J et al. (2015). Equity in the Provision of Palliative Care in the UK: Review of Evidence. (<https://www.mariecurie.org.uk/globalassets/media/documents/policy/campaigns/equity-palliative-care-uk-report-full-lse.pdf>, accessed 10 March 2022).
- Doheny S (2015). The organisation of the NHS in the UK: comparing structures in the four countries. (<https://senedd.wales/research%20documents/15-020%20-%20the%20organisation%20of%20the%20nhs%20in%20the%20uk%20comparing%20structures%20in%20the%20four%20countries/15-020.pdf>, accessed 10 March 2022).
- Drummond M (2016). Clinical Guidelines: A NICE Way to Introduce Cost-Effectiveness Considerations? *Value in Health*, 19(5):525–530.
- Dunn P et al. (2020). COVID-19 policy tracker 2020. (<https://www.health.org.uk/news-and-comment/charts-and-infographics/covid-19-policy-tracker>, accessed 10 March 2022).
- Dunn P et al. (2021). Adult social care and COVID-19 after the first wave: assessing the policy response in England. (<https://www.health.org.uk/publications/reports/adult-social-care-and-covid-19-after-the-first-wave>, accessed 10 March 2022).
- European Commission (2021). Eurostat. (<https://ec.europa.eu/eurostat>, accessed 10 March 2022).
- FactCheckNI (2019). Northern Ireland outpatient waiting lists 100 times more than England's? (<https://factcheckni.org/articles/northern-ireland-outpatient-waiting-lists-100-times-more-than-englands/>, accessed 10 March 2022).
- Feeley D (2021). Adult social care: independent review. (<https://www.gov.scot/publications/independent-review-adult-social-care-scotland/pages/14/>, accessed 10 March 2022).
- Fertility Fairness (2021). IVF provision in England. (<http://www.fertilityfairness.co.uk/nhs-fertility-services/ivf-provision-in-england/#:~:text=Fertility%20Fairness%20has%20found%20that,24%20per%20cent%20in%202013>, accessed 10 March 2022).
- Finch D (2021). Health Foundation response to announcement of the public health grant allocations for 2021–22. The Health Foundation. (<https://www.health.org.uk/news-and-comment/news/public-health-grant-allocations-represent-a-24-percent-1bn-cut>, accessed 10 March 2022).
- Finch D, Bibby J, Elwell-Sutton T (2018). Taking our health for granted. The Health Foundation (<https://www.health.org.uk/publications/taking-our-health-for-granted>, accessed 10 March 2022, accessed 10 March 2022).
- Francis R (2013). Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry. (<https://www.gov.uk/government/publications/report-of-the-mid-staffordshire-nhs-foundation-trust-public-inquiry>, accessed 10 March 2022).
- Francis-Devine B (2021). Average earnings by age and region. (<https://commonslibrary.parliament.uk/research-briefings/cbp-8456/>, accessed 10 March 2022).
- Frazer K et al. (2016). Legislative smoking bans for reducing harms from secondhand smoke exposure, smoking prevalence and tobacco consumption. *Cochrane Database of Systematic Reviews*, (2). doi:10.1002/14651858.CD005992.pub3.
- Gardiner C, Ryan T, Gott M (2018). What is the cost of palliative care in the UK? A systematic review. *BMJ Supportive & Palliative Care*, 8(3):250–257.
- Greengross P, Grant K, Collini E (1999). The history and development of the UK National Health Service 1948–1999. (<https://assets.publishing.service.gov.uk/media/>

- [57a08d91e5274a31e000192c/The-history-and-development-of-the-UK-NHS.pdf](#), accessed 10 March 2022).
- Greer SL (2016). Devolution and health in the UK: Policy and its lessons since 1998. *British Medical Bulletin*, 118(1):17–25.
- Griffin N (2019). How the lack of government is affecting healthcare in Northern Ireland. *BMJ*, 364:l72.
- Ham C et al. (2015). The NHS under the coalition government Part one: NHS reform. ([https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_file/the-nhs-under-the-coalition-government-part-one-nhs-reform.pdf](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/the-nhs-under-the-coalition-government-part-one-nhs-reform.pdf)), accessed 10 March 2022).
- Harker R (2019). NHS Funding: Clinical Commissioning Groups. (<https://commonslibrary.parliament.uk/research-briefings/cbp-8399/>), accessed 10 March 2022).
- HDR UK (2021). New initiative supports safe and secure remote access to Northern Ireland's Health and Social Care data for researchers. (<https://www.hdruk.ac.uk/news/new-initiative-supports-safe-and-secure-remote-access-to-northern-irelands-health-and-social-care-data-for-researchers/>), accessed 10 March 2022).
- Health Education England (HEE) (2021). General Practice ST1 Recruitment Figures. (<https://gp recruitment.hee.nhs.uk/resource-bank/recruitment-figures>), accessed 10 March 2022).
- Healthcare Improvement Scotland (2021). Scottish Patient Safety Programme (SPSP). (<https://ihub.scot/improvement-programmes/scottish-patient-safety-programme-spsp/spsp10/the-story-of-spsp/>), accessed 10 March 2022).
- Heath L. (2021). Private healthcare: self-pay UK market report. 3rd ed. 2021. LaingBuisson. (<https://www.laingbuisson.com/shop/private-healthcare-self-pay-uk-market-report-3ed/>), accessed 10 March 2022).
- Heenan D, Appleby J (2017). Health and social care in Northern Ireland: critical care? (<https://www.nuffieldtrust.org.uk/news-item/health-and-social-care-in-northern-ireland-critical-care>), accessed 10 March 2022).
- Heins E, Pollock AM, Price D (2009). The commercialisation of GP services: a survey of APMS contracts and new GP ownership. *British Journal of General Practice*, 59(567):e339.
- Hiam L et al. (2017). What caused the spike in mortality in England and Wales in January 2015? *Journal of the Royal Society of Medicine*, 110(4):131–137.
- Hiam L et al. (2018). Why is life expectancy in England and Wales 'stalling'? *Journal of Epidemiology and Community Health*, 72(5):404–408.
- HM Treasury (2020). Public Expenditure: Statistical Analyses 2020. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/901406/CCS207\\_CCS0620768248-001\\_PESA\\_ARA\\_Complete\\_E-Laying\\_002\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901406/CCS207_CCS0620768248-001_PESA_ARA_Complete_E-Laying_002_.pdf)), accessed 10 March 2022).
- House of Commons (2013). The dismantled National Programme for IT in the NHS. (<https://publications.parliament.uk/pa/cm201314/cmselect/cmpubacc/294/294.pdf>), accessed 10 March 2022).
- HSCB Northern Ireland (2019a). Draft Commissioning Plan 2019/20. (<http://www.hscboard.hscni.net/download/PUBLICATIONS/COMMISSIONING%20PLANS/Commissioning-Plan-2019-20.pdf>), accessed 10 March 2022).
- HSCB Northern Ireland (2019b). The Health and Social Care Commissioning Plan and Indicators of Performance Direction (Northern Ireland) 2019–2020. (<https://www.health-ni.gov.uk/sites/default/files/publications/health/dcp-201920.pdf>), accessed 10 March 2022).
- HSCB Northern Ireland (2021). Patients travelling outside Northern Ireland for treatment. (<http://www.hscboard.hscni.net/travelfortreatment/>), accessed 10 March 2022).
- Hudson B, Hardy B (2001). Localization and partnership in the 'New National Health Service': England and Scotland compared. *Public Administration*, 79(2):315–335.
- Hughes NR et al. (2013). Salford alcohol assertive outreach team: a new model for reducing alcohol-related admissions. *Frontline Gastroenterology*, 4(2):130–134.
- Iacobucci G (2014). Raiding the public health budget. *BMJ*, 348:g2274.
- Iacobucci G (2020a). Covid-19: Government has spent billions on contracts with little

