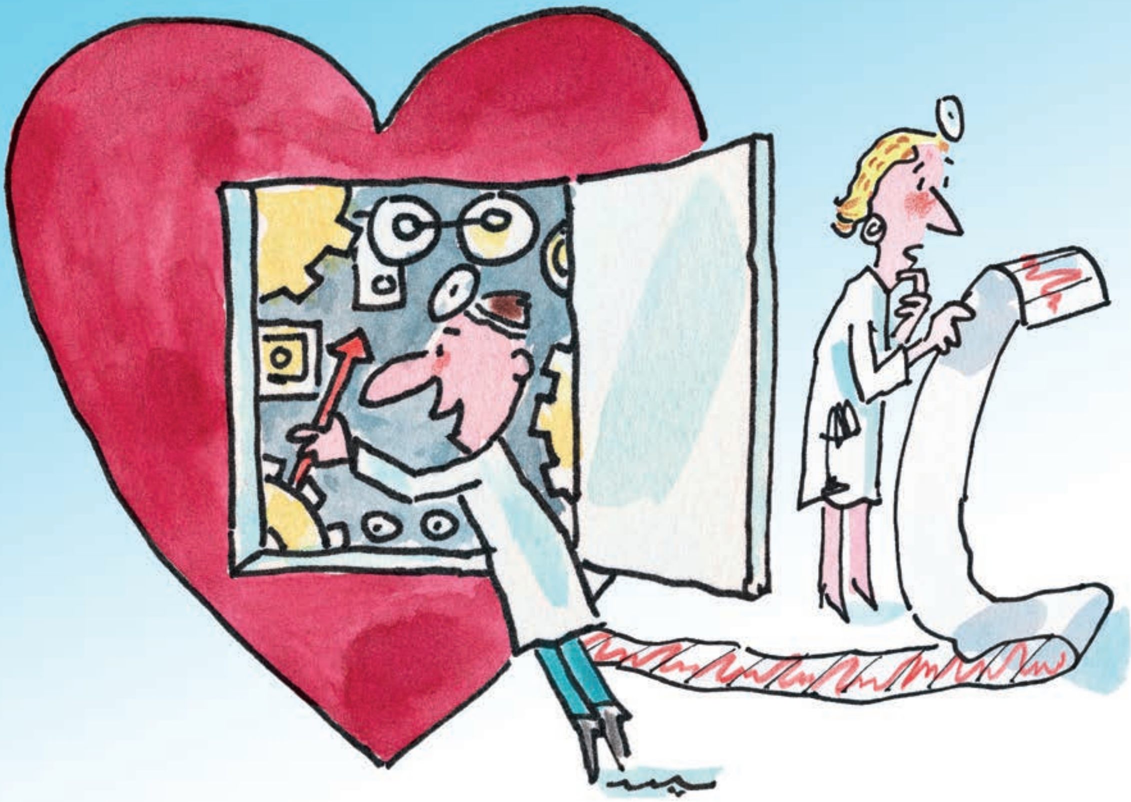
OECD Reviews of Health Care Quality

AUSTRALIA

RAISING STANDARDS



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OECD Reviews of Health Care Quality: Australia 2015

RAISING STANDARDS

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Please cite this publication as:
OECD (2015), *OECD Reviews of Health Care Quality: Australia 2015: Raising Standards*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/9789264233836-en

ISBN 978-92-64-23381-2 (print)
ISBN 978-92-64-23383-6 (PDF)

Series: OECD Reviews of Health Care Quality
ISSN 2227-0477 (print)
ISSN 2227-0485 (online)

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Foreword

This report is part of a series of publications reviewing the quality of health care across selected OECD countries. As health costs continue to climb, policy makers increasingly face the challenge of ensuring that substantial spending on health is delivering value for money. At the same time, concerns about patients occasionally receiving poor quality health care have led to demands for greater transparency and accountability. Despite this, there is still considerable uncertainty over which policies work best in delivering health care that is safe, effective and provides a good patient experience, and which quality-improvement strategies can help deliver the best care at the least cost. *OECD Reviews of Health Care Quality* seek to highlight and support the development of better policies to improve quality in health care, to help ensure that the substantial resources devoted to health are being used effectively in supporting people to live healthier lives.

This report reviews the quality of health care in Australia, seeks to highlight best practices, and provides a series of targeted assessments and recommendations for further quality gains in health care. Particular attention is given to primary health care; the implementation of national standards for health service accreditation; and rural and remote health care. The Australian health system is a complex mix of federal and state government funding and responsibility, interspersed with services delivered through the public and private sectors. Significant progress in national approaches to quality monitoring and improvement includes the introduction of national standards for hospital accreditation. Australia, however, is facing the challenge of rising chronic disease, making strengthening prevention and primary health care a priority. To ease health system fragmentation, Australia should adopt a system-wide approach to quality and performance through an enhanced federal government role in steering policy, funding, co-ordination, priority setting, performance monitoring and assessment. The states and territories, in turn, should take on a strengthened role as health service providers. Responsibility for primary care should be devolved to the states and territories to encourage innovation and comprehensive attention to local population need. A less fragmented health system will improve care co-ordination, particularly for patients with multiple chronic conditions.

ACKNOWLEDGEMENTS

This report was managed and co-ordinated by Ian Forde. The other authors of this report are Carol Nader, Ian Brownwood and Ankit Kumar. The authors wish to thank Luke Slawomirski, Niek Klazinga, Francesca Colombo, Mark Pearson and Stefano Scarpetta from the OECD Directorate of Employment, Labour and Social Affairs for their comments and suggestions. Thanks also go to Marlène Mohier and Irit Perry for their editorial input and to Duniya Dedyn and Judy Zinnemann for their logistical assistance.

The completion of this report would not have been possible without the generous support of Australian authorities. This report has benefited from the expertise and material received from many health officials, health professionals, patient groups and other health experts that the OECD Review team met during a mission to Australia in November 2013. These included the Chief Medical Officer and other key officials from the Department of Health; the Treasury; the Australian Commission on Safety and Quality in Health Care; the National Health Performance Authority; Health Workforce Australia; the Australian Health Practitioner Regulation Agency; the Medical Services Advisory Committee; the Pharmaceutical Benefits Advisory Committee; the Australian Healthcare and Hospitals Association; the Australian Medical Association; the Royal Australasian College of Physicians; Australian General Practice Accreditation Limited; the Public Health Association of Australia; the National Aboriginal Community Controlled Health Organisation; the Australian Medicare Local Alliance; the Consumers Health Forum of Australia; the National Rural Health Alliance; DLA Piper Law; and the managers, staff and patients of Cootamundra Primary Health Centre; Murrumbidgee Medicare Local; the Wagga Wagga Community Resource Centre; and, the Metro North Hospital and Health Board and the Prince Charles Hospital, Brisbane. We would also like to thank the Honourable Kim Hames and Professors Helena Britt, Phillip Clarke, Jane Hall and Ian Hickie.

The review team is especially thankful to Martin Bowles, Secretary of the Department of Health; Jane Halton, his predecessor; Mark Cormack, Deputy Secretary, Strategic Policy and Innovation, Department of Health; and colleagues for their support for this Review, and to Tania Browne and colleagues for their help with setting up the visit of OECD officials to Australia. This report has benefited from the comments of the Australian authorities and experts who reviewed earlier drafts.

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Acronyms and abbreviations

ABS	Australian Bureau of Statistics
ACCHO	Aboriginal Community Controlled Health Organisation
ACHS	Australian Council on Healthcare Standards
ACRRM	Australian College of Rural and Remote Medicine
ACSQHC	Australian Commission on Safety and Quality in Health Care
AGPT	Australian General Practice Training
AHMAC	Australian Health Ministers' Advisory Council
AHPRA	Australian Health Practitioner Regulation Agency
AIHW	Australian Institute of Health and Welfare
ANAO	Australian National Audit Office
AMI	Acute myocardial infarction
ARTG	Australian Register of Therapeutic Goods
BEACH	Bettering the Evaluation and Care of Health
BMP	Bonded Medical Places
CHADx	Classification of Hospital Acquired Diagnoses
CME	Continuous medical education
COAG	Council of Australian Governments
COPD	Chronic obstructive pulmonary disease
CPD	Continuous professional development
DDD	Defined daily dose
DRG	Diagnosis Related Group
EMSN	Extended Medicare Safety Net
FFS	Fee for service

FTE	Full-time equivalent
FWE	Full-time workload equivalent
GP	General Practitioner
HCQI	Health Care Quality Indicator
HECS	Higher Education Contribution Scheme
HTA	Health Technology Assessment
ICD-10	International Statistical Classification of Diseases and Related Health Problems 10th Revision
IHD	Ischemic heart disease
IHPA	Independent Hospital Pricing Authority
MBS	Medicare Benefits Schedule
MRBS	Medical Rural Bonded Scholarship
NCD	Non-Communicable Disease
NGO	Non-Governmental Organisation
NHMRC	National Health and Medical Research Council
NHPA	National Health Performance Authority
NRAS	National Registration and Accreditation Scheme
NSQHS	National Safety and Quality Health Service Standards
OSR	Online Services Report
OTD	Overseas-trained doctor
PBS	Pharmaceutical Benefits Scheme
PCEHR	Personally Controlled Electronic Health Record
PIP	Practice Incentives Programme
P4P	Pay for performance
RACGP	Royal Australian College of General Practitioners
RACS	Royal Australasian College of Surgeons
RVTS	Remote Vocational Training Scheme
SCRGSP	Steering Committee for the Review of Government Service Provision
TGA	Therapeutic Goods Administration

Executive summary

This report reviews the quality of health care in Australia. It begins by providing an overview of policies and practices aimed at supporting quality of care in Australia (Chapter 1). The report then focuses on three areas that are of particular importance for Australia's health system at present: the organisation of primary health care (Chapter 2), the implementation of national standards for hospital accreditation (Chapter 3), and rural and remote health care (Chapter 4). In examining these areas, this report assesses the quality of care provided, seeks to highlight good practice, and provides a series of targeted assessments and recommendations for further improvements to quality of care.

The Australian health system features a complex split of federal and state and territory funding and responsibilities, which can make it difficult for patients to navigate their way through the system. However, it can broadly be characterised as one in which public hospitals are jointly funded by federal and state and territory governments, and are managed by the states and territories. This arrangement is formalised through the National Healthcare Agreement and the National Health Reform Agreement. The agreements imply that both levels of government are responsible for overseeing health care quality. The latter, however, emphasises that the states are the hospital "system managers" while, in contrast, the federal government retains "lead responsibility" for primary health care. Additionally, private hospitals are subject to a combination of federal and state requirements. The states are responsible for licensing private hospitals, while the federal government regulates private health insurance. Better rationalised responsibilities (by making states and territories responsible for primary care, for example) would help ease some of the system's complexity, as well as the tension that sometimes exists between the two levels of government.

Significant work in ***quality monitoring and improvement*** has been led principally by the Australian Commission on Safety and Quality in Health Care (ACSQHC), a government agency that has demonstrated leadership in promoting national improvements in safety and quality. It is responsible for developing and maintaining the national hospital accreditation standards.

Two other federal government bodies whose functions intersect with quality to some degree are the Independent Hospital Pricing Authority (IHPA), which calculates an annual national efficient price to help determine the level of federal funding for public hospitals, and the National Health Performance Authority (NHPA), which collects data on public and private hospitals and primary care organisations and publicly reports on their performance. Australia stands out among its OECD peers with a consolidated national registration scheme of 14 professional groups, overseen by the Australian Health Practitioner Regulation Agency (AHPRA). Despite the efforts undertaken at a national level, however, there remain inconsistencies between the states on a series of quality initiatives. Greater harmonisation of quality monitoring and improvement approaches would make the states more comparable, providing opportunities for health services to be benchmarked against a larger pool of peers, and to draw lessons that could help improve health care quality.

Australia's fragmented health system points to the need to strengthen ***primary health care***, particularly to better manage the large numbers of patients with multiple chronic conditions. An unusual division between "primary care" and "community health" adds to the fragmentation of the health system, while the slow take-up of electronic health has made it difficult to co-ordinate the care of patients across multiple providers. The inflexible nature of the fee-for-service system that dominates Australian general practice does little to promote integration of care, particularly for patients with multiple chronic health conditions. Australia's largely under-developed pay-for-performance scheme, the Practice Incentives Programme, consists of few incentives that are tied to quality and patient outcomes. Additionally, the lack of data on primary care quality and outcomes is surprising, and provides general practitioners (GPs) with very limited opportunity to compare their performance with that of their peers.

An important quality assurance mechanism applied to Australia's public and private hospitals is the ***National Safety and Quality Health Service Standards***. The ten standards are tied to mandatory accreditation, and represent important elements of the overall quality improvement architecture of the health system. In a sign of the efforts made to consult stakeholders widely on the scheme, its development took five years. The standards are focused on acute care, and there is scope to broaden their applicability to take in mental health services, long-term care, primary care and community care. There has been broad agreement from stakeholders that the new standards are a positive move forward, promoting greater clinical involvement and more directly addressing specific quality issues than other standards.

The geography of Australia remains one of the country's most daunting challenges in the provision of health care. Australia has made efforts to improve access to ***rural and remote health care,*** but less attention has been given to the quality and outcomes of health care. This needs to be an area of focus, because the evidence clearly demonstrates that Australia's most remote inhabitants have poorer health outcomes than people living in other parts of the country. Of significant concern are the health outcomes of Aboriginal and Torres Strait Islander people, whose life expectancy trails that of non-Indigenous Australians by ten years. Australia has attempted to solve the challenge of delivering health care in rural and remote areas with a heavy reliance on overseas-trained doctors to fill workforce gaps, the use of telehealth, and by flying health professionals in and out of the most remote parts of the country. It has also increased the number of locally-trained doctors, and provides a range of financial incentives to encourage doctors to work in areas of need. While Australia has also experimented with changing scopes of practice, it has yet to fully realise the full potential of task delegation. Creative thinking is required to use local health workforces more strategically, and this must be supported by strong governance, robust data infrastructure and flexible payment systems to identify and provide greater autonomy to the best-performing health services. In doing so, rural hospitals may be given greater freedom to find innovative solutions to meet the needs of their local populations. The existence of areas of extreme remoteness puts Australia in a unique position to devise smart solutions to this challenging area of health care delivery, making it an exemplar for other OECD health systems.

Assessment and recommendations

Australia's health system functions remarkably well, despite operating under a complex set of institutions that make co-ordinating patient care difficult. Complications arising from a split in federal and state government funding and responsibilities are central to these challenges. State and territory governments are the managers of public hospitals, while the federal government has primary care stewardship. This fragmented health care system can disrupt the continuity of patient care, lead to a duplication of services and leave gaps in care provision. Difficulties in co-ordinating patient care are exacerbated further by an unusual split in responsibilities across primary care and community health. The federal government is responsible for "primary care" largely in the form of reimbursing general practitioners (GPs), while the states and territories oversee "community health" such as maternal and child health services. Additionally, state-run public hospital emergency departments provide primary care, particularly for people who cannot access primary care services outside standard working hours. Supervision of these health services by different levels of government can manifest in avoidable impediments such as the poor transfer of health information, and pose difficulties for patients navigating the health system. Adding to the Australian health system's complexity is a mix of services delivered through both the public and private sectors.

To ease health system fragmentation and promote more integrated services, Australia should adopt a national approach to quality and performance through an enhanced federal government role in steering policy, funding, co-ordination, priority setting, performance monitoring and assessment. The states and territories, in turn, should take on a strengthened role as health service providers, with responsibility for primary care devolved to the states and territories to better align it with hospital services and community health. A more strategic role for the centre should also leave room for the strategic development of health services at the regional level, encouraging innovation that is responsive to local population need, particularly in rural and remote areas. This could be considered as Australia undertakes a national conversation about the roles and responsibilities federal and state and territory governments should adopt in a range of areas, including the division of responsibility in health care.

Australia has a universal health system funded through the Medicare scheme introduced in 1984. It is mostly financed through taxation and entitles Australians to free care as public patients in public hospitals. In primary care, about 80% of consultations with GPs come with no out-of-pocket cost to patients. At 82.2 years, life expectancy is the sixth highest in the OECD. Australia has one of the lowest smoking rates in the world, and its heart disease and cancer mortality rates are below the OECD average. With health expenditure at 8.8% of GDP, Australia achieves good health outcomes relatively efficiently. Significant progress in national approaches to quality and safety has been made in recent years, including the introduction of the National Safety and Quality Health Service (NSQHS) Standards that all hospitals must meet to attain mandatory accreditation. The standards were developed by the Australian Commission on Safety and Quality in Health Care (ACSQHC) and have been well received by stakeholders, with broad agreement that they promote greater clinical involvement and more directly address specific and fundamental areas of safety such as clinical handover.

The regulation of health professionals has also undergone significant reform, and the changes have made Australia a leader among OECD countries. The national system for the regulation of health practitioners in 14 professions includes annual registration linked with compulsory continuing professional development requirements, and a website that consumers can use to verify the registration status of individual health professionals. As part of a culture of improving health system transparency, Australia has created the "MyHospitals" website that provides public and private hospital-level data on a range of indicators ranging from emergency department waiting times to rates of infection. Measures of performance of primary care are published on the "MyHealthyCommunities" website, which provides local-level data on a range of primary care and population health performance indicators. The National Health Performance Authority (NHPA) is responsible for the analysis and content of these two websites.

Australia, however, is facing the profound challenge of trying to combat rising chronic disease. With more than a quarter of people aged 15 and over obese, Australia is the fifth most obese country in the OECD. This rise in obesity will inevitably extend to a growth in diabetes and other preventable chronic conditions, making strengthening public health and primary health care a priority. The lack of flexibility in payment systems, with a heavy focus on reimbursing doctors through the current fee-for-service system, is another barrier to promoting quality of care for these more complex patients. Other challenges in the Australian health system include:

- Relations between federal and state and territory governments can sometimes be strained, and this is particularly acute when political sensitivities arise over the federal government's contribution to hospital funding. There are frequent claims of cost-shifting, particularly concerning primary care patients (overseen by the federal government) attending hospital emergency departments (overseen by state and territory governments);

- There is a significant maldistribution in the health workforce. While governments have progressively increased the number of medical places in universities, there remains a heavy reliance on overseas-trained doctors. Workforce shortages are particularly acute in rural and remote Australia;

- Access to health care in Australia's most remote parts persists as one of the country's most daunting challenges. Australia has made efforts to be creative in this regard, but has yet to fully realise the potential of technologies and flexible payment systems that are necessary to drive innovation;

- Significant differences between non-Indigenous and Aboriginal and Torres Strait Islander people persist, including a 10-year life expectancy gap. Despite the efforts of successive governments, the latter group continues to experience significantly poorer health outcomes;

- The uptake of electronic health has been slow and disappointing, in part due to the existence of an opt-in system (an opt-out system is being trialled), a lack of public awareness, and the absence of health system infrastructure and internet technology in some places;

- A surprising lack of data on the quality and outcomes of care marks out Australia from its peers. This is particularly the case for primary health care, which has an under-developed pay-for-performance scheme, and for rural and remote health care. There are few indicators promoting quality of clinical care and patient outcomes, and there is little opportunity for GPs to be benchmarked against their peers;

- The high rates of avoidable hospital admissions for asthma and obstructive pulmonary disease also indicate the need to strengthen primary health care to more promptly and effectively accommodate the needs of patients long before their conditions deteriorate and require hospitalisation.

