Chapter 2

Health care quality in Scotland

Scotland has set itself an ambitious quality agenda that strives to achieve health care that is consistently safe, effective and person-centred. This is underpinned by a bold public health vision that states that by 2020, everyone will live longer, healthier lives at home. Scotland has demonstrated keenness to play an internationally leading role in promoting health care quality, as evidenced by its innovative patient safety initiatives, world-class training programmes, and a clear desire to learn from patients' experience. Scotland is also taking steps to integrate health, social care and other services for local populations, and has an abundance of data to measure the progress in achieving health system and outcome goals. Paradoxically, health and social care data is not reliably converted into information that can be used by local clinicians and managers, nor oriented towards the public, often enough. This chapter gives a series of recommendations to support Scotland strengthening the health care quality architecture, including around making better use of information systems, facilitating transparency and reporting to the public, supporting bottom-up approaches with stronger national frameworks, and creating a more independent mechanism for assessing health system performance system-wide.

Scotland's *2020 Vision, Quality Strategy* and accompanying *Route Map* represent an ambitious and detailed agenda to improve health and social care in Scotland. At service level, these quality goals are delivered through a well-established approach of small-cycle testing of change and collaborative learning. A move towards integrating health and social care, illustrated by a ground-breaking approach to child health in the most vulnerable early years, demonstrates that Scotland is seeking to develop a whole-of-government approach to improving health outcomes.

There is still, however, much that Scotland can do. Quality improvement programmes should be applied to primary care and community care services more extensively and consistently. Consolidation of some content from the multiple data platforms that currently exist would facilitate transparency and public understanding of the quality of care. The lack of a national system for reporting/counting adverse events is another weakness, despite other innovations in promoting patient safety. Consideration should also be given to the creation of a more independent mechanism for assessing health system performance, since this function currently sits too closely to the agencies responsible for the task of quality improvement itself.

This chapter opens with a brief account of the planning, financing and delivery of health care in Scotland, which is followed by a description of the key policies and strategies in place to drive quality improvement in NHSScotland. The latter part of this chapter then describes and assesses the separate elements of the quality architecture (such as use of guidelines or professional licensing) in detail, in a format that follows other volumes in the OECD's Health Care Quality Review series.

2.1. The planning, financing and delivery of health care in Scotland

Scotland has larger rural and remote areas than its neighbours, posing geographical challenges not experienced in other parts of the United Kingdom. Its approach to dealing with these issues is to forge close connections between policy making and implementation, to better respond to population need at a regional level. This section describes the governance and organisation of NHSScotland, and the state of population health.

Population health care needs in Scotland

Scotland has a population of about 5.2 million. Most people live in a central belt taking in the major cities of Glasgow and Edinburgh. Population density is low compared with the rest of the United Kingdom, due to larger rural and remote areas. While the size of the population has remained relatively stable over the past 50 years, the proportion aged 65 years and over has grown significantly and is projected to increase further.

Despite substantial improvements in population health during the past 15 years, life expectancy in Scotland is still lower than in other western European countries. The mean life expectancy in 2013 was 77.1 years for men in Scotland, compared with a mean western European average (not including the United Kingdom) of 78.9 years. Mean life expectancy for Scottish women was 81.1 years, compared with 83.7 for Western Europe more broadly.

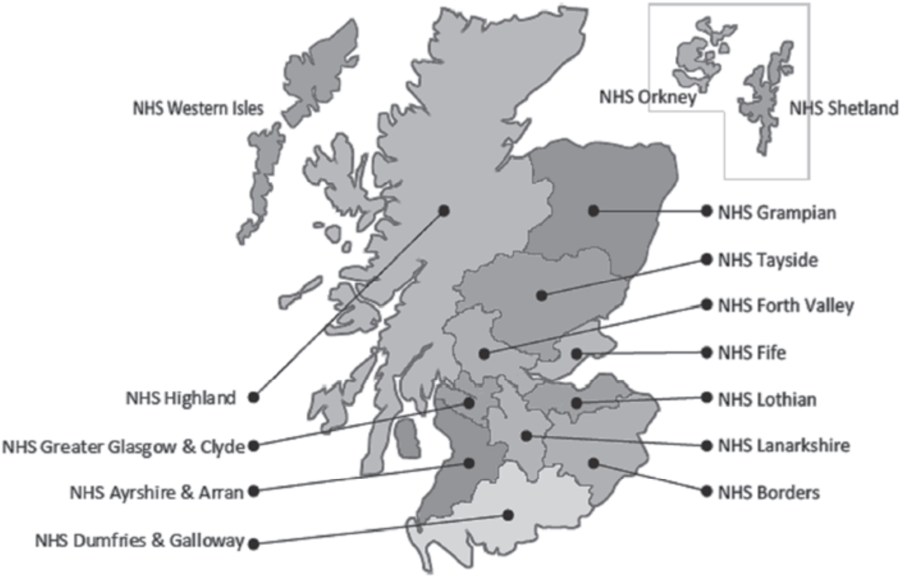
The 2013 Scottish Health Survey suggests Scotland is facing similar health issues to those experienced by other OECD countries. Almost half (44%) of adults and 17% of children aged up to 15 had a long-term health condition. More than 5% of adults reported they had been diagnosed with diabetes, and 8% reported a diagnosis of ischaemic heart disease or stroke. Three-quarters of adults aged 16 and over assessed their health as either “good” or “very good” (Scottish Government, 2014b). The management of complex conditions is recognised by Scottish health authorities as one of the most significant challenges it is facing.

Scotland faces substantial geographical challenges, particularly in the provision of health care in remote areas. About 20% of the Scottish population lives in a rural or remote area, spread across 94% of the landmass defined as rural and remote (MacVicar and Nicoll, 2013). Adding to this challenge is a greater proportion of older people live in these areas, and they inevitably have more complex health care needs. While 17% of the Scottish population is aged 65 and over, the councils with the largest proportion of people aged over 65 are predominantly rural (MacVicar and Nicoll, 2013). Equal access to high-quality health care is a stated goal, with the importance of remote health care cited in the Scottish Quality Strategy. Still, difficulties persist in recruiting health care professionals to live and work in rural areas. Apart from the provision of financial incentives, it is difficult to identify solutions that Scotland has tried to deal with this challenge.

The Scottish health care system

The Scottish Government’s Health and Social Care Directorate is responsible for the development and implementation of health and social care policy. It allocates resources and sets the strategic direction for NHSScotland, the primary provider of health care services. NHSScotland employs more than 140 000 staff and is organised into 14 Regional Boards, seven Special Boards and a Public Health Board (Figure 2.1 and Box 2.1). Each NHS Board is accountable to the Scottish Cabinet Secretary and Ministers for Health.

Figure 2.1. The 14 Regional Health Boards of NHS Scotland



Source: The Scottish Government.

The Chief Executive of NHSScotland is also the Director-General of Health and Social Care for the Scottish Government. This illustrates a close functional connection between policy making and implementation, which the Scottish authorities seek to replicate across the country and at every level of the system. Ministers and a team from the Directorate spend a day each year, for example, in every health authority, meeting health service staff, patients and the public in an effort to better understand priorities and concerns at the service level. Ministers also meet on a monthly basis with NHS Board Chairs to review strategy and performance.

In terms of quality governance, a particularly important body is the Healthcare Quality and Strategy Directorate, led by the National Clinical Director for Healthcare Quality and the Director for Healthcare Strategy. This Directorate, supported by the broader Health and Social Care Management Board, is responsible for delivering NHSScotland's Quality Strategy, described in more detail in Section 2.1. The Unit meets regularly with the leaders of the Regional and Special NHS Boards to ensure effective and sustained translation of policy intentions into health care delivery. Key stakeholders within these governance arrangements describe a nimble, responsive system characterised by short management lines and consensual decision making, driven by learning from frontline services.[1]

Box 2.1. NHSScotland's Special Boards

NHS Education for Scotland: NHSScotland's education and training body.

NHS Health Scotland: Promotes ways to improve population health and reduce health inequalities.

NHS National Waiting Times Centre: Ensures prompt access to first-class treatment.

NHS24: Provides health advice and information.

Scottish Ambulance Service: Responds to almost 600 000 accident and emergency calls and takes 1.6 million patients to and from hospital each year.

The State Hospitals Board for Scotland: Provides assessment, treatment and care in conditions of special security for individuals with a mental disorder who, because of their dangerous, violent or criminal propensities, cannot be cared for in any other setting.

NHS National Services Scotland: Supplies essential services including health protection, blood transfusion and information.

Healthcare Improvement Scotland: supports and empowers people to have an informed voice; delivers scrutiny activity; provides quality improvement support; and provides clinical standards, guidelines and advice.

Source: NHS Scotland, http://www.show.scot.nhs.uk/introduction.aspx.

Health services in Scotland are government-funded and almost entirely financed by taxation. Health care is free at the point of care and available to all residents. User charges exist for dental services and some ophthalmic services. Prescription drugs and personal social care for those aged over 65 are free. The private sector is very small and consists of both for-profit and non-profit providers. About 8.5% of people have voluntary private health insurance. Per capita spending on health care in Scotland is slightly higher than in England (GBP 2 151 per head annually versus GBP 1 994 in England (HM Treasury, 2014). Of note, the split between purchasers and providers of health care was abolished in 2004.

2.2. The key policies and governance of health care quality monitoring and improvement in Scotland

Scotland's ambitious vision to improve population health and quality of care is complemented by real progress toward better integration of health and social care. While presenting many challenges, this inter-sectoral approach strives to reduce health inequalities, starting with the pivotal early years of life. Scotland's quality approach emphasises grass-roots initiatives and shared learning at local level to achieve patient-centred, safe and effective health care. This section describes and assesses the main policies and institutions tasked with monitoring and improving the quality of health care in Scotland.

Scotland's 2020 Vision, Quality Strategy and Route Map represent an ambitious agenda to improve health and social care in Scotland

Scotland has an ambitious, well-articulated national vision to achieve better population health and improve health care quality, underpinned by a national strategy and route map to get there. The government's *2020 Vision* states that by 2020, everyone will live longer, healthier lives at home, or in a homely setting. It sets out as significant challenges Scotland's public health record, changing demography and the economic environment. The document cites as a key challenge an anticipated 25% rise in the proportion of people aged 75 and over in Scotland in the next ten years. This rise is likely to be accompanied by more chronic disease, and growing numbers of older people with complex needs such as dementia. It estimates over the next 20 years, demography alone could increase expenditure on health and social care by over 70%. The *2020 Vision* reiterates the ambition of integrated health and social care, and a focus on prevention and self-management.

The *2020 Vision* provides the strategic narrative and context for taking forward the implementation of the *Healthcare Quality Strategy for NHSScotland*, and the required actions to improve efficiency and achieve financial sustainability. The *Strategy* goes beyond safety and quality to more broadly encompass effectiveness of care, and variations in medical practice. It strives to achieve three main quality ambitions. The *Strategy* aims for health care to be:

- *Person-centred*: featuring mutually beneficial partnerships between patients, their families and those delivering health care that respect individual needs and values and that demonstrate compassion, continuity, clear communication and shared decision making.
- *Safe*: with no avoidable injury or harm and the delivery of health care in an appropriate, clean and safe environment.
- *Effective*: with the most appropriate treatment provided, and wasteful or harmful variation eradicated.

The *Strategy* acknowledges that measuring quality is fundamental to its improvement. It sets out a *Quality Measurement Framework*, which provides the basis for the use of indicators at three national levels. The framework's highest level sets out long-term quality outcome indicators, which are intended to measure progress towards system-wide priorities. The second level relates to the performance management of NHS Boards, with agreed Local Delivery Plan (LDP) Standards (discussed in Section 2.7). The third level consists of several existing national and local measurement systems that are used to measure and drive improvement.

Finally, an accompanying *Route Map to the 2020 Vision for Health and Social Care* identifies the focus on priority areas. It defines 12 priority areas required to deliver the 2020 ambition across the domains of quality of care, population health, and value and sustainability. The priority areas are: person-centred care; safe care; primary care; unscheduled and emergency care; integrated care; care for multiple and chronic illnesses; early years; health inequalities; prevention; workforce; innovation; and efficiency and productivity. Alongside these policy documents is Scotland's vision for the NHS workforce. *Everyone Matters: 2020 Workforce Vision* was launched in 2013 and consists of five priority areas: healthy organisational culture, sustainable workforce, capable workforce, integrated workforce and effective leadership and management.

Healthcare Improvement Scotland supports delivery of NHSScotland's Quality Strategy through provision of standards and guidelines, inspection and other activities

Healthcare Improvement Scotland (HIS) is NHSScotland's national health care improvement organisation. It was created in 2011, under the Public Services Reform (Scotland) Act 2010. The organisation provides quality improvement support to hospitals, primary care practices, NHS Boards, patients, carers and communities. A particular emphasis is to encourage patient involvement and shared decision making in an effort to improve the effectiveness, safety and patient-centredness of care.

Among HIS's constituent elements is a Healthcare Environment Inspectorate, which carries out safety and cleanliness inspections across hospitals. A key aim of the Inspectorate is to reduce health care-acquired infections through the promotion of infection prevention and control. Between 1 October 2013 and 31 December 2014, it conducted 51 inspections, of which 41 were unannounced. The inspections resulted in a published report or letter to the relevant NHS Board. Detailed inspection reports documenting the safety and cleanliness of individual hospitals are available on the Healthcare Improvement Scotland website. This is discussed more fully in Section 2.4.

The Scottish Health Technologies Group is another component of HIS and provides advice about the clinical and cost effectiveness of health technologies to NHSScotland Boards. The Scottish Medicines Consortium performs this function for medicines. These are discussed more fully in Section 2.5. Linked to these activities, the Scottish Intercollegiate Guidelines Network (SIGN) develops evidence-based clinical practice guidelines for NHSScotland. SIGN also comes under the umbrella of HIS. Clinical guidelines are discussed further in Section 2.6.