- transparency, watchdog says. *BMJ*, 371:m4474.
- Iacobucci G. (2020b). Covid-19: Government is criticised for “scandalous” £10bn spent on test and trace programme. *BMJ*, 370:m2805.
- Iacobucci G. (2020c). Public Health England is axed in favour of new health protection agency. *BMJ*, 370:m3257.
- IHME (2020). Global Burden of Disease 2019. (<http://www.healthdata.org/gbd/2019>, accessed 10 March 2022).
- Imison C, Castle-Clarke S, Watson R (2016). Reshaping the workforce to deliver the care patients need. (<https://www.nuffieldtrust.org.uk/files/2017-01/reshaping-the-workforce-web-final.pdf>, accessed 10 March 2022).
- Independent Commission on Funding & Finance for Wales (2010). Fairness and accountability: a new funding settlement for Wales. (<https://gov.wales/sites/default/files/publications/2018-10/fairness-and-accountability.pdf>, accessed 10 March 2022).
- Institute for Government (2019). Irish reunification. (<https://www.instituteforgovernment.org.uk/explainers/irish-reunification>, accessed 10 March 2022).
- Institute for Government (2021). Tax and devolution. (<https://www.instituteforgovernment.org.uk/explainers/tax-and-devolution>, accessed 10 March 2022).
- Jolly A, Thomas S, Staney J (2020). London's children and young people who are not British citizens: a profile. ([https://www.london.gov.uk/sites/default/files/final\\_londons\\_children\\_and\\_young\\_people\\_who\\_are\\_not\\_british\\_citizens.pdf](https://www.london.gov.uk/sites/default/files/final_londons_children_and_young_people_who_are_not_british_citizens.pdf), accessed 10 March 2022).
- Jones KH et al. (2019). A profile of the SAIL Databank on the UK Secure Research Platform. *International Journal of Population Data Science*, 4(2):1134.
- Jones L, Mays N (2013). Early experiences of any qualified provider. *British Journal of Healthcare Management*, 19(5):217–224.
- Keep M (2020). The Barnett formula. (<https://commonslibrary.parliament.uk/research-briefings/cbp-7386/>, accessed 10 March 2022).
- Kelly E, Stoye G (2020). The impacts of private hospital entry on the public market for elective care in England. *Journal of Health Economics*, 73, 102353. doi:10.1016/j.jhealeco.2020.102353
- Kontopantelis E et al. (2018). Spatial distribution of clinical computer systems in primary care in England in 2016 and implications for primary care electronic medical record databases: a cross-sectional population study. *BMJ Open*, 8(2):e020738.
- Kraindler J, Gerschlick B, Charlesworth A (2019). Failing to capitalise: Capital spending in the NHS. (<https://www.health.org.uk/publications/reports/failing-to-capitalise>, accessed 10 March 2022).
- Kringos D et al. (2013). The strength of primary care in Europe: an international comparative study. *British Journal of General Practice*, 63(616):e742–e750.
- Kringos DS et al. (2015). Building primary care in a changing Europe. Copenhagen, World Health Organization Regional Office for Europe.
- Kulakiewicz A, Parkin E, Powell T. (2022). NHS charges. House of Commons Library. (<https://commonslibrary.parliament.uk/research-briefings/cbp-7227/>, accessed 10 March, 2022).
- Leon DA, Jdanov DA, Shkolnikov VM (2019). Trends in life expectancy and age-specific mortality in England and Wales, 1970–2016, in comparison with a set of 22 high-income countries: an analysis of vital statistics data. *Lancet Public Health*, 4(11):e575–e582.
- Levene LS et al. (2019). Socioeconomic deprivation scores as predictors of variations in NHS practice payments: a longitudinal study of English general practices 2013–2017. *British Journal of General Practice*, 69(685):e546.
- Limb M (2017). Patients in Wales to take control of medical records. *BMJ*, 357:j2982.
- Loopstra R et al. (2016). Austerity and old-age mortality in England: a longitudinal cross-local area analysis, 2007–2013. *Journal of the Royal Society of Medicine*, 109(3):109–116.
- Maguire D (2018). Delayed transfers of care: a target that misses the mark? (<https://www.kingsfund.org.uk/blog/2018/01/delayed-transfers-care-target-misses-mark>).
- Maringe C et al. (2012). Stage at diagnosis and ovarian cancer survival: evidence from the International Cancer Benchmarking Partnership. *Gynecological Oncology*, 127(1):75–82.



- Maringe C et al. (2013). Stage at diagnosis and colorectal cancer survival in six high-income countries: a population-based study of patients diagnosed during 2000–2007. *Acta Oncologica*, 52(5):919–932.
- Marshall L, Charlesworth A, Hurst J (2014). The NHS payment system: evolving policy and emerging evidence. (<https://www.nuffieldtrust.org.uk/files/2017-01/2014-nhs-payment-research-report-web-final.pdf>, accessed 10 March 2022).
- Marshall L et al. (2019). Mortality and life expectancy trends in the UK: stalling progress. (<https://www.health.org.uk/publications/reports/mortality-and-life-expectancy-trends-in-the-uk>, accessed 10 March 2022).
- Martin S, Lomas J, Claxton K (2020). Is an ounce of prevention worth a pound of cure? A cross-sectional study of the impact of English public health grant on mortality and morbidity. *BMJ Open*, 10(10):e036411.
- Mason A (2005). Does the English NHS have a ‘Health Benefit Basket’? *The European journal of health economics : HEPAC : health economics in prevention and care*, (Suppl. 1):18–23.
- Masters R, Anwar E, Collins B, et al. (2017) Return on investment of public health interventions: a systematic review. *J Epidemiol Community Health* 71:827–834.
- Mays N, Jones L (2011). Understanding New Labour’s market reforms of the English NHS. (<https://www.kingsfund.org.uk/publications/understanding-new-labours-market-reforms-english-nhs>, accessed 10 March 2022).
- McCartney G et al. (2015). Explaining the excess mortality in Scotland compared with England: pooling of 18 cohort studies. *Journal of Epidemiology and Community Health*, 69(1):20–27.
- McGregor P, O’Neill C (2014). Resource allocation in the Northern Ireland health service: consensus or challenge? *Public Money & Management*, 34(6):409–416.
- McKee M et al. (2021). The changing health needs of the UK population. *Lancet* (London, England), 397(10288):1979–1991.
- MHRA (Medicines and Health care products Regulatory Agency) (2021). Yellow card scheme. (<https://yellowcard.mhra.gov.uk/>, accessed 10 March 2022).
- Millard C, Wessely S (2014). Parity of esteem between mental and physical health. *BMJ*, 349:g6821.
- Minton J et al. (2017). Visualising and quantifying ‘excess deaths’ in Scotland compared with the rest of the UK and the rest of Western Europe. *Journal of Epidemiology and Community Health*, 71(5):461–467.
- Moberly T (2020). Northern Ireland nurses strike over safe staffing and pay parity. *BMJ*, 368:m145.
- National Audit Office (2007). Pay Modernisation: A new contract for NHS consultants in England. (<https://www.nao.org.uk/report/pay-modernisation-a-new-contract-for-nhs-consultants-in-england/>, accessed 10 March 2022).
- National Audit Office (2014). Funding healthcare: Making allocations to local areas. (<https://www.nao.org.uk/report/funding-healthcare-making-allocations-to-local-areas/>, accessed 10 March 2022).
- National Audit Office (2016). Financial sustainability of the NHS. (<https://www.nao.org.uk/report/financial-sustainability-of-the-nhs/>, accessed 10 March 2022).
- National Audit Office (2017a). Health and social care integration. (<https://www.nao.org.uk/wp-content/uploads/2017/02/Health-and-social-care-integration.pdf>, accessed 10 March 2022).
- National Audit Office (2017b). Selected health arm’s-length bodies. (<https://www.nao.org.uk/wp-content/uploads/2017/12/A-Short-Guide-to-Selected-health-arms-length-bodies.pdf>, accessed 10 March 2022).
- National Audit Office (2017c). A Short Guide to Selected health arm’s-length bodies. (<https://www.nao.org.uk/report/a-short-guide-to-the-selected-health-arms-length-bodies/>, accessed 10 March 2022).
- National Statistics (2018). Prescriptions dispensed in the community: 2017. (<https://gov.wales/prescriptions-dispensed-community-2017#:~:text=The%20number%20of%20prescription%20items,to%20the%20cost%20in%202016>, accessed 10 March 2022).