If Australia is to be in a better position to respond to the growing numbers of patients with multiple chronic conditions, it should build on its strong tradition of GPs to develop a primary and community care "eco-system" around them, characterised by co-ordinated care supported by a strong data collection and monitoring culture, and innovative and flexible payment systems. This should be bolstered by ramping up the measurement of quality of care delivered in the community. Models that Australia could learn from include the "medical home", and Portugal's family health clinics, where multidisciplinary teams provide community support and primary care. It is welcome that Australia is exploring policy levers to enhance the role of the GP as care co-ordinator for more complex patients, by permitting those who meet prescribed criteria to voluntarily enrol with one primary health centre. Under one such trial, the Diabetes Care Project, clinics are given incentives to offer patients with diabetes a range of services by a multidisciplinary team. The trial's evaluation should inform policy making towards supporting the multidisciplinary management of chronic disease and integrated primary health centres.

Strengthening primary health care

Responsibility for primary care in Australia rests predominantly with the federal government. Australia has a long-established tradition of GPs working in private practice as patients' first point of call. Patients do not have to enrol with a GP, and can attend multiple doctors should they choose to do so. GPs act as health system gatekeepers, providing referrals to specialists when necessary. Doctors are allowed to set their own fees, and patients are subsidised towards the cost of these services through the Medicare fee-for-service system.

Despite being the gateway to the health system, GPs are not supported to take on the role of care co-ordinator

Australia is fortunate to benefit from a long-established tradition of general practice doctors. Australia ranks highly among OECD countries in the extent to which this category of professionals is a major part of the medical workforce. This tradition provides Australia with a natural leader in the supervision and provision of primary care and a focal point through which care can be co-ordinated.

However, GPs do not necessarily work in an institutional environment that supports them to play this role. They are often in small practices that limit opportunities for modest specialisation, devolving or sharing tasks among their peers or with other health professionals. There is poor communication between GPs and other health care professionals, particularly those in hospitals. This is partly driven by the fragmented nature of the health system and the under-use of electronic health to exchange important information about patients.

Primary care and community health services ought to be brought together under one level of government, with responsibility for primary care devolved to the states

There has been a trend toward the consolidation of GPs in larger practices, and in many cases a move to horizontal integration alongside allied health professionals. The structural shift towards the consolidation of doctors and other health professionals under one roof is leading to a diversification of the services offered by clinics, such that they are increasingly duplicating services that have been considered "community health" in Australia. This distinction between "primary care" and "community health" is unique to Australia, and complicates planning across services that work closely together in other OECD countries. The former is led by GPs and has federal government oversight. The latter falls under the responsibility of the states and territories, and consists of specialist services in the community such as child and maternal health and drug and alcohol services.

Ensuring co-operation across the two levels of government responsible for health care has been a long-running policy challenge in Australia. No other OECD country shares such a separation of functions of services. Broad historical considerations under federal and state financial relations – rather than a compelling health policy rationale – led to the federal government paying GPs and state governments paying community health services. This separation unnecessarily complicates national efforts for policy alignment and local efforts to co-ordinate services to be convenient and accessible to the patients that need them.

Australia should consider removing the distinction between primary care and community health, and handing responsibility for all primary care services to the states and territories, to improve the interface with hospital services. Under such a move, the federal government would continue to play a pivotal steering role in policy, funding, priority setting and performance monitoring, while the states would act as regional commissioning agencies for health care in Australia. The co-ordination of care would be promoted for patients moving between state-managed acute hospitals and community health services, and primary care services.

The federal government has proposed aligning new Primary Health Networks with existing local hospital networks. These networks could be building blocks supporting further structural and funding reform that bring more responsibility for service delivery to the states. Such significant reform would be courageous, and require a major upheaval of federal and state financial relations, and a careful consideration of the transition and management of risk given the current open-ended nature of the Medicare system. It will also require a sincere willingness by the federal and state governments to work co-operatively to achieve health system reform that will improve the integration of health services and the patient experience. The Primary Health Networks could help facilitate this transition, bringing greater responsibility for service delivery to the states and territories.

While having many of the characteristics of a strong primary health care system, Australia is falling behind many OECD countries in monitoring quality in primary care

Today, there are very limited means by which Australian doctors working outside hospitals can get relevant clinical indicators on their work, let alone any significant capability to benchmark the care they provide with their peers. This reflects the combination of challenges experienced by the federal government to effectively manage primary care performance, and the reluctance of GPs to collect this information. To some extent, the collection of data and benchmarking has already been taking place through initiatives such as the Australian Primary Care Collaboratives programme, which aims to help GPs and primary care providers work together to improve patient clinical outcomes, reduce lifestyle risk factors, help maintain good health for those with chronic and complex conditions, and promote a culture of quality improvement in primary health care. This is also being achieved through the efforts of local doctors, although greater scale is required for such indicators to be meaningful.

At the same time, there is a lot that federal and state and territory governments can do to better share the information they collect, beginning with basic information about the use of health care services. The prospect of linking state hospital records with Medicare data would provide doctors with a reliable patient information history upon which clinical notes could be added in the future. While this in some respects is the ambition of the electronic health record, the poor take-up to date suggests more compulsive policies should be considered to get patients and health services to participate. The government should revitalise the strategic intent to establish electronic health records for patients, ensuring sufficient population coverage and depth of information for specific patient groups to enable meaningful clinical support and quality measurement over the pathway of care.

Changing how health care is financed can go a long way to giving primary care practices more flexibility in how they operate

When compared with OECD countries, it is surprising that the consolidation of practices in Australia has occurred despite a payment system that reimburses additional volume by doctors, and does not necessarily compel a patient to have a continuous relationship with their doctor. Physicians paid on a fee-for-service basis generally have an incentive to see more patients and to provide more services than salaried physicians, since their income is linked with the volume of services. Fee-for-service comes with the benefit of being simple and rewarding productivity. However, the tendency towards higher volumes can be moderated through a greater proportion of funding linked to outcomes.

Australia's Practice Incentives Programme (PIP) links general practice financial incentives to 11 indicators. However, only five indicators reward processes associated with quality of care or patient outcomes. This is very limited in comparison with the efforts of the United Kingdom, which has sought to develop a comprehensive series of indicators that reach more aspects of clinical practice. While Australia supports such quality indicators for asthma, diabetes, cervical cancer, quality prescribing and Indigenous health, other countries include screening of other cancers, immunisation, child and adolescent health, and cardiovascular diseases.

Australia should take advantage of the structure of services in primary care to lessen the reliance on fee-for-service payments. A more robust blended payment system could considerably build on the PIP, with a view to rewarding processes associated with more indicators of quality of care and better patient outcomes. At a minimum, this could be through demanding the collection of better measures. This could be financed through further slowing or redirecting funds paid through fees. The creation of a performance framework in which GPs report on a broader range of indicators would also provide a mechanism for GPs to be benchmarked against their peers. Peer comparison and public scrutiny can be strong incentives to lift performance. Eventually, Australia could emulate the United Kingdom in moving to a system of public reporting on these indicators, with performance data at the individual general practice level available on a website. The current trend towards the consolidation of practices should enable the government to reasonably seek that GPs collect information on a greater array of indicators.

Quality-related payments should be made to a practice, rather than individual clinicians, wherever possible. This gives these institutions the means to ensure funding can be directed to what they consider their priorities to be. It also gives freedom to doctors to collectively decide whether budgets from quality-related payments should be directed to practice nurses, engaging specific allied health professionals, or providing an enhanced range of services including better prevention. These decisions can be made based on the unique needs of their communities. Such a model should be developed in a gradual manner, so as not to move towards large-scale budget holding by GPs or practices, but rather play a supplementary role.

Policies should continue to support the development of team-based GP care

The trend toward a more multidisciplinary approach makes it easier for patients to draw on the services of various health practitioners. For the most part, this move towards larger practices has been driven by changes in the preferences of doctors and health professionals, as it allows for the easier delegation of tasks and opportunities to work in teams. It has also been supported by economic efficiencies from sharing administrative functions. The federal government has helped to nudge this trend with a number of policies. This includes providing small capital grants for infrastructure and support for practices to employ nurses. Accordingly, there has been a growth in practice nurses assisting GPs in their work.

The PIP's focus on paying practices rather than individual doctors has also facilitated this trend, although these incentives account for less than 10% of overall spending on primary care. To access these incentive payments, general practices must attain accreditation. This is more cumbersome for solo practitioners, and makes it economically advantageous to move to bigger clinics to share accreditation costs. About 75% of general practices in Australia participate in accreditation. There is scope for the government to identify the barriers to accreditation and support all general practices – particularly small practices – to move towards mandatory accreditation as a quality assurance measure.

Safety and quality standards and monitoring

Over the past two decades, Australian policy makers and clinicians have developed a nationally agreed set of standards on the safety and quality of care that apply to every hospital in the country. Currently, the basis for health service accreditation in Australia is the NSQHS standards, developed by the ACSQHC. These cover ten priority areas: governance for safety and quality; strategies for partnering with consumers; the prevention and control of health care-associated infections; medication safety; patient identification and procedure matching; clinical handover; the safe management of blood and blood products; prevention and management of pressure injuries;

recognition and response to clinical deterioration in acute health care; and the prevention of falls.

Australia's delivery of a set of national standards for all acute health care facilities is a leading example of quality of care improvement efforts in a federated country

The NSQHS standards and accreditation scheme represent important elements of the overall safety and quality improvement architecture of the health system. The development of the scheme and standards took five years. The nature and level of input afforded stakeholders in the development process appears to be one of the key factors facilitating its broad acceptance. The standards address well established and universal quality issues for health services. There has been broad agreement from stakeholders that the new standards are a positive move forward, promoting greater clinical involvement and more directly addressing specific quality issues than other standards. The standards are acute-care focused, and it is acknowledged that further development is required to effectively apply the standards to non-hospital care, including primary care, aged care, mental health care and community care and support.

The origins of this work lie in a landmark study on quality in Australian health care, which found that an adverse event occurred in almost 17% of hospital admissions studied. About half the adverse events were preventable. Since then, governments and the clinical community have slowly stepped up efforts so that every hospital is today accredited against these standards. Having achieved these service standards, the challenge for Australian policy makers now is to develop increasingly robust metrics linked to their implementation and impact, ensure that standards remain relevant to quality and safety priorities and to apply them beyond hospitals. The standards form the building blocks for a national approach to quality assessment and improvement.

While it is understood that all public and private hospitals and day procedure centres are required to be accredited against the standards, there remain unresolved issues regarding private hospitals. While private health insurance arrangements and state government roles in regulating private hospitals enable the mandating of the new standards, the state regulatory role requires application of licencing standards. This presents the possibility of duplication, which needs to be addressed through greater harmonisation of licensing and accreditation arrangements.

Expanding the scope of the national standards

Government policy makers are seeking to develop appropriate standards for other health care facilities. Future efforts will include aged care and mental health services, which today all have separate standards and accreditation processes. There is scope for actions and indicators used to monitor adherence to the standards to be aligned, consolidated and, where necessary, expanded.

Strengthening governance with fewer, stronger authorities

The ACSQHC is demonstrating national leadership in co-ordinating health care safety and quality improvements in Australia. The federal government should clarify the ACSQHC's role in the overall quality improvement and governance arrangements for the health system, particularly in relation to the assessment and management of hospital performance. The ACSQHC, which develops and maintains the acute case-focused NSQHC standards, could take on a broadened role in the governance of quality standards, in seeking to improve consistency and coherence of quality and safety standards across acute, primary care and support, aged care, disability and mental health sectors.

The ACSQHC is the principal national agency for leading safety and quality improvement, but other agencies also have different but overlapping health care quality functions including oversight and reporting. The architecture at the national level is unnecessarily complex. The government should review the roles and responsibilities of other existing national bodies centrally involved in the governance of health service quality and performance, with a view to identifying opportunities for role clarification and consolidation. The government has proposed to establish a new Health Productivity and Performance Commission. The consolidation of quality and performance oversight might present an opportunity to ease some of the health system complexity, and bring consistency and greater coherence to these activities.

Building stronger monitoring infrastructure

Tackling appropriateness of care can potentially improve outcomes while producing efficiencies. The overuse, underuse and misuse of health services are critical issues for research and policy on quality of care, and highlight the need to strengthen the policy focus on the appropriate use of health services.

A number of Australian studies continue to demonstrate significant and unwarranted variations in medical practice across the country. These include the Care Track Study, which found that adults in the study sample received appropriate care, in accordance with evidence-based or consensus-based guidelines, 57% of the time. This study highlights that the provision of highly variable and often inappropriate care remains a national problem. Further evidence exists in a study by the ACSQHC supported by the Australian Institute of Health and Welfare (AIHW), undertaken as part of an OECD analysis on medical practice variation. Variation between Australian local areas was evident across all interventions and conditions. There was also wide variation compared with other countries. For example, hospital non-surgical admission rates were twice as high in Australia, at about 12 000 per 100 000 population aged over 15 years, than in Spain, Portugal and Canada, where they stood at below 6 000. Australia also had one of the higher rates of variation within the country, and some of this was explained by extreme values, with very high hospital medical admissions rates in three local areas. It is encouraging to see the ACSQHC is developing an Australian Atlas of Health Care Variation to examine a broader range of health care interventions. However, it is important that the Atlas stimulates genuine action to address any areas of unwarranted variation through specific and targeted quality improvement initiatives.

Australia remains behind other countries in evaluating the effects of health care services on influencing patient outcomes and using this to drive policy. There are currently only a few national registries, including those covering joint replacement, intensive care, renal dialysis and various forms of organ transplantation. By contrast, in Sweden, registries can cover up to 70 areas, and are used to inform guidelines and clinical practice improvements for procedures where there are large variations in processes or outcomes of care that have a significant impact on overall health care costs and patient morbidity. This includes cardiac procedures involving angioplasty and stenting.

To augment the national standards, clinical registries for quality improvement should be developed.

Learning from good practices within the country

Considerable effort has gone into developing the NSQHS standards. However, there exist few formal mechanisms by which clinicians and managers can learn from their peers. Awareness of the formal mechanisms that do exist for health services to compare and contrast their performance and participate in detailed benchmarking relationships is limited.

Apart from hospital executives, many stakeholders appear to have limited knowledge of established agencies and processes in place, such as the Health Round Table and the Primary Care Collaboratives programme.

Clinicians, in particular those involved in primary care, have expressed a desire and willingness to be further involved in peer review mechanisms in relation to safety and quality. If the government proceeds with the proposal to establish a Health Productivity and Performance Commission, there is scope for it to not only support the rollout of and adherence to standards, but promote and facilitate the sharing of innovations to improve health care safety and quality.

Additionally, the ACSQHC has done work on variation in health care provision, and on Clinical Care Standards. These standards describe the minimum elements of care for a particular condition or intervention. Three standards have been developed by the ACSQHC; acute coronary syndrome, stroke and antimicrobial stewardship. Development of further standards is strongly encouraged to address areas where significant practice variation exists, and impact on health outcomes and service costs is significant.

Trialling models for integrated financial incentives for quality and safety improvement

Australia has adopted a national approach to activity-based funding for hospitals, with a pricing policy based on underlying principles for improving the technical efficiency of service provision. There is scope to explore funding mechanisms to improve health care quality and safety. The Independent Hospital Pricing Authority (IHPA), which is responsible for the pricing framework for public hospitals in Australia, has been working with the ACSQHC to explore options to take into account safety and quality in the pricing of public hospitals.

The requirement for hospitals to publicly report on a range of indicators is an incentive to improve health system performance. Incorporating quality into pricing could be another performance incentive for consideration. Queensland and Western Australia are examples of Australian states that have already gone down this path. Queensland authorities withhold payments for six "never events", which include procedures on the wrong patient or body part resulting in death or major permanent loss of function, and retained material after surgery requiring further surgical intervention. Queensland has also defined adverse events for which there are reduced payments to hospitals, and offers quality improvement payments. Western Australia gives incentive payments for best practice in areas such as fragility hip fracture treatment, stroke unit care, and acute myocardial infarction treatment. Eligible hospitals receive a payment for each patient who received "best practice".

The experiences of these states can be used to inform national policy on the pricing for quality and safety. Australia should progress investment in and evaluation of national approaches to providing financial incentives for quality and safety improvement. This should include pricing structures that allow clinical services to participate in clinical quality registries, linked to clinical benchmarking.

Mechanisms should be in place to mitigate the risk of the deliberate manipulation of hospital data to acquire incentive payments.

Improving the quality of care in rural and remote settings

Australia's geographical vastness adds another dimension of complexity to its health system and poses unique challenges for health service delivery. In some communities, people may live hundreds of kilometres from their nearest major centre, with limited transport and unsealed roads making travel difficult. Existing medical conditions can be compounded by socioeconomic disadvantage and insufficient services in Australia's most remote parts. These policy challenges place Australia in a unique position in which it needs to be innovative, giving it the potential to be a leader among OECD countries. Such innovation requires further workforce reform and the continued exploration of new integrated care models. This can be achieved only with strong governance, flexible payment systems and a willingness to overcome resistance to change. The Earned Autonomy model in the United Kingdom, where high-performing health services are given greater freedom to be innovative, is one Australia could consider.

Australians in rural areas experience poorer health outcomes and challenges in accessing services

People living in cities can expect to live longer than people in more remote areas. Men living in major cities and inner regional areas can expect to live 2.3 years more than men in outer regional, remote and very remote areas combined. For women, the life expectancy gap is 1.4 years. These differences are only partially explained by the higher proportion of Aboriginal and Torres Strait Islander people in more remote areas, as the poorer state of health extends to non-Indigenous people in remote Australia.

Rural Australia has higher mortality rates associated with cancer and other chronic disease, a higher prevalence of mental health problems, more potentially preventable hospitalisations, and higher rates of injury. The overall mortality rate is 5.5 per 1 000 people in major cities, compared with 8.4 in very remote areas. Potentially avoidable hospitalisations number 11.1 per 1 000 people in major cities, compared with 27.3 in very remote areas. More concerning are the statistics that apply to Aboriginal and Torres Strait

Islander people, who trail non-Indigenous people on a range of health outcomes.