The Scottish Health Council is a committee of HIS, but has its own distinct identity. The Council promotes patient and public involvement in the NHS, as a means of ensuring NHS Boards take into account the public perspective. This is discussed further in Section 2.9. Finally, another key element of Healthcare Improvement Scotland's work is the Scottish Patient Safety Programme, discussed in more detail in Section 2.11.

Implementation of NHSScotland's quality goals at service level is characterised by small-cycle testing of change and collaborative learning

NHSScotland's approach to implementing quality goals at service level has made use of several tools and approaches. In particular, the "Breakthrough Collaborative" method, developed at the Institute for Healthcare Improvement (IHI) in Boston, has been widely applied. This is a 6- to 15-month learning system that brings together clinicians, managers and other individuals within a service to seek improvement in a focused area. An issue for improvement is identified; key individuals with the capacity or accountability to bring about change are brought together; objectives and metrics are agreed; the *plan-do-study-act* (PDSA) cycle of change is started; and repeated as new learning or opportunities emerge.

A number of successful service innovations have become embedded across NHSScotland as a result of this approach. Some examples of improvements include the reliable implementation of care processes that prevent Intensive Care Unit acquired infections. Initiatives to prevent ventilator acquired pneumonia and central venous catheter related infections have been widely implemented, with evidence of improvements in clinical outcomes across Scotland. Implementation of the WHO surgical checklist and pause was supported by Scottish Patient Safety Programme implementation. In Scotland there has been an explicit strategic approach to build frontline and leadership improvement capability and capacity. The Scottish Patient Safety Fellowship is one such example as well training people to develop and utilise improvement advisor competencies. There is now an increasing network of individuals across the country with an understanding of applied quality improvement in their contexts.

Most quality improvement work of this type has taken place in acute hospital settings. A challenge for Scotland will be to replicate an equal, or greater, level of systematised quality improvement work in primary and community care settings. Quality challenges are at least as pressing in these sectors, but relevant metrics for outcomes of interest may be less available, and staff (for example in long-term care settings) may be less used to auditing their work and the PDSA cycle. Scotland has begun to extend the Breakthrough Collaborative approach to primary care, initially focusing on high-risk medications, but additional issues should be identified. Prevention and management of chronic conditions (including co-ordination with other services), mental health, safeguarding vulnerable children and adults would all be priority areas. Scotland has patient safety programmes in some of these areas (notably mental health and child and maternity services, as described in Section 2.11), but these should be built upon to encompass quality improvement work as well.

Scotland's quality agenda has been accompanied by a move towards the integration of health and social care

The 2014 Public Body (Joint Working) (Scotland) Act sets up the integration of health and social care for people using both of these services. It contains nationally agreed outcomes that apply across health and social care, and for which NHS Boards and local authorities are held jointly accountable. Goals for the reform are stated, such as: "people are able to look after and improve their own health and wellbeing and live in good health for longer", and "people who use health and social care services have positive experiences of those services, and have their dignity respected". Health Boards and local authorities will integrate health and social care services from April 2015. Local partnerships are now establishing shadow arrangements, and beginning to produce joint strategic commissioning plans.

NHS Boards and local authorities are required to integrate health and social care budgets, and to establish integrated partnership arrangements to strengthen the role of clinicians and care professionals, along with the third and independent sectors, in the planning and delivery of services. Integration must include, at least, adult social care, adult primary and community health care, and aspects of adult hospital care that offer the best opportunities for service redesign and better outcomes. Other services, including children's health and social care, criminal justice and housing, can also be included in integrated arrangements, if there is local agreement to do so.

One example is the *Early Years Collaborative*, a groundbreaking programme pursuing a particularly far-reaching cross-sectoral approach to child health. The Collaboratives aims to improve child and family health and reduce inequalities, with health services working in co-operation with sectors such as social services, education and the police. The partnership with other sectors is an acknowledgement that broader social determinants can shape health outcomes. Access to a wide range of services beyond health can assist families in obtaining the supports they need. The government has identified key areas for change (Scottish Government, 2015):

- early support for pregnancy and beyond
- attachment and child development
- continuity of care in transitions
- 27-30 month review
- developing parents' skills
- family engagement to support learning
- addressing child poverty.

All 32 commissioning areas in Scotland are participants of the programme. Launched in 2012, about 700 professionals attend learning sessions, and then take away these learnings to share with their colleagues. There has been a high level of early engagement with the workforce, although several challenges have been identified in the early implementation stages. These include the recruitment of sufficient staff with the right skills to implement the model; training professionals to implement the model along with reporting on results of tests and using data to make planning and resourcing decisions; and challenges in multiple agencies working together (Children and Families Analysis, 2014).

In addition, in March 2015, the government specified an indicator set to monitor progress toward integration (Scottish Government, 2015a). These indicators fall into two groups: those based on surveys (such as the percentage of adults supported at home who agree that their health and care services seemed to be well co-ordinated); and, those derived from routine data sources (such as that rate of emergency admissions for adults). These indicators are discussed in more detail in Section 2.7. Given that most OECD health and social care systems are exploring how best to monitor person-centred, integrated care, Scotland's experience with these indicators will be of international interest.

Scotland's activity in this domain represents a bolder, and wider-ranging, intended sphere of integration that seen in most OECD systems. It will be important that Scotland publishes successful case studies detailing how integration was achieved, alongside implementation pathways and syntheses of insights, so that other countries can learn from Scotland's experience.

There are expectations that integration will yield significant improvements in care provision in Scotland. However, there are challenges related to the way this reform has been set up, in that providers are not integrated in terms of budget or management structure. Processes to enable this are underway, including guidance for local authorities on the scope of the health and social care functions to be included in integration.

Another concern is that sufficiently strong mechanisms to leverage general practitioners' contribution to health and social care integration may be lacking. Although GPs are represented in local strategic planning arrangements and are encouraged to take on leadership roles, it is not clear how effective their participation will be given, for example, the fact that they are non-voting NHS Board members. GPs are likely to have a good understanding of local health care needs and service priorities. Scotland should consider, therefore, whether there is scope to deepen GPs' involvement in local care planning, and in the integration of health and social care services in particular.

The integration of health and social care information systems presents another challenge. It is well-recognised across OECD countries that the social care sector generally collects and publishes fewer quality and outcomes data than the health care sector. Care must be taken in Scotland, therefore, to ensure that merging the data from the two sectors does not come at the expense of the less data-developed social care sector. Similarly, there is also a need to ensure that adequate data exist across both health and social sectors not just at a national level, but at a local level.

The Scottish Government is addressing this issue via its *Health and Social Care Data Integration and Intelligence Project* (HSCDIIP). This will use individuals' Community Health Index (CHI) number as the basis for linking health and social care data at an individual level, with derived activity and costs, to build an understanding of how people use services and underpin local strategic commissioning plans. The Project also aims to develop a nationally agreed core dataset and definitions; IT solutions to allow access to these data with appropriate information governance safeguards; a reporting tool that will allow easy analysis and presentation of the data; and, bespoke analytical support and assistance with data interpretation. In addition, since 2011, work has been underway to develop local Integrated Resource Frameworks for health and community care, which enable local systems to quantify resource use across health and social care across populations (rather than organisations) and realign resources accordingly. The aim is to realign resources to deliver better value, and better patient-centred, care.

2.3. Professional training and certification

Scotland's quality drive is supported by professional training programmes that emphasise quality improvement as a core learning objective. There is clear innovation in its use of digital infrastructure to train health professionals so that they are equipped with the skills consistent with the needs of the NHS. The comprehensive suite of tools Scotland uses to train its health workforce makes it a leader among OECD countries.

Regulation of health care workers remains a UK-wide responsibility, while Scotland leads the revalidation process for Scottish doctors and nurses

Professional standards for all doctors and nurses working in the whole of the United Kingdom are set by the General Medical Council (GMC) and the Nursing and Midwifery Council (NMC), respectively. These UK-wide independent health professional regulatory bodies have statutory responsibility for maintaining registers of all practitioners permitted to practise in the United Kingdom, setting standards for education, behaviour and practice for each of the registered professions. Additional regulatory bodies with statutory responsibility for maintaining the registers of other health practitioners include:

- General Chiropractic Council
- General Dental Council
- General Optical Council
- General Osteopathic Council
- General Pharmaceutical Council
- Health and Care Professions Council

These bodies set the standards that health practitioners must attain and maintain, and are responsible for taking action when the standards are not met. Practitioners can face sanctions such as the loss of the right to practise in the United Kingdom. The regulatory bodies are overseen by the Professional Standards Authority for Health and Social Care.

As part of ensuring ongoing professional development and fitness to practise, medical revalidation for physicians has been introduced across the United Kingdom, on a five-yearly basis. Revalidation is linked to demonstration of Continuing Professional Development and quality improvement work, as part of doctors' annual peer-to-peer appraisal. In Scotland, the medical director of each Health Board acts as responsible officer for signing off a doctors' revalidation, on the basis of a successful cycle of appraisals.

The NMC has signalled it will commence revalidation in October 2015, building upon the CPD requirements already in place for nurses and midwives. The NMC's Scotland Stakeholder Group is engaging with stakeholders so that its proposed revalidation system will work effectively within the particular context of NHSScotland (as part of the NMC's work across the United Kingdom to determine how revalidation will work for nurses and midwives more broadly).

NHS Education for Scotland supports an ambitious training agenda, much of it focused on quality improvement

NHS Education for Scotland, a special Health Board, was established 12 years ago and is responsible for supporting NHS services. It develops and delivers education and training for those who work in NHSScotland, working with universities and professional bodies to define or support undergraduate and postgraduate education, as well as CPD activities. *NHS Education for Scotland* is responsible for setting and maintaining high education standards, and making sure that workforce training and curricula are consistent with NHS needs. A number of practical activities have been developed to support workforce development, including clinical skills centres, communities of practice (for peer-to-peer support) and degree-level programmes for primary care Practice Managers.

In particular, the digital infrastructure of *NHS Education for Scotland* is well developed. It offers an e-portfolio to allow recording of CPD activities, available to doctors, nurses, dentists, pharmacists and other health care professionals. Similarly, the Scottish Online Appraisal Resource (SOAR) is an online platform to support doctors working and training in Scotland in the appraisal and revalidation process. The *Flying Start* programme has been created to support newly qualified nurses, midwives and allied health professionals during their first year of practice in Scotland. *NHS Education for Scotland* places particular emphasis on quality improvement, and is seeking to build a common approach to training in quality improvement theory and techniques across professional groups.

The sum of these activities represents a more comprehensive approach – across professional groups, across career stages, and in terms of activities and resources – than seen in most other OECD health systems. *NHS Education for Scotland* is one of the strengths of the Scottish health care system, and effectively reflects workforce ambitions set out in *Everyone Matters*, the workforce strategy for NHSScotland, described in more detail in the following section.

NHSScotland benefits from a clear and impressive workforce strategy

The work of NHS Education for Scotland and other bodies sits within the broader workforce strategy of the 2020 Vision, entitled Everyone Matters. This articulates a core vision for the workforce, developed in conjunction with NHS staff members, that emphasises improved ways of working, collaboration, and embracing technology. Supporting materials, including an Implementation Plan and a Communication Toolkit, have also been developed.

The Implementation Plan sets out detailed objectives and action points, year-by-year. For instance, for 2015-16, as part of the "Sustainable Workforce" objective, the Scottish Government will (as one of three points) "collaborate to make better use of analysis, intelligence and modelling of education and workforce data to inform longer-term planning". Meanwhile, NHS Boards will "use high quality workforce data and contextual information to inform local workforce plans" (Scottish Government, 2014a). The Communication Toolkit offers slides, posters, web banners and other material that may be needed to communicate the *Everyone Matters* agenda to NHS workforce at a local level.

2.4. Inspection and accreditation of health care facilities

Health care services are regularly inspected by Healthcare Improvement Scotland, but the absence of formal accreditation for hospital services is notable. This is an explicit choice taken by the Scottish authorities to encourage continuous quality improvement initiatives, rather than focus on verification of compliance with minimum standards. Given these arrangements, however, Healthcare Improvement Scotland should consider whether its scrutiny and improvement functions should to be more clearly separated. Healthcare Improvement Scotland also needs to be better equipped to respond to quality concerns, a situation which the Scottish authorities is currently looking to address.

Health care services are regularly inspected by Healthcare Improvement Scotland

As mentioned in an earlier section, *Healthcare Improvement Scotland* (HIS) inspects and reviews health care services in Scotland against published quality standards through a programme of announced and unannounced inspections, led by the *Scrutiny and Assurance Directorate*. HIS also regulates and inspects independent sector facilities such as private hospitals, voluntary hospices and private psychiatric hospitals. Assurance, Review and Inspection Reports are published, along with an annual synthesis report and various thematic reviews. This work accounts for about one fifth of HIS' budget.

Underpinning this activity, a scrutiny and inspection plan is produced annually. HIS is working towards a more intelligence-led approach to scrutiny and assurance, to re-align and simplify a range of activities, and to work more closely with other scrutiny bodies and identify opportunities for more joint reviews. As part of Scotland's transition towards integration of health and social care, HIS is already working more closely with the Care Inspectorate, the Scottish social care regulator. As of January 2016, seven joint reports have been published in relation to the care of older adults.