- Naylor R (2017). NHS Property and Estates: why the estate matters for patients. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/607725/Naylor\\_review.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/607725/Naylor_review.pdf), accessed 10 March 2022).
- Neville S, Plimmer G (2021). NHS and private sector forge new partnerships to clear patient backlog. (<https://www.ft.com/content/771d3df9-3602-4573-b737-6d6e4927257b>, accessed 10 March 2022).
- NHS Business Service Authority (2020). NHS tax credit exemption certificates. (<https://www.nhsbsa.nhs.uk/exemption-certificates/nhs-tax-credit-exemption-certificates>, accessed 10 March 2022).
- NHS Business Service Authority (2021). Drug tariff. (<https://www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/drug-tariff>, accessed 10 March 2022).
- NHS Confederation (2017). NHS statistics, facts and figures. (<https://www.nhsconfed.org/publications/key-statistics-nhs>, accessed 10 March 2022).
- NHS Confederation Wales (2021). The NHS Wales COVID-19 Innovation and Transformation Study Report. (<https://www.nhsconfed.org/sites/default/files/2021-06/NHS-Wales-COVID-19-innovation-transformation-study-report-june.pdf>, accessed 10 March 2022).
- NHS Digital (2019). Personal social services survey of adult carers in England 2018–19. (<https://digital.nhs.uk/data-and-information/publications/statistical/personal-social-services-survey-of-adult-carers>, accessed 10 March 2022).
- NHS Digital (2020a). Dental earnings and expenses estimates 2018/19. (<https://digital.nhs.uk/data-and-information/publications/statistical/dental-earnings-and-expenses-estimates/2018-19>, accessed 10 March 2022).
- NHS Digital (2020b). GP earnings and expenses estimates 2018/19. (<https://digital.nhs.uk/data-and-information/publications/statistical/gp-earnings-and-expenses-estimates/2018-19>, accessed 10 March 2022).
- NHS Digital (2020c). Health Survey for England 2019. (<https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2019>, accessed 10 March 2022).
- NHS Digital (2020d). Hospital accident & emergency activity 2019–20. (<https://digital.nhs.uk/data-and-information/publications/statistical/hospital-accident--emergency-activity/2019-20/home-nations>, accessed 10 March 2022).
- NHS Digital (2020e). NHS sickness absence rates January 2020 to March 2020 and Annual Summary 2009–10 to 2019–20, Provisional Statistics. (<https://digital.nhs.uk/data-and-information/publications/statistical/nhs-sickness-absence-rates/march-2020>, accessed 10 March 2022).
- NHS Digital (2020f). NHS vacancy statistics (and previous NHS Vacancies Survey). (<https://digital.nhs.uk/data-and-information/publications/statistical/nhs-vacancies-survey>, accessed 10 March 2022).
- NHS Digital (2020g). NHS workforce statistics – July 2020. (<https://digital.nhs.uk/data-and-information/publications/statistical/nhs-workforce-statistics/july-2020>, accessed 10 March 2022).
- NHS Digital (2021a). About the NHS Outcomes Framework (NHS OF). (<https://digital.nhs.uk/data-and-information/publications/ci-hub/nhs-outcomes-framework>, accessed 10 March 2022).
- NHS Digital (2021b). Appointments in General Practice June 2021. (<https://digital.nhs.uk/data-and-information/publications/statistical/appointments-in-general-practice/june-2021>, accessed 10 March 2022).
- NHS Digital (2021c). Data on written complaints in the NHS. (<https://digital.nhs.uk/data-and-information/publications/statistical/data-on-written-complaints-in-the-nhs/2020-21-quarter-3-and-quarter-4>, accessed 10 March 2022).
- NHS Digital (2021d). NHS vacancy statistics England April 2015–March 2021 experimental statistics. (<https://digital.nhs.uk/data-and-information/publications/statistical/nhs-vacancies-survey/april-2015--march-2021>, accessed 10 March 2022).

- NHS Employers (2004). Agenda for Change: NHS Terms and Conditions of Service Handbook. (<https://www.nhsemployers.org/sites/default/files/2021-06/tcs-handbook-version-2004.pdf>, accessed 10 March 2022).
- NHS Employers (2020). NHS terms and conditions (AfC) pay scales – annual. (<https://www.nhsemployers.org/pay-pensions-and-reward/nhs-terms-and-conditions-of-service--agenda-for-change/pay-scales/annual>, accessed 10 March 2022).
- NHS Employers (2022). Developing countries – recruitment. (<https://www.nhsemployers.org/articles/developing-countries-recruitment>, accessed 10 March 2022).
- NHS England (2014). NHS Five Year Forward View. (<https://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf>, accessed 10 March 2022).
- NHS England (2019a). 2019/20 National tariff payment system. (<https://www.england.nhs.uk/publication/past-national-tariffs-documents-and-policies/>, accessed 10 March 2022).
- NHS England (2019b). Commissioning for Quality and Innovation (CQUIN): guidance for 2019–20. (<https://www.england.nhs.uk/wp-content/uploads/2019/03/CQUIN-Guidance-1920-080319.pdf>, accessed 10 March 2022).
- NHS England (2019c). The Community Pharmacy Contractual Framework for 2019/20 to 2023/24: supporting delivery for the NHS Long Term Plan. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/819601/cpcf-2019-to-2024.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819601/cpcf-2019-to-2024.pdf), accessed 10 March 2022).
- NHS England (2019d). NHS Long Term Plan. (<https://www.longtermplan.nhs.uk/>).
- NHS England (2020a). Business case approval process – capital investment, property, equipment and digital technology. (<https://www.england.nhs.uk/bus-case/>, accessed 10 March 2022).
- NHS England (2020b). Developing the payment system for 2021/22: engagement on national tariff and related contracting policies for 2021/22. ([https://www.england.nhs.uk/wp-content/uploads/2021/02/Developing\\_the\\_payment\\_system\\_for\\_2021-22.pdf](https://www.england.nhs.uk/wp-content/uploads/2021/02/Developing_the_payment_system_for_2021-22.pdf), accessed 10 March 2022).
- NHS England (2020c). Evidence-Based Interventions Programme. (<https://www.england.nhs.uk/evidence-based-interventions/>, accessed 10 March 2022).
- NHS England (2020d). Guidance on NHS system capital envelopes for 2020/21. (<https://www.england.nhs.uk/wp-content/uploads/2020/04/C0096-Capital-regime-planning-guidance-1-April-2020.pdf>, accessed 10 March 2022).
- NHS England (2020e). Integrating care: next steps to building strong and effective integrated care systems across England. (<https://www.england.nhs.uk/wp-content/uploads/2021/01/integrating-care-next-steps-to-building-strong-and-effective-integrated-care-systems.pdf>, accessed 10 March 2022).
- NHS England (2020f). NHS England Guidance for Finance Business Rules. (<https://www.england.nhs.uk/wp-content/uploads/2019/02/Annex-D-guidance-for-finance-business-rules-v2.pdf>, accessed 10 March 2022).
- NHS England (2020g). NHS voucher values for glasses and lenses. (<https://www.nhs.uk/nhs-services/opticians/nhs-voucher-values-for-glasses-and-lenses/>, accessed 10 March 2022).
- NHS England (2020h). Pharmacy Quality Scheme: Guidance 2020/21. (<https://www.nhsbsa.nhs.uk/sites/default/files/2020-08/Drug%20Tariff%20Part%20VILA%20Pharmacy%20Quality%20Scheme%2028082020.pdf>, accessed 10 March 2022).
- NHS England (2020i). Revised arrangements for NHS contracting and payment during the COVID-19 pandemic. ([https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/COVID-19\\_NHS-contracting-and-payment\\_26-March.pdf](https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/COVID-19_NHS-contracting-and-payment_26-March.pdf), accessed 10 March 2022).
- NHS England (2021a). About urgent and emergency care. (<https://www.england.nhs.uk/urgent-emergency-care/about-uec/>, accessed 10 March 2022).
- NHS England (2021b). Atlases. (<https://www.england.nhs.uk/rightcare/products/atlas/>, accessed 10 March 2022).
- NHS England (2021c). Bed availability and occupancy data – overnight. (<https://www.england.nhs.uk/bed-availability/>, accessed 10 March 2022).