The regional disparities in life expectancy in Australia are considerable when compared with other OECD countries. Australia has the third highest regional disparity in life expectancy in the OECD, with a difference of 6.1 years between the Australian Capital Territory (life expectancy at birth in 2010 of 82.6 years) and the mostly rural Northern Territory (76.5 years). Only the United States (6.7 years) and Mexico (7.1 years) have greater regional disparities in life expectancy. It is difficult to disentangle how much of this relates to lifestyle factors, but there is no doubt that people in remote areas have greater difficulty in accessing health services.

There are considerable disparities in the density of the medical workforce across the country

Workforce shortages are a challenge in rural and remote Australia in a way that few OECD countries have experienced. Australia relies considerably on overseas-trained doctors to meet rural health workforce needs. Some 30% of medical practitioners practising in Australia obtained their first medical qualification in another country. In rural areas, the figure is around 50%. Federal government policy has sought to direct overseas-trained GPs to more remote areas to fill workforce gaps. Overseas-trained GPs in Australia make up a higher proportion of the GP workforce in regional and remote areas and account for less of the workforce in major cities.

Australia has made attempts to embrace innovation to boost local workforces

In addition to increasing the number of Australian-trained doctors, Australia has experimented with a greater array of policies to improve the distribution of its medical professionals than almost any other OECD country. A rural generalist programme enables GPs to be upskilled so they can perform some specialist roles including anaesthetics and obstetrics. The programme has expanded, and there is scope for the creation of more of these positions through rural generalist training pathways. This could help rural communities become more self-sufficient. The possibility of adding more specialist functions onto the role should be explored. There is also scope to extend these rural generalist roles to nurse practitioners, by upskilling nurses already working in these areas.

Recognising that increasing numbers alone can only go so far, policy makers have started to catch up with other OECD countries to make more use of health professionals other than doctors. The expanded roles for nurse practitioners, psychologists and other health professionals are welcome. In the case of nurse practitioners, their numbers remain small in Australia. Barriers to nurses choosing to move into nurse practitioner positions should be investigated. Additionally, there is an opportunity for paramedics, pharmacists and other allied health workers to play a bigger role. Australia should continue to support changing scopes of practice and the creation of appropriately regulated new roles. Practice models need to be innovative, with more scope and greater diversity.

Another strategy Australia has adopted is to offer doctors financial incentives to move to areas of need. The poor take-up of some rural relocation incentives, despite two waves of reform, reinforces the international evidence base suggesting that financial incentives are often limited in their capacity to change preferences for where doctors work.

The more recent combination of increasing the number of doctors in training and introducing more compulsive policies for rural service should be given the years needed to have their effects felt and to be evaluated.

There has also been a growth in rural medical schools, and Australia should continue to explore ways to build the capacity of local health workforces with medical schools that are closer to home. Many Australian universities have taken the lead in encouraging student doctors to gain experience in rural areas. There is scope to make this obligatory, for instance in the form of compulsory rural rotations as part of medical internships. In recognition that working in rural areas can be isolating, there is a need for stronger support for rural health practitioners to undertake continuing professional development near where they work, giving them an opportunity to network and share knowledge with their peers.

Innovation in rural and remote areas needs to be accompanied by strong governance and flexible funding models

Both federal and state governments have an array of programmes to support care in rural and remote areas, but the highly conditional way in which they deliver funding often does not fit the non-conventional operational models that exist in rural areas. For example, rural GPs often see patients independently and are reimbursed by the federal government. They later become the consulting physician in an emergency department and negotiate a salary or payments from state authorities.

More flexible models of care need to be accompanied by strong governance and a more flexible approach to funding. Changing scopes of practice need to be supported by payment systems encouraging health practitioners to upskill and adopt different roles. Australia already allows nurse practitioners to receive Medicare funding for a limited number of tasks under tightly regulated conditions. The expansion of access to Medicare funding can be considered a possible tool to encourage appropriately qualified and trained health practitioners to embrace other roles. For example, pharmacists in areas of need could be eligible to receive Medicare funding to administer vaccines and prescribe limited medications. Such a move should be carefully regulated and done in a fiscally responsible way.

Funding models for rural health services should be developed that sustainably reward quality and outcomes. Rural communities should be provided health services using block funding wherever practicable, as the low volume of patients in small rural hospitals makes activity-based funding infeasible. Federal and state governments should work towards developing flexible funding models that are responsive to local need. One model for funding care for chronic conditions is prospective block grants contracted on outcomes. These enable the payer to specify the outcomes it wishes a care provider to deliver, while allowing the care provider flexibility in how services are designed to deliver those outcomes. Australia is already experimenting with advance payments for bundles of care for patients with complex needs in its Diabetes Care Project. The trial's evaluation should inform future policy.

Federal and state governments should co-ordinate on service planning for regions of medical workforce shortage. This will oblige both levels of government and their respective policy makers to try to develop a more meaningful assessment of the needs of these communities and tailor their ways of paying them to suit the maintenance of needed services. The location of federally-funded "multi-purpose" facilities can help supplement services in communities but may also instigate disinvestment by state governments in hospitals or appropriate transfer arrangements.

More investment is needed in getting patients to acute services and linking these services to patients via technology

It is not uncommon for specialists and other health practitioners to be flown in and out of remote areas to deliver health services in communities where it is unviable to have a full-time specialist, or where specialists do not want to live. This medical outreach is expensive but has become a vital part of health service delivery in Australia's most remote parts. Such schemes work best when a visiting specialist pairs with a local GP to manage a patient's care. Outreach specialists should be encouraged to act as mentors to local GPs, to share knowledge and encourage continuity of a patient's care when the specialist leaves, forging stronger links between rural and metropolitan health service providers.

Health technology can facilitate these links. There is a need to maintain investments in technologies to help overcome geographical challenges to care. Telehealth is a very promising innovation in Australia and internationally, using technology to link patients or GPs in rural areas to specialists in regional centres or major cities. The benefits of telehealth include access to a larger pool of specialists. Patients who are unwell are spared the inconvenience of travelling long distances. As new evidence emerges, there is scope to expand the use and coverage of telehealth across medical conditions and geographical areas. For example, there is potential for telehealth to link rural GPs working in partnership with specialists in radiology and oncology, and the development of models making greater use of nurse and allied health generalists in the rural workforce. Flexible payment systems are necessary to achieve this.

Strategies that boost local workforces and augment their use through changing scopes of practice and the use of technologies could potentially reduce the need for more expensive outreach services. While being respectful of social preferences relating to how funds are spent, Australia ought to consider whether certain outreach services that are funded today could be better spent through other means, given their high unit costs.

In cases where health care close to home is not possible, patients in remote areas may need to travel to receive treatment in an acute hospital setting. Patient travel assistance programmes managed by the states subsidise the travel and accommodation costs of patients who need to travel long distances for medical care. However, these programmes should be better subsidised to more accurately reflect the real cost of travel and reasonable accommodation. There are significant inconsistencies across the states in terms of eligibility criteria and payments. Efforts should be made to move to a more nationally consistent scheme.

Quality-focused governance should be embedded in all rural and remote health services. Quality measurement should be applied to clinicians who visit on an ad-hoc basis. This includes benchmarking against equivalent metropolitan services, patient opinion surveys, and root-cause analyses of adverse incidents and patient complaints.

Little is known about the quality and outcomes of care delivered in the large number of small hospitals in Australia, and this is a cause for concern

Australia's high number of hospitals is largely due to the existence of many small hospitals or hospital-like facilities. While this is undoubtedly a feature of geography and a social preference to maintain the availability of certain clinical services, very little is known about the quality of care delivered in these hospitals.

More broadly, there is insufficient information about a number of quality indicators by remoteness, such as sentinel events and adverse events, and on mental health services. The collection of more robust quality data would facilitate the identification of high-performing health services that could be granted more flexible funding and autonomy to create innovative programmes designed to serve local population need.

There is also a lack of data to inform the health care need in many remote communities. The Australian Health Survey excludes people in very remote areas, making it difficult to directly compare their health service usage with people living in other areas. Publishing indicators of quality by remoteness can help guide the health sector to where the greatest challenges lie. Australia should develop a stronger information system by investing in extending its basic information set on health service needs, service use and outcomes to include remote areas consistently.

With regards to data on the Australian health workforce, there is a wealth of information measuring the scope of the current workforce, but a scarcity of projections measuring future shortages by health profession and location. The existence of this depth of information would help Australia meet its goal to have a more self-sufficient health workforce.

Recommendations for improving health care quality in Australia

Australia has a world-class health system with lessons for other OECD countries. Innovations around the registration of health professionals and national standards for health services are particularly noteworthy. To ease the complexity and fragmentation of the health care system, the federal government should take on more of a steering role, with responsibility for health service delivery including primary care devolved to the states. Improved data collection and flexible payment systems are also required to promote innovative ways of delivering high-quality care. This should all be underscored by strong governance. For Australia to be best placed to respond to the challenges associated with a rise in chronic disease, and to bolster the quality of the health system, it should:

1. Strengthen quality of care policies, governance and information infrastructure

- Strengthen health care quality governance with a clearer national steering role for the federal government with regards to policy, funding, co-ordination, priority setting and performance monitoring and assessment.
- Consolidate and strengthen the responsibility for quality reporting and benchmarking, forums for sharing learning across peers, and strategies for identifying and diffusing innovation.
- Strengthen efforts for quality indicator development and national reporting to satisfy existing ambitions under the National Health Reform Performance and Accountability Framework and establish new indicators in priority areas, particularly indicators to support each of the national safety and quality health service standards.
- Improve public reporting by adding more hospital-level quality data to the MyHospitals website, including adverse events and the results of patient experience surveys.
- Revitalise the strategic intent to establish electronic health records for patients, ensuring sufficient population coverage and depth of information for specific patient groups, and move to an opt-out system.
- Bring forward investment to establish a set of national quality registries to address key gaps in clinical indicator data required to underpin quality standards and enable national reporting and benchmarking.
- Trial methods and systems to enable the use of hospital administrative data to monitor adverse events, to support quality monitoring and improvement at national level.
- Assess options for the development of a database (including the Department of Health Enterprise Data Warehouse) to provide a national repository of intelligence on hospital quality, including capacity to benchmark information at service level.
- Progress investment in and evaluation of national approaches to providing financial incentives for quality and safety improvement.
- Explore options for greater patient involvement in making decisions about their local health services. Develop a nationally consistent and culturally inclusive patient experience survey for all public and private hospitals.

Recommendations for improving health care quality in Australia *(cont.)*

2. Strengthen primary health care

- Align priority setting, funding and performance management of primary care with that of community health services and hospitals. Consider devolving responsibility for primary care to the states and territories, as unified commissioning agencies for all health care services in Australia.
- Use Primary Health Networks as building blocks to future reform, and ensure they have in place appropriate clinical governance arrangements and are subject to mandatory accreditation and public reporting.
- Build an eco-system around GPs to improve the co-ordination of patient care and promote the GP's role as co-ordinator, including the creation of more primary health centres with multidisciplinary teams.
- Build on the Practice Incentives Programme to create blended payment systems that provide flexibility, align funding with health system goals, and encourage multidisciplinary care.
- Expand the Practice Incentives Programme to include significantly more indicators of quality. Eventually move to a system of public reporting on the performance of individual general practices.
- Strengthen primary health quality assurance by identifying the barriers to general practice accreditation, and supporting all general practices to move towards mandatory accreditation to promote quality assurance.

3. Strengthen national safety and quality health service standards and accreditation

- Expand the scope and alignment of the National Safety and Quality Health Service Standards not only in hospitals, but also across primary health care, long-term care and mental health services.
- Build on existing work of the Australian Commission on Safety and Quality in Health Care to develop additional clinical care standards and supporting clinical indicators in priority areas, and implement strategies to improve their uptake and monitoring of compliance.
- Include accreditation outcomes in the National Health Performance Authority's public performance reporting on health care. Public reporting should be co-ordinated through the MyHospitals website to improve understanding and interpretation.
- Ensure the planned evaluation of the standards and accreditation scheme is undertaken and assesses both the impact on improvements in national co-ordination on safety and quality and on safety and quality service outcomes.
- Clarify and align requirements for private hospital licensing and accreditation purposes, to progress consistent application of the standards across government and non-government sectors.

Recommendations for improving health care quality in Australia *(cont.)*

4. Improve the quality of rural and remote health care

- Promote rural innovation through strong governance, flexible funding, local workforce innovation and enabling technology. Encourage innovation by granting high-performing health services greater autonomy through an Earned Autonomy model.
- Develop a stronger information system by investing in extending Australia's basic information set on health service needs, service use and outcomes, and build a more comprehensive set of health care quality indicators, to capture rural and remote settings and support governance and accountability.
- Build a rural generalist workforce with GPs given an expanded role in procedural and primary health care. Create broader generalist roles for nurses, pharmacists and other allied health professionals including the capacity to prescribe an appropriate range of medication. Support the creation of new roles, governed by appropriate accreditation and credentialling, training, peer review and accountability.
- Build the capacity of local health workforces by continuing to build on the growth of rural health care training facilities, including medical schools.
- Explore the feasibility of liberating Medicare funding to other health practitioners in remote areas, and consider offering financial incentives to other health practitioners to move to rural areas of need.
- Increase capacity for innovations that improve health care accessibility for people who live in remote areas and support rural physicians. This includes increasing the scope and capacity of telehealth.
- Adopt nationally consistent eligibility requirements and subsidies for patient travel. Increase payments to reflect the real costs of travel and accommodation.
- Ensure that quality-focused governance is embedded in all rural and remote health services by applying local quality measurement to clinicians who visit on an ad-hoc basis.
- Ensure a nationally consistent method of collecting patient feedback is applied to rural areas, and goes beyond hospitals to include outreach and telehealth services.

Chapter 1

Quality of health care policies in Australia

This chapter reviews the policies and practices in place to measure and improve the quality and safety of health care in Australia. Overwhelmingly, there appears to be national consensus in making quality and safety a policy priority. This is marked by an improving culture of transparency and a move towards compulsory standards and hospital accreditation. This work needs to be evaluated and refined to ensure that quality improvement evolves from measurement to change management. While much of the attention has been on hospitals, quality in primary health care has received less consideration.

More challenging for Australia is a highly complex health system managed by two levels of government, and a mix of services delivered through the public and private sectors. Adding to the complexity is national inconsistencies in policy and performance measurement, although efforts are being made to improve harmonisation. Clearer government accountability and more explicitly defined roles between central and local authorities will help Australia overcome some of these impediments.

1.1. Introduction

Achieving high-quality health care is increasingly attracting the attention of OECD countries. Health takes up a significant proportion of governments' budgets. The ageing population and accompanying chronic diseases, as well as technological developments, will likely make health care more expensive. This has prompted a greater focus on the quality and value of health services, and how they can be improved.

Australia has made good progress in embracing quality in its health system reforms. This chapter assesses the key policies and strategies used by Australia to drive improvements in the quality of its health system.

A framework for categorising policies affecting quality is illustrated in Table 1.1. This chapter sets the scene of the Australian health system, and focuses on the legislative framework and governance for quality of care, the quality assurance of health system inputs (such as health care professionals, hospitals and technologies), and policies for monitoring and standardising quality of care. It also considers the extent to which patients are involved in their own care and the policy-making process.

Table 1.1. A typology of health care policies that influence health care quality

Policy	Examples
Health system design	Accountability of actors, allocation of responsibilities, legislation
Health system inputs (professionals, organisations, technologies)	Professional licensing, accreditation of health care organisations, quality assurance of drugs and medical devices
Health system monitoring and standardisation of practice	Measurement of quality of care, national standards and guidelines, national audit studies and reports on performance
Improvement (national programmes, hospital programmes and incentives)	National programmes on quality and safety, pay for performance in hospital care, examples of improvement programmes within institutions

1.2. Design, costs and outcomes in the Australian health care system

A description of the Australian health care system is provided in Box 1.1.

Box 1.1. Overview of the Australian health system

The Australian health system is a complex mix of federal and state government funding and responsibility, interspersed with services delivered through the public and private sectors. Adding to its complexity is the nation's size, and the challenges of meeting the needs of people living in areas of extreme remoteness.

Australia has a universal health system funded through the Medicare scheme. It is mostly financed through taxation and entitles Australians to free care as public patients in public hospitals. It also entitles people to:

- free or subsidised treatment by health professionals such as doctors, specialists, optometrists and in specific circumstances dentists and other allied health practitioners;
- 75% of the Medicare Benefits Schedule (MBS) fee for services and procedures for private patients in a public or private hospital (not including hospital accommodation and items such as theatre fees and medicines); and
- some health care services in certain countries.

While public hospitals are jointly funded by the federal and state and territory governments, they are the responsibility of the states and territories as system managers. The Australian Government plays a role in policy making and monitoring with regards to public hospitals, but does not provide the services.

Primary health care is broadly the domain of the federal government, which pays medical practitioners for primary care services on a fee-for-service basis. Specialists and general practitioners (GPs) can choose to "bulk bill" patients, which means the consultation is fully covered by Medicare. However, many GPs choose not to bulk bill, and their patients face out-of-pocket costs. The states also play a role in primary health care, through the provision of community health services. This can include allied health services, chronic disease management, dental health services, drug and alcohol services and health promotion. Public health activities are shared by federal and state and territory governments.

The existence of two levels of government managing different domains of the health system has at times triggered tension between federal and state authorities over funding, and can cause confusion for patients and poor co-ordination of their care. Primary health organisations known as Primary Health Networks aim to help ease some of this fragmentation of services. Chapter 2 more comprehensively discusses primary health care.

The system's complexity extends to Australia's private hospitals, which are subject to a mix of federal and state regulations. The states are responsible for licensing private hospitals, while much of the federal government's legislation relates to private health insurance. Fund premium rises are approved by the federal health minister.

Private health insurance is voluntary, and can provide faster access to hospital services – such as elective surgery – that generally have longer waiting times in the public system. However, it is possible to be a private patient in a public hospital, and there is no change in waiting time in this instance. About 47% of Australia's population has this duplicate form of health insurance.

Box 1.1. Overview of the Australian health system *(cont.)*

Australian Government policy strongly incentivises people to take out private insurance, even though they have access to free public hospital care. Uninsured higher income earners must pay an extra 1% to 1.5% of their income in the form of a "Medicare Levy Surcharge". This surcharge begins for singles earning more than AUS 90 000 and families earning more than AUS 180 000 (at April 2015). An additional "Lifetime Health Cover" loading applies for people who do not take out cover after 1 July, following their 31st birthday.

Insurance must include appropriate hospital cover to avoid the Medicare Levy Surcharge, although insured people are still entitled to free treatment in public hospitals. The federal government subsidises private health insurance with rebates worth up to 37.09% of the cost of the insurance (at April 2015), dependent on age and income. Higher income earners receive either a reduced rebate or are ineligible for a rebate.

The federal government also subsidises some medication through the Pharmaceutical Benefits Scheme (PBS). Individuals contribute to the cost of their medication. This payment is lower for pensioners and the unemployed.