In July 2015, a consultation was launched to consider how HIS could strengthen its assessments of the quality of care.[2] It is proposed to widen the scope service reviews to include leadership, staffing, use of patient and carer feedback and assurance of the sustainability of service provision. In addition, distinctive characteristics of Scotland's locally-rooted approach to service assessments will be strengthened. These include an increased emphasis on local systems of scrutiny and assurance, and stronger focus on scrutiny being a tool for supporting improvement. Systematic linking of scrutiny activities with existing or planned improvement work is intended.

Healthcare Improvement Scotland's inspection role does not appear to be backed up, however, by adequate regulatory power

Despite existence of regular inspections and assessments against published quality standards, there is no formal accreditation system for NHS hospitals in Scotland. This is a conscious choice taken by the Scottish authorities, based on a concern that checking compliance against minimum standards might put a ceiling on improvement, give false assurance or be bureaucratically heavy-handed. Instead, Scotland has chosen to prioritise bottom-up collaboratives that seek continuous quality improvement rather verification of minimum standards, as described in Section 2.2. Providers' statutory duty of quality is believed to provide sufficient assurance, coupled with HIS inspection reports and regular publication of indicators of providers' quality and outcomes.

Whilst recognising Scotland's judicious consideration of the pros and cons of formal accreditation, its absence stands in contrast to most OECD health systems, where mechanisms to regularly and visibly assure the public of providers' quality of care are being strengthened. Some countries, such as Australia (Box 2.2), have gone down the path of mandatory accreditation of health services. The importance of such a function is, in fact, recognised in other parts of the Scottish health care system. Laboratories, for example, may be accredited against the Ionising Radiation (Medical Exposure) Regulations and the Scottish Electroconvulsive Therapy (ECT) Accreditation Network (SEAN) uses evidence-based standards to regularly assure the quality and safety of ECT services, in two-year cycles.

Box 2.2. Health service accreditation in Australia

In 2010, the Australian Government endorsed a national safety and quality framework that placed safety as the central organising theme. This set up the Australian Health Service Safety and Quality Accreditation Scheme. The development of the nationally-consistent accreditation scheme for health services took five years, to ensure stakeholder participation and acceptance.

Since 2013, participation in accreditation has been mandatory for all public and private hospitals. The Australian Commission on Safety and Quality in Health Care, the national regulator charged with leading improvements in safety and quality, developed ten National Safety and Quality Healthcare standards that health services must meet to gain accreditation. These encompass governance, partnering with consumers, preventing and controlling health care-associated infections, medication safety, patient identification and procedure matching, clinical handover, safe use of blood and blood products, preventing and managing pressure injuries, recognising and responding to clinical deterioration in acute health care, and preventing falls and harm from falls.

Discussion continues in Australia around broader system application. Primary care networks, mental health services and long-term care have been identified as domains that would also benefit from a nationally-consistent accreditation scheme.

Source: OECD (2015), *OECD Reviews of Health Care Quality: Australia 2015 – Raising Standards*, OECD Publishing.

Absence of mandatory accreditation makes sense only if two prior conditions are met. First, that sufficiently detailed and timely indicators of providers' quality and outcomes are available; second, that the body engaged in scrutiny and challenge (as opposed to accreditation) has sufficient levers to respond to quality concerns in a quick and robust manner. Structures are in place to meet each of these conditions in Scotland, but there is scope to strengthen both. Regarding the first, despite an abundance of data in the Scottish NHS, stakeholders report that it is not always packaged into clinically useful information appearing in the right people's hands. This is discussed further in Section 2.8.

Regarding the second condition, HIS could be better equipped with levers and mechanisms to respond to quality concerns. HIS can escalate concerns to higher authorities (including to the Scottish Ministers) but in the case of serious compromises in patient care, for example, it does not have the power to close a ward or impose special restrictions. These arrangements stand in contrast to the social care sector, where the Care Inspectorate does have powers to close facilities or impose restrictions in relation to regulated services. This would appear to represent a deficit in HIS's "improvement" function and may also pose a problem for fusion of the health and social care sectors in the future. The anomaly has been recognised by the Scottish authorities and is currently being addressed. In line with recommendation 1 of the Vale of Leven Inquiry's recommendations (set up in 2009 to investigate C. difficile infection at the Vale of Leven Hospital that led to 34 deaths), HIS will be given the power to close a ward to new admissions where there is deemed to be a risk to life, health or welling of persons.

Although this strengthening of HIS' competence is welcome, Scotland should reconsider whether the mixing of scrutiny and quality improvement activity within *Healthcare Improvement Scotland* represents a conflict of interest. The mix of these roles means that the system's inspector risks "marking its own homework". The close intertwining of assessment and improvement work is a conscious choice in Scotland, believed to lead to faster improvement and other benefits. Within HIS, efforts are made to keep assessment and improvement work distinct. The two functions (alongside an evidence function) are led by different Directorates, and non-Executive Directors ensure that each function is delivered appropriately. Nevertheless, most OECD health systems are increasingly placing the scrutiny and challenge function at arm's length from the service delivery and improvement function, to ensure the robust independence of the former. Scotland should also consider formally separating out the *Scrutiny and Assurance Directorate* into a distinct and independent entity. One issue for this new body would be to consider publishing a single, comprehensive assessment of the quality of care in NHSScotland.

In Scotland, voluntary accreditation with the capacity to mark out excellence would appear to fit well with its preference for consensual, participatory governance. Following an internationally established accreditation model would give Scottish providers opportunities to connect with, and benchmark themselves against, international peers. Recognising the benefits that a system-wide accreditation system might bring to complement existing arrangements, Scotland is piloting new initiatives in this domain. Following publication of the Vale of Leven Hospital inquiry report, The Scottish Government announced that the Chief Nursing Officer would work with nurse directors to roll out care assurance programmes covering nursing and midwifery in all hospitals and community services. This work will comprise a small set of nationally-agreed indicators of high quality nursing and midwifery; development of local and national data infrastructure (such as a "dashboard" that reports performance "from Ward to Board"); a framework that outlines key principles on development and implementation of local care assurance system/processes; and, a set of NHS

Scotland record keeping standards (including a list of core assessments for all adult inpatient admissions). One example of this work is the *Care Assurance and Accreditation System* (CAAS), currently being piloted in three Health Boards. CAAS is intended to provide public assurance on the delivery of 13 standards of care consistently across the Scottish NHS (including adequate staffing levels), whilst delegating more decision making responsibility to frontline nurses and midwives, and releasing senior staff from office-based functions to spend more time on patient care. If shown to be of value, and welcomed by patients and by staff, Scotland should look to see whether the CAAS model might be more widely applied across the health system, perhaps initially as a voluntary scheme.

2.5. Authorisation of medical devices and pharmaceuticals

Scotland has well-established policies and institutions in place to evaluate new drugs and devices, emphasising a transparent approach to explaining decisions about the accessibility of medicines to the public. The effective use of antibiotics has been a priority in the quality use of medicines, and in this Scotland has achieved significant gains.

Authorisation of medical devices and pharmaceuticals is performed at a UK level

The Medicines and Healthcare Products Regulatory Agency (MHRA) is responsible for regulating all medicines and medical devices in the United Kingdom. It is charged with ensuring medicines, medical devices, advanced therapy medicinal products and blood products are safe and work effectively. It also works to educate the public and health care professionals about the risks and benefits of medicines, medical devices and blood components, leading to safer and more effective use, and promotes international standardisation and harmonisation to assure the effectiveness and safety of biological medicines.

MHRA’s main function is to protect public health and safety by promoting public awareness and assessing the acceptable benefit-risk profiles for medicines and devices. The MHRA balances the need to ensure devices and medicines are acceptably safe, with the need to not stifle innovation. Its other functions are to ensure clinical trials meet robust standards, and to receive and investigate reports of suspected problems with medicines and devices. It also investigates and prosecutes cases of non-compliance, including misleading advertising claims.

Some medicines are reviewed under a European centralised process. The European Medicines Agency evaluates applications for European Union marketing authorisations for medicines. Only certain medicines are eligible for the centralised procedure, which enables a European-wide single evaluation and authorisation. The Agency also monitors the safety of medicines.

The Scottish Medicine Consortium authorises the use of new pharmaceuticals and strives for timely, transparent decisions

The Scottish Medicines Consortium (SMC) is responsible for accepting newly licensed pharmaceuticals for use in Scotland. It assesses their efficacy, health benefits and the appropriateness of the price, based on information shared by pharmaceutical manufacturers. Established in 2001, the SMC is a consortium of NHS Scotland's 14 Health Boards. It is made up of lead clinicians, pharmacists and health economists together with representatives of Health Boards, the pharmaceutical industry and the public. Once a medicine has been appraised by the SMC, NHS Boards consider the introduction of the medicine based on clinical and cost-effectiveness advice. This is done by the Boards' Area and Drug Therapeutic Committees. SMC's remit excludes the assessment of vaccines, branded generics, non-prescription medicines, blood products, plasma substitutes and diagnostic drugs.

Transparency in how decisions are made, particularly in the exclusion of medicines from the Scottish NHS, is particularly important. This is all the more pertinent in cases where medicines are available in England but not in Scotland. An example of how the SMC has engaged the community by explaining its decisions can be seen in a user-friendly presentation, *"Why does SMC say no?",* on the SMC website. All SMC advice is published on an online directory, and members of the public can subscribe to receive a monthly update via email. Real efforts are also made to reflect the views and wishes of patients, their families and carers in the SMC decision-making process. SMC works in partnership with patient groups, and gathers information through patient group submissions.

The SMC has taken on a horizon-scanning role. A key aim is to provide early intelligence on new medicines in development to help NHS Boards improve financial and service planning. The horizon-scanning team, comprising pharmacists and management accountants, gathers intelligence on new medicines by engaging clinical specialists across Scotland, as well as the pharmaceutical industry. A confidential "Forward Look" report is sent to key Health Board personnel annually. It features medicines expected to become available within the following 12-18 months, with potential to have a "moderate to high" net impact on the drug budget, and/or significant implications for service delivery. The budget impact assessment of

"Forward Look", which considers projections for years 1 and 5, takes into account anticipated costs and savings. This can include offsetting the costs of a displaced medicine, or adding associated costs of additional treatment monitoring.

All OECD health systems struggle to balance access to novel therapies, cost containment and incentives for research and innovation. An effective policy response requires careful planning, good governance and budgeting, and effective use of information. With the SMC's well-established horizon-scanning function, Scotland is a step ahead in this respect. A 2008 evaluation of its budget impact estimates concluded that they were valued and used by NHS Boards. However, limitations in budget impact data and information provided to SMC by the pharmaceutical industry meant that meaningful comparisons of estimates with actual expenditure could not be made, nor the reliability of manufacturers' estimates determined (Scottish Medicines Consortium, 2008).

Eight years on, a second evaluation would be timely. An assessment of the utility of information produced for NHS Boards – especially in the context of the post-financial crisis years – and whether information availability has improved, could be a useful learning experience for the SMC. So, too, could an exploration of avenues for strengthening this process. It could also be useful for other OECD countries grappling with similar challenges.

The safe and effective use of pharmaceuticals appears to be improving, particularly for antimicrobials

The safe and effective use of antibiotics has become an important part of the SMC's work. The Scottish Antimicrobial Prescribing Group (SAPG) has existed since 2008, and is hosted by the SMC. It aims to enhance the quality prescribing of antibiotics in hospitals and primary care, through a national framework for antimicrobial stewardship. Strategies include the improved collation, analysis, correlation and reporting of antimicrobial use and resistance data, and improved education programmes for health professionals. The SAPG national prescribing indicators are accessible as standard reports within the Prescribing Information System for Scotland, a web-based application providing information for all prescriptions dispensed in the community in the previous five years.

SAPG's work underpins the Scottish Reduction in Antimicrobial Prescribing (ScRAP) initiative, an educational toolkit that aims to reduce unnecessary antibiotic prescribing. SAPG publishes an annual report on primary care prescribing, and progress reports. They indicate there has been a consistent improvement in prescribing. In 2013-14, there was a 6.5% decrease in the total number of prescriptions in primary care for antibacterials compared with the previous year, and an 11.6% reduction in prescriptions of broad spectrum antibacterials associated with a higher risk of *Clostridium difficile* infection (Scottish Antimicrobial Prescribing Group, 2014).

Health technologies are assessed by the Scottish Health Technologies Group

The Scottish Health Technologies Group (SHTG) is an advisory group that assists NHS Boards to make decisions about health technologies, excluding medicines that are reviewed by the SMC. The group provides advice on clinical evidence and cost-effectiveness, considering new and existing technologies. SHTG considers technical evidence from its Evidence Review Committee alongside the knowledge and experience of its wide membership to reach its decisions. The group also works closely with the Health Innovation Partnership Board to streamline the pathway for new health innovations. Its pilot Innovative Medical Technology Overview (IMTO), for example, takes weeks rather than years to assess a new technology. SHTG has also adopted a horizon-scanning function similar to that of the SMC. It provides early intelligence of the nature, potential budget and service impact of health technologies in development.

The National Planning Forum (NPF) is a mechanism for NHS Boards and the Scottish Government Health and Social Care Directorates to agree on how to address planning issues requiring attention on a national basis. The NFP is represented by all 22 NHS Boards and the Scottish Government, as well as other stakeholders. It meets five times a year, and is chaired by the Healthcare Quality and Strategy Directorate. Agreements are expected to be acted on by NHS Boards. Among the issues that have previously been on the agenda are laparoscopic prostatectomies (surgery for prostate cancer), the treatment of endometriosis, and the status of adult intensive care treatment. The fundamental aim is to ensure equal access to quality care across Scotland. Several decisions made by NPF have resulted in greater centralisation of procedures and treatments, as well as the strategic localisation of new technical equipment such as surgical robots. The minutes and reports of meetings are published on the NPF website.