- [nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/bed-data-overnight/](https://www.nhs.uk/statistics/statistical-work-areas/bed-availability-and-occupancy/bed-data-overnight/), accessed 10 March 2022).
- NHS England (2021d). Consolidated NHS provider accounts. (<https://www.england.nhs.uk/wp-content/uploads/2021/01/consolidated-nhs-provider-accounts-19-20.pdf>, accessed 10 March 2022).
- NHS England (2021e). Consultant-led referral to treatment waiting times data 2020–21. (<https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waiting-times/rtt-data-2020-21/>, accessed 10 March 2022).
- NHS England (2021f). Delayed transfers of care data 2019–20. (<https://www.england.nhs.uk/statistics/statistical-work-areas/delayed-transfers-of-care/>, accessed 10 March 2022).
- NHS England (2021g). Find hospital services. (<https://www.nhs.uk/Service-Search/other-services/Hospital/LocationSearch/7>, accessed 10 March 2022).
- NHS England (2021h). Getting it Right First Time. (<https://www.gettingitrightfirsttime.co.uk/>, accessed 10 March 2022).
- NHS England (2021i). How much will I pay for NHS dental treatment? (<https://www.nhs.uk/nhs-services/dentists/dental-costs/how-much-will-i-pay-for-nhs-dental-treatment/>, accessed 10 March 2022).
- NHS England (2021j). Items which should not be routinely prescribed in primary care. (<https://www.england.nhs.uk/medicines-2/items-which-should-not-be-routinely-prescribed/>, accessed 10 March 2022).
- NHS England (2021k). MedTech Funding Mandate policy 2021/22. (<https://www.england.nhs.uk/aac/wp-content/uploads/sites/50/2021/01/mtfm-policy-guidance-jan-2021.pdf>, accessed 10 March 2022).
- NHS England (2021l). National patient and staff surveys. (<https://www.england.nhs.uk/statistics/statistical-work-areas/patient-surveys/>, accessed 10 March 2022).
- NHS England (2021m). The Rapid Uptake Products (RUP) programme. (<https://www.england.nhs.uk/aac/what-we-do/what-innovations-do-we-support/rapid-uptake-products/>, accessed 10 March 2022).
- NHS England (2021n). Shared decision making to comply with national legislation and policy. (<https://www.england.nhs.uk/shared-decision-making/why-is-shared-decision-making-important/shared-decision-making-to-comply-with-national-legislation-and-policy/>, accessed 10 March 2022).
- NHS England (2021o). Targeted Enhanced Recruitment Scheme. (<https://www.england.nhs.uk/gp/gpfp/workforce/building-the-general-practice-workforce/recruitment/>, accessed 10 March 2022).
- NHS England (2021p). When you need to pay towards NHS care. (<https://www.nhs.uk/nhs-services/help-with-health-costs/when-you-need-to-pay-towards-nhs-care/>, accessed 10 March 2022).
- NHS England (2021q). Who can get free prescriptions. (<https://www.nhs.uk/nhs-services/prescriptions-and-pharmacies/who-can-get-free-prescriptions/>, accessed 10 March 2022).
- NHS England & NHS Wales (2018). England / Wales crossborder healthcare services: statement of value and principles. (<https://www.england.nhs.uk/wp-content/uploads/2018/11/cross-border-statement-of-values-and-principles.pdf>, accessed 10 March 2022).
- NHS Improvement (2019). Performance of the NHS provider sector for the year ended 31 March 2019. (<https://www.england.nhs.uk/wp-content/uploads/2020/08/performance-of-the-nhs-provider-sector-quarter-4-1819.pdf>, accessed 10 March 2022).
- NHS Providers (2020). Blended payments: will a new payment system help deliver the long term plan? (<https://nhsproviders.org/news-blogs/blogs/blended-payments-will-a-new-payment-system-help-deliver-the-long-term-plan>, accessed 10 March 2022).
- NHS Scotland (2010). Healthcare quality strategy for NHS Scotland. (<https://www.gov.scot/publications/healthcare-quality-strategy-nhsscotland/documents/>, accessed 10 March 2022).
- NHS Scotland (2018). Practising realistic medicine: summary. (<https://www.gov.scot/publications/summary-practising-realistic-medicine/>, accessed 10 March 2022).

- NHS Scotland (2021a). Organisations. (<https://www.scot.nhs.uk/organisations/>, accessed 10 March 2022).
- NHS Scotland (2021b). What is national planning? (<https://www.nss.nhs.scot/specialist-healthcare/national-planning/what-is-national-planning/>, accessed 10 March 2022).
- NHS Wales (2015). Informed Health and Care: a digital health and social care strategy for Wales. (<https://gov.wales/digital-health-and-social-care-strategy>, accessed 10 March 2022).
- NHS Wales (2019a) Establishment of NHS Executive for Wales. (<https://phw.nhs.wales/about-us/board-and-executive-team/board-papers/board-meetings/2019-2020/26-september-2019/board-26-sept-19-papers/7-2-1-260919-establishment-of-nhs-executive-for-wales/>, accessed 10 March 2022).
- NHS Wales (2019b). Prudent healthcare: securing health and well-being for future generations. (<https://gov.wales/sites/default/files/publications/2019-04/securing-health-and-well-being-for-future-generations.pdf>, accessed 10 March 2022).
- NHS Wales (2020). NHS beds: April 2018 to March 2019. (<https://gov.wales/nhs-beds-april-2018-march-2019.html>, accessed 10 March 2022).
- NHS Wales (2021a). Financial flows in NHS Wales. (<http://www.wales.nhs.uk/governance-emanual/financial-flows-in-nhs-wales>, accessed 10 March 2022).
- NHS Wales (2021b). Structure. (<http://www.wales.nhs.uk/nhs-wales/about-us/structure>, accessed 10 March 2022).
- NI HSC (2021). HSC structure. (<http://online.hscni.net/home/hsc-structure/>, accessed 10 March 2022).
- NICE (2014). Cut NHS waste through NICE's 'do not do' database. (<https://www.nice.org.uk/news/article/cut-nhs-waste-through-nice-s--do-not-do--database>, accessed 10 March 2022).
- NICE (2015). Carrying NICE over the threshold. (<https://www.nice.org.uk/news/blog/carrying-nice-over-the-threshold>, accessed 10 March 2022).
- NICE (2021). Medical Technologies Evaluation Programme. (<https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-medical-technologies-evaluation-programme>, accessed 10 March 2022).
- Nicholas T (2019). Scrapping prescription charges: should it be a priority? (<https://www.kingsfund.org.uk/blog/2019/09/scrapping-prescription-charges>, accessed 10 March 2022).
- NICOR (2020). Myocardial Ischaemia National Audit Project Summary Report 2018/19. (<https://www.nicor.org.uk/national-cardiac-audit-programme/myocardial-ischaemia-minap-heart-attack-audit/>, accessed 10 March 2022).
- NMC (2020). Registration data reports. (<https://www.nmc.org.uk/about-us/reports-and-accounts/registration-statistics/>, accessed 10 March 2022).
- Nolte E, McKee M (2004). Does healthcare save lives? Avoidable mortality revisited. The Nuffield Trust. (<https://www.nuffieldtrust.org.uk/research/does-healthcare-save-lives-avoidable-mortality-revisited>, accessed 10 March 2022).
- Northern Ireland Health and Social Care Board (2016). eHealth and Care Strategy. (<https://www.health-ni.gov.uk/publications/ehealth-and-care-strategy>, accessed 10 March 2022).
- Nuffield Trust (2021a). Ambulance response times. (<https://www.nuffieldtrust.org.uk/resource/ambulance-response-times#background>, accessed 10 March 2022).
- Nuffield Trust (2021b). NHS staffing tracker. (<https://www.nuffieldtrust.org.uk/nhs-staffing-tracker/general-practice/>, accessed 10 March 2022).
- Nuffield Trust (2021c). Number of patients per GP by CCG. (<https://www.nuffieldtrust.org.uk/chart/number-of-patients-per-gp-by-ccg>, accessed 10 March 2022).
- OBR (2021). Economic and fiscal outlook- March 2021. (<https://obr.uk/efo/economic-and-fiscal-outlook-march-2021/>, accessed 10 March 2022).
- OECD (2016). OECD Reviews of Health Care Quality: United Kingdom 2016: raising standards. ([https://read.oecd-ilibrary.org/social-issues-migration-health/oecd-reviews-of-health-care-quality-united-kingdom-2016\\_9789264239487-en#page1](https://read.oecd-ilibrary.org/social-issues-migration-health/oecd-reviews-of-health-care-quality-united-kingdom-2016_9789264239487-en#page1), accessed 10 March 2022).

- OECD (2017). A System of Health Accounts 2011: Revised edition. (<https://www.oecd.org/publications/a-system-of-health-accounts-2011-9789264270985-en.htm>, accessed 10 March 2022).
- OECD (2019a). General government spending. (<https://data.oecd.org/gga/general-government-spending.htm>, accessed 10 March 2022).
- OECD (2019b). Health at a Glance 2019. ([https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019\\_4dd50c09-en](https://www.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-2019_4dd50c09-en), accessed 10 March 2022).
- OECD (2019c). Recent trends in international migration of doctors, nurses and medical students. (<https://www.oecd-ilibrary.org/content/publication/5571ef48-en>, accessed 10 March 2022).
- OECD (2021a). Income inequality. (<https://data.oecd.org/inequality/income-inequality.htm>, accessed 10 March 2022).
- OECD (2021b). Health at a Glance. (<https://data.oecd.org/healtheq/computed-tomography-ct-scanners.htm>, accessed 10 March 2022).
- OECD (2021c). OECD Health Statistics 2021. (<http://www.oecd.org/els/health-systems/health-data.htm>, accessed 10 March 2022).
- ONS (2013). Census analysis: Unpaid care in England and Wales, 2011 and comparison with 2001. (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/articles/2011censusanalysisunpaidcareinenglandandwales2011andcomparisonwith2001/2013-02-15>, accessed 10 March 2022).
- ONS (2018). The 2008 recession 10 years on. (<https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/the2008recession10yearson/2018-04-30>, accessed 10 March 2022).
- ONS (2019). International migration and the health care workforce. (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/datasets/internationalmigrationandthehealthcareworkforce>, accessed 10 March 2022).
- ONS (2020a). Adult smoking habits in the UK: 2019. (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/adultsmokinghabitsingreatbritain/2019>, accessed 10 March 2022).
- ONS (2020b). Healthcare expenditure, UK Health Accounts: 2018. (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcaresystem/bulletins/ukhealthaccounts/2018>, accessed 10 March 2022).
- ONS (2020c). Life expectancy for local areas of the UK: between 2001 to 2003 and 2017 to 2019. (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandlifeexpectancies/bulletins/lifeexpectancyforlocalareasoftheuk/between2001to2003and2017to2019>, accessed 10 March 2022).
- ONS (2020d). Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2019. (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2019estimates>, accessed 10 March 2022).
- ONS (2021a). Avoidable mortality in the UK: 2019. (<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/bulletins/avoidablemortalityinenglandandwales/2019>, accessed 10 March 2022).
- ONS (2021b). Impact of births and deaths on UK population change: 2020. (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/impactofbirthsanddeathsonukpopulationchange/2020>, accessed 10 March 2022).
- ONS (2021c). International comparisons of GDP during the coronavirus (COVID-19) pandemic. (<https://www.ons.gov.uk/economy/grossdomesticproductgdp/articles/internationalcomparisonsofgdpduringthecoronaviruscovid19pandemic/2021-02-01>, accessed 10 March 2022).
- ONS (2021d). Monthly mortality analysis, England and Wales: May 2021. (<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/monthlymortalityanalysisenglandandwales/may2021>, accessed 10 March 2022).