Health expenditure in Australia was 8.8% of GDP in 2012 (the latest year for which this information was reported), slightly lower than the OECD average of 8.9% in 2013. This does not include capital expenditure. Government financing accounted for 67.6% of expenditure, followed by 19.9% in out-of-pocket payments.

Australia has reduced the number of acute hospital beds from 4 per 1 000 population in 2000 to 3.8 in 2013, below the OECD average of 4.8. There has been a growth in the number of doctors, driven partly by an increase in medical graduates. The numbers rose from 2.5 practising doctors per 1 000 population in 2000, to 3.4 per 1 000 in 2013 – higher than the OECD average of 3.3. This reflects a deliberate policy to deal with workforce shortages, particularly in rural and remote areas. Australia has heavily relied on overseas-trained doctors to cope with this shortage. Chapter 4 discusses the challenges facing rural and remote Australia.

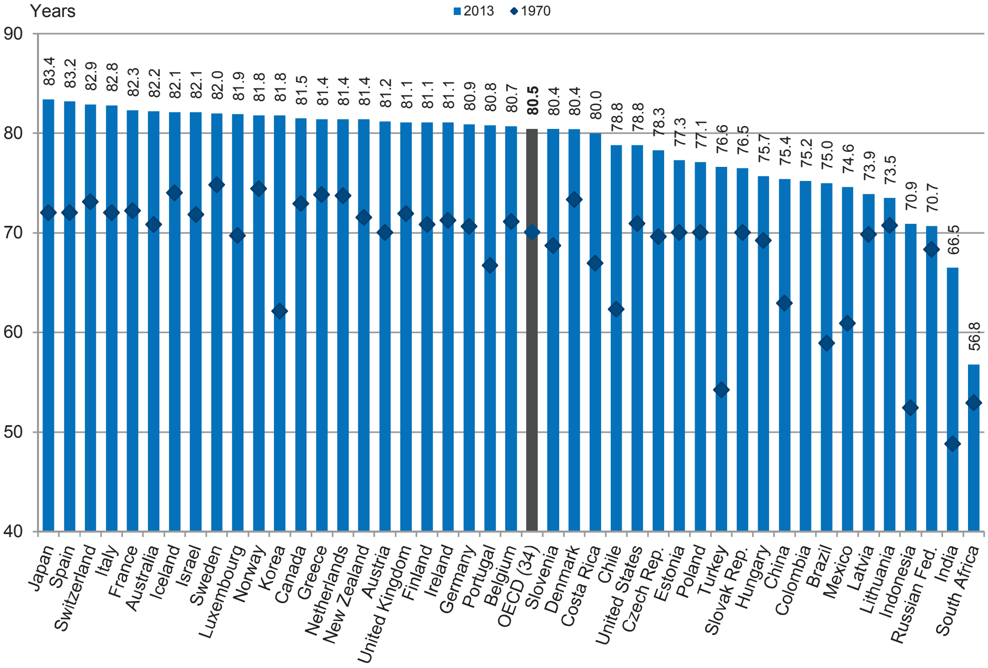
Source: Australian Government Private Health Insurance Ombudsman, *Medicare Levy Surcharge*, available at: www.privatehealth.gov.au/healthinsurance/incentivessurcharges/mls.htm (accessed 13 May 2015); Council of Australian Governments, *National Healthcare Agreement 2012*; OECD (2015), *Health at a Glance 2015;* Thomson, S., R. Osborn, D. Squires and M. Jun (2012), *International Profiles of Health Care Systems 2012*, The Commonwealth Fund.

Health status in Australia

Australians enjoy one of the best life expectancies in the world. In 2013, life expectancy at birth was 82.2, reflecting a growth of 11.4 years since 1970 (Figure 1.1). Australia is sixth highest in the OECD, and only narrowly trails the leader Japan's 83.4 years (OECD, 2015). Aboriginal and Torres Strait Islander people have considerably poorer health outcomes. The life expectancy gap between Aboriginal and Torres Strait Islander people and non-Indigenous people is 10.6 years for men and 9.5 years for women (ABS, 2013). Life expectancy disparities also exist when comparing

Australians from different socioeconomic backgrounds, and different regions. For example, the highest life expectancy in Australia is in metropolitan northern Sydney (84.6). It falls to 76.1 in rural central and north-west Queensland (National Health Performance Authority – NHPA).

Figure 1.1. Life expectancy at birth, 1970 and 2013 (or nearest year)



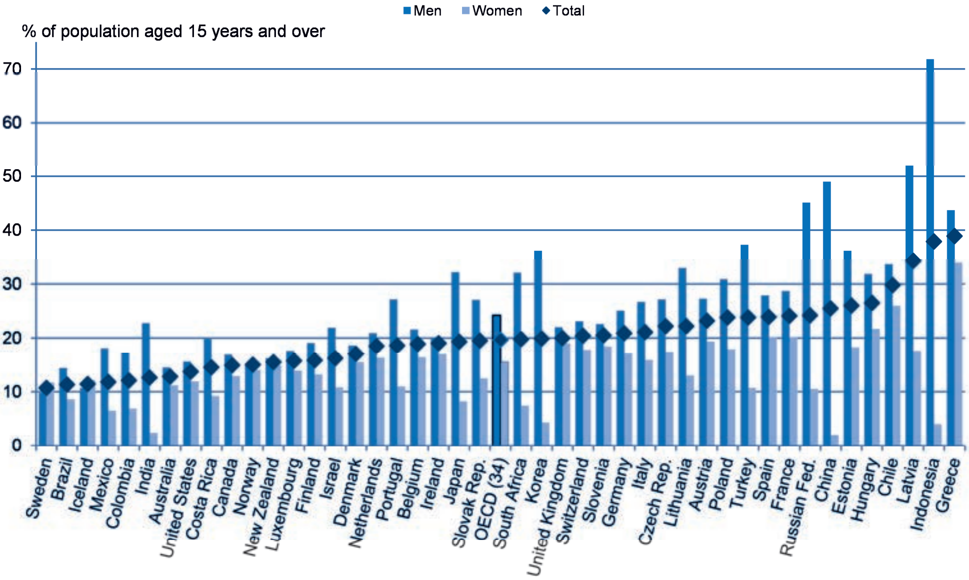
Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Australia's health status compares favourably to that of its OECD peers. The ischemic heart disease mortality rate is well below the OECD average (98.2 per 100 000 population compared with 117.4) (OECD, 2015).

Australia has one of the lower rates of cancer mortality, with 197.7 deaths per 100 000 population, below the OECD average of 205.6. It also fares well in cerebrovascular disease mortality, transport accident mortality and infant mortality.

Through a range of public health initiatives, Australia has achieved one of the lowest smoking rates in the world. In 2013, 12.8% of Australians aged 15 years and over smoked on a daily basis, compared with an OECD average of 19.7% (Figure 1.2) (OECD, 2015).

Figure 1.2. Daily smoking in adults, 2013 (or nearest year)

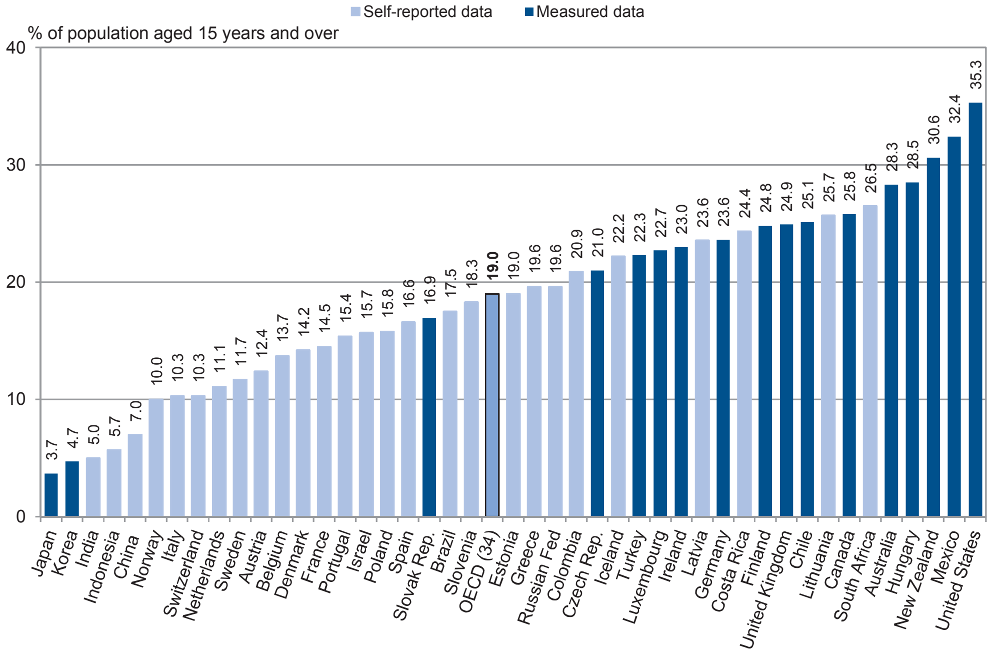


Note: Countries are ranked in descending order of smoking rates for the whole population.

Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Of greater concern for Australia is alcohol consumption. People aged 15 and over consume 9.9 litres per capita of alcohol per year, more than the OECD average of 8.8 litres (OECD, 2015). Obesity is also a significant public health issue in Australia (Figure 1.3). While adult obesity rates have been rising in every OECD country, Australia's rate is among the highest. More than one quarter (28.3%) of Australians aged 15 and over are obese. This is considerably higher than the OECD average of 19%. Only four OECD countries are more obese – the United States, Mexico, New Zealand and Hungary (OECD, 2015). The high rate of obesity is likely to add to the future prevalence of chronic disease, such as type 2 diabetes.

Figure 1.3. Obesity among adults, 2013 (or nearest year)



Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

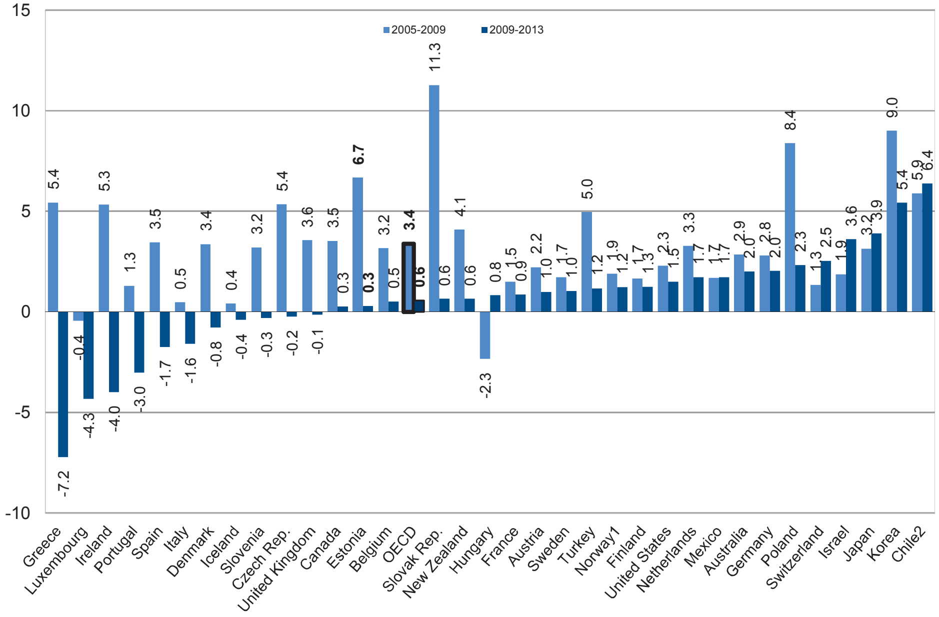
Health spending in Australia

Health expenditure in Australia was 8.8% of GDP in 2012 (the latest year for which this information was reported), slightly lower than the OECD average of 8.9% in 2013. This does not include capital expenditure. Health expenditure per capita was USD PPP 3 866, compared with the OECD average of USD PPP 3 453 (OECD, 2015).

The annual average growth rate in per capita health expenditure in real terms was 2% between 2009 and 2013, compared with 0.6% on average across OECD countries (Figure 1.4). Government financing accounted for 67.6% of expenditure, followed by 19.9% in out-of-pocket payments (OECD, 2015).

Figure 1.4. Annual average growth rate in per capita health expenditure, real terms, 2005 to 2013 (or nearest year)

Annual average growth rate (%)



1. Mainland Norway GDP price index used as deflator.

2. CPI used as deflator.

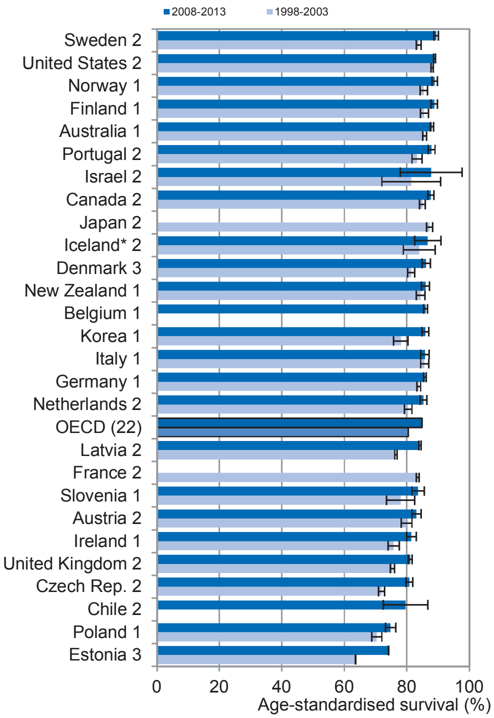
Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Internationally comparable indicators of the quality of health care paint a mixed picture

A range of indicators can be used to gauge how well a health system is performing. In this, Australia presents a mixed picture. Cancer survival can be a measure of how well a health system manages cancer patients, particularly with early detection and effective treatment. Australia's cervical cancer screening rate in women aged 20 to 69 declined from 61.1% in 2001 to 57.3% in 2013. This is below the OECD average of 61.6%, and suggests a need to focus more on health promotion efforts to encourage screening for early detection. Australia's cervical cancer five-year survival of 66.2% is about the same as the OECD average. Australia's mortality rate for cervical cancer is among the lowest across the OECD. The age-standardised mortality rate per 100 000 women is 2%, compared with an OECD average of 3.5% (OECD, 2015).

Australia is one of the world leaders in breast cancer survival (Figure 1.5). Its five-year survival rate of 88% is only marginally lower than that of Sweden, the United States, Norway and Finland. However, the proportion of women aged 50 to 69 undertaking mammography screening has declined since 2003, from 56.7% to 55%. This is lower than the OECD average of 58.8%, and stands in contrast to countries such as Finland, Slovenia, Denmark and the United States, where the proportion exceeds 80%. The age-—standardised rate of breast cancer mortality per 100 000 women is 24.8, about the same as the OECD average of 25.3 (OECD, 2015).

Figure 1.5. Breast cancer five-year relative survival, follow-up until 2003 and 2013 (or nearest years)



Note: 95% confidence intervals represented by H.

1. Period analysis. 2. Cohort analysis. * Three-period average.

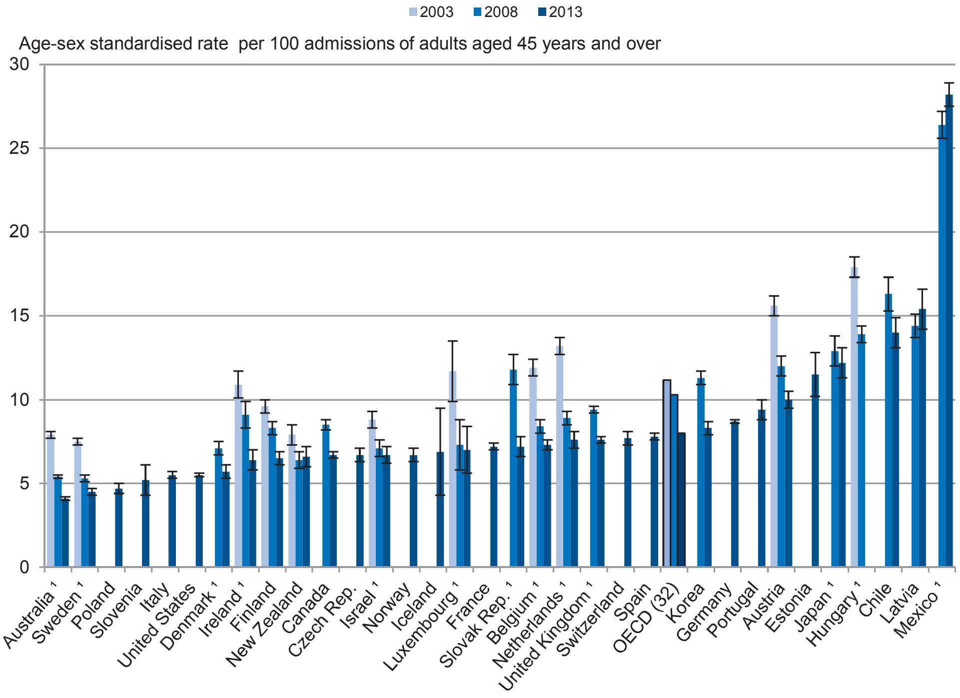
Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Australia has the third highest survival rate for colorectal cancer of 68.7%, compared with the OECD average of 62.2%. Its mortality rate (19%) is well below the OECD average of 24.2% (OECD, 2015).

Another indicator of the quality of acute care is deaths within 30 days after a patient is admitted to hospital for ischemic stroke. This can reflect the timeliness and effectiveness of medical interventions. Australia's age-sex standardised rate is 9.3 deaths per 100 hospital admissions of adults aged 45 and over, higher than the OECD average of 8.4 (OECD, 2015).

Australia has the OECD's lowest rate of deaths within 30 days following hospital admission for acute myocardial infarction (heart attack) (Figure 1.6). The age-sex standardised rate in Australia is 4.1 deaths per 100 admissions, compared with an OECD average of 8 (OECD, 2015).

Figure 1.6. Thirty-day mortality after admission to hospital for acute myocardial infarction based on admission data, 2003 to 2013 or (nearest years)



Note: 95% confidence intervals represented by H. Three-year average for Iceland and Luxembourg.

1. Admissions resulting in a transfer are included.

Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Indicators of patient safety include obstetric trauma, surgical complications and post-operative sepsis. The complex nature of some procedures means these complications can never be fully prevented, however their risk can be reduced. Australia's complication rates appear high. The rate of post-operative pulmonary embolism in knee or hip surgeries in 2013 was 528.6 per 100 000 hospital discharges, compared with an OECD average of 329.4. The rate of deep vein thrombosis in knee or hip surgeries in 2013 was 1187.4 per 100 000 hospital discharges, compared with the OECD average of 506.1. The rate of post-operative sepsis in abdominal surgeries was 2 271.9 per 100 000 hospital discharges, compared with the OECD average of 1 818.6. Australia also appears to have a higher rate of foreign bodies retained during a procedure, of 8.6 per 100 000 hospital discharges compared with an OECD average of 5.7 (OECD, 2015). These figures are all based on hospital admissions when the surgery took place. Caution should be used when interpreting these figures, as they could be explained by more proactive reporting in Australia than in some other countries.