Scotland also takes part in the collaboration facilitated by the British Standards Institution (BSI), which brings together industry and government stakeholders to develop standards promoting safe and effective health care. Standards are developed across areas such as eHealth, nanotechnology and regenerative medicine.

2.6. Development and use of standards and guidelines

The Scottish Intercollegiate Guidelines Network is an internationally-recognised authority in the production of evidence-based clinical guidelines, which supports Scotland's key challenges around chronic disease and other conditions. Ensuring that these guidelines remain up-to-date and relevant, however, appears to be an ongoing challenge. Several activities help build awareness to support the implementation of clinical guidelines.

The Scottish Intercollegiate Guidelines Network is an internationally-recognised source of high-quality clinical guidelines

The Scottish Intercollegiate Guidelines Network (SIGN), part of Healthcare Improvement Scotland since 2011, develops evidence-based clinical practice guidelines for NHSScotland (Healthcare Improvement Scotland, 2014b). SIGN guidelines are derived from a systematic review of the scientific literature and cover health issues including those relating to NHS Scotland priority areas, such as cancer, cardiovascular disease and mental health. They are designed to draw on current evidence to assist in meeting the aims of reducing variations in practice, and improving patient outcomes. Guidelines are disseminated to health care professionals and organisations in Scotland and patient versions are available. A reported challenge for SIGN is ensuring that its guidelines remain up to date.

A number of clinical standards also exist, covering particular patient groups (such as older people in hospital), services (such as asthma services for children and young people) or particular clinical conditions (such as pressure ulcers). As with SIGN Guidelines, there is a challenge to keep these standards up to date (several are a decade or more old), whilst expanding their number. HIS is currently reviewing these standards to identify any standards and indicators which are no longer fit for purpose. As part of this review the Scottish Government has asked HIS to articulate how the work on standards will inform scrutiny and improvement.

Targeted support to aid guideline use by both clinicians and patients is available

SIGN offers support in the form of customised resources for the implementation of every guideline. These include awareness-raising activities, announcements of implementation meetings and resources such as audit tools, algorithms and pathways, and adjusted implementation support for each guideline. On-line training modules or CPD sessions are linked to some SIGN Guidelines, such as those available for SIGN Guideline 98 (which covers the assessment, diagnosis and clinical interventions for children and young people with autism spectrum disorders) and Guideline 95 (which addresses the management of chronic heart failure).

Apps have also been developed, such as one designed to encourage health professionals in training to undertake audits based on the guidelines appropriate to the specialty in which they are training. A number of audits are in place, assessing whether the guidelines have been implemented and are being followed.

2.7. Development and use of quality indicators and other performance data

Scotland has a well-developed performance framework, and uses quality indicators to measure progress towards the stated outcomes it wants to achieve. Notably, Scotland is a rare example of an OECD country that applies indicators to the quality of out-of-hours primary care – an initiative that other countries should emulate. Efforts should be made, however, to develop a more systematic approach to national quality audits and disease registers, which are currently developed in a somewhat *ad hoc* manner by individual centres of excellence.

The Scottish Government's National Performance Framework contains several health-related indicators

The Scottish Government's National Performance Framework covers government activity directed toward achieving 16 outcomes, such as "*we live longer, healthier lives*" and "*our people are able to maintain their independence as they get older and are able to access appropriate support when they need it*". Seven "purpose targets" (economic growth, productivity, participation, population, solidarity, cohesion and sustainability) and 50 indicators are used to measure progress towards achieving these high-level outcomes. Several indicators relate to the performance of the health system, and include:

- improve children's dental health
- increase the proportion of babies with a healthy birth weight
- increase the proportion of healthy weight children
- increase physical activity
- improve self-assessed general health
- improve mental wellbeing
- reduce premature mortality

- improve end-of-life care
- improve support for people with care needs
- reduce emergency admissions to hospital
- improve the quality of health care experience
- reduce the percentage of adults who smoke
- reduce alcohol-related hospital admissions
- reduce the number of individuals with problem drug use.

The Scotland Performs website uses a progress arrow to signal whether performance against each indicator is improving, worsening or the same, as shown in Figure 2.2. The website also provides more detailed information about how targets are measured, and about performance. For example, collecting data on tooth decay in children is important because dental decay is highly preventable, but is the most common reason children are admitted to hospital in Scotland. Good dental health is also an indicator of a child's health more broadly, as it reflects good parental care in the early years of a child's life.

Figure 2.2. Examples of progress of national indicators

Source: Scotland Performs, http://www.gov.scot/About/Performance/scotPerforms/indicator.

NHSScotland has a well-developed infrastructure to collect and analyse health system metrics, including quality-related data

NHSScotland established the *Information Services Division* (ISD) to provide information on activities, costs and outcomes within the health system, and inform policy and quality improvement in health care. In terms of quality governance, a key element of ISD's work is the *Quality Measurement Framework*, consisting of three levels, as described earlier in Section 2.2. The third level of the framework consists of 12 Quality Outcome Indicators linked to the goals set out in the *Healthcare Quality Strategy*. Three of the 12 indicators are still under development (employee engagement, resource use, and safe care). Data are available for nine indicators, and information on their progress is provided (Table 2.1).

Table 2.1. Progress on the Quality Outcome Indicators

Indicator	Progress
Care experience	The latest value of the indicator is 80.3 which is a statistically significant increase of 0.9 compared to 2012. This implies that overall people's quality of experience has improved (the indicator is a score between 0 and 100, with higher scores representing a better experience. The score is based on survey questions and does not represent a percentage).
Emergency admissions	In 2013/14 the rate of emergency admissions was a provisional 10 188 emergency admissions per 100 000 population. Since 2008/09, this rate has remained level at around 10 000 emergency admissions per 100 000 population, with very slight increases in each of the last three years. In 2013/14 the emergency admission bed day rate was 71 895 emergency bed days per 100 000 population. Since 2008/09 the rate has shown a steady reduction. Note that the 2013/14 figures are provisional and likely to be slightly lower than the final figure.
End of life care	The proportion of the last six months of life spent at home or in a community setting was 90.8% in the year ending March 2014. This figure has remained at just over 90% for the five years to 2013/14.
Healthcare Associated Infection (HAI)	In 2011 the prevalence of HAT was 4.9% in acute hospitals, a significant reduction since the last survey, at 9.5% in 2005/06.
Health birthweight	The percentage of babies born at a healthy birthweight in the year ending March 2013 was 90.1%. This figure has remained relatively stable over the last ten years.
Hospital Standardised Mortality Ratios (HSMR)	HSMR at Scotland level has decreased by 15.7% between the quarter October to December 2007 and the latest quarter (January to March 2015) with the latest figure at 0.90 for January to March 2015.
Personal outcomes	The 2013/14 value for the indicator is 75.2. This shows no change from the previous data point, 2011/12, when the indicator was introduced (the indicator is a score between 0 and 100, but not a percentage value, with higher score representing better outcomes).
Premature mortality	In 2014, the European age-standardised mortality rate (using the 2013 European Standard Population) among those aged under 75 in Scotland was 123.2 per 100 000, a decrease of 3.3% over the last year and by 22.5% over the last ten years.
Self-assessed general health	In 2014, 74% of adults described their health in general as either "good" or "very good". Since 2008, this level has fuctuated betwen 74% and 77%.

Source: ISD Scotland, Quality Measurement Framework, www.isdscotland.org/Health-Topics/Quality-Measurement-Framework/Summary-of-Progress/, accessed 01.10.2015.

Accompanying the indicators is an explanation of what work is being done to improve progress. For example, in the case of health care-acquired infections, the website explains that improvements can be achieved through measures including hand hygiene, hospital cleanliness, equipment decontamination and optimal antimicrobial prescribing. The data for this indicator, however, relate to 2011, and some of the other indicators are also based on old data, making them less useful. Efforts are being made to improve the timeliness and accuracy of data. Weekly hospital-level reporting of emergency department waiting times began early in 2015, for example. Nevertheless, there is still significant scope to provide more timely information on other aspects of hospital performance. A new website, *NHS Performs* (http://www.nhsperforms.scot/), aims to improve the accessibility, frequency and range of information on hospital performance. This is discussed further in Section 2.8.

As discussed in Section 2.1, a core suite of indicators has been recently developed, with broad stakeholder consultation, for the integration of health and social care. The indicators have still to be tested in practice, and it is anticipated that they will be refined over time. Each Integration Authority is required to publish an annual performance report, including information about the indicators, supported by local measures and contextualising data to provide a broader picture of local performance. Some of the indicators still require data development. The indicators are grouped into two types of complementary measures (Box 2.3). Scotland's experience with these indicators will be of international interest, most OECD health and social care systems are exploring how best to monitor integrated care,

Box 2.3. Health and Social Care Integration: Core suite of indicators

Outcome indicators based on survey feedback

1. Percentage of adults able to look after their health very well or quite well.
2. Percentage of adults supported at home who agree that they are supported to live as independently as possible.
3. Percentage of adults supported at home who agree that they had a say in how their help, care or support was provided.
4. Percentage of adults supported at home who agree that their health and care services seemed to be well co-ordinated.
5. Percentage of adults receiving any care or support who rate it as excellent or good
6. Percentage of people with positive experience of care at their GP practice.
7. Percentage of adults supported at home who agree that their services and support had an impact in improving or maintaining their quality of life.

Box 2.3. Health and Social Care Integration: Core suite of indicators *(cont.)*

8. Percentage of carers who feel supported to continue in their caring role.
9. Percentage of adults supported at home who agree they felt safe.
10. Percentage of staff who say they would recommend their workplace as a good place to work.*

Indicators derived from organisational/system data primarily collected for other reasons

11. Premature mortality rate.
12. Rate of emergency admissions for adults.*
13. Rate of emergency bed days for adults.*
14. Readmissions to hospital within 28 days of discharge.*
15. Proportion of last six months of life spent at home or in community setting.
16. Falls rate per 1 000 population in over 65s.*
17. Proportion of care services graded "good" (4) or better in Care Inspectorate Inspections.
18. Percentage of adults with intensive needs receiving care at home.
19. Number of days people spend in hospital when they are ready to be discharged.
20. Percentage of total health and care spend on hospital stays where the patient was admitted in an emergency.
21. Percentage of people admitted from home to hospital during the year, who are discharged to a care home.*
22. Percentage of people who are discharged from hospital within 72 hours of being ready.*
23. Expenditure on end of life care.*

* Indicator under development.

Source: The Scottish Government, http://www.gov.scot/Publications/2015/04/3012/2, accessed 11 August, 2015.

Performance is monitored through the reporting of health indicators linked to Local Delivery Plan Standards

Each of the NHS Boards are expected to produce Local Delivery Plans, as part of the performance framework. The plans outline their activities in six improvement priority areas:

1. health inequalities and prevention
2. antenatal and early years
3. person-centred care
4. safe care
5. primary care
6. integration.

Additionally, the plans set out standards set and agreed between the Scottish Government and the NHS Boards. The standards, which the boards are expected to report on, focus mostly on indicators concerning access and the process of care, as listed below:

- Increase the proportion of people diagnosed and treated in the first stage of breast, colorectal and lung cancer by 25%.
- 95% of all patients diagnosed with cancer to begin treatment within 31 days of decision to treat, and 95% of those referred urgently with a suspicion of cancer to begin treatment within 62 days of receipt of referral.
- People newly diagnosed with dementia will have a minimum of one year post-diagnostic support.
- 100% of patients to wait no longer than 12 weeks from the patient agreeing to treatment with the hospital to treatment for inpatient or day case treatment (Treatment Time Guarantee).
- 95% of patients to wait no longer than 12 weeks from referral (all sources) to a first outpatient appointment (measured on month end Census). Boards to work towards 100%.
- 90% of planned/elective patients to commence treatment within 18 weeks of referral.
- At least 80% of pregnant women in each SIMD quintile will have booked for antenatal care by the 12th week of gestation.
- 90% of eligible patients to commence IVF treatment within 12 months of referral.
- 90% of young people to commence treatment for specialist Child and Adolescent Mental Health services within 18 weeks of referral.
- 90% of patients to commence psychological therapy based treatment within 18 weeks of referral.

- NHS Boards' rate of staphylococcus aureus bacteraemia (including MRSA) to be 0.24 cases or less per 1 000 acute occupied bed days.
- NHS Boards' rate of Clostridium difficile in patients aged 15 and over to be 0.32 cases or less per 1 000 occupied bed days.
- 90% of clients will wait no longer than three weeks from referral received to appropriate drug or alcohol treatment that supports their recovery.
- NHS Boards to sustain and embed alcohol brief interventions in the three priority settings of primary care, A&E and antenatal and to broaden delivery in wider settings.
- NHS Boards to sustain and embed successful smoking quits at 12 weeks post quit, in the 40% most deprived SIMD areas (60% in the Island Boards).
- GPs to provide 48-hour access or advance booking to an appropriate member of the GP team for at least 90% of patients.
- NHS Boards to achieve a staff sickness absence rate of 4%.
- 95% of patients to wait no longer than 4 hours from arrival to admission, discharge or transfer for A&E treatment. Boards to work towards 98%.
- NHS Boards are required to operate within their Revenue Resource Limit (RRL), their Capital Resource Limit (CRL) and meet their Cash Requirement.

Indicators relating to clinical outcomes are limited to staphylococcus aureus bacteraemia and Clostridium difficile infection rates. Notably, none of the standards relate to patient experience or patient-reported outcome measures. This would appear to be a weakness in the standards as currently agreed, and Scotland should consider whether patient-reported measures (including patient satisfaction and experience) should be included. Several OECD health systems (in the Nordic countries and in Canada, for example) are increasingly using patient-reported measures in accountability and contracting frameworks (OECD, 2015) in an effort to make services more responsive to patient needs and preferences.