- ONS (2021e). National life tables – life expectancy in the UK: 2018 to 2020. (<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifexpectancies/bulletins/nationallifetablesunitedkingdom/2018to2020>, accessed 10 March 2022).
- ONS (2021f). Overview of the UK population: January 2021. (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/articles/overviewoftheukpopulation/january2021>, accessed 10 March 2022).
- ONS (2021g). Population estimates for the UK, England and Wales, Scotland and Northern Ireland: mid-2020. (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2020>, accessed 10 March 2022).
- ONS (2021h). UK government debt and deficit: March 2021. (<https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/publicspending/bulletins/ukgovernmentdebtanddeficitforeurostatmaast/march2021>, accessed 10 March 2022).
- Oxman AD et al. (2005). A surrealistic mega-analysis of reorganization theories. *Journal of the Royal Society of Medicine*, 98(12):563–568.
- Oxtoby K (2019). GP partnerships versus salaried roles: what to consider when choosing a career path. *BMJ*, 366:l5001.
- Palmer B (2019). Is the number of GPs falling across the UK? The Nuffield Trust (<https://www.nuffieldtrust.org.uk/news-item/is-the-number-of-gps-falling-across-the-uk>, accessed 10 March 2022).
- Peckham S et al. (2015). The organisation and delivery of health improvement in general practice and primary care: a scoping study. Southampton (UK): NIHR Journals Library. (<https://pubmed.ncbi.nlm.nih.gov/26131542/>, accessed 10 March 2022).
- Pell D et al. (2021). Changes in soft drinks purchased by British households associated with the UK soft drinks industry levy: controlled interrupted time series analysis. *BMJ*, 372:n254.
- Pew Research Center (2019). Unauthorized Immigrants in the United Kingdom. (<https://www.pewresearch.org/global/fact-sheet/unauthorized-immigrants-in-the-united-kingdom/>, accessed 10 March 2022).
- Portes J, Oommen E, Johnson C (2020). UK migration policy and the Welsh NHS and social care workforce. Wales Centre for Public Policy. (<https://www.wcpp.org.uk/wp-content/uploads/2020/09/UK-migration-policy-and-the-Welsh-NHS-and-social-care-workforce-1.pdf>, accessed 10 March 2022).
- Powell A & Booth L (2021). Public sector pay. House of Commons Library. (<https://commonslibrary.parliament.uk/research-briefings/cbp-8037/>, accessed 10 March 2022, accessed 10 March 2022).
- Practice Index (2016). Refusing patient registrations – what’s the score? (<https://practiceindex.co.uk/gp/blog/refusing-patient-registrations/>, accessed 10 March 2022).
- Prescription Charges Coalition (2017). Still paying the price: prescription charges and people with long-term conditions. ([http://www.prescriptionchargescoalition.org.uk/uploads/1/2/7/5/12754304/still\\_paying\\_the\\_price\\_june\\_2017.pdf](http://www.prescriptionchargescoalition.org.uk/uploads/1/2/7/5/12754304/still_paying_the_price_june_2017.pdf), accessed 10 March 2022).
- PSNC (2019). The Community Pharmacy Contractual Framework for 2019/20 to 2023/24: supporting delivery for the NHS Long Term Plan. (<https://www.gov.uk/government/publications/community-pharmacy-contractual-framework-2019-to-2024>, accessed 10 March 2022).
- PSNC (2020). Is Wales the Future for England? (<https://psnc.org.uk/our-psnc-blog/is-wales-the-future-for-england/>, accessed 10 March 2022).
- PSNC (2021). How discount deduction works. (<https://psnc.org.uk/dispensing-supply/endorsement/discount-deduction/>, accessed 10 March 2022).
- Public Accounts Committee: Revisiting NHS Finances (2019). Evidence paper from the Director General, Health and Social Services. (<http://www.seneddtest.assembly.wales/documents/s91108/PAC5-20-19%20P3%20-%20Welsh%20Government%20Paper%20on%20NHS%20Finances.pdf>, accessed 10 March 2022).



- Public Health England (2018). Making the case for preconception care. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/729018/Making\\_the\\_case\\_for\\_preconception\\_care.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729018/Making_the_case_for_preconception_care.pdf), accessed 10 March 2022).
- Public Health England (2020). Health matters: public health issues. (<https://www.gov.uk/government/collections/health-matters-public-health-issues>, accessed 10 March 2022).
- Public Health Scotland (2019). NHSScotland Workforce Quarter ending 30 June 2019. (<https://www.isdscotland.org/Health-Topics/Workforce/Publications/2019-09-03/2019-09-03-Workforce-Summary.pdf>, accessed 10 March 2022).
- Public Health Scotland (2020). Available beds by specialty & NHS board of treatment. (<https://www.isdscotland.org/Health-Topics/Hospital-Care/Beds/>, accessed 10 March 2022).
- Public Health Scotland (2021a). Delayed Discharges in NHS Scotland. (<https://publichealthscotland.scot/media/7886/2021-05-18-delayeddischarges-annual-report.pdf>, accessed 10 March 2022).
- Public Health Scotland (2021b). NHS waiting times - 18 weeks referral to treatment. (<https://beta.isdscotland.org/find-publications-and-data/healthcare-resources/waiting-times/nhs-waiting-times-18-weeks-referral-to-treatment/25-february-2020/>, accessed 10 March 2022).
- Public Health Scotland (2021c). NHS Scotland Workforce Quarter ending 31 March 2021. (<https://turasdata.nes.nhs.scot/workforce-official-statistics/nhsscotland-workforce/publications/01-june-2021/>, accessed 10 March 2022).
- Public Health Scotland (2021d). The Resource Allocation Formula in Scotland. (<https://www.isdscotland.org/Health-Topics/Finance/Resource-Allocation-Formula/>, accessed 10 March 2022).
- Rees-Roberts M et al. (2019). Hospice at Home services in England: a national survey. *BMJ Supportive & Palliative Care*, 11:454–460.
- Rocks S, Idriss O (2020). Did hospital capacity affect mortality during the pandemic's first wave? (<https://www.health.org.uk/news-and-comment/charts-and-infographics/did-hospital-capacity-affect-mortality-during-the-pandemic>, accessed 10 March 2022).
- Roland M, Guthrie B (2016). Quality and Outcomes Framework: what have we learnt? *BMJ*, 354:i4060.
- Rolewicz L, Palmer B (2021). The NHS workforce in numbers. The Nuffield Trust. (<https://www.nuffieldtrust.org.uk/resource/the-nhs-workforce-in-numbers>, accessed 10 March 2022).
- Rose PW et al. (2015). Explaining variation in cancer survival between 11 jurisdictions in the International Cancer Benchmarking Partnership: a primary care vignette survey. *BMJ Open*, 5(5):e007212.
- Roth DL, Fredman L, Haley WE (2015). Informal caregiving and its impact on health: a reappraisal from population-based studies. *The Gerontologist*, 55(2):309–319.
- Royal College of Emergency Medicine (2021). Delayed hospital handovers: Impact assessment of patient harm. (<https://aace.org.uk/wp-content/uploads/2021/11/AACE-Delayed-hospital-handovers-Impact-assessment-of-patient-harm-FINAL-Nov-2021.pdf>, accessed 10 March 2022).
- Royal College of Nursing (RCN) (2020). Beyond the Bursary: Workforce Supply. (<https://www.rcn.org.uk/professional-development/publications/rcn-beyond-the-bursary-workforce-supply-uk-pub-009319>, accessed 10 March 2022).
- Royal College of Physicians (RCP) (2018). Recovering after a hip fracture: helping people understand physiotherapy in the NHS. (<https://www.rcplondon.ac.uk/projects/outputs/recovering-after-hip-fracture-helping-people-understand-physiotherapy-nhs>, accessed 10 March 2022).
- Royal College of Surgeons of England (2014). Is access to surgery a postcode lottery? (<https://www.rcseng.ac.uk/-/media/files/rcs/news-and-events/is-access-to-surgery-a-postcode-lottery.pdf>, accessed 10 March 2022).
- Rudd AG et al. (2018). 20 years of researching stroke through audit. *Clinical Rehabilitation*, 32(8):997–1006.