1.3. Governance for quality of health care in Australia

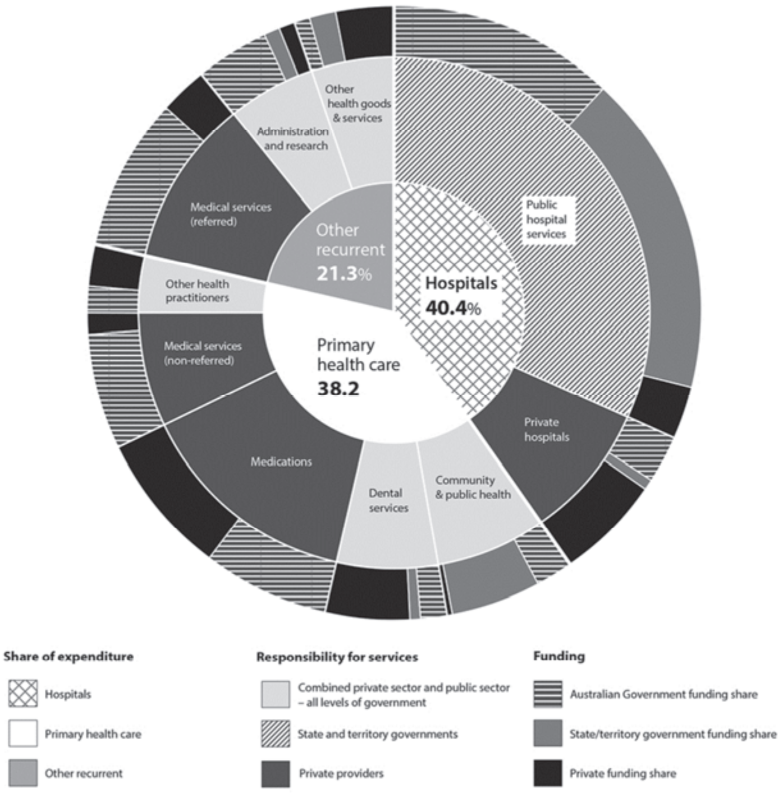
The National Healthcare Agreement sets out the roles and responsibilities of the federal and state and territory governments in the delivery of health care services. The Agreement's objective is to improve health outcomes for Australians, and the sustainability of the health system. It specifies that continued improvement in health service safety and quality is a shared responsibility between the federal and state and territory governments.

The shared commitment to achieving health care quality is reinforced by the Australian Safety and Quality Framework for Health Care, which was endorsed by federal and state and territory governments in 2010. The framework specifies that safe, high-quality health ought to be consumer-centred, driven by information and organised for safety.

Australia's health system has a complex governance model with multiple stakeholders and funders

The Australian health system features a complex split of federal and state and territory funding and responsibility, which can make it difficult for patients to navigate. However, it can broadly be characterised as one in which public hospitals are jointly funded by federal and state and territory governments, and are managed by the states. This arrangement is formalised through the National Healthcare Agreement (COAG, 2012) and the National Health Reform Agreement (COAG, 2011). The latter emphasises that the states are the hospital "system managers", while the federal government has "lead responsibility" for GP and primary health care. The agreements imply that both levels of government are responsible for overseeing health care quality. As Figure 1.7 demonstrates, hospitals account for the largest proportion of health funding, followed by primary health care. The states and territories are responsible for providing public hospital services, and private organisations provide services in private hospitals. Meanwhile, as Chapter 2 discusses, the delivery of primary health care services is more complicated, with federal and state governments, as well as private providers largely in the form of GPs in private practice, all playing a role.

Figure 1.7. Australian health services funding and responsibility



Note: The inner segments indicate the relative size of expenditure in each of the three main sectors of the health system ("hospitals", "primary health care" and "other recurrent"). The middle ring indicates the relative expenditure on each service in the sector (shown by the size of each segment) and who is responsible for delivering the service (shown by the colour code). The outer ring indicates the relative size of the funding (shown by the size of each segment) and the funding source for the difference services (shown by the colour code).

Source: Based on Australian Institute of Health and Welfare (2014), *Australia's Health.*

The structure of the system means at a federal level, the Department of Health has the main policy responsibilities of primary health care – particularly reimbursement for GPs – private health insurance, pharmaceuticals and blood and organ donation. The state and territory health departments have responsibility for the provision of a range of services including primary and community-based health services, public hospitals, public health services, emergency response, planning and delivery, ambulance services and food safety.

Adding to the system's complexity is the mix of public and private health services. For example, an individual with private health insurance can choose to be treated as a private patient in either a public or private hospital. Unlike public patients, this arrangement generally enables an individual to choose their own doctor and to fast-track their elective surgery in a private hospital, compared with a patient waiting for non-urgent surgery on a public hospital waiting list. Private health insurance also partially funds outpatient services provided by allied health professionals, such as dental treatment and physiotherapists – although there is often a gap fee. These are not covered by Medicare.

The system's complexity is amplified by a challenging and sometimes antagonistic relationship between federal and state and territory governments. This tension is particularly acute when political sensitivities arise over the federal government's contribution to hospital funding. The states argue federal hospital funding is insufficient. There are also frequent claims of cost-shifting. For example, the states argue that failures in the primary care system (a federal responsibility) lead to patients seeking care in public hospital emergency departments (a state and territory responsibility). This health system discord between the federal and state governments has, in the past, been characterised by protracted negotiations between the federal and state and territory governments over hospital funding.[1] Additionally, unclear lines of accountability threaten to undermine progress in areas where agreement already exists.

For patients, the consequences of a fragmented system include potential disruptions to continuity of care. Patients often need to navigate through a series of health services and providers in both the public and private sectors. The complexity is amplified when these services fall under the responsibility of different levels of government. This can be even more confusing for patients with multiple chronic health problems, or those in long-term care.

The lack of co-ordination and limited or delayed flow of information between primary health care providers and hospitals can be a source of frustration for health professionals in both sectors. It can also increase the risk of adverse events and cause unnecessary hospital readmissions, compromising patient outcomes and raising costs.

Amid the shift towards national governance, there is scope for these functions to be strengthened

Several national bodies play a role in health care safety and quality. Principally, the Australian Commission on Safety and Quality in Health Care (ACSQHC) is a government agency that leads national improvements in safety and quality and is responsible for developing and maintaining national standards. It also administers the Australian Health Service Safety and Quality Accreditation Scheme and grants approval to accrediting agencies to provide accreditation for public and private hospitals and day procedure services against the National Safety and Quality Health Service (NSQHS) Standards. Two other federal government bodies whose functions intersect with quality to some degree have been established in recent years. The Independent Hospital Pricing Authority (IHPA) calculates an annual ‘national efficient price’ to help determine the level of federal funding for public hospitals. The National Health Performance Authority (NHPA) collects data on the performance of public and private hospitals and primary health care organisations, based on various measures and metrics. It publicly reports these findings through the MyHospitals and MyHealthyCommunities websites.

The National Prescribing Service (NPS) also carries some quality improvement functions and notably is co-ordinating Australia’s Choosing Wisely initiative, which aims to reduce unnecessary tests, treatments and procedures.

There exist multiple bodies that report on health system performance. The NHPA, the Australian Institute of Health and Welfare (AIHW – the national custodian of data), the Australian Bureau of Statistics, the Productivity Commission and the Steering Committee for the Review of Government Service Provision all produce reports based on analysis of large amounts of data. This often represents a duplication of efforts, and potentially dilutes the impact of the information contained in these reports. A simpler approach could entail fewer and stronger central authorities, and the establishment of one main body whose key functions would include setting standards and monitoring performance.

The government should review the roles and responsibilities of existing national bodies centrally involved in the governance of health service quality and performance, with a view to identifying opportunities for role clarification and consolidation. In the 2014-15 budget, the federal government proposed – subject to consultation – to create a Health

Productivity and Performance Commission, by merging the ACSQHC, AIHW, IHPA, NHPA, the National Health Funding Body, and the National Health Funding Pool Administrator. The government should proceed with the proposal to consolidate these activities and functions, as this might present an opportunity to reduce duplication, and bring consistency and greater coherence to performance monitoring, reporting and improvement.

Health care quality is subject to a mix of federal and state legislation

The ACSQHC, the NHPA and the IHPA were all established under the National Health Reform Act 2011. The Act specifies the functions of the three bodies.

The Private Health Insurance Act 2007 is the principal legislation dealing with private health insurance in Australia. It sets out the provision of incentives to encourage people to have private health insurance, payments by the federal government to reduce premiums for those who comply with health insurance policies, and a lifetime health cover scheme under which premiums may rise for people who do not maintain private health insurance from an early age. The Act also requires private health insurance funds to make health insurance available to people in a non-discriminatory way and to meet other obligations. It also sets out enforcement mechanisms to monitor and ensure compliance with the Act and protect the interests of policy holders.

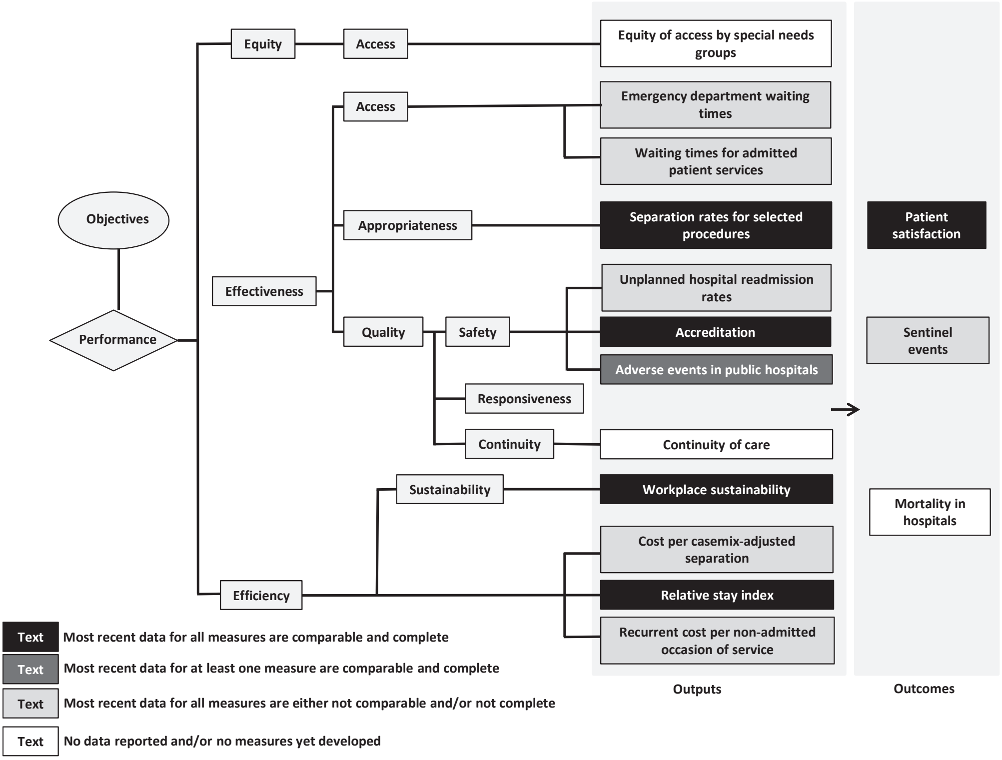
Additionally, the states and territories each have their own legislation governing the provision and quality of health services. Public hospitals and mental health services are governed by different laws in each state. Various state legislation and regulations also dictate the standards that private hospitals should meet as a condition of their licensing.

Despite agreed performance indicators, data collection continues to be inconsistent

Federal and state and territory governments have agreed to a set of national performance indicators, which have been updated several times. The public hospitals performance indicator framework (Figure 1.8) reflects the objectives of the National Healthcare Agreement. The performance framework for primary health care is discussed in Chapter 2. There also exist performance frameworks for maternity services and mental health management.

The performance framework for public hospitals encompasses equity, effectiveness and efficiency. The clinical outcomes of patients, however, do not figure strongly in the performance framework. Another limitation is the actual reporting on these indicators has been slow. As figure 1.8 shows, in the most recent public report, few of the indicators were described as having the most recent data for all measures comparable and complete.

Figure 1.8. Public hospitals performance indicator framework



Source: Based on Steering Committee for the Review of Government Service Provision (2015), *Report on Government Services 2015*, Vol. E: Health, Productivity Commission, Canberra.

The quality components in the performance indicator framework are safety, responsiveness and continuity. According to the most recent report, however, no indicators have yet been developed to measure continuity of care. This should be considered a priority measure. Gaining an understanding of the extent to which patients experience care continuity is particularly important for the large number of patients with chronic disease, who often receive care from multiple health care services. For these patients, co-ordinated care can reduce the risk of medical errors due to lack of, or delayed, information exchange between health services about a patient's medical condition.

The harmonisation of national standards and indicators has been a necessary step to improving quality, and governments should persevere with this. There is also scope to enhance the performance indicators, so that the focus shifts more intently on measuring quality of care and patient outcomes. The indicators should also extend to private hospitals. Robust comparisons remain difficult, however, because of reporting discrepancies across the states and territories.

Private hospitals, too, report on various indicators to their boards, insurers and government. This inconsistency raises the risk of more heterogeneous data collection, increases the administrative burden, and makes states incomparable on some indicators.

Progress in the health outcomes of Aboriginal and Torres Strait Islander people, health system performance and the broader determinants of health are also subject to a performance framework that was developed under the auspices of the Australian Health Ministers' Advisory Council (AHMAC). The framework encompasses data from more than 60 sources – including hospital morbidity, mortality, the Census, the National Aboriginal and Torres Strait Islander Health Survey, and the National Aboriginal and Torres Strait Islander Social Survey – in more than 60 indicators. Reporting against the framework is designed to promote accountability, inform policy and research, and foster informed debate. The AIHW produces a detailed report every two years (AHMAC, 2012).

The Council of Australian Governments (COAG) agreed to the development of National Key Performance Indicators for Aboriginal and Torres Strait Islander primary health care through the National Indigenous Reform Agreement in 2008. A set of 24 indicators that focus on chronic disease prevention and management and maternal and child health was approved by the AHMAC in 2011. Of these, 19 indicators have been implemented over a three-year period, with data on 11 indicators collected in 2011-12 and on an additional eight in 2012-13. Implementation of the remaining five indicators is being progressed.

The indicators are collected from primary health care organisations that receive funding from the Department of Health to provide services primarily to Aboriginal and Torres Strait Islander people. The indicators are used to help improve the delivery of primary health care for Aboriginal and Torres Strait Islander people, to improve health outcomes and to support progress towards the COAG Closing the Gap targets. They also provide a mechanism for monitoring progress and highlighting areas for improvement to support policy and planning at the national and state and territory levels. Performance against the indicators is improving over time and many individual organisations have used the indicators to inform their continuous quality improvement processes. It has been noted that jurisdictions with health organisations that have a history of using continuous quality improvement processes, such as the Northern Territory and Queensland, perform better than those organisations that do not. As a result, the Australian Government is further implementing and expanding programmes to encourage continuous quality improvement.

The Australian Government provides funding to around 260 organisations to deliver primary health care, chronic disease prevention, child and maternal health, substance use, social and emotional wellbeing and other health services to Aboriginal and Torres Strait Islander people. These organisations contribute to the Online Services Report (OSR) data collection. The OSR collects information on these health services and their activities, the number of clients seen and contacts made, staffing levels and vacancies, service gaps and challenges. The OSR data collection provides information to support and enable effective programme management, facilitate policy and funding decisions, and reviews of demand and supply of services.

The capacity to capture more information about the experience and health outcomes of patients is hamstrung by data infrastructure

Internationally, there has been growing interest in measuring the continuity of care as patients move between primary care, hospital care, long-term care and social care. However, the capacity to capture a more detailed picture of patients' pathways of care is hamstrung by data infrastructure, and the ability to link patient records across datasets.

This has been the experience in Australia, where a major hindrance is limited capacity to link patient-level information. National hospital data lacks personal identifying information permitting data linkages. Most published health performance indicators do not involve the linkage of administrative databases, although there are pilot projects underway that may permit this in the future. Australian legislation also restricts the circumstances under which the two large national health administration databases – the Medicare Benefits Schedule (MBS) and the Pharmaceutical Benefits Scheme (PBS) – may be linked together (OECD, 2013).

Most OECD countries have invested considerable effort to be able to monitor patient pathways through the system, even if de-identified. Like many other OECD countries, Australia has a national number that uniquely identifies patients. Such a number can facilitate record linkage from multiple databases, providing accurate information through a less cumbersome process. Australia introduced the Individual Healthcare Identifier for patients and providers in 2010. Each individual is assigned a unique 16-digit number, which is used for the Personally Controlled Electronic Health

Record (PCEHR) system, health care provider clinical information systems, secure messaging and electronic referrals. However, the use of this number for data linkages has not been approved.

In an OECD questionnaire on the secondary use of health data, Australia was one of a minority of countries that did not have national data containing identifying information that could be used for record linkage for hospital inpatient data. Nor, as Table 1.2 shows, does it use national record linkage projects for regular health care quality monitoring (OECD, 2013).

Table 1.2. National record linkage projects are used for regular health care quality monitoring

	Hospital in-patient data	Primary care data	Cancer registry data	Prescription medicines data	Mortality data	Formal long-term care data	Patient experiences survey data	Mental hospital in-patient data	Population health survey data	Population census or registry data
Australia	No	No	No	No	Yes	No	No	No	No	No
Belgium	Yes	Yes	Yes	Yes	Yes	nr	Nr	No	No	nr
Canada	Yes	na	nr	na	nr	nr	Na	Nr	nr	nr
Denmark	Yes	Yes	Yes	Yes	Yes	na	No	Yes	No	Yes
France	nr	No	No	No	No	nr	No	Nr	No	No
Finland	Yes	na	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Germany	No	No	No	No	No	No	Na	Na	No	No
Israel	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes
Japan	No	No	na	No	nr	nr	Nr	Nr	nr	nr
Korea	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Malta	Yes	No	Yes	na	Yes	No	Na	No	No	No
Norway	Yes	No	Yes	No	Yes	No	No	No	Yes	Yes
Poland	No	No	No	No	No	No	No	No	No	No
Portugal	No	Yes	nr	Yes	nr	nr	Nr	No	nr	nr
Singapore	Yes	na	Yes	No	Yes	Yes	No	No	Yes	No
Sweden	Yes	na	Yes	Yes	Yes	na	No	Yes	Yes	nr
Switzerland	No	na	na	na	No	No	Na	No	No	No
United Kingdom	Yes	No	Yes	No	Yes	No	No	No	No	No
United States	Yes	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes
Total Yes	12	4	11	7	12	4	1	5	4	4

Note: dk: don't know; na: not applicable; nr: no response.