The second level of the *Quality Measurement Framework* is made up of a suite of national NHS performance targets that NHSScotland and the Scottish Government agree to each year. They are known as Local Delivery Plan (LDP) Standards and cover traditional performance targets such as emergency department attendances and smoking cessation, alongside more innovative measures such as sickness absence of NHS staff (believed to be important because of the impact on cancelled appointments and procedures, leading to increased pressure on staff and patients, increased costs of employing bank and agency staff, and reduced efficiency). The inclusion of this target helps underline the need to see a whole-system approach to targets and system performance relative to targets, considering the inputs and drivers behind successfully, or unsuccessfully, met targets.

As for the indicators linked to the National Performance Framework, performance against the LDP Standards is reported online. Importantly, an explanation of why a particular target is used aims to help staff and patient understanding, and is provided alongside the LDP Standard results on the NHSScotland website. The latest data shows that some LDP Standards are being met (such as 90% of eligible patients to commence IVF treatment within 12 months of referral; 90% of individuals needing drug or alcohol treatment will wait no longer than three weeks from referral received to appropriate treatment; or all NHS Boards required to operate within their Revenue Resource Limit, their Capital Resource Limit and meet their Cash Requirement). Others, however, remain challenging and strong incentives to Health Boards to secure continued improvement. Examples of these more challenging standards include for 90% of young people to start treatment for specialist Child and Adolescent Mental Health services within 18 weeks of referral (in the quarter ending June 2015, 76.6% of children and young people were seen within 18 weeks); for rates of Staphylococcus aureus bacteraemia (including MRSA) cases to be 0.24 or less per 1 000 acute occupied bed days (in the year ending March 2015, the rate was 0.31 per 1 000 acute occupied bed days); and, for NHS Boards to achieve a sickness absence rate of 4% or less (in 2014/15, the rate was 5.04%).

The current relatively succinct number of LDP Standards (just under 20) is a significant reduction on the previous 180 targets. The smaller number is thought to be more focused and effective at driving core improvements. NHS Boards state how they will commit to meeting their targets as outlined in their annual Local Delivery Plans. The targets are being followed up through reviews, and if targets are not met, the NHS Boards may be offered help from the government improvement team. National results are published on the *Scotland Performs* website, broken down by NHS Board, as well as in an annual report (Scottish Government, 2014c).

The importance of setting well-considered targets, which promote system-wide quality improvement as well as focusing on areas of identified weakness, has become clear across all OECD health systems. While targets can effectively direct attention and resources towards areas of weakness, or areas of particular importance, they can also encourage too narrow a vision of care quality achievements, and sometimes "gaming" effects. Reflecting these concerns, the performance reporting approach of the Scottish NHS is strongly influenced by an ongoing discussion around the degree to which nationally-set targets, and benchmarking, support quality improvement. Scotland appears to have achieved a good balance, though, between targets specified by national authorities which are sufficiently ambitious and more bottom-up approaches, such as the Breakthrough Collaboratives described earlier. Additionally, including mental health (psychological therapies and child and adolescent services) in waiting times targets sets Scotland apart from most other OECD countries, very few of which record waiting times for mental health services, or set associated targets and standards. The reduction in target numbers to 18 is a reassuring signal of this healthy balance.

Waiting time targets are also widely applied across the health sector

To support the "access" dimension of the LDP Standards, the Information Services Division (ISD) collects a range of waiting time data. A new approach to measuring and understanding waiting times came into effect at the beginning of 2008, called the "New Ways of Defining and Measuring Waiting Lists" (known as "*New Ways*") (ISD Scotland, 2007). *New Ways* sets out new guidance on how NHS Boards should manage patients' waits and how to measure and report waiting times consistently. It aims to set out fair and appropriate procedures for patients who do not or cannot attend an appointment, and ensure that patients' waiting time guarantees are maintained wherever possible. Notably, this is a change to the system in which patients lost their guarantee if they were unavailable for medical or social reasons. Weekly statistics on A&E performance are now being published, including the four-hour core performance target for A&E departments in Scotland.

There has also been a shift to make waiting times a shared responsibility of GPs, hospital services, and patients. An evaluation in 2010 (Auditor General for Scotland, 2010) found that *New Ways* had been fairly successful, and seemed to have improved patient experiences. Notably, *New Ways* was found to have stopped patients remaining on waiting lists indefinitely, and helped with the fair and consistent management of patients. Areas highlighted for further work included communications with patients regarding the timing and planning of their appointment, and filling in gaps in some recorded data.

A 2013 audit was less positive (Auditor General for Scotland, 2013a), and found that there were areas where information was incomplete. For instance, information contained in patient records was limited, making it not possible to trace all the amendments that may have been made. Of greater concern was the use of "unavailability codes", which were introduced with *New Ways* to give patients more flexibility over when they would be available for appointments, giving more room to the way that waits are recorded. The audit raised concerns about the increasing use of social unavailability codes. The proportion of people waiting for inpatient treatment who were given a social unavailability code rose from 11% in 2008 to just over 30% at the end of June 2011. It also raised concerns about the higher use of these codes in some specialities, such as orthopaedics and ophthalmology, and instances of inappropriate use. Both the initial report by the Auditor General for Scotland (2013a), and a follow-up report from later that year (Auditor General for Scotland, 2013b), do importantly note that the use of unavailability codes began to reduce in late 2011, a trend which continued into 2012 and 2013.

Scotland has engaged in specific work to improve patient flows, reduce the need for unscheduled care, as well as reduce unnecessary attendances or hospital stays for patients with planned care. Much of this work is the Quality and Efficiency Support Team (QuEST) and is described further in Section 2.9. The Scottish Government, ISD Scotland, and Health Boards also put in place processes to produce additional information about the management of waiting lists, for example identifying when patients are recorded as unavailable for patient choice reasons, which has helped add transparency to the process.

Scotland is a rare example of an OECD country that collects information on the quality of out-of-hours primary care services

Scottish primary care physicians participate in the UK-wide Quality and Outcomes Framework, under which physicians can earn financial incentives for meeting a wide range of quality indicators (see Section 2.10 for more on financial incentives). In addition to this programme, a series of primary care indicators have been developed to identify issues around avoidable variation and health system waste. These indicators include referrals, hospital admissions, prescribing and patient experience.

Notably, *Healthcare Improvement Scotland* has developed quality indicators for out-of-hours primary care (Box 2.4). These indicators apply to all territorial NHS Boards in Scotland, NHS 24, and all providers of out-of-hours primary care services either provided directly by, or secured on behalf of, NHS Boards. The indicators are intended to identify good practice and potential problems, so that NHS Boards may be benchmarked against their peers. The indicators are accompanied by standards for the provision of out-of-hours primary care. All providers are required to complete an annual review of quality indicators and develop improvement plans.

Box 2.4. Quality indicators for out-of-hours primary care services

Indicator 1: Response times

- Proportion of calls to NHS 24 answered within 30 seconds by an NHS 24 call handler.
- Proportion of home visit cases where a clinician arrives at the destination of care within the timescale recommended by triage.
- Volume and proportion of one-, two- and four-hour home visit referrals.

Indicator 2: Appropriateness of triage for home visits

- Proportion of clinically appropriate one-, two- and four-hour home visit referrals.

Indicator 3: Effective information exchange

- Proportion of primary care out-of-hours consultations during which the patient's electronic care summary is accessed by a clinician.
- Proportion of primary care out-of-hours consultations with patients registered with a GP within the same NHS Board for which consultation information is provided to their GP by 8.30 am the following working day.
- Proportion of primary care out-of-hours consultations resulting in admission to acute care for which referral information is provided at the time of referral.

Indicator 4: Implementing national clinical standards and guidelines

- Proportion of patients with a suspected or confirmed diagnosis of asthma assessed in line with current national standards and guidelines.

Indicator 5: Antimicrobial prescribing

- Proportion of prescriptions of antimicrobial medications that are for high-risk antimicrobial medications (cephalosporins, quinolones, co-amoxiclav and clindamycin).

Indicator 6: Patient experience

- Proportion of primary care out-of-hours service patients who report a positive experience.
- Proportion of primary care out-of-hours service patients who say they got the outcome (or care/support) they expected and needed.
- Proportion of complaints received from primary care out-of-hours service patients.

Source: Healthcare Improvement Scotland (2014), Quality Indicators for Primary Care Out-of-Hours Services, http://www.healthcareimprovementscotland.org/our_work/primary_care/out-of-hours_services/ooh_quality_indicators.aspx.

All OECD health systems are struggling to provide out-of-hours primary care in an accessible, safe and sustainable way. A targeted initiative focused on performance in this area is rare, and represents a promising innovation that other health systems will be keen to learn from. It will be essential to ensure that learning from these performance metrics translates into better policy and better services. Currently, little of this information is made publicly available, although Scotland's Public Health and Intelligence services are undertaking work is underway to create an Out of Hours Data set to inform policy development and to provide some limited publicly accessible information. This work should be prioritised, so that these metrics, and the learning and services improvements that result from them, are properly shared.

In another initiative that is uncommon in OECD health systems, Scotland has developed quality performance indicators specific to the care of several types of cancers, including breast, prostate, leukemia and endometrial cancer. The Scottish Cancer Taskforce established the National Cancer Quality Steering Group (NCQSG), which includes responsibility for developing small sets of about 10-15 tumour-specific national quality performance indicators.

For example, in the case of brain and central nervous system (CNS) cancer, indicators include:

- Proportion of newly-diagnosed patients with brain/CNS cancer who have a documented WHO performance status at the time of multidisciplinary team discussion.
- Proportion of patients with brain/CNS cancer who are discussed at multidisciplinary team discussion meetings before definitive management.
- Proportion of patients with biopsied or resected gliomas who undergo relevant molecular analysis of tumour tissue within 21 days of surgery.
- Proportion of patients with brain/CNS cancer where the pathology report contains a full set of data items (as defined by the Royal College of Pathologists).
- Proportion of patients with brain/CNS cancer undergoing surgical resection and/or radical radiotherapy or chemotherapy, who have a MRI prior to treatment.

- Proportion of patients with high grade malignant glioma who undergo maximal surgical resection (>90%), provided it is considered consistent with safe outcome.
- Proportion of patients with malignant glioma WHO grades II, III and IV, who receive early post-operative imaging with Magnetic Resonance Imaging (MRI) within three days (72 hours) of surgical resection.
- Proportion of patients with brain/CNS cancer undergoing oncological treatment (chemotherapy or radiotherapy) who are managed by a specialist neuro-oncologist.
- Proportion of patients with high grade glioma (WHO grades III and IV) undergoing surgical resection who commence their oncological treatment (chemotherapy or radiotherapy) within six weeks of surgical resection.
- Proportion of patients with brain/CNS cancer undergoing radical radiotherapy for whom the radiotherapy planning process includes MRI fusion.
- Proportion of patients with brain/CNS cancer presenting with seizures at diagnosis who are seen by a neurologist or a nurse with expertise in epilepsy management.

While NHS Boards will be required to report against the indicators, there are reports to date only on four cancers: breast, upper gastrointestinal, lung and colorectal. Some of the information is quite old. For example, in the case of breast cancer, the report concerns patients diagnosed in 2012.

The indicators mostly relate to the process of care. While this information is useful, there could be an opportunity to include indicators on the experience of patients undergoing cancer treatment, and their outcomes. This could include, for example, whether patients felt they had the opportunity to make decisions about their care, and whether they understood information given to them by clinicians. It could also extend to indicators measuring their quality of life, such as the extent to which they are in pain.

Healthcare Improvement Scotland has also developed a Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) indicator. The indicator focuses on four areas of improvement:

- All resuscitation attempts are carried out in line with national resuscitation guidelines.

- All recognised expected deaths have a DNACPR/Children and Young Persons Acute Deterioration Management (CYPADM) decision documented in line with national policy.
- The NHSScotland DNACPR or CYPADM form is completed correctly for every DNACPR decision.
- All advance/anticipatory care plan templates must include a field about resuscitation status and DNACPR/CYPADM decision.

The development of this indicator, as with the cancer indicators, provides a useful mechanism to ensure that health professionals are complying with guidelines in the clinical management of patients. It is intended that health providers will use clinical governance and quality improvement forums to collect and analyse the data, and develop improvement plans where necessary.

A more systematic approach to national quality registers and clinical audits would benefit Scottish health care

National quality registers and clinical audits, both essential to monitor quality and outcomes for particular patient groups, have emerged as bottom-up, clinical-led processes in Scotland, often led by pioneering clinicians. This is a typical pattern seen in countries with long histories of quality improvement work, such as Denmark or Sweden. In addition, Scotland participates in the UK-wide programme of national clinical audits run by the Healthcare Quality Improvement Programme (HQIP).

Good use, by clinicians and managers, is reportedly made of the findings of clinical audits in Scotland. They are used in clinical governance discussions at all levels of the Scottish health care system. At a national level, some of the clinical audits that have been published include:

- Musculoskeletal Access Audit (MSK Audit) (2014)
- Scottish ECT Accreditation Network (SEAN) (2014)
- Scottish Intensive Care Society Audit Group (SICSAG) framework for quality indicators (2012; Critical care report 2014)
- Scottish Multiple Sclerosis Register (2014)
- Scottish Stroke Care Audit (2014)
- Scottish Renal Registry (2014)
- Scottish Arthroplasty project (2014)

- Scottish Trauma Audit Group (2013)
- Scottish Audit of Intracranial Vascular Malformations (latest report 2011)
- Scottish Audit of Surgical Mortality (latest report 2009).