- Schneider E et al. (2017). Mirror, Mirror 2017: International comparison reflects flaws and opportunities for better US health care. ([https://www.commonwealthfund.org/sites/default/files/documents/media\\_files\\_publications\\_fund\\_report\\_2017\\_jul\\_schneider\\_mirror\\_mirror\\_2017.pdf](https://www.commonwealthfund.org/sites/default/files/documents/media_files_publications_fund_report_2017_jul_schneider_mirror_mirror_2017.pdf), accessed 10 March 2022).
- Scottish Government (2004). National Health Service Reform (Scotland) Act 2004. (<https://www.legislation.gov.uk/asp/2004/7/body>, accessed 10 March 2022).
- Scottish Government (2014). Public Bodies (Joint Working) (Scotland) Act 2014. (<http://www.legislation.gov.uk/asp/2014/9/contents/enacted>, accessed 10 March 2022).
- Scottish Government (2015). National health and wellbeing outcomes framework. (<https://www.gov.scot/publications/national-health-wellbeing-outcomes-framework/>, accessed 10 March 2022).
- Scottish Government (2016a). A National Clinical Strategy for Scotland. (<https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2016/02/national-clinical-strategy-scotland/documents/national-clinical-strategy-scotland/national-clinical-strategy-scotland/govscot%3Adocument/00494144.pdf>, accessed 10 March 2022).
- Scottish Government (2016b). NHSScotland Local Delivery Plan Guidance 2015-16. (<https://www.gov.scot/publications/nhsscotland-local-delivery-plan-guidance-2015-16/pages/4/>, accessed 10 March 2022).
- Scottish Government (2018). Scotland's public health priorities. (<https://www.gov.scot/publications/scotlands-public-health-priorities/>, accessed 10 March 2022).
- Scottish Government (2019a). Ministerial Strategic Group for Health and Community Care, review of progress with integration of health and social care - final report. (<https://www.gov.scot/publications/ministerial-strategic-group-health-community-care-review-progress-integration-health-social-care-final-report/>, accessed 10 March 2022).
- Scottish Government (2019b). NHS Scotland performance against LDP standards. (<https://www.gov.scot/publications/nhsscotland-performance-against-ldp-standards/>, accessed 10 March 2022).
- Scottish Government (2019c). Patient rights and responsibilities: charter. (<https://www.gov.scot/publications/charter-patient-rights-responsibilities-2/>, accessed 10 March 2022).
- Scottish Government (2020). Scottish Health Survey 2019. (<https://www.gov.scot/publications/scottish-health-survey-2019-volume-1-main-report/documents/>, accessed 10 March 2022).
- Scottish Government (2021a). Coronavirus (COVID-19) initial health and social care response: lessons identified. (<https://www.gov.scot/publications/lessons-identified-initial-health-social-care-response-covid-19-scotland/pages/5/>, accessed 10 March 2022).
- Scottish Government (2021b). National Care Service. (<https://www.gov.scot/policies/social-care/national-care-service/>, accessed 10 March 2022).
- Scottish Government (2021c). National performance framework: improving the national performance framework. (<https://blogs.gov.scot/national-performance-framework/2021/09/30/improving-the-national-performance-framework/>, accessed 10 March 2022).
- Scottish Government (2021d). NHS Recovery Plan. (<https://www.gov.scot/publications/nhs-recovery-plan/>, accessed 10 March 2022).
- Sheikh A et al. (2021). Health information technology and digital innovation for national learning health and care systems. *Lancet Digital Health*, 3(6):e383–e396.
- Sizmur S, Raleigh V (2018). The risks to care quality and staff wellbeing of an NHS system under pressure ([https://allcatsrgrey.org.uk/wp/download/management/human\\_resources/Risks-to-care-quality-and-staff-wellbeing-VR-SS-v8-Final.pdf](https://allcatsrgrey.org.uk/wp/download/management/human_resources/Risks-to-care-quality-and-staff-wellbeing-VR-SS-v8-Final.pdf), accessed 10 March 2022).
- Skills for Care (2020). The state of the adult social care sector and workforce in England. (<https://www.skillsforcare.org.uk/adult-social-care-workforce-data/Workforce-intelligence/publications/national-information/The-state-of-the-adult-social-care-sector-and-workforce-in-England.aspx>, accessed 10 March 2022).
- Social Care Wales (2021). Strategic approach to data. (<https://socialcare.wales/research-and-data/strategic-approach-to-data>, accessed 10 March 2022).

- SSNAP (2020). Moving the Dial of Stroke Care: Sixth Annual Report. (<https://www.hqip.org.uk/resource/sentinel-stroke-national-audit-programme-sixth-annual-report/#.YPgBXehKiUk>, accessed 10 March 2022).
- StatsWales (2021a). Delayed transfers of care. (<https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Performance/Delayed-Transfers-of-Care>, accessed 10 March 2022).
- StatsWales (2021b). NHS staff by staff group and year. (<https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Staff/NHS-Staff-Summary/nhsstaff-by-staffgroup-year>, accessed 10 March 2022).
- StatsWales (2021c). Percentage of patient pathways waiting to start treatment within target time by month and grouped weeks. (<https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Hospital-Waiting-Times/Referral-to-Treatment/percentage-patientpathwayswaiting-month-grouped-weeks>, accessed 10 March 2022).
- Steel D, Cylus J (2012). United Kingdom (Scotland): Health System Review. Health Systems in Transition, 14:1–150.
- Stewart H, Carrol R, Brooks L (2020, 12 May 2020). Northern Ireland joins in rejection of Boris Johnson's 'stay alert' slogan. (<https://www.theguardian.com/world/2020/may/12/northern-ireland-joins-rejection-boris-johnson-stay-alert-slogan>, accessed 10 March 2022).
- Stoye G (2019). Recent trends in independent sector provision of NHS-funded elective hospital care in England. (<https://ifs.org.uk/uploads/BN268-Recent-trends-in-independent-sector-provision-of-NHS-funded-elective-hospital-care-in-England1.pdf>, accessed 10 March 2022).
- Tallack C (2021). Last minute changes to social care reforms are a step in the wrong direction. The Health Foundation. (<https://www.health.org.uk/news-and-comment/news/last-minute-changes-to-social-care-reforms-are-a-step-in-the-wrong-direction>, accessed 10 March 2022).
- Tallack C, Krelle H. (2021). Comparing G7 countries: are excess deaths an objective measure of pandemic performance?. The Health Foundation. (<https://health.org.uk/publications/long-reads/comparing-g7-countries-are-excess-deaths-an-objective-measure-of-pandemic-performance>, accessed 10 March 2022).
- Tallack C et al. (2020). The bigger picture :Learning from two decades of changing NHS care in England. The Health Foundation. (<https://www.health.org.uk/publications/reports/the-bigger-picture>, accessed 10 March 2022).
- Taskforce for Lung Health (2018). A National Five Year Plan for Lung Health. ([https://cdn.shopify.com/s/files/1/0221/4446/files/PC1802\\_Taskforce\\_Report\\_MASTER\\_v8.pdf?23&\\_ga=2.113288398.892076292.1626451118-1015274131.1626451118](https://cdn.shopify.com/s/files/1/0221/4446/files/PC1802_Taskforce_Report_MASTER_v8.pdf?23&_ga=2.113288398.892076292.1626451118-1015274131.1626451118), accessed 10 March 2022).
- Tetlow G, Stojanovic A (2018). Understanding the economic impact of Brexit. Institute for Government. (<https://www.instituteforgovernment.org.uk/sites/default/files/publications/2018%20IfG%20%20Brexit%20impact%20%5Bfinal%20for%20web%5D.pdf>, accessed 10 March 2022).
- Thomas C et al. (2017). Assessing the potential return on investment of the proposed UK NHS diabetes prevention programme in different population subgroups: an economic evaluation. BMJ Open, 7(8):e014953.
- Thompson S (2018). NHS was not solely modelled on a Welsh workmen's medical society. The Conversation. (<http://theconversation.com/nhs-was-not-solely-modelled-on-a-welsh-workmens-medical-society-98024>, accessed 10 March 2022).
- Trivedy M (2021). If I were minister for health, I would...review the four-hour waiting time in the emergency department. J R Soc Med. 114(4):218–221
- UK Acquired Brain Injury Forum (UKABIF) (2018) Time for Change: All-Party Parliamentary Group on Acquired Brain Injury Report. ([https://cdn.ymaws.com/ukabif.org.uk/resource/resmgr/campaigns/appg-abi\\_report\\_time-for-cha.pdf](https://cdn.ymaws.com/ukabif.org.uk/resource/resmgr/campaigns/appg-abi_report_time-for-cha.pdf), accessed 10 March 2022).
- UK Government (1998). Data Protection Act 1998. (<https://www.legislation.gov.uk/ukpga/1998/29/contents>, accessed 10 March 2022).