Source: OECD Health Care Quality Indicator Questionnaire, Secondary Use of Health Data, 2011/12. OECD (2013), *Strengthening Health Information Infrastructure for Health Care Quality Governance: Good Practices, New Opportunities and Data Privacy Protection Challenges,* OECD Health Policy Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264193505-en.

There appear to be moves to permit hospital data collected at the state level to be amalgamated nationally. The AIHW and the Population Health Research Network's Centre for Data Linkage are understood to be working together to build a national system enabling data at the state and national levels to be linked together for approved projects. But further complicating matters are discrepancies in the governance and legislation of different states (OECD, 2013).

As Table 1.3 demonstrates, there are many examples of countries using a national number that uniquely identifies patients. For example, Canada assigns a health card number that is used for all publicly-funded health care encounters. This is separate to a social insurance number assigned nationally for tax and social security purposes. Other countries, such as Belgium, Denmark, Sweden and Israel, favour a number that is used more broadly, including for both health and taxation purposes.

Table 1.3. National number that uniquely identifies patients and the main uses of this number

	Name of the unique identifying number	Main uses of the identifying number
Belgium	INSZ NISS	INSZ NISS is a national person identifier (national number) used for various purposes, such as health care, social security, and tax.
Canada	Health Card Number	The provinces and territories assign a health card number that is a unique patient number for all publicly funded health care encounters. There is also a unique Social Insurance Number assigned nationally for tax and social security purposes that is not used for health care.
Denmark	CPR NR (Central Person Register Number)	Used for "everything" in relation to national and local governments including health care. Also banks and other business identifications etc.
Finland	Personal Identity Code	The personal identity code is used in practically all data collections in public services, such as health care, social welfare services, education, justice etc.
France	Numéro d'identification au répertoire (NIR)	Persons born in metropolitan France and overseas departments are registered on the national directory for the identification of natural persons (RNIPP) and are assigned a registration number (NIR). The NIR is used by medical authorities for the issuance of a "carte vitale". The NIR is also used for social security.
Italy	TS number	TS number contains both a health number and a tax file number and has nearly universal coverage of the population. It is managed through a publicly owned private company, SOGEI that could be considered as a trusted third party.
Israel	ID number	The ID number is used for tax, social security, education, health, licensing, banking and other identified activities.
Korea	Resident Registration Number	Resident Registration Number (RRN) is assigned to each individual upon his/her birth and contains various information including birth date, gender and location of birth. RRN is used in virtually all aspects of life, including economic activities, for personal identification in various documents and communications in Korea.
Malta	Identification Number ID No	ID No is a unique identification number used throughout the country for all purposes including electoral lists, taxation, social security, etc. It is based on the registration number at the Public Registry.
Norway	National Identification Number	The National Identification Number is used for tax, social security, health records, banking and other purposes.
Poland	PESEL	PESEL number is assigned to all citizens at birth; permanent residents; temporary residents with stays of 2 months or longer; applicants for an identity card; and other persons where regulations require it.
Portugal	Número de Utente do Serviço Nacional de Saúde	This number is used throughout the country for access to national health service care and benefits.
Singapore	National Registration Identity Card Number (NRIC)	NRIC is used for identification, government procedures, and some commercial transactions (e.g. the opening of a bank account).
Sweden	Personnummer (Personal Identity Number)	Personnummer is the main identifier used for all official purposes in Sweden (tax, social welfare, health care, living conditions, education and so on) .
United Kingdom	NHS number Scotland also has the Community Health Index (CHI) number	Everyone registered with the National Health Service in England, Scotland and Wales is issued a unique NHS number. The NHS number is not used for tax/social security purposes. In Scotland, the CHI system was set up for administrative purposes to track patients registering with GPs.
United States	Social Security Number	The SSN is issued to US citizens, permanent residents, and temporary (working) residents and its main purpose is for taxation.

Source: OECD Health Care Quality Indicator Questionnaire, Secondary Use of Health Data, 2011/12 and, for Italy, follow-up telephone interview, October 2011. OECD (2013), *Strengthening Health Information Infrastructure for Health Care Quality Governance: Good Practices, New Opportunities and Data Privacy Protection Challenges,* OECD Health Policy Studies, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264193505-en.

In Australia, an opportunity exists to follow the lead of other OECD countries and strengthen the data infrastructure to facilitate linkages across datasets, although this may be complicated by differing privacy legislation across states and territories. Such a move, however, would be a worthwhile investment, as it would help provide richer information on the quality of a patient's care, adverse events patients have experienced in the health system, and patients' clinical outcomes.

Additionally, improving the care co-ordination of patients has been held back by the protracted roll-out of an electronic health records system. By enabling health professionals to access information about a patient's health care in one place, electronic health has the capacity to make the patient pathway smoother, potentially reducing errors and improving continuity. This could also cut waste in the system, for example by reducing errors and duplication of services. Australia has long had a system requiring patients to "opt in", rather than a system in which patients are automatically enrolled and have the right to opt out. The opt-in system risks excluding those who would benefit from e-health, particularly older patients with chronic disease who may not have easy access to a computer but whose complex needs make it likely they will access health care across multiple providers. The low uptake of electronic health in Australia thus far is likely due to the opt-in system, and a lack of awareness of its existence and the benefits it brings.

It is encouraging that the federal government intends to trial an opt-out system, with its rebadged "My Health Record". The government has indicated the PCEHR will be redeveloped to improve its usability and clinical utility. The opt-out trial will inform future strategies to increase the uptake of electronic health. Like the present PCEHR, patients will retain control over what information is used in their individual record, and who can access it. It is likely that an opt-out system would improve e-health participation in Australia. This should be accompanied by a national campaign to raise awareness of e-health, and strong safeguards ensuring data privacy and security.

An example of a country Australia could follow is Denmark, which is one of the more advanced countries in health technology and has adopted a unique patient identification number to use in health care and other services. The country's electronic health system enables GPs to manage medication lists and generate electronic prescriptions and send them to pharmacies. To promote care co-ordination, after-hours services use the same computer systems as GPs. GPs are automatically notified when a patient is registered in a hospital emergency department, and receive reports electronically when their patients visit an after-hours service. Patients have access to their own electronic records and can interact via email with their doctors. Patients can also electronically schedule appointments, renew prescriptions and access laboratory results. Notably, they can also view who has accessed their data (Protti and Johansen, 2010).

1.4. Assuring the quality of inputs to the Australian health care system

Australia has good quality assurance mechanisms in place, and these are further strengthened by the NSQHS standards mandated for all hospitals and day procedure services. More robust national data collection specifically on safety and quality and improved consistency in reporting across jurisdictions would improve the evaluation of policies.

Australia is advanced in professional certification and continuing professional development of health practitioners

To achieve consistency across the country, Australia has adopted a national system for regulating health practitioners in 14 professions. Previously, states regulated health professionals in an inconsistent manner, creating complications when they moved to other states. In a bid to overcome this complexity, Australia introduced the National Registration and Accreditation Scheme (NRAS) in 2010.

The regulation of health practitioners is governed by the Health Practitioner Regulation National Law Act 2009 (the National Law). This has been established by states and territories through a national "applied laws" model enacted in each state. The national scheme aims to protect the public by ensuring only suitably trained and qualified practitioners are registered. It also facilitates the assessment of overseas-trained health professionals. The 14 professions covered by the NRAS are: chiropractors, dentists, doctors, nurses and midwives, optometrists, osteopaths, pharmacists, physiotherapists, podiatrists, psychologists, Aboriginal and Torres Strait Islander health practitioners, Chinese medicine practitioners, medical radiation practitioners and occupational therapists.

The Australian Health Practitioner Regulation Agency (AHPRA) oversees the scheme and provides support for the 14 National Boards. This national approach aims to better protect public safety, make it easier for health professionals to move around the country with less red tape, and promote a more sustainable workforce. To be registered to practise, health professionals must meet the standards set by their relevant board. AHPRA keeps national registers of health practitioners, including any conditions associated with their registration.

The National Boards investigate complaints about practitioners and, under the National Law, set regulatory policy parameters for each profession. This extends to responsibility for registering health practitioners who must meet mandatory standards in the English language, professional indemnity insurance, recency of practice, and criminal history. Another condition of registration is participation in a prescribed amount of annual continuing professional development (CPD). Notably, health professionals must renew their registration annually, and must declare on an annual basis that they have met these standards. AHPRA has a system of random audits to check practitioners' compliance.

Australia's move from a state-based to a national system, linked to annual CPD requirements, now makes it a leader in the OECD in the regulation of health professionals. It is also an example of what can be achieved when the federal and state and territory governments work collaboratively. Another innovation worthy of praise is an online register of practising and cancelled health practitioners. Employers and consumers can use it to check a health professional's registration status.

To maintain their registration, health professionals are expected to practise within the professional practice guidance documents (including registration standards, guidelines and codes) developed by the relevant Board. The guidance documents can vary among the Boards but include minimum standards that practitioners are expected to adhere to. These include guidance on advertising, mandatory notifications, professional conduct, sexual and professional boundaries, supervision and infection control. Professionals who breach any of the Boards' guidance documents can face disciplinary action if a complaint is lodged against them. More serious allegations can be referred to a tribunal. Consequences can vary between having conditions placed on registration, to temporarily or permanently losing registration. There is also scope for practitioners to face criminal charges if the allegations against them are of a criminal nature.

Credentialling is the process used to verify the qualifications and skills of health professionals, to gauge whether they can provide safe and high-quality care. A national standard for credentialling medical practitioners is being rolled out across Australia. Additionally, some states have their own policies for credentialling doctors in public hospitals. The focus of this work appears to be on doctors, but there is scope to extend it to other health professionals.

Individual medical colleges also play a role in training specialists and maintaining standards. For example, in addition to the CPD expectations of the National Boards, the Royal Australasian College of Surgeons has its own CPD requirements for its fellows. A certain proportion of fellows are randomly selected to verify their CPD data each year, to ensure supporting documentation matches the CPD data they provide to the College.

There are codes of conduct and professional guidance documents for the 14 health professions under the NRAS. Some Boards have scope of practice statements providing broad guidance to practitioners on how to practise safely and appropriately within their level of qualifications, taking into account their skills, knowledge and experience.

There are differing opinions, both within and between professional groups, about the definition of scope of practice, including understanding what is advanced practice and what is extended scope of practice. One view is that advanced scope of practice is taken to mean an increase in clinical skills, reasoning, knowledge and experience so the practitioner is an expert working within the scope of traditional practice. Extended scope is seen to include expertise beyond the currently recognised scope of practice. However, what specific skills are advanced and what could be regarded as extended is more difficult to define. There is also a terminology used, such as working to "top of licence", with the inference that this allows for the allocation of more routine tasks to lesser trained health care workers as part of the health care team.

In the present health care environment, there is an increasing focus on innovation and reform to gain efficiencies in health care delivery. There is also recognition that, with the need to enhance access to services in under-serviced communities, the roles and functions of different professional disciplines are increasingly being examined. This is a contentious area, with some stakeholders citing public safety as an issue when other professions try to increase or to formalise specific areas of practice for their discipline, such as the ability to prescribe medications. Governments, private health care providers, National Boards and professional associations all have a role in this area and it requires further exploration, co-ordinated action and the development of an evidence base.

As Chapter 3 discusses, the performance of clinical staff is also assessed as part of the new standards. The standards include provisions regarding the need to have a system to define and regularly review the scope of practice of the clinical workforce, and to ensure that the clinical workforce is working within its agreed scope of practice.

Regulation of pharmaceuticals and medical devices

Almost any product for which therapeutic claims are made must be entered on the Australian Register of Therapeutic Goods (ARTG) before it can be supplied in Australia. The ARTG is maintained by the Therapeutic Goods Administration (TGA), which is part of the Australian Government Department of Health, and is responsible for safeguarding and enhancing the health of the Australian community through the effective and timely administration of the Therapeutic Goods Act 1989.

The TGA focuses on the quality, safety, efficacy and timely availability of therapeutic goods that are used in, or exported from, Australia. This involves authorising new medicines and devices for supply and for monitoring the performance of medicines (including prescription medicines, over-the-counter medicines and complementary medicines) and devices (including in vitro diagnostic medical devices) that are available on the Australian market. The TGA is also responsible for regulating blood, blood products and other emerging biological therapies.

The TGA maintains this system by applying scientific and clinical expertise to assessing the evidence of risks compared with the benefits of use of therapeutic goods. This involves assessing new therapeutic goods before they are released on the market by following a risk-based approach to regulation (i.e. a new cancer drug goes through more complex processes than a new vitamin C preparation). Ongoing monitoring of, and compliance in relation to, products already on the market is also part of the regulatory scheme. Products found to be non-compliant are subject to regulatory actions, which range from undertaking recalls or issuing safety alerts, updating prescribing guidance (product information) to removing the product from the market by cancelling the entry on the ARTG. The TGA also inspects and licenses manufacturing sites in Australia and assesses the standard of overseas manufacturing sites.

These activities are supported by structured communication and education programmes and partnership activities tailored to consumers, health professionals and industry. These activities include making publicly available online databases of products authorised for supply in Australia on the ARTG, which includes links to Product Information and Consumer Medicines Information, a recall database, searchable adverse event reports for medicines and medical devices, medicine shortages and information on prescribing medicines in pregnancy.

The TGA also offers programmes to facilitate access to unregistered products, and their import into Australia. These include the Special Access Scheme and Personal Import Scheme, which provide approval on an individual patient basis. There is also the Authorised Prescriber Scheme, which provides approval to patients of specially authorised prescribers.

At a state level, regulatory measures may include state-based poisons legislation, which can offer varying access controls to Scheduled medicines. Each state also has a level of medication governance achieved through drug and therapeutic committees or overarching therapeutic advisory groups. While these groups act independently, they interact and share information at a national level through the Council of Australian Therapeutic Advisory Groups forum. Many states, through drug and therapeutic committees or therapeutic advisory groups, restrict medication access to specific indications or circumstances in an attempt to facilitate consistent, cost-effective and evidence-based prescribing practice. This is achieved in some states, including South Australia, Tasmania and Queensland, through a state-based formulary or approved medicines list.

Quality assurance of health care facilities is subject to national and state measures

As a means of driving improvement in safety and quality, all public and private hospitals and day procedure centres have to be accredited to the NSQHS standards. The standards are developed and maintained by the ACSQHC, which also approves agencies that can carry out the accreditation. These standards will be evaluated to determine what refinements are needed. They are discussed in more detail in Chapter 3.

Another key agency in quality improvement is the Australian Council on Healthcare Standards, a not-for-profit organisation. In addition to being authorised to accredit health services to the NSQHS standards, it has a history of promoting quality assurance through its long-running Clinical Indicator Program. It comprises 20 sets in areas such as anaesthesia, emergency medicine, paediatrics and radiology. Hundreds of public and private hospitals have voluntarily been involved in the programme, and receive reports comparing their performance with that of other hospitals. The aim is to improve quality through shared learning.

Policy work around quality is taking place against a backdrop of an improving culture of transparency, with the aim of encouraging reporting to maximise shared learning. For example, an ACSQHC report provides information on sentinel events covering all public hospitals and 99% of private hospital beds nationally (ACSQHC, 2011). However, the data are not stratified at a state or hospital level. The Steering Committee for the Review of Government Service Provision provides in its annual report data on sentinel events in public hospitals at a state level. The report, however, notes that the data are not comparable across jurisdictions. Consistencies in reporting would enable meaningful comparisons to be made across the states and provide a bigger pool of hospitals for benchmarking.

At a state level, hospital quality assurance differs around Australia. Most states and territories have clinical governance frameworks, and a range of policies and programmes to enhance safety, quality and performance.

Clinical audits can be a useful means of assuring quality

While there are requirements to conduct clinical audits included throughout the national standards, there are also different approaches adopted by the states. Western Australia, for example, has implemented a mandatory review of all deaths that occur in public hospitals and private health facilities that provide services for public patients. Queensland conducts an annual "Bedside Audit", where clinicians collect information on certain elements of care to gauge whether expected standards have been met. The state reports that this audit has led to improvements in practice in areas such as falls prevention, recognition and management of deteriorating patients, and medication safety.

At a national level, the Royal Australasian College of Surgeons makes it a requirement to participate in the Australian and New Zealand Audit of Surgical Mortality as part of the college's Continuing Professional Development programme. The college reports that surgeon participation increased from 60% in 2009 to 96% by the end of 2013. All public hospitals participate, while private hospital participation increased from 43% in 2009 to 89% in 2013. The aim is to achieve 100% participation by the end of 2015 (RACS, 2013).

The evidence suggests that clinical audits can influence quality improvement, but the way they are designed and carried out are important factors. A Cochrane Collaboration review measured the effect of audits and feedback mostly on doctors. Audits were used to influence doctors' performance in areas including the proper use of treatments, and the management of patients with chronic disease. The authors concluded that audit and feedback "generally leads to small but potentially important improvements in professional practice". Audit and feedback were most effective when health professionals were not performing well to start with, the person responsible for the audit was a supervisor or colleague, the feedback was provided more than once and given both verbally and in writing, and it included clear targets and an action plan (Ivers et al., 2012). To maximise possible benefits of clinical audits, they should be appropriately resourced, well designed and take into account the patient perspective.

1.5. Patient safety policies

The Australian Safety and Quality Framework for Health Care was endorsed by federal and state and territory governments in 2010 (Table 1.4). The framework describes a vision for safe and high-quality care, and how the vision can be achieved. It specifies three core principles for safe and high-quality care: that care should be consumer-centred, driven by information and organised for safety. It documents 21 areas of action that all health system staff can take to improve the safety and quality of health care.

Table 1.4. Australian Safety and Quality Framework for Health Care: Areas for action by people in the health system

Safe, high-quality health is always:		
Consumer-centred	Driven by information	Organised for safety
1. Develop methods and models to help patients get health services when they need them.	1. Use agreed guidelines to reduce inappropriate variation in the delivery of care.	1. Health staff take action for safety.
2. Increase health literacy.	2. Collect and analyse safety and quality data to improve care.	2. Health professionals take action for safety.
3. Partner with consumers, patients, families and carers to share decision-making about their care.	3. Learn from patients' and carers' experiences.	3. Managers and clinical leaders take action for safety.
4. Provide care that respects and is sensitive to different cultures.	4. Encourage and apply research that will improve safety and quality.	4. Governments take action for safety.
5. Involve consumers, patients and carers in planning for safety and quality.		5. Ensure funding models are designed to support safety and quality.
6. Improve continuity of care.		6. Support, implement and evaluate e-health.
7. Minimise risks at handover.		7. Design and operate facilities, equipment and work processes for safety.
8. Promote health care rights.		8. Take action to prevent or minimise harm from health care errors.
9. If something goes wrong, openly inform and support the patient.		