While there would be clear value in maintaining the audits as a bottom-up, clinician-led activity, there may be weaknesses in the current approach. Strategic oversight appears to be lacking. Comparability across audits, possibilities for data linkage across registers and systematic appraisal of quality of care system-wide can be limited. The publication and dissemination strategy of Scotland's national audits is also uneven. Some regularly publish their findings, while others (such as the Scottish Audit of Intracranial Vascular Malformations) have their last publication dating back several years. The Scottish Audit of Surgical Mortality intended to evolve into a structured morbidity and mortality review process for all hospital deaths, but the current status of this project is unclear.

The *Clinical Outcomes Measures for Quality Improvement* group has started to taken on the strategic management of national audits. Work is also now underway to develop a system for auditing the effectiveness of audits. As this work continues in Scotland, a more systematic national approach to quality registers and clinical audits should be considered. This would probably be best co-ordinated by NHSScotland, and seek to encourage an appropriate level of consistency in the objectives, format and use of quality registers and clinical audits, whilst allowing sufficient freedom to develop distinct clinical priorities or research agendas. Findings from national audits need to be translated, as far as possible, to local contexts. National authorities rightly recognise this to be particularly important in Scottish context, given the emphasis placed on local collaboratives and learning cycles in Scotland. If such links are not made from national studies, there is a risk that important findings will not be acted upon. Denmark has been pursuing this approach in recent years, and offers a model to consider (Box 2.5).

There also appears to be scope for better linkage of data across databases, such as linking episodes of care across different specialties to outcomes. This is essential to build a full picture of the activities, costs and outcomes of care across complete patient journeys. As earlier mentioned in this chapter, the Integrated Resources Framework is an example of data linkage across health and social care to provide information on resource use along patient pathways. This work is being taken forward in the Health and Social Care Data Integration and Intelligence Project, which will provide cross-sector intelligence for partnerships to underpin their strategic commissioning plans.

Box 2.5. Building an information infrastructure for measuring quality in Denmark

Denmark is advanced in measuring quality of care through clinical registries, although this is more developed in the hospital sector. The databases were originally created in single departments by physicians, but quickly spread to include surgical specialties or treatments. Initial databases focused on outcomes and additional information on co-morbidities to allow risk-adjustment. The first national database was set up in 1976 for breast cancer treatment. In 1999, the Danish National Indicator Project (NIP) was established as a mandatory disease-specific quality system for all hospitals.

In 2000, quality standards, indicators and prognostic factors were developed in ten domains: acute abdominal surgery, birth, chronic obstructive pulmonary disease, depression, diabetes, heart failure, hip fracture, lung cancer, schizophrenia, and stroke. At the time, the number of national clinical databases was as high as 60.

A need for standardisation was identified to secure the efficiency of data collection and the rational use of data to provide a basis for improving the quality of care. A national Quality Improvement Programme was established in 2010 to provide a framework for strengthening the infrastructure around the clinical quality databases, with the planned standardisation of the conditions for the operation of the 60 national clinical databases.

All registries include data at the patient level, using the patients' unique patient identifier. The national clinical registries are increasingly based on data from national administrative registers, which increasingly supplement the use of dedicated collection systems in the older registries. Data collection in the primary sector is done exclusively via the electronic health record. In the secondary sector, experiments with data collection to the clinical registers directly via the electronic health record are ongoing, as are projects trying to include laboratory data and prescription data. Seven registries at present include patient outcome measures based on data collected from patients using either online or paper-based surveys.

All national clinical databases publish an annual report. In addition, several methods are applied systematically to ensure that the data collected in the clinical registries are used actively for quality improvement. Among them are an annual clinical audit at national level, annual qualitative audits at regional and local level, ad hoc in-depth national clinical audits on specific items (such as reports on regional variation in survival on lung cancer), and the feedback of results to decision makers and public reporting.

Source: OECD (2013), *OECD Reviews of Health Care Quality: Denmark 2013 – Raising Standards*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264191136-en.

In Sweden, quality of care for the elderly has been improved by linking together databases on healthy ageing (prevention), dementia (long-term illness), behavioural and psychotic symptoms (acute exacerbations) and falls (adverse events). In Scotland, the community health index (CHI) is a unique number that identifies patients across any health service in NHSScotland. The use of such a number aims to improve the co-ordination of patient care by making health information about patients accessible to all health professionals involved in the patient's care, at any service, and provides the basis of linkage of individual-level data.

At the same time, additional investment in a fuller set of disease registers is needed, to cover patient groups that are poorly represented in Scotland's suite of national quality audits. Children's services and mental health care are examples, with dementia care being a particular priority. Of note, Scotland is has a number of projects underway around mental health. Collection of a suite of indicators relating to the quality of dementia care should be piloted later this year. HQIP have commissioned a national confidential inquiry into suicides and homicides in those with a history of mental illness, and work is being undertaken to review Scottish Mental Health performance indicators, with a focus on more robust collection of effectiveness and patient experience data.

2.8. Public reporting of quality and performance

Despite the existence of copious amounts of information on health and social care, there is a need to improve its utility. The analysis and dissemination of data is not always designed with the clinicians, service managers and the public in mind. Likewise, opportunities to benchmark the performance of health services in Scotland are not as fully developed as they could be.

Efforts are made to encourage effective use and dissemination of health system data

An abundance of information on health and social care is available in Scotland. The Scottish Public Health Observatory added Scottish data to a European download of the World Health Organization's European Health for All Database in 2006. This led to the creation of the first Scotland and European Health for All Database. There have since been further updates, with the most recent one in 2012. Scottish data are available for 501 (84%) of 600 indicators (Scottish Public Health Observatory, 2012). Most of the information in the database, however, relates to the epidemiology of health care needs, health service inputs and cost and utilisation data. There is relatively little quality and outcomes data (apart from mortality rates and some infection rates).

The government initiative *Scotland Performs*, discussed earlier in this chapter, measures and reports on progress in achieving the outcomes in the National Performance Framework (and NHSScotland was the first partner organisation to report results under this framework). The ISD produces more than 100 statistical publications and clinical audits each year, all of which are available on its website. The NHSScotland Chief Executive's Annual Report also presents an assessment of the performance of NHSScotland, with key achievements and outcomes.

In a new initiative, ISD is working with Health Protection Scotland (the division of NHS Scotland responsible for infectious diseases and environmental health) and the Scottish Government to develop a new website, *NHS Performs* (http://www.nhsperforms.scot/). This pulls together performance information to provide information including emergency department waiting times, surgery cancellations and health care-associated infections. For example, information is published on the performance of accident and emergency departments, including the proportion of patients seen within four hours. Results are presented at hospital level and benchmarked against averages for Scotland the local NHS Board as well, in some cases, against historical figures. Currently, however, nearly all the indicators relate to inputs and activities (such as staff numbers or waiting times), and very few relate to outcomes (with the exception of standardised mortality ratios and infection rates). Patient experiences are not included either. As the *NHS Performs* website is developed further, it should publish more outcomes, including patient reported measures, as a priority.

The development of "whole system indicators" (through an initiative named *Discovery*) is another major project that ISD is taking forward. Its aim is to bring together indicators from various sources on a dynamic system that will be organised around the dimensions of quality and the *2020 Vision* priorities. It should allow peer-to-peer comparison of key quality metrics, such as unplanned readmission rates. In addition, *Healthcare Improvement Scotland,* the main body charged with scrutinising the Scottish health system, publishes inspection reports of health services, as mentioned in Section 2.4. It works with NHS Boards to review their services and provide feedback and support to achieve quality improvements. NHS Boards must also publish annual reports containing information on a range of performance and financial measures.

Complementing these efforts, the Health and Social Care Directorate's *Analytical Services Division* (Health ASD) brings together economists, statisticians and social and health system researchers to provide an analytical support and briefings to health ministers and senior officials. Situated within government, the ASD also provides policy advice, around measurement frameworks and indicator specifications, for example. Health ASD largely engages in secondary data analysis, using data collected by ISD, local authorities and other sources. It is, however, also responsible for some primary data collections such as the Scottish Health Survey and patient experience surveys.

To some extent, Health ASD and ISD have broadly similar functions (of data collection, analysis and reporting) which may reflect historical arrangements rather than optimal configuration. Some consolidation across Health ASD and ISD is occurring (with the transfer of some surveys to ISD, for example). It would nevertheless seem wise to consider the benefit of two parallel institutions with similar roles, and whether greater impact and value-for-money might be obtained by consolidating all collection, analysis and dissemination of health system data into a single institution. Care would need to be taken to ensure that the particular advantages of individual bodies (such as ASD's diverse professional backgrounds and embedded relation to government) are not lost. Scotland is currently engaged in a strategic overview of institutions and activity related to health data, where the benefits or otherwise of such consolidation should become clear.

Nevertheless, stakeholders report that more could be done to convert data into useful information

Despite this abundance of data, stakeholders report that it is not always packaged into clinically useful information appearing in the right people's hands. ISD's website has been referred to as "an electronic filing cabinet", that is, tidy and well-organised but essentially just a collection of reports, without much interactive potential (see endnote 1 to this chapter). Trying to find regional comparisons of cancer survival estimates within Scotland (a fairly basic indicator that is of interest to a wide sector of society) is a case in point. National survival estimates and local incidence or mortality benchmarks can be found, but local survival estimates are difficult to access. ISD holds a large array of Cancer Quality Performance Indicators and publishes various reports for specific tumour sites, but the overall presentation of the information is much more oriented to specialists than to service users.

It seems that health system information in Scotland is rarely oriented towards the public. Benchmarking and open comparisons (formats which are generally easily understood by the public) also appear under-used. Scotland currently has, for example, limited atlases of variation, satisfaction or outcomes. The Scottish Public Health Observatory, in partnership with other bodies such as ISD, produces local *Health and Well-being Profiles* that highlight variation in health between areas and help identify priorities for health improvement (https://scotpho.nhsnss.scot.nhs.uk/). Most of the information in the profiles, however, relates to the epidemiology of health care needs. There are some quality and outcome measures (such as premature mortality rates, or quality of care for diabetes) but these are currently limited and relate largely to public health and primary care sectors. There is no obvious integration between these indicators or benchmarking efforts and the hospital-based benchmarking efforts of the *NHS Performs* website referred to earlier.

In a political system where open deliberation and involvement of the public in decision making is so prominent, such data should be available to the public in a user-friendly format that enables comparisons between health services. The existence of multiple websites to access information can also be confusing. Providing one main online entry point for the public would be a simpler approach. Sweden, for example, has a robust information infrastructure that is used as the basis for regular performance reports on quality and efficiency; Canada publishes consolidated health system performance data, along with user-friendly definitions, display and high-level analysis, on their *Your Health System* website (Box 2.6). Most information on health care quality is available in a searchable database on the Internet. This enables the user to make individual selections based on what level of presentation is of interest. All registers include unique patient identified data, making it possible to match data from different registers to obtain additional information about the care given (OECD, 2013b).

Box 2.6. Dissemination of health system performance data in Canada

The Canadian Institute for Health Information consolidates and publishes health system performance data on the yourhealthsystem.cihi.ca website. Simple definitions of technical terms (such as "Getting needed care at the right time, without financial, organisational or geographical barriers" for access) and questions (such as "Are Canadians actually getting healthier?") are the predominant tools used to guide users around the website.

The *In Brief* section of the website focuses on five themes that prior research revealed were of most interest to Canadians: access, quality, spending, prevention and outcomes. The *In Depth* section uses 37 indicators to go into more detail, as well as providing descriptive data of health service resources and activity. The indicators in this section cover all dimensions of health system performance, including quality (such as readmission rates or restraint use in long-term care), efficiency (such as the cost of a standard hospital stay), access (such as waiting times for emergency physician assessment) and prevention (such as smoking and obesity rates). Results are available by province, territory, region, city or hospital and infographics are used to convey statistical information, including benchmarking against regional and national averages.

Scotland is taking steps to move toward more open and usable data, through NHS Performs, Health and Well-being Profiles and, in the case of cancer Quality Performance Indicators referred to earlier, development of more user-friendly QPI dashboards. As these continue to develop, it will be important that they focus on quality and outcomes as much as possible (rather than inputs and activities) and that patient-reported outcomes and experiences are increasingly brought into these frameworks. The consultation launched by HIS on improving the scrutiny and assessment of services (described in Section 2.4) makes clear that a greater focus on patient-reported measures is needed. Scotland also needs to ensure strategic oversight so that performance reporting tools evolve in a co-ordinated and consolidated manner, rather than being scattered around different websites in disparate and incompatible formats.

2.9. Patient and public involvement in improving health care quality

Scotland is active in promoting the role of patients as participants in decisions about their care. It seeks patient feedback to drive improvement and promotes a robust culture of transparency. The country encourages patients to share their experiences on a website, and publicly demonstrates how negative feedback has prompted health services to make changes to improve the quality of care. It is a rare initiative that other countries could emulate to demonstrate they are responsive to patients. Scotland's desire to strengthen the patient voice is grounded in a recently developed framework that empowers patients as equal partners in their care.

Listening and learning from patients is a well-embedded tool to drive quality improvement

Engaging patients and the public in making improvements to health care is a stated priority for NHSScotland and the Scottish Government. Patient and public involvement is promoted through a commitment to transparency about the direction and performance of the NHS, and through a commitment to using feedback as a tool for improvement. For example, the results of a national survey on maternity care were used to identify areas where there was a need for improvement, and to inform future maternity policy.

Under the National Health Service Reform (Scotland) Act 2004, NHS Boards are required to involve patients, carers and the public in the planning and design of health services, and in decisions significantly affecting the operation of those services. The Patients' Rights (Scotland) Act 2011 sets out patient rights and principles for the delivery of health care. It notes that people have the right to complain, raise concerns, make comments and give feedback about the NHS services they have received. The Act also charges the NHS with the duty to encourage, monitor, take action and share learning from the feedback it receives.