- UK Government (2012). Health and Social Care Act 2012. (<https://www.legislation.gov.uk/ukpga/2012/7/contents/enacted>, accessed 10 March 2022).
- UK Government (2014). Care Act 2014. (<https://www.legislation.gov.uk/ukpga/2014/23/contents>, accessed 10 March 2022).
- UK Government (2018a). Dental contract reform: prototypes scheme. (<https://www.gov.uk/government/collections/dental-contract-reform-prototypes>, accessed 10 March 2022).
- UK Government (2018b). Prime Minister sets out 5-year NHS funding plan. (<https://www.gov.uk/government/news/prime-minister-sets-out-5-year-nhs-funding-plan>, accessed 10 March 2022).
- UK Government (2019). CMA pharma probe secures £8m for the NHS. (<https://www.gov.uk/government/news/cma-pharma-probe-secures-8m-for-the-nhs>, accessed 10 March 2022).
- UK Government (2020a). Adding years to life and life to years: our plan to increase healthy longevity. (<https://www.gov.uk/government/speeches/adding-years-to-life-and-life-to-years-our-plan-to-increase-healthy-longevity>, accessed 10 March 2022).
- UK Government (2020b). Coronavirus Act 2020. (<https://www.legislation.gov.uk/ukpga/2020/7/contents>, accessed 10 March 2022).
- UK Government (2020c). Our Plan to Rebuild: The UK Government's COVID-19 recovery strategy. ([https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/884760/Our\\_plan\\_to\\_rebuild\\_The\\_UK\\_Government\\_s\\_COVID-19\\_recovery\\_strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/884760/Our_plan_to_rebuild_The_UK_Government_s_COVID-19_recovery_strategy.pdf), accessed 10 March 2022).
- UK Government (2020d). PM confirms £3.7 billion for 40 hospitals in biggest hospital building programme in a generation. (<https://www.gov.uk/government/news/pm-confirms-37-billion-for-40-hospitals-in-biggest-hospital-building-programme-in-a-generation>, accessed 10 March 2022).
- UK Government (2020e). How charges for NHS healthcare apply to overseas visitors. (<https://www.gov.uk/government/publications/how-the-nhs-charges-overseas-visitors-for-nhs-hospital-care/how-the-nhs-charges-overseas-visitors-for-nhs-hospital-care>, accessed 10 March 2022).
- UK Government (2021a). Apply for the early access to medicines scheme (EAMS). (<https://www.gov.uk/guidance/apply-for-the-early-access-to-medicines-scheme-eams>, accessed 10 March 2022).
- UK Government (2021b). Health and Care Bill. (<https://bills.parliament.uk/bills/3022/publications>, accessed 10 March 2022).
- UK Government (2021c). The Human Medicines Regulations 2012. (<https://www.legislation.gov.uk/uksi/2012/1916/contents/made>, accessed 10 March 2022).
- UK Government (2021d). Integration and innovation: working together to improve health and social care for all. (<https://www.gov.uk/government/publications/working-together-to-improve-health-and-social-care-for-all/integration-and-innovation-working-together-to-improve-health-and-social-care-for-all-html-version>, accessed 10 March 2022).
- UK Government (2021e). NHS entitlements: migrant health guide. (<https://www.gov.uk/guidance/nhs-entitlements-migrant-health-guide>, accessed 10 March 2022).
- UK Government (2021f). Ordinary residence tool. (<https://www.gov.uk/government/publications/help-for-nhs-to-recover-costs-of-care-from-visitors-and-migrants/settled-purpose-tool>, accessed 10 March 2022).
- UK Government (2021g). Voluntary scheme aggregate net sales and payment information: February 2021. (<https://www.gov.uk/government/publications/voluntary-scheme-aggregate-net-sales-and-payment-information-february-2021>, accessed 10 March 2022).
- UK Government (2021h). Health and Social Care Levy. September 2021. (<https://www.gov.uk/government/publications/health-and-social-care-levy>, accessed 10 March 2022).
- UK Government (2021i). Carer's Allowance. (<https://www.gov.uk/carers-allowance/eligibility>, accessed 10 March 2022).
- United Nations (2019). Visit to the United Kingdom of Great Britain and Northern Ireland: Report of the Special Rapporteur on extreme poverty and human rights. (<https://digitallibrary.un.org/record/3806308?ln=en>, accessed 10 March 2022).



- Vallejo-Torres L, Morris S (2018). Primary care supply and quality of care in England. *The European Journal of Health Economics: HEPAC : Health Economics in Prevention and Care*, 19(4):499–519.
- Varnava A et al. (2018). New Medicines in Wales: The All Wales Medicines Strategy Group (AWMSG) appraisal process and outcomes. *PharmacoEconomics*, 36(5):613–624.
- Vize R (2020). How the erosion of our public health system hobbled England's covid-19 response. *BMJ*, 369:m1934.
- Wagstaff A et al. (2018). Progress on catastrophic health spending in 133 countries: a retrospective observational study. *The Lancet Global Health*, 6(2):e169–e179.
- Walshe K et al. (2016). Health and social care devolution: the Greater Manchester experiment. *BMJ*, 352:i1495.
- Walters S et al. (2013). Lung cancer survival and stage at diagnosis in Australia, Canada, Denmark, Norway, Sweden and the UK: a population-based study, 2004–2007. *Thorax*, 68(6):551–564.
- Walumbe J, Swinglehurst D, Shaw S (2016). Any qualified provider: a qualitative case study of one community NHS Trust's response. *BMJ Open*, 6(2):e009789.
- Wellings D et al. (2020). Public satisfaction with the NHS and social care in 2019: Results from the British Social Attitudes survey. (<https://www.kingsfund.org.uk/publications/public-satisfaction-nhs-social-care-2019>, accessed 10 March 2022).
- Wellings D, Evans H (2017). What does the public think about the NHS? The King's Fund. (<https://www.kingsfund.org.uk/publications/what-does-public-think-about-nhs>, accessed 10 March 2022).
- Welsh Government (2014a). Social Services and Well-being (Wales) Act 2014: The Essentials. (<https://gov.wales/sites/default/files/publications/2019-05/social-services-and-well-being-wales-act-2014-the-essentials.pdf>, accessed 10 March 2022).
- Welsh Government (2014b). Written Statement – Publication of Professor Stephen Palmer's review of the use of risk adjusted mortality data in NHS Wales. (<https://gov.wales/written-statement-publication-professor-stephen-palmers-review-use-risk-adjusted-mortality-data-nhs>, accessed 10 March 2022).
- Welsh Government (2015). Well-being of Future Generations (Wales) Act 2015. (<http://www.legislation.gov.uk/anaw/2015/2/contents/enacted>, accessed 10 March 2022).
- Welsh Government (2016). Nurse Staffing Levels (Wales) Act 2016. (<https://www.legislation.gov.uk/anaw/2016/5/section/1/enacted>, accessed 10 March 2022).
- Welsh Government (2018a). A Healthier Wales: our Plan for Health and Social Care. (<https://gov.wales/sites/default/files/publications/2021-09/a-healthier-wales-our-plan-for-health-and-social-care.pdf>, accessed 10 March 2022).
- Welsh Government (2018b). The Parliamentary Review of Health and Social Care in Wales. A Revolution from Within: Transforming Health and Care in Wales. (<https://beta.gov.wales/sites/default/files/publications/2018-01/Review-health-social-care-report-final.pdf>, accessed 10 March 2022).
- Welsh Government (2019). NHS Wales planning framework 2020 to 2023. (<https://gov.wales/nhs-wales-planning-framework-2020-2023>, accessed 10 March 2022).
- Welsh Government (2020) Health and Social Care (Quality and Engagement) (Wales) Bill. (<https://senedd.wales/laid%20documents/pri-ld12572-em-r/pri-ld12572-em-r-e.pdf>, accessed 10 March 2022).
- Welsh Government (2021a). National Clinical Framework: a learning health and care system. ([https://gov.wales/sites/default/files/publications/2021-05/national-clinical-framework-a-learning-health-and-care-system\\_0.pdf](https://gov.wales/sites/default/files/publications/2021-05/national-clinical-framework-a-learning-health-and-care-system_0.pdf), accessed 10 March 2022).
- Welsh Government (2021b). Citizen Voice Body (CVB) for Health and Social Care. (<https://gov.wales/citizen-voice-body-health-and-social-care>, accessed 10 March 2022).
- Welsh Government (2021c). NHS dental charges and exemptions. (<https://gov.wales/nhs-dental-charges-and-exemptions>, accessed 10 March 2022).
- Welsh Government (2021d). Evaluation of the Implementation of the Social Services and Well-being (Wales) Act: Process Evaluation – Report. (<https://gov.wales/sites/default/>