Source: Based on Australian Commission on Safety and Quality in Health Care (2010), *Australian Safety and Quality Framework for Health Care.*

At a state level, there are different approaches to monitoring and reporting patient safety incidents that occur in hospitals. For example, Western Australia introduced a Statewide Patient Safety Management System for reporting and analysing clinical incidents, including adverse events. Under this system, all deaths in the state's public hospitals and licensed private health care facilities providing services for public patients must be reviewed.

In South Australia, feedback from patients is regularly sought and entered into a Safety Learning System. Each year, the state publishes a Patient Safety Report, which is structured around the NSQHS standards. It includes information on policies promoting safety, sentinel events, maternal death or serious morbidity, hospital infections, and patient feedback.

Queensland formed the Health Patient Safety Board to monitor the performance of public hospitals, and to act when safety performance does not meet expected standards. Indicators that may trigger action include "never events" (discussed later in this chapter), hospital-acquired third and fourth state pressure injuries, hospital-associated staphylococcus aureus bacteraemia, and deaths in low-mortality Diagnostic Related Groups. These indicators have "trigger points" signalling when health authorities should initiate action. Queensland Health also monitors 34 clinical indicators monthly, using a statistical technique called Variable Life Adjusted Display. This helps staff monitor extraordinary events, and compare their results to others in the state.

Alongside national sets of data standards and national health reform, the states have developed their own patient safety monitoring, and clinical incident management systems. The establishment of these systems is acknowledged and commended, and it is recognised that they rely on voluntary reporting and are principally designed to foster local review, risk management and learning. However, the lack of alignment and consistency represents a missed opportunity for a larger dataset that may, in the medium or long-run, foster shared learning at a national level. Adopting a common approach to reporting on patient safety incidents should be considered, so that knowledge can be shared and health professionals may learn from these incidents at a national level.

An example of how national harmonisation works well can be seen in Australia's approach to reducing hospital-associated infections. The federal and state governments agreed to reporting on staphylococcus aureus bacteraemia (such as MRSA), and this information is available on a national website called "MyHospitals", which comprises hospital-level data and measures hospital performance on a range of indicators across Australia.

To help curb the incidence of hospital-acquired infections, a National Hand Hygiene Initiative was implemented. Hospital compliance data are collected three times a year from public and private hospitals, and publicly reported annually on the "MyHospitals" website. Evidence suggests this initiative is helping to change the culture of hand hygiene, with hospital participation and compliance rates both rising. In August 2009, data from 182 hospitals showed an average compliance rate of 63.5%. In October 2014, data from 828 hospitals showed an average compliance rate of 81.9% (Hand Hygiene Australia, 2014). This strengthens the argument that national consistency in initiatives promoting quality, and greater transparency, can often stimulate positive change.

Efforts have been made to make medication safety a priority

As the population ages and with it, the prevalence of chronic disease rises, it is likely that more people will be taking multiple types of medication to manage a number of conditions. The safe use of medicine is all the more important, to prevent interactions that may cause harm, and to reduce avoidable hospitalisations that are neither in the best interests of patients nor the health system.

A literature review on medication safety in Australia suggests medication-related hospital admissions remain stable at about 2% to 3% of all admissions. There were 9.3 million discharges from Australian hospitals in 2011-12, suggesting about 230 000 medication-related hospital admissions annually. With an average cost per discharge in 2011-12 of AUS 5 204, this suggests the annual cost of medication-related admissions is AUS 1.2 billion (Roughhead et al., 2013).

There appears to be a concerted national effort to make the safe use of medicines in hospitals a priority. Medication safety forms one of the NSQHS standards, as a condition of hospitals attaining accreditation. Health services are required to establish a governance framework for medication safety, assess the safety of their medication management systems and demonstrate a quality improvement approach to improving systems and rectifying any risks identified. This includes identifying high-risk medicines they use and ensuring they are stored, prescribed, dispensed and administered safely to minimise medication errors.

Australian federal and state and territory governments also agreed to implement a standard inpatient medication chart in all hospitals to reduce medication errors. ACSQHC conducts audits assessing compliance with the chart, and reports on this publicly. More than 240 public hospitals and 71 private hospitals participated in the 2012 audit of 13 880 patients' charts. While the audit demonstrated high levels of compliance with several aspects of the chart, there was poor compliance in areas such as complete patient identification, use of recommended abbreviations, documentation of indication, and practices regarding warfarin prescribing (ACSQHC, 2013b).

One innovation to improve hospital practice is the Medication Safety Self-Assessment for Australian Hospitals. It was originally developed by the Institute for Safe Medication Practices in the United States, and has been adapted by the New South Wales Therapeutic Advisory Group and the Clinical Excellence Commission for use in Australian hospitals. Hospitals enter data on a web-based programme to assess their medication practices, compare themselves to similar hospitals and identify opportunities for improvement (Clinical Excellence Commission). The tool is now being used in hospitals nationally.

Outside of the acute hospital setting, there are efforts to improve medication safety practices in community pharmacies. More than 90% of pharmacies are accredited in the Pharmacy Guild of Australia's optional quality assurance programme. The pharmacies are audited every two years, and compliance is monitored with random assessments.

Medication safety is a core component of the Quality Use of Medicines objective of Australia's National Medicines Policy. The federal Department of Health funds two independent, not-for-profit organisations to work to improve Quality Use of Medicines, including medication safety.

The National Prescribing Service (NPS MedicineWise) provides education and support for health care professionals and consumers in Quality Use of Medicines in Australia, and consults with academic experts to produce online learning resources and decision support tools. A number of these education programmes are aimed at improving medication safety and reducing medication errors. NPS MedicineWise also produces resources to enable consumers to keep a comprehensive record of all their medicines and to assist with the accuracy of medication histories taken on admission to hospital.

The National Return and Disposal of Unwanted Medicines programme provides a system for people to safely dispose of unwanted and out-of-date medicines through collection bins placed in community pharmacies throughout Australia. It is a partnership between government, pharmacies, wholesalers and consumers. In 2013-14, more than 700 tonnes of medicines were collected.

The low rate of health literacy in Australia should be improved as a priority

Health literacy refers to an individual's capacity and skills to access and understand information that helps them attain and maintain good health, and that informs decisions they make about their health care. Good health literacy can empower patients to play a lead role in making decisions affecting their health care. Poor health literacy, however, can place patient safety at risk. This is particularly pertinent when it comes to understanding instructions patients are given by their doctor, such as complying with instructions for medication use. It is also important in understanding what behaviours, such as tobacco and alcohol consumption, can increase the risk of disease. Education is a social determinant that can influence people's health outcomes. Therefore, strategies to improve health literacy need to take an intersectoral approach that goes beyond the health sector to include education and social services.

The most recent national survey in Australia indicates that in 2006, only 41% of Australian adults were assessed as having adequate or better health literacy skills (ABS, 2009). This demonstrates that health literacy in Australia should be considered a priority for improvement. It is all the more vital for groups such as Aboriginal and Torres Strait Islander people, who typically have poorer outcomes in both health and education. It is also critical for vulnerable refugee communities in Australia, and migrant groups who may have difficulty speaking English. The evidence indicates that social disadvantage is associated with both poorer health literacy and health outcomes. Health professionals need to be provided with training and support to effectively communicate complex information to patients. This is fundamental to promoting patient-centred care, self-management of chronic disease, and to enable patients to be active participants in decision making affecting their health care. Improving health literacy can help prevent disease, reduce adverse events, and reduce hospitalisations. Not only is this better for population health, it can also reduce health system costs by minimising safety incidents, thus reducing the need for subsequent health services.

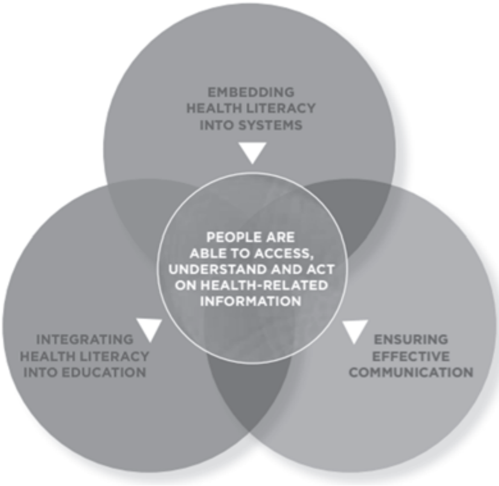
Health literacy is among the areas of action in the Australian Safety and Quality Framework for Health Care. Work undertaken by the ACSQHC indicates that while there has been much health literacy activity occurring, there has been little national co-ordination, and limited opportunity for organisations to learn from one another (ACSQHC, 2013a). It is also unclear the extent to which these programmes are being evaluated.

It is encouraging that Australia adopted a national approach to health literacy in 2014. The *National Statement on Health Literacy: Taking Action to Improve Safety and Quality* recognises the importance of addressing health literacy in a co-ordinated way across health, education and other sectors (Figure 1.9).

The ACSQHC intends to use the National Statement to raise awareness and foster a climate of national action and collaboration on health literacy. In addition, the ACSQHC will promote and provide resources for health care organisations to address health literacy at a local level. This will include emphasising linkages between health literacy and the NSQHS standards.

The National Statement could be accompanied by requirements to improve health literacy that apply in all the states and territories. For example, health services could be required to ensure that all health professionals have been trained in communicating complex information to patients. Community pharmacies also have an important role to play in communicating information about the safe use of medicines to consumers. There could be scope within the Quality Care Pharmacy Program to raise awareness of health literacy among pharmacies, and assess the extent to which pharmacies are providing accessible information about the safe use of medications.

Figure 1.9. A co-ordinated approach to health literacy



1. **Embedding health literacy into systems**
   This involves developing and implementing systems and policies at an organisational and societal level that support action to address health literacy. These systems could include altering funding mechanisms to encourage awareness and action on health literacy, implementing policies that prioritise health literacy in program planning, and designing healthcare organisations in a way that makes it easier for people to find their way.
2. **Ensuring effective communication**
   This involves providing print, electronic or other communication that is appropriate for the needs of consumers. It also involves supporting effective partnerships, communication and interpersonal relationships between consumers, healthcare providers, managers, administrative staff and others.
3. **Integrating health literacy into education**
   This involves educating consumers and healthcare providers and could include population health programs, health promotion and education strategies, school health education, and social marketing campaigns as well as formal education and training of healthcare providers.

Source: Australian Commission on Safety and Quality in Health Care (2014), *National Statement on Health Literacy: Taking Action to Improve Safety and Quality*.

It would be timely to conduct another national health literacy survey, as the most recent survey is almost ten years old. It would also be useful to measure health literacy in specific population groups, to determine the need and to help guide evidence-based approaches to improving health literacy among the most vulnerable populations.

1.6. Clinical care standards and guidelines

The ACSQHC has commenced developing a Clinical Care Standards programme for a number of common health conditions and interventions for which known practice variation exists despite consensus on appropriate protocols. This aims to maximise the appropriateness of care and reduce unwarranted variations – that is the overuse, underuse and misuse of various treatments. The standards are accompanied by indicators as a quality improvement tool. Standards have so far been developed for antimicrobial resistance, stroke care and acute coronary syndromes. Standards for other conditions are under development.

The National Health and Medical Research Council (NHMRC), the federal government body responsible for clinical guidelines, publishes annual audit reports on Australian clinical guidelines. The most recent report notes that clinical practice guidelines represent a significant financial and intellectual investment for government and the health sector. At any given time there are between 500 and 600 guidelines in circulation in Australia, covering a wide range of clinical topics and settings, and of varying quality and currency. However, the report concludes there are "ongoing serious and systemic problems in the way guidelines are funded and developed in Australia" (NHMRC, 2014).

Among the observations in the report, which is based on 1 046 clinical practice guidelines published between 2005 and 2013, is the fact that rates of declarations of conflicts of interest remain low – although this improved from 2% of guidelines in 2005 to 27% in 2013. Governments funded 22% of the guidelines in the report, but 60% of the guidelines contained no acknowledgement of funding, making it impossible to gauge how their development was funded. Only 11% of those funded and developed by government were published with documented evidence of a full systematic literature review, suggesting governments are funding guidelines where the evidence base has not necessarily been established.

The report also demonstrates that the patient perspective seems to be under-used in the development of clinical guidelines. Of all 1 046 guidelines published between 2005 and 2013, only 14% documented consumer involvement, 46% did not document consumer involvement, and 40% did not allow determination to be made on the information provided (NHMRC, 2014).

The existence of hundreds of clinical guidelines produced by numerous organisations seems to be causing confusion, while the extent to which they are useful is unclear. It is unknown the extent to which clinical guidelines are contributing to quality improvements in the health system, or better population health outcomes. The NHMRC notes that it is unable to identify the specific impact of clinical guidelines in the delivery of health care. This is worthy of some investigation. So, too, is the extent to which health services are using clinical guidelines to promote best practice in treating patients and to minimise unwarranted variations in care.

Problems with clinical guidelines have also been identified in work by the ACSQHC. As part of its consultation process about patient safety issues in primary care, the ACSQHC identified a range of competing guidelines and standards. Feedback obtained through this consultation process indicated that these guidelines have often been developed "by different agencies for different purposes using different evidence specification, collection and evaluation processes" (ACSQHC, 2011). This can lead to a situation where there are conflicting recommendations given for the same condition.

A more co-ordinated and evidence-based approach to developing clinical guidelines would help to alleviate some of this confusion, and minimise the risk to safety. In Australia, the NHMRC has a legislated role in the approval of guidelines meeting its guideline development standards. Guidelines granted NHMRC approval are recognised as representing best practice and the NHMRC publishes requirements for organisations to receive this approval. These requirements include systematic identification of the evidence, full disclosure of conflicts, and the inclusion of the perspective of the consumer specifically affected by the guideline.

While the NHMRC approval carries more credibility, it is not mandatory for developers of guidelines to obtain it and, as the NHMRC's own research demonstrates, poor practice in guideline development persists. There could be an opportunity for the NHMRC to play a greater role in enforcing standards of clinical guidelines, including a mandatory disclosure of conflicts and inclusion of the patient perspective.

It would also be useful to produce more guidelines that are not only disease-specific, but take in broader clinical pathways and multiple morbidities. This is in recognition of the fact that an ageing population will be associated with increased complexity and multiple chronic health conditions.

It is encouraging that the ACSQHC, NHMRC and the federal Department of Health have been working together to develop a national approach for future clinical guideline development, in recognition of the need to streamline the process. The new approach will:

1. Establish an agreed list of priorities for clinical guideline development by the ACSQHC based on agreed criteria that incorporate clinical need and practicality.
2. Refine the process of NHMRC consideration of externally developed clinical guidelines to enable a rapid and efficient approval.
3. Provide appropriate and clear guidance for guideline developers that ensures development of guidelines that are high quality, relevant and implementable.

While the majority of guidelines will be developed by relevant professional groups, they will be able to seek NHMRC approval through a streamlined process.

A more co-ordinated national approach to developing clinical guidelines should emphasise transparency as a key principle, with full disclosure of conflicts and the methodology of the guideline's development. The NHMRC report notes that there are guidelines being developed for use in specific jurisdictions that have the potential to be adapted for national use. Strategies to harmonise guidelines produced by states, when they have national relevance, should also be considered to minimise the risk of confusion and conflicting guidelines.

1.7. Managing health system improvement

Australia has made steady progress in placing quality and safety high on the policy agenda, and linking this to performance monitoring. The extent of national health system improvement can be monitored on two websites run by the NHPA. The MyHospitals website provides public and private hospital-level data, with the focus on a range of access indicators such as emergency department waiting times and waiting times for various types of surgery. However, quality of care information is sparse. Currently, the only safety and quality data reported relates to staphylococcus aureus bloodstream infections and hand hygiene. Much more could be included, such as the results of patient experience surveys, standardised mortality rates, outcomes of common procedures and interventions, and the results of hospital accreditation.

Hospital performance is also reported by the AIHW and the Steering Committee for the Review of Government Service Provision. Additionally, the jurisdictions produce their own reports, but there are disparities. For instance, in New South Wales, reporting of surgical site infection rates for hip and knee surgery is mandatory for public hospitals. In Victoria, hospitals and community health services are required to publish annual quality of care reports that include safety and quality indicators for infection control, medication errors, patient experience and consumer participation in decision making. Queensland publishes regular online public hospitals performance, which includes patient experience results. The annual reports in the Western Australian and Tasmanian health departments include information on unplanned readmission rates, and Western Australia also includes a section on patient evaluation of health services. South Australia publishes an annual patient safety report and an annual report on measuring consumer experience. In the Australian Capital Territory, quarterly reports include data on unplanned readmissions, unplanned returns to operating theatre and hospital-acquired infections. The Northern Territory Health Department's annual report has a chapter on clinical governance including information on complaints, hand hygiene, staphylococcus aureus bacteraemia and unplanned readmission rates (SCRGSP, 2015). As previously highlighted, the inconsistencies across jurisdictions make comparisons between the states and territories difficult.

At a primary health care level, the NHPA publishes comparative information about primary health organisations known as Medicare Locals (replaced by Primary Health Networks in July 2015) on the MyHealthyCommunities website. Much of the information relates to health service activity and access rather than quality. But unlike MyHospitals, the website does include information about patient experience through measures such as how often GPs listen and show respect.

The extent to which the public is aware of these websites is unclear, so it is hard to gauge their utility. Efforts to promote the existence of these resources should be made at a national level, and also through local health services.

There are few examples in Australia of hospital funding that drives improvements in safety and quality

Australian health service funding is mainly based on activity or outputs. This is in the form of fee-for-service in primary care, and activity-based funding for public hospitals. Quality and safety are not specifically taken into account in Australian national hospital financing, although paying hospitals a standard price for services can encourage technical efficiency. The ACSQHC and the IHPA have been exploring potential options to incorporate safety and quality into pricing of public hospital services. Australia is already providing non-financial incentives to hospitals to lift quality by publicly reporting on their performance. Incorporating quality considerations into pricing could be another performance incentive for consideration.

Incorporating safety and quality into pricing has already been introduced in some states, as described in Box 1.2.

The funding mechanisms of these states and others should be evaluated to assess what impact they have had on improving quality. This work could help inform policy regarding hospital pricing at a federal level. If the state reviews demonstrate there is merit in linking quality to hospital funding, there is potential for this to be applied in a nationally consistent manner.

Should Australia decide to go down this path at a national level, vigilance should be exercised to minimise the risk of data manipulation and fraudulent reporting to gain financial bonuses. The provision of financial incentives to improve hospital performance should be accompanied by regular audits to ensure that data are reported accurately.

Box 1.2. Factoring quality into hospital funding

Queensland authorities withhold payments for six "never events". These include:

- procedures on the wrong patient or body part resulting in death or major permanent loss of function,
- retained material after surgery requiring further surgical intervention,
- haemolytic blood transfusion reactions resulting from blood incompatibility,
- infants discharged to the wrong family,
- intravascular gas embolism resulting in death or neurological damage,
- entrapment in bedrails or other bed accessories resulting in death or major permanent loss of function.