The *Patient Advice and Support Service* (PASS) was established under the Act, and operates independently of NHSScotland. It supports patients and their carers and families in their dealings with the NHS and in other matters affecting their health and health care. PASS can assist patients in providing feedback about their health care. It can direct patients to other types of support, such as independent advocacy, mediation or communication support services.

Scotland is also promoting better engagement with patients and the public with the *Our Voice* framework (Figure 2.3). It aims to better respond to the views of patients and their families, with a clear focus on improvement. The vision of the initiative is: people who use health and care services, carers and the public will be enabled to engage purposefully with health and social care providers to continuously improve and transform services. People will be provided with feedback on the impact of their engagement, or a demonstration of how their views have been considered.

Figure 2.3. The *Our Voice* framework

Source: Scottish Health Council, http://www.scottishhealthcouncil.org/patient__public_participation/our_voice/our_voice_framework.aspx#.Vcm2CPmqpHw.

The framework contains initiatives at an individual, local, national and leadership level to drive health care quality improvement. Examples include, at an individual level, "integration stakeholders" that will develop systems for responding to feedback in a way that is accessible, manageable for staff, and capable of being transferred across settings. At a local level, peer networks will be developed to support people to participate in local engagement and planning processes. At a national level, citizens' panels will create opportunities for people to engage in national policy debate. Notably, a leadership coalition of health and social care service users, carers and leaders in the NHS, local authorities and the third sector will guide the development of the framework and will be chaired by a member of the public. The framework will continue to be developed until the end of 2017.

Transparency of information and a robust feedback system help day-to-day engagement with patient experiences, and patient feedback is used to inform quality initiatives

There are a number of ways that patients and the public can make complaints and give feedback on the quality of care they receive in Scotland. *Patient Opinion*, an online portal, enables people to post their experiences of NHS services anonymously. People who wish to give feedback on a service can leave a comment and can expect a reply from a member of NHS staff, often from the institution concerned. In a recent example, a patient wrote on the online forum about a negative experience with a rheumatology service. A few days later, the chief executive of the relevant health service responded, apologising and providing information on future plans to improve the service. People can see online which organisations the feedback has been sent to, such as the Scottish Health Council and Scottish Public Services Ombudsman. They can also track online whether a change has been made since the feedback, or a change is planned. Such an initiative facilitates dialogue between patients and health providers, and provides evidence that health services are listening to patients and acting on their feedback to drive improvement. It also facilitates feedback to NHS staff, and can promote learning. Other OECD health systems could look to this example as a way of improving responsiveness to patients.

The ISD also gathers official statistics on complaints, as a key quality indicator. An annual complaints report is compiled and published, and accessible on the ISD website. The data are broken down by individual NHS Board. The complaints data for Scotland are not directly comparable with other parts of the United Kingdom. Health Boards are required to publicise their feedback and complaints processes. They must also produce an annual report demonstrating the learning and improvement achieved from the feedback they have received from patients and independent contractors. These reports also provide information on how Boards are using feedback to improve the quality of services.

There are various systems and methods in place across NHSScotland capturing "real time" information relating to people's experiences of local systems. *The Person-Centred Health and Care Collaborative, launched in November 2012,* aims to take a "human rights-based approach" to health and care by empowering people to participate in making decisions about their own care and encouraging person-centredness and self-management. Evidence-based interventions are trialled to assess the best approaches to improve patient-centred care. Since its launch, it has provided support to teams across NHS Scotland, including a measurement framework focused on five "*must do with me*" elements of care: personal goals, the important people in one's life, the information necessary to make decisions, the opportunity to be involved in discussions about one's own care, and the use of services that are flexible to meet individual need. The *must do with me* approach is an innovative way to underline the importance of patient involvement, that other countries will be interested to learn from.

Other support it has delivered includes a measurement framework to support work to develop new methods of gathering regular, real-time feedback from people who use services. There have also been five national learning events, which have brought over 2 000 NHS staff together to hear from world experts in improvement science and person-centred care, to share practical examples of what works well, and work in teams to plan how they would apply, test and refine these interventions in their own organisations. Other initiatives are a a series of WebEx events where boards present their work and learn from each other, and improvement support to NHS Boards, delivered through team visits and improvement skills development courses.

HIS is now refocusing national quality improvement support for person-centred care to build on progress since 2012. The new model will incorporate three main strands:

- Supporting NHS Boards to further develop real-time feedback systems and methods to capture care experience. It is anticipated that this approach will evolve in line with the developing "our voice" framework, and will include qualitative data measurement and the use of that feedback to drive improvement.
- Ensuring person-centred care is integral to other national quality improvement programmes.
- Sharing best practice examples and person-centred evidence across NHS Scotland through a variety of "social movement" methods, including networking, social media, WebEx and video streaming technologies.

Box 2.7. A person-centred approach to electronic health in Sweden

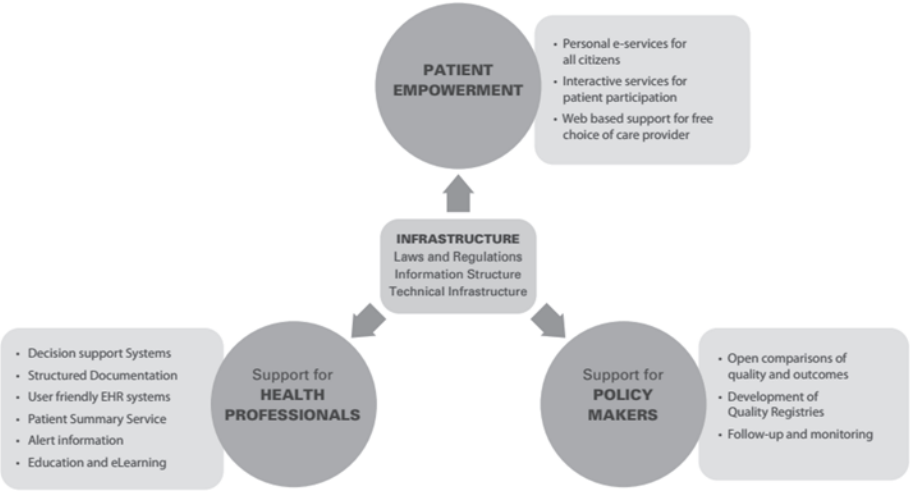
Sweden's national strategy for eHealth sets the patient's desire for information at the centre. Notably, it extends to social care, to promote the integration of care as people move between the two sectors. The change in this way of thinking has resulted in the *National eHealth strategy for accessible and secure information in health and social care*.

The strategy names the individual "citizen" as the most important beneficiary, with easy access to quality-assured information on health and social care, as well as access to documentation on previous treatment. The intent is to offer the patient a customised and interactive service so that they may actively participate in their own care, based on their own prerequisites. There are benefits, too, for health professionals and policy makers, as shown in the figure below.

The strategy cites as a prerequisite putting the needs of the individual first. Another stated priority is the efficient exchange of information and co-operation between all purchasers and practitioners. The information is then intended to follow the citizen through the health and social care sectors.

Personal eServices give patients the opportunity to document information about their own health and obtain advice about care. The Swedish Government's vision is that it shall be easy for everyone to access information about themselves, be able to interact with health and social services, make informed choices and have contact with their practitioner.

Electronic health strategy in Sweden



Source: Swedish Ministry of Health and Social Affairs (2010), "National eHealth – The Strategy for Accessible and Secure Information in Health and Social Care", http://www.isfteh.org/files/media/sweden_national_ehealth_strategy.pdf.

Clinicians currently have good access to a core set of patient information across the various levels of health care. Patients, however, do not yet have access to this information, which could support them to participate more actively in decisions about their care. Work is underway to develop an electronic health record accessible to patients, and discussions on a national patient portal facility for access to digital personal health records and services in Scotland are ongoing. However, Scotland is further behind other OECD health systems in this regard. Additional investment to accelerate this initiative should be considered. The example set by Sweden, particularly with its integration of health and social care in eHealth, could be one to follow (Box 2.7).

Public and patient opinions are routinely used in planning activities

The Scottish Health Council was established in 2005 to promote patient focus and public involvement in the NHS. It is a committee of Healthcare Improvement Scotland. Its role is to ensure that NHS Boards take into account the patient perspective to achieve a “mutual NHS”. In so doing, patients become partners in decision making concerning their own health care, and can also influence how NHS services are delivered.

The Council seeks to ensure that NHS Boards listen and take account of people's views, and support NHS Boards in fulfilling their legal responsibility to engage with patients and the public. The Council supports patients, carers and the public in influencing the planning and delivery of NHS services by, for instance, developing and maintaining the Participation Toolkit, supporting local Public Partnership Forums, encouraging volunteering in the NHS and, through the Participation Standard for NHS Scotland, measuring how well NHS Boards are involving people. Public Partnership Forums are networks of patients, carers, community groups, voluntary organisations and individuals interested in the development and design of local health and social care services. Each NHS Board has a designated director with responsibility for public involvement. The boards are expected to take a proactive and positive approach to public involvement in possible service changes.

The Scottish Health Council’s 2013 *“Listening and Learning”,* report, commissioned by the government, sought to identify good practice and barriers in listening to feedback and complaints. The report found that all NHS Boards had made some progress in responding to the aspirations of the Patient Rights (Scotland) Act 2011. Many were able to demonstrate innovative thinking and techniques in their handling of feedback and complaints. Feedback is also sought in the form of surveys of patient experiences. These are conducted in the domains of primary care, inpatient care and maternity services, on an annual, or close to annual, basis.

2.10. Use of financial incentives to improve quality

Direct financial incentives are seldom used to promote quality in the Scottish health care system. General practitioners' participation in the UK-wide primary care pay-for-performance scheme is the exception to this.

Financial incentives do not feature prominently in Scotland's quality architecture

Scotland has adopted the approach of assuring and improving high-quality care by seeking promoting quality and efficiency initiatives, rather than through rewarding quality with financial incentives. NHSScotland does not seek to promote competition between health services, but instead seeks to instil co-operation and collaboration both across NHSScotland and between NHSScotland and its partners.

NHS Boards receive baseline funding for services based on target shares calculated using a resource allocation formula. This calculation takes into account local need for health care due to the population's age and sex profile, morbidity and life circumstances. Geographical considerations, particularly the cost of delivering health care in more remote areas, are also taken into account. Financial incentives are not a consideration.

Primary care provides the only Scottish example of linking quality to financial incentives. The UK-wide Quality and Outcomes Framework (QOF) is one of the main sources of potential income for general practices. As in other parts of the United Kingdom, participation by Scottish primary care physicians is voluntary. For those who choose to participate, the QOF measures achievement against a range of evidence-based quality indicators, with points and payments awarded according to the level of achievement. Public scrutiny provides an additional incentive, with the performance of individual practices published on a website. Physicians benefit by having the capacity to compare their performance against that of their peers.

However, in late 2015 Scotland's Health, Well-being and Sport Secretary announced that the QOF in Scotland would be removed by the end of 2017 in preparation for a new GP contract. This is a move consistent with Scotland's bottom-up approach to quality improvement and reluctance to use financial incentives to promote health care quality.

There is little evidence of other direct financial incentives to improve health care quality in Scotland. NHS Boards undertake an annual process where they may award discretionary point payments to eligible hospital consultants who have demonstrated that they have made an outstanding contribution in improving quality of care.

Savings and reinvestment from quality and efficiency gains, however, act as an indirect financial incentive to improve quality

Scotland's NHS Boards are required to deliver an annual efficiency saving of 3% of baseline funding, to be reinvested in frontline services. Special NHS Boards that do not provide direct patient care return their savings in order that they are recycled into the overall funding available to support patient care. Much of these savings are expected to be found by through improvements in the quality of care – by reducing unnecessary hospital stays, unplanned readmissions and adverse events for example.

Providers are subject to an indirect financial incentive via this mechanism, therefore, to improve quality. Over the past five years, NHSScotland has successfully saved over GBP 1.5 billion. Savings have been reinvested in improving the quality of services, signaling a virtuous circle. Hospitals and boards are supported to identify quality and efficiency gains through the work of the Quality and Efficiency Support Team (QuEST) described in Box 2.8.

Box 2.8. Scotland's Quality and Efficiency Support Team (QuEST)

The Quality and Efficiency Support Team (QuEST) commissions, supports and leads a number of national programmes to support improvement in the quality, efficiency and value of health care within NHSScotland (qihub.scot.nhs.uk/quality-and-efficiency.aspx). The approaches supported by QuEST are set out in NHSScotland's *2020 Framework for Quality, Efficiency and Value.*

In particular, QuEST delivers ten specialist, focused programmes across a range of clinical and non-clinical areas including procurement, prescribing, dementia and cancer. Between them, these programmes have supported NHS Boards to test, spread and embed their own innovative good practice as evidenced by almost 200 examples collected to date. Examples include redesign of the patient pathway after a fracture to reduce unnecessary clinic visits, development of national therapeutics indicators to improve prescribing practices, or intensive home (rather than in-patient) treatment for mental illnesses.

Additionally, Scottish Government funds the production and dissemination of a range of benchmarking products covering business critical areas such as surgical operating theatres utilisation, procurement and estates management. A dashboard containing a range of Efficiency and Productivity indicators that enable NHS Boards to benchmark themselves against each other and NHS England, where appropriate, is centrally produced and a new product bringing together all data sets that allow benchmarking is intended to be launched later in 2015.

2.11. Patient safety initiatives

Scotland's proactive approach to patient safety provides lessons other OECD countries can learn from. The emphasis is on the exchange of knowledge and shared learning, rather than assigning blame. Scotland launched the world's first national Patient Safety Programme in 2008, with an emphasis on preventing avoidable mortality and harm in acute adult hospitals. Its approach is to apply quality improvement methodology to the business of improving safety of care focusing on five work streams. The scale and ambition has grown and the scope of the patient safety work in Scotland now extends to primary care, mental health and maternal and child health.