- [files/statistics-and-research/2021-01/evaluation-of-the-implementation-of-the-social-services-and-well-being-wales-act-process-evaluation\\_1.pdf](#), accessed 10 March 2022).
- Welsh Government (2021e). Welsh Government Programme for government: update. (<https://gov.wales/programme-for-government-2021-to-2026-html>, accessed 10 March 2022).
- Welsh Government (2021f). The Co-operation Agreement. (<https://gov.wales/sites/default/files/publications/2021-11/cooperation-agreement-2021.pdf>, accessed 10 March 2022).
- WHO (nd). WHO Mortality Database. (<https://www.who.int/data/data-collection-tools/who-mortality-database>, accessed 10 March 2022).
- WHO (2017). Sustainable development in Wales and other regions in Europe – achieving health and equity for present and future generations. (<https://www.euro.who.int/en/publications/abstracts/sustainable-development-in-wales-and-other-regions-in-europe-achieving-health-and-equity-for-present-and-future-generations-2017>, accessed 10 March 2022).
- WHO (2021). Global Health Expenditure Database. (<https://apps.who.int/nha/database/ViewData/Indicators/en>, accessed 10 March 2022).
- Williams AJ, Henley W, Frank J (2018). Impact of abolishing prescription fees in Scotland on hospital admissions and prescribed medicines: an interrupted time series evaluation. *BMJ Open*, 8(12):e021318.
- Wise J (2019). Don't charge migrants for maternity care, say midwives. *BMJ*, 366:l5487.
- Wise J (2021). Plans to reform adult social care fall short of promises, say critics. *BMJ*, 375:n2980.
- Woodcock A (2021). Record waiting lists creating 'two-tier health service' as patients forced to go private, warns Labour. *The Independent*. (<https://www.independent.co.uk/news/uk/politics/nhs-waiting-list-labour-ashworth-b1914248.html>, accessed 10 March 2022).
- World Bank (2021). World Development Indicators. (<https://databank.worldbank.org/source/world-development-indicators>, accessed 10 March 2022).
- Worldometer (2021). COVID-19 coronavirus pandemic. (<https://www.worldometers.info/coronavirus/#countries>, accessed 10 March 2022).

## 9.2 Useful web sites

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| <b>All Wales Medicines Strategy Group</b>    | <a href="https://awmsg.nhs.wales/">https://awmsg.nhs.wales/</a>   |
| <b>British Medical Association</b>           | <a href="http://bma.org.uk/">http://bma.org.uk/</a>   |
| <b>Carers' UK</b>                            | <a href="https://www.carersuk.org">https://www.carersuk.org</a>   |
| <b>Centre for Sustainable Delivery</b>       | <a href="https://www.nhsgoldenjubilee.co.uk/cfsd">https://www.nhsgoldenjubilee.co.uk/cfsd</a>               |
| <b>Citizens' Advice</b>                      | <a href="https://www.citizensadvice.org.uk">https://www.citizensadvice.org.uk</a>                           |
| <b>Department of Health Northern Ireland</b> | <a href="https://www.health-ni.gov.uk">https://www.health-ni.gov.uk</a>                                     |
| <b>General Medical Council</b>               | <a href="http://www.gmc-uk.org">http://www.gmc-uk.org</a>   |
| <b>Healthcare Improvement Scotland</b>       | <a href="https://www.healthcareimprovementscotland.org/">https://www.healthcareimprovementscotland.org/</a> |
| <b>The Health Foundation</b>                 | <a href="https://www.health.org.uk">https://www.health.org.uk</a>   |
| <b>Institute for Government</b>              | <a href="https://www.instituteforgovernment.org.uk">https://www.instituteforgovernment.org.uk</a>           |
| <b>Institute of Fiscal Studies</b>           | <a href="https://www.ifs.org.uk">https://www.ifs.org.uk</a>   |
| <b>Kings' Fund</b>                           | <a href="https://www.kingsfund.org.uk">https://www.kingsfund.org.uk</a>                                     |

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|---|---|
| <b>LSE–Lancet Commission on<br/>“The Future of the NHS”</b> | <a href="https://www.thelancet.com/commissions/future-NHS">https://www.thelancet.com/commissions/future-NHS</a> |
| <b>National Audit Office</b>                                | <a href="https://www.nao.org.uk">https://www.nao.org.uk</a>   |
| <b>National Institute of Health<br/>and Care Excellence</b> | <a href="https://www.nice.org.uk">https://www.nice.org.uk</a>   |
| <b>National Service Scotland</b>                            | <a href="https://www.nss.nhs.scot/">https://www.nss.nhs.scot/</a>   |
| <b>NHS Confederation</b>                                    | <a href="https://www.nhsconfed.org">https://www.nhsconfed.org</a>   |
| <b>NHS Digital</b>  | <a href="https://digital.nhs.uk">https://digital.nhs.uk</a>   |
| <b>NHS Employers</b>  | <a href="https://www.nhsemployers.org/">https://www.nhsemployers.org/</a>                                       |
| <b>NHS England</b>  | <a href="https://www.england.nhs.uk">https://www.england.nhs.uk</a>   |
| <b>NHS Providers</b>  | <a href="https://nhsproviders.org">https://nhsproviders.org</a>   |
| <b>NHS Scotland</b>   | <a href="https://www.scot.nhs.uk">https://www.scot.nhs.uk</a>   |
| <b>NHS Wales</b>  | <a href="http://www.wales.nhs.uk">http://www.wales.nhs.uk</a>   |
| <b>Northern Ireland Health<br/>and Social Care Board</b>    | <a href="http://online.hscni.net">http://online.hscni.net</a>   |
| <b>Nuffield Trust</b>                                       | <a href="https://www.nuffieldtrust.org.uk">https://www.nuffieldtrust.org.uk</a>                                 |
| <b>Nursing and Midwifery Council</b>                        | <a href="https://www.nmc.org.uk">https://www.nmc.org.uk</a>   |
| <b>Office for Budget Responsibility</b>                     | <a href="https://obr.uk">https://obr.uk</a>   |
| <b>Office for National Statistics</b>                       | <a href="https://www.ons.gov.uk">https://www.ons.gov.uk</a>   |
| <b>Public Health Scotland</b>                               | <a href="https://publichealthscotland.scot">https://publichealthscotland.scot</a>                               |
| <b>Private Healthcare<br/>Information Network</b>           | <a href="https://www.phin.org.uk/">https://www.phin.org.uk/</a>   |
| <b>Royal College of General Practitioners</b>               | <a href="https://www.rcgp.org.uk/">https://www.rcgp.org.uk/</a>   |
| <b>Royal College of Paediatrics<br/>and Child Health</b>    | <a href="https://www.rcpch.ac.uk/">https://www.rcpch.ac.uk/</a>   |
| <b>The Royal College of<br/>Surgeons of England</b>         | <a href="https://www.rcseng.ac.uk/">https://www.rcseng.ac.uk/</a>   |
| <b>Scottish Medicines Consortium</b>                        | <a href="https://www.scottishmedicines.org.uk/">https://www.scottishmedicines.org.uk/</a>                       |
| <b>Skills for Care</b>                                      | <a href="https://www.skillsforcare.org.uk">https://www.skillsforcare.org.uk</a>                                 |
| <b>StatsWales</b>   | <a href="https://statswales.gov.wales">https://statswales.gov.wales</a>   |
| <b>The Commons’ Library</b>                                 | <a href="https://commonslibrary.parliament.uk">https://commonslibrary.parliament.uk</a>                         |

## ■ 9.3 HiT methodology and production process

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

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

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

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

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organisation and governance: provides an overview of how the health system in the country is organised, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights, complaints procedures, public participation and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers are paid.
4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which IT systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organisation and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health services for specific populations.
6. Principal health reforms: reviews reforms, policies and organisational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment based on the stated objectives of the health system, financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarises remaining challenges and future prospects.
9. Appendices: includes references, useful web sites and legislation.

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

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

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

## ■ 9.4 About the authors

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The Observatory is a partnership, hosted by WHO/Europe, which includes other international organizations (the European Commission); national and regional governments (Austria, Belgium, Finland, Ireland, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the Veneto Region of Italy (with Agenas)); other health system organizations (the French National Union of Health Insurance Funds (UNCAM), the Health Foundation); and academia (the London School of Economics and Political Science (LSE) and the London School of Hygiene & Tropical Medicine (LSHTM)). The Observatory has a secretariat in Brussels and it has hubs in London (at LSE and LSHTM) and at the Berlin University of Technology.

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