Scotland plays a leading role in patient safety initiatives in Europe

Scotland was among the first places in Europe to commence systematic patient safety work. It has been a leader in the organisation of patient safety programmes, in education around safety, and in launching new initiatives. As described earlier, NHSScotland's close collaboration with the Institute for Healthcare Improvement (IHI) has been instrumental in helping Scotland become a leader in quality improvement and patient safety in Europe.

An example of one initiative is the NHS Scotland Confidential Alert Line, which enables staff to make a confidential phone call to receive advice from legally-trained staff about how to report a patient safety or malpractice matter. The Scottish Government is also exploring the possibility of introducing a no-fault compensation scheme for injuries caused by clinical treatment, although this seems to be in its infancy. Scotland has also adopted a duty of candour, with a new requirement from 2017 that all patients be informed in writing of incidents of harm affecting them. This is based on the premise that patients should be involved in enhancing the learning of health professionals. The requirement will apply to NHS Boards, GPs and care homes.

National patient safety initiatives are spearheaded by Healthcare Improvement Scotland. The Patient Safety Programme has moved from the traditional somatic hospital setting, to extend to maternity and child health, primary health care and psychiatric care (Box 2.9). The programme is based on the IHI's Breakthrough Series Collaborative Model*,* which comprises a series of learning sessions enabling NHS Boards to exchange knowledge and learn from each other. Discussions are underway about how these patient safety programmes can be more closely linked and integrated with a wider set of quality improvement initiatives in these sectors.

Box 2.9. The Scottish Patient Safety Programme Priority Areas

Scotland's Patient Safety Programme identifies a series of priority areas, across a broad number of domains – acute care, maternity and child care, mental health care etc. Below are some select examples of priorities identified within this programme, by care domain.

Acute adult care

- reduce mortality and harm from sepsis
- reduce cardiac arrests in general wards by improving the response to, and review of, deteriorating patients
- prevent surgical site infections
- safer use of medicines
- reduce harm and mortality from Venous Thromboembolism (VTE)
- reduce harm from falls while promoting recovery, independence and rehabilitation
- reduce harm from pressure ulcers
- reduce harm from Catheter-Associated Urinary Tract Infections
- improve outcomes for patients with heart failure

Maternity and children collaborative

- maternity care
- neonatal and paediatric care

Mental health

- risk assessment and safety planning
- restraint and seclusion
- safer medicines management
- safe and effective person-centred communication at key transition points

Primary care

- promoting a safety culture through the use of trigger tools (structured case note reviews) and safety climate surveys
- promoting safer use of medicines including the prescribing and monitoring of high-risk medications and developing reliable systems for medication reconciliation in the community
- promoting safety across the interface by developing reliable systems for handling written and electronic communication and implementing measures to ensure reliable care for patients.

Source: Scottish Patient Safety Programme, http://www.scottishpatientsafetyprogramme.scot.nhs.uk/.

The Patient Safety Programme initiatives were designed in recognition of common adverse events, such as sepsis and mental health-related harm. The programme includes performance measurement at both a local and national level. Most results from the safety work are reported locally, and national data are not published in a systematic manner. However, according to highlights provided during a 2014 conference, there has been much progress since the programme's 2008 launch (Scottish Patient Safety Programme, 2014). Among the results cited are:

- 25.5% reduction in surgical mortality
- 15.9% reduction in the hospital standardised mortality ratio
- 80% reduction in clostridium difficile rates in people aged 65 and over
- 89% reduction in MRSA cases
- 300 000 surgical pauses have been recorded, and 10 000 pauses are taking place each month. A surgical pause, or "time out", refers to a brief pause in an operating room before incision, at which time all members of the operating team verbally confirm the patient's identity, operative site and procedure to be performed. It is a means of avoiding errors concerning the wrong site or patient, and is mandatory in the United States and a few other countries (World Health Organization, 2008).

A sound communication strategy has been key to the success of the Scottish Patient Safety Programme. Its success story has been told in published articles, and in the presentation of results at national and international meetings. This is driving motivation and further work in the area (Haraden and Leitch, 2011). The early good results have been broadcast to promote the sentiment of team effort, and this has contributed to the programme's enthusiasm, energy and international recognition.

Although national learning systems related to adverse events are in place, a national reporting system is not

Adverse event reporting in Scotland is done locally, not nationally. This is a deliberate approach, to foster local ownership and response. All Health Boards have an obligation to have systems for internal control, and thus a system for identifying and working with adverse events. Most hospitals have electronic systems for reporting, but the situation in primary care is more variable with regards to electronic reporting systems. There are a number of regulations on the reporting of some types of adverse events to national agencies, such as technical errors in equipment and serious medication side effects. Additionally, the previously mentioned duty of candour procedure, when it comes into effect, will emphasise the need for learning and improvement actions after harm. The legislative provisions include the requirement for reporting at a national level, in the form of an annual report, on all incidents that come within the scope of the duty of candour procedure. This will include learning, change and improvements that have occurred.

Despite lack of a national reporting system, systems to share lessons and service improvements at national level do exist, as described above. In addition, Healthcare Improvement Scotland undertook an extensive consultation exercise with NHS Boards, clinicians, patients and other stakeholders in 2013, to understand how these systems could be improved. This feedback, along with existing evidence and good practice from Scotland and internationally, was used to develop *Learning from adverse events through reporting and review: A national framework for NHS Scotland.* The adverse events framework allows local boards to identify areas for change and improvement. There have been visits to all NHS Boards, and reports identifying locally-owned change and improvements that are being made.

All NHS Boards providing services directly to patients have had their processes for managing adverse events reviewed, to help them learn and improve their services. The reviews aim to reduce the risk of these events happening again, and to provide public assurance that NHS Boards are effectively managing adverse events. This led to the following national recommendations for areas of improvement:

- Patients, families and carers should be involved in the adverse event review process, and their involvement should be documented.
- Staff members should be given feedback about the review in a timely manner.
- Information from all stages of the adverse event review process, from initial report through to monitoring of actions, should be consistently and reliably recorded.
- Learning should be consistently shared and improvements demonstrated.

A set of good clinical practices were identified and presented in the national report. A managed community of practice was established to support learning from adverse events nationally. Such communities comprise people with the same profession or area of interest, whose main purpose is to share knowledge. A website with educational resources about the handling of adverse events is under development (NHS Education for Scotland, 2014). There is a challenge, however, to incorporate this initiative with other programmes and initiatives promoting safe care.

Nevertheless, while it is commendable that local reporting programmes and national learning systems exist, there is still a need for a nationally consistent reporting system (or other counting system, based on clinical and administrative records). A national reporting/counting system is needed to benchmark local patient safety work, identify emergent safety concerns, and monitor the impacts of national patient safety programmes. A national system provides a bigger pool from which health services can share knowledge on these incidents and learn from one another. Technical issues, such as harmonisation of definitions and reporting mechanisms across regions can be complex, but have been successfully overcome in many OECD health systems (EC, 2014).

As an additional mechanism for commissioning learning and improvement, Scotland should consider introducing a national reporting/counting system for adverse events. National systems need not do away with local reporting, and should not undermine local empowerment, ownership or learning. A well-designed national reporting system, that remains closely linked to local and frontline services, should add to continuous learning. National reporting already occurs for adverse reactions to medications (through the Yellow Card scheme) and Health Protection Scotland already produces reports on infections regularly, such as Staphylococcus aureus bacteraemia infection (which is then analysed and reported back at NHS Board level), so precedents exist. A country Scotland could follow in promoting a national adverse events reporting system is Denmark (Box 2.10).

Box 2.10. Reporting adverse events in Denmark

Denmark introduced a national reporting system for adverse events in 2004 to improve patient safety. Notably, six years later, the system was expanded to include adverse events occurring in primary care, including in general practice and pharmacy. Information on patient safety in primary care is sparsely reported across OECD countries, making Denmark a leader in this sphere.

In 2011, the system was expanded again to give patients and their relatives the opportunity to report adverse events, emphasising the active participation of patients in the health care system. The reporting system aims to collect, analyse and communicate knowledge of adverse events, to reduce their number.

Box 2.10. Reporting adverse events in Denmark *(cont.)*

The sanction-free and no-blame reporting scheme makes it mandatory for Danish health professionals to report any adverse events they become aware of in connect with patients' treatment. The system is designed as a bottom-up process, where the majority of the work is locally rooted. This is based on the idea that adverse events that occur locally should be analysed and corrected locally. This is also thought to have a positive impact on the development of a safety culture. Therefore, the responsible authorities – the regions or the municipalities – are obliged to receive and analyse reports of adverse events. The information is later sent to the National Agency for Patients' Rights and Complaints.

On the basis of the information provided by the local authorities, the Agency advises other stakeholders in the health care system concerning patient safety, thus supporting the development of learning from adverse events nationally. To encourage reporting, health care professionals reporting an adverse event are not subjected to disciplinary investigations or other measures by their employer, supervisory reaction by the Danish Health and Medicines Authority, or criminal sanction by the courts.

Source: OECD (2013), *OECD Reviews of Health Care Quality: Denmark 2013 – Raising Standards*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264191136-en.

2.12. Conclusions

Scotland has a comprehensive and ambitious quality strategy, with clear goals to provide person-centred, safe and effective care. The strategy is underscored by a quality measurement framework providing the basis for the use of indicators to measure progress towards desired outcomes. The quality strategy sits alongside the Scottish Government's *2020 Vision* and *Route Map,* which set out aspirations for longer, healthier lives. Taking these national initiatives as a foundation, Scotland's quality improvement efforts are primarily driven from the bottom-up and characterised by local-learning collaboratives, small cycles of innovation and testing, and communities of practice. At the same time, Scotland is pursuing the integration of health, social and other care for individuals with complex needs.

There is still, however, much that Scotland can do. To help inform its quality improvement efforts, a key priority will be for Scotland to make better use of its information systems to allow a clearer understanding of whether quality initiatives have improved population health. Consolidation of some content from the multiple data platforms that currently exist would help in this regard, to facilitate transparency and public understanding of the quality of care. Although there is much to praise in Scotland's local, or bottom-up, approach to quality monitoring and improvement, these initiatives could at times be supported by stronger national frameworks. The lack of a national system for reporting/counting adverse events is one weakness for example, that should be addressed. Consideration should also be given to the creation of a more independent mechanism for assessing health system performance (separate from the improvement function), and ensuring that primary and community care services are subject to the same level of scrutiny as hospital services.

Policy recommendations for Scotland

To ensure high-quality health care, and continuously improve care across the system, Scotland should:

1. Capitalise on and extend the gains it has made in improving quality of health care by:

- Applying the breakthrough collaborative model and other quality improvement programmes across primary care and community care services more extensively and consistently. Priority concerns would be to improve the prevention and management of chronic conditions, mental health, and the safeguarding of vulnerable children and adults, building upon the patient safety work already undertaken in these areas.
- Introducing a national system for reporting/counting adverse events, to improve health care safety in both hospital and primary care settings, to underpin the local reporting systems and national learning systems already in place.
- Considering formally separating the Scrutiny and Assurance Directorate into a distinct and independent entity. Producing annual, comprehensive and independent assessments of the quality of care provided by NHSScotland as a whole would be the priority.
- Once piloting of the *Care Assurance and Accreditation System* (CAAS) is completed, considering whether the CAAS model might be more widely applied across the health system.

2. Improve how health system information is used to drive quality improvement by:

- Orienting health system information towards clinicians, managers and the public in more user-friendly formats that promote interactivity, with one main online entry point for ease of access. Consolidation of some content from the multiple data platforms that currently exist (such as *NHS Performs,* Health and Well-being Profiles, cancer quality performance indicators etc.) would be valuable.
- Benchmarking local health service performance with atlases of quality, outcomes and satisfaction and outcomes, beyond those currently produced by the Scottish Public Health Observatory.
- Developing a more systematic approach to quality registers in particular seeking to cover patient groups that are poorly represented in Scotland's suite of national quality audits. This would include dementia, as well as mental health more broadly. Possibilities for linking of data across databases, whilst assuring individual anonymity, should be maximised.
- Drawing upon experience in other OECD health systems to include patient-reported measures (including patient satisfaction and experience) in Local Development Plan standards, the *NHSPerforms* data set, the cancer quality performance indicators and other monitoring frameworks.

Policy recommendations for Scotland *(cont.)*

- Considering whether greater impact and value-for-money might be obtained by consolidating all collection, analysis and dissemination of health system data into a single institution. Care would need to be taken to ensure that the particular advantages of individual bodies (such as ASD's diverse professional backgrounds and embedded relation to government) are not lost.
- Investing in electronic health to provide patients with a means of accessing their own health records and enabling them to become more active participants in decisions about their care.
- Sharing the information collected about the quality of out-of-hours primary care services in a publicly-accessible format, and using the information to inform policy developments.

3. Support increased integration of health, social care and other services by:

- Ensuring study and publication of successful examples of integration, implementation pathways and syntheses of lessons and insights, so that other countries can learn from Scotland's experience.
- Considering whether there is scope to deepen GPs' involvement in local care planning, and in the integration of health and social care services in particular.
- Focusing on collecting more data on activities, costs and outcomes from the social care sector as the Health and Social Care Data Integration and Intelligence Project (HSCDIIP) is further developed, at both local and national levels.
- Better aligning the health service inspectorate's regulatory competencies with those of the social care inspectorate.

Notes

1. Reported during the OECD Study Visit to Scotland in September 2014.
2. Relevant documents can be found at http://www.healthcareimprovementscotland.org/our_work/governance_and_assurance/quality_of_care_reviews/qoc_reviews_consultation.aspx.

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