Queensland Health has also defined two adverse events, for which there is a reduced payment based on estimates of the additional hospital costs of patients who acquire these conditions. Hospital-acquired bloodstream infections attract penalties of AUS 10 000, while stage 3 and 4 pressure injuries have penalties of AUS 30 000 and AUS 50 000 respectively.

Queensland Health also offers quality improvement payments in four areas:

1. achieving national elective surgery targets within the clinically recommended time,
2. meeting the target for the percentage of patients admitted as an emergency for the repair of fractured neck or femur to be taken to theatre within 48 hours of admission,
3. achieving national emergency access targets requiring 77% of all emergency department patients to have a length of stay of four hours or less, and 90% of all emergency department ambulance patients to be off stretchers within 30 minutes,
4. Improved access and quality of stroke care.

Western Australia uses a Performance-based Premium Payment Program to promote quality in hospitals. In 2013-14, incentive payments were paid directly to clinicians for best practice in the areas of fragility hip fracture treatment, stroke unit care, and acute myocardial infarction treatment. Eligible hospitals received AUS 200 for each patient who received "best practice".

In Tasmania, general practitioners contracted to provide medical services at rural hospitals receive payment to participate in safety and quality activities.

1.8. Strengthening the role and perspective of the patient

While other stakeholders are often more influential in shaping the policy-making process, there is universal acknowledgement that quality health care places the patient at the centre. This encompasses involving patients in decisions affecting their care and treatment, and improving health literacy so they may understand information affecting their health. Ideally, it should extend to empowering patients so they play a role in the policy-making process. The NSQHS standards include requirements to involve consumers in governance processes as well as their care.

The experience of patients is among the indicators in the National Healthcare Agreement for both hospitals and primary care. The Australian Bureau of Statistics collects population-level information about patient experience, but this survey does not permit comparisons between health services.

At a hospital level, the states and territories collect information about patient experience. However, the survey methodology differs between jurisdictions, making direct comparisons difficult. For example, in New South Wales, the Adult Admitted Patient Survey is a paper survey mailed to more than 6 000 patients each month. The survey can also be completed online, and in non-English languages, through an interpreter phone service. Victoria’s method is via email, if the patient has provided an email address, and a postal mail-out for other patients with the option of responding online. Queensland, South Australia and Western Australia conduct the survey by computer-assisted telephone interviews. The ACT does a mail-out survey (SCRGSP, 2015).

There is also wide variation in the survey response rate. In Victoria, the response rate was 21.6% for adult emergency department attendees and 37.7% for adult admitted patients, while Western Australia achieved response rates higher than 90% for adult admitted, emergency and long-stay patients (SCRGSP, 2015).

It is welcome that the ACSQHC has worked with the states, territories and private hospital sector to establish a set of core, common patient experience questions for Australian hospitals and day procedure services. When implemented, this should be mandatory for all hospitals, including private hospitals, to allow for hospital-level comparisons on the MyHospitals website. This is an important step to quality improvement because, as Box 1.3 demonstrates, measuring patient experience can have a positive impact on quality.

Box 1.3. Hospital improvements after measuring patient experience

- In the Australian Capital Territory, improvements include medication safety, clinical handovers, promoting patient-centred care, staff communication, admission and discharge process/continuity of care, reviewing IT systems for appointments, reviewing waiting times, infrastructure, planning and design of new service areas and a volunteer programme within aged care wards to enhance meal and nutrition experience.
- In Victoria, improvements include managing complaints, and patient discharge and follow-up processes.
- In Western Australia, improvements include reducing waiting times, access, appropriate storage for care plans, recording and cross-referencing food for allergens, communication and information sharing between staff and patients.
- In South Australia, improvements include routine dissemination of findings to appropriate levels of clinical governance in services, where action can be taken. Statewide issues such as mixed gender accommodation in health services were addressed through policy change.
- In the Northern Territory, Aboriginal liaison officers now have a dedicated room to meet with clients, there has been increased patient knowledge on health care rights, and improvements in the variety of available meals.
- In Tasmania, improvements include discharge practices, staff communication and the quality of information provided to patients.

Source: Australian Commission on Safety and Quality in Health Care (2012), *Review of Patient Experience and Satisfaction Surveys Conducted Within Public and Private Hospitals in Australia*.

Less is known about how health services perform with regards to cultural competence. An ACSQHC review of how patient experience is measured suggests surveys are not well catered to people with little or no English. Translated versions are generally not available. It cites the Northern Territory and Victoria as examples of jurisdictions that have made efforts to ease language barriers. The Northern Territory incorporates meaningful pictures and symbols into surveys. In Victoria, patient experience surveys are available in 16 languages other than English (ACSQHC, 2012). These two examples could form the basis for developing a nationally consistent and inclusive approach to measuring patient experience.

Protecting patients' rights

The Australian Charter of Healthcare Rights was developed by the ACSQHC, and endorsed by federal and state and territory governments in 2008. Its three guiding principles are:

1. Everyone has the right to access health care.
2. The Australian Government commits to international human rights agreements recognising everyone's right to the highest possible standard of physical and mental health.
3. Australia is a society of different cultures and the Charter respects these differences.

The Charter has been widely endorsed by stakeholders, and is promoted in public and private hospitals. The NSQHS standards include a requirement for organisations to have a patient Charter of Rights consistent with the national Charter.

The National Health Reform Agreement requires all the states to have a Public Patients' Hospital Charter accessible to everyone, including people from non-English speaking backgrounds and people with disabilities. The Charter must be promoted and made publicly available wherever public hospital services are provided. It has to set out the process by which people can make complaints to the hospital, and highlight that complaints may be referred to an independent body. It must also include a statement of a patient's right to be treated as either public or private patients in public hospitals – regardless of their health insurance status.

The Agreement also makes it mandatory for each state to maintain an independent health complaints body, with powers to investigate, conciliate, and adjudicate on complaints. These state health commissioners are independent from the previously discussed National Boards, which discipline health professionals for misconduct. To add the consumer perspective, all the Boards are required to include community representation. There is also scope for patients to seek compensation for medical malpractice through various state medical indemnity bodies.

Individuals who are unsatisfied with an experience they have had with a private health insurance fund can direct their complaints to the Private Health Insurance Ombudsman. This role was subsumed into the Office of the Commonwealth Ombudsman in July 2015.

Australian patient groups

There are numerous groups representing the interests of patients. The main consumer health groups are the Consumers Health Forum and the Australian Consumers' Association. They are actively involved in the policy-making process and provide regular public commentary on government policy.

In the state of Victoria, for example, the Health Issues Centre is an organisation that seeks to involve consumers in government committees and working groups, to encourage consumer participation in policy making. Most jurisdictions have similar organisations.

While not a patient group, the Clinical Excellence Commission in New South Wales works with health services on a "patient-based care challenge" to increase consumer engagement in governance and individual care. Its Partnering with Patients programme supports partnership with patients and family to improve safety and quality.

At a hospital level, the role of the patient is factored into the NSQHS standards. Hospitals need to show evidence of "partnering with consumers" as a condition of accreditation. Criteria to meet this standard include consumer partnership in service planning, designing care and improving the patient experience, and in service measurement and evaluation. Suggested outputs listed include consumer membership in key committees and/or boards, and the establishment of a "critical friends group" or consumer advisory group that provides advice to the hospital.

This is a good initiative, but could go further. An example is the Netherlands, where every hospital is obliged to have a "client council" made up of people such as former and current patients and their relatives. They aim to strengthen patient involvement by advising hospital management on issues affecting patients and quality of care. Mechanisms similar to this exist in many Australian jurisdictions. For example, health services in Victoria are required by legislation to have health consumer advisory committees.

All health services in every jurisdiction should be required to have "client councils" or something similar, to ensure that patient involvement is not merely symbolic, but a genuine consideration in hospital governance. This role should extend to other health and social services, such as long-term care, mental health services, and disability services.

Australia has several disease-based patient groups, with varying influence in the policy-making process. To survive, they rely on various funding sources, including pharmaceutical companies. With government funding limited, this reliance on commercial financing is unavoidable for smaller organisations. Their members do not have the capacity to fund them. It is a delicate balance, as patients rely on these groups for their voice to be heard. These groups should aspire to be independent, regardless of their source of funding.

Medicines Australia, the peak body for the pharmaceutical industry, makes specific reference to engagement with consumer health groups in its Code of Conduct. The guidelines were developed with collaboration from the Consumers Health Forum of Australia and other health consumer groups. Pharmaceutical companies must consider these principles when entering into relationships with health consumer organisations. The Code emphasises relationships with consumer health organisations should ensure independence is maintained, and be open and transparent. Under the Code, no drug company may request that it be the sole funder of a consumer organisation, or any of its major programmes. A company must not seek to influence the text of health consumer organisation material in a manner favourable to its own commercial interests. Each pharmaceutical company must supply Medicines Australia with a list of consumer organisations with which it has relationships. The information must include financial support and significant non-financial support, and the monetary and/or non-monetary value (Medicines Australia, 2014).

Medicines Australia publishes this information on its website, in the form of Health Consumer Organisation Support Reports. A brief report is provided for each pharmaceutical company comprising the name of the consumer organisation, the description and purpose of the support, and the monetary or non-financial nature of the support. This transparency is welcome and is important in helping consumers make informed decisions.

1.9. Conclusions

Australian federal and state and territory governments have demonstrated an interest in promoting the safety and quality agenda in health care. This is specifically referred to in legislation and national agreements, and is promoted through the mandatory accreditation of health services.

The commitment to quality and safety extends to health professionals and stakeholders, who seem to have widely welcomed the introduction of the NSQHS standards for hospital accreditation. The next step is to evaluate these standards and refine them. While progress on improving quality and safety in hospitals is more advanced, it has been given less consideration in primary health care. This needs attention, as a vast number of patients have their first encounter with the health system in primary care.

The complexity of Australia’s health system continues to pose considerable challenges. The division between federal and state responsibilities has the potential to disrupt continuity of care. It may also raise questions about accountability when there are breakdowns in quality of care. This can be exacerbated in cases where patients are using services that are split between the public and private sectors. National inconsistency on a range of measures, including the way in which states collect data and manage performance, is also an impediment to quality improvement.

More clearly defined responsibilities, and improved harmonisation on performance management, will ease some of these complexities and promote quality.

Note

1. A particularly striking example of this can be seen in the Australian Government's first budget in 2014. When state and territory governments requested a special meeting to discuss health and education funding cuts in the budget, the then Prime Minister is reported as having replied that the people of Australia expected "grown-up, adult governments in the states just as they now have a grown-up adult government in Canberra" (Grattan, 2014).

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Chapter 2

Strengthening primary health care in Australia

Australia has a fragmented set of primary and community health services that can be difficult for patients to navigate. Attempts at planning across governments and facilities are limited, making it difficult to design robust patient pathways from primary care to hospital, and back into the community. As the evidence suggests that the number of people suffering from one or more chronic diseases will increase, it will be critical for primary health care services to adapt to models of health care delivery that require co-ordination across several health professionals. Alongside this, efforts to improve the ability of patients to be more proactive about managing their health and avoiding serious health conditions could be implemented.

To achieve such a transformation to higher quality primary health care services, reform will be needed to the blunt mechanisms by which doctors are paid today. Accompanying this ought to be the collection of well-selected data that allows general practitioners to be benchmarked against their peers, to assess the quality of the services they provide.

2.1. Introduction

Increases in life expectancy over past decades have meant that people today are likely to live with a chronic health condition longer than ever before. This is not unique to Australia, but a challenge that most OECD countries are facing as they grapple with a tightening fiscal climate. Along with a growth in the number of people living with chronic disease shall be ever increasing numbers of people suffering from more than one condition. Combined with growth in the number of services and medical technologies, these pressures together suggest that health care will be the major source of future fiscal pressure.

As this century will herald people living with a health condition for a greater share of their lives, the importance of primary health care will only increase in importance. Primary health care offers an effective setting by which to help patients manage their condition and assist them in preventing complications that require a costly hospital admission.

A complex array of services and approaches to improving health can be considered within primary care and primary health care, including population-based health promotion and prevention strategies through to first-line care and support services. This review takes a relatively straightforward approach to the use of these terms, along with community health. Primary care and GP care are used interchangeably in this chapter, and the term community health care is used to refer to the variety of primary care and primary health care services that are largely provided by the states and territories, including maternal and child health services and drug and alcohol services. This review's focus has not been on important large-scale population-based health promotion programmes around lifestyle factors, where both federal and state and territory governments play a vital role.

The World Health Organization identifies the hallmarks of a good primary health care system as effectiveness, safety, patient-centeredness, comprehensiveness and integration, and continuity of care – with a regular point of entry into the health system making it possible to build trust between people and their health care providers (WHO, 2008).

With this aspiration in mind, this chapter provides an overview of primary health care in Australia, profiles existing challenges and discusses the implications for policy. Primary health care services in Australia are fragmented, making the co-ordination of care difficult for providers and leaving patients struggling to navigate their way through the system. There also exist inequalities in access and the cost of services. There is a need to instill quality improvement into the varied range of primary health care services in Australia. Doing so will require greater information and flexibility with financing mechanisms, so as to better inform and appropriately reward providers.

2.2. The Australian primary health care system

General practitioners in private practice act as health system gatekeepers

Responsibility for primary care services delivered by physicians in Australia rests predominantly with the federal government, reflecting the economic reality of the substantial payments made to GPs working in private practice. The federal government is also responsible for funding the majority of vocational general practice training in Australia through the Australian General Practice Training programme.

As with the United Kingdom, Denmark and Norway, Australia has a long established tradition of GPs as the first point of call. Around 85% of the Australian population visits a GP at least once a year (Britt et al., 2014). Patients do not have to enrol with a GP, and can attend multiple doctors should they choose to. GPs act as health system gatekeepers, providing referrals to specialists that are also subsidised by Medicare. Whether GPs or specialists, doctors are allowed to set their own fees, and patients are subsidised for the cost of these services through a fee-for-service system (Box 2.1).

For some GPs in rural areas, income from Medicare is supplemented by work in local hospitals that is reimbursed by state governments. Australia relies considerably on overseas-trained doctors to fill workforce gaps in rural areas, though governments over the past decade have been making efforts to increase the number of Australian medical students.

As in many other OECD countries, GPs are increasingly being assisted in their work by nurses. The most common in Australia is a “practice nurse”, who performs procedural support for doctors such as injections and dressings, and chronic disease management. In a survey, some 81.6% of GPs reported working in a practice employing nurses (Britt et al., 2013). In recent years, the federal government has changed payment arrangements for practice nurses to encourage GPs and groups of GPs that employ a nurse, rather than reimbursing their sessional involvement. This ought to help with their integration in primary care. However, there remain challenges in maintaining wage parity with nurses in the hospital sector.

Box 2.1. Medicare in Australia: How primary care services are financed

Medicare is Australia's universal health scheme. In addition to providing free services for patients in public hospitals, it provides subsidies to patients for consultations with GPs, medical specialists, and other health professionals through a fee-for-service system. The scheme was introduced in 1984, and is financed through consolidated government revenue.

Doctors have discretion over charges while patients are paid fixed amounts set by the government. In some cases, this can lead to patients facing out-of-pocket costs, where doctors' charges are higher than the subsidy – known as a "benefit". Where doctors' charges equal the benefit, this is known in Australia as "bulk billing".

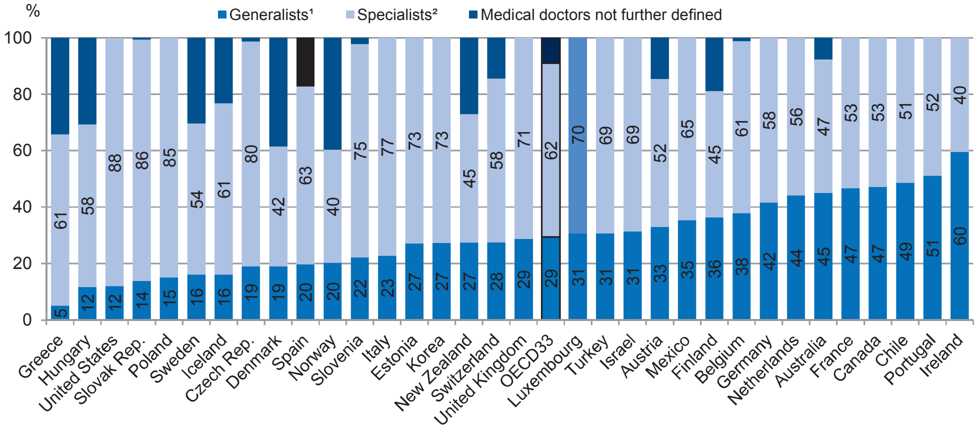
The Medicare Benefits Schedule (MBS), which lists the services subsidised by the government, is regularly updated. While there is no compulsion for GPs to bulk bill, most of them do so for at least some patients. GPs who bulk bill concession card holders and children under 16 are also eligible to claim an additional incentive payment, with a higher incentive available for services in regional areas. More than 80% of GP attendances are bulk-billed across Australia, so GP services for most patients are free.

Private health insurance is explicitly not allowed to cover GP out-of-pocket costs, assisting with reducing medical fee inflation.

The Extended Medicare Safety Net (EMSN) provides an additional rebate for out-of-hospital Medicare services once an annual threshold has been met. When that threshold has been reached, Medicare will pay for 80% of any future out-of-pocket costs for Medicare-eligible out-of-hospital services for the remainder of the calendar year. Some items have a cap on the EMSN benefits payable. From 1 January 2016, a new Medicare Safety Net will be introduced with lower thresholds for most people. There will be a limit on the amount of out-of-pocket costs that count towards the threshold. Once the relevant threshold has been reached, Medicare will pay up to 80% of any future out-of-pocket costs for out-of-hospital Medicare services for the remainder of the calendar year. However, there will be a maximum Medicare benefit payable for each service.

Compared with other OECD countries, Australia has a more even share of generalist and specialist doctors. Generalists (including GPs, family doctors and other non-specialists) comprised 45% of doctors in Australia in 2013, compared with an OECD average of 29.4% (OECD, 2015). The proportion of generalists in Australia is among the highest in the OECD (Figure 2.1).

Figure 2.1. Generalists and specialists as a share of all doctors, 2013 (or nearest year)



1. Generalists include general practitioners/family doctors and other generalist (non-specialist) medical practitioners.

2. Specialists include paediatricians, obstetricians/gynaecologists, psychiatrists, medical, surgical and other specialists.

3. In Ireland and Portugal, most generalists are not GPs ("family doctors"), but rather non-specialist doctors working in hospitals or other settings.

4. In Portugal, there is some double-counting of doctors with more than one specialty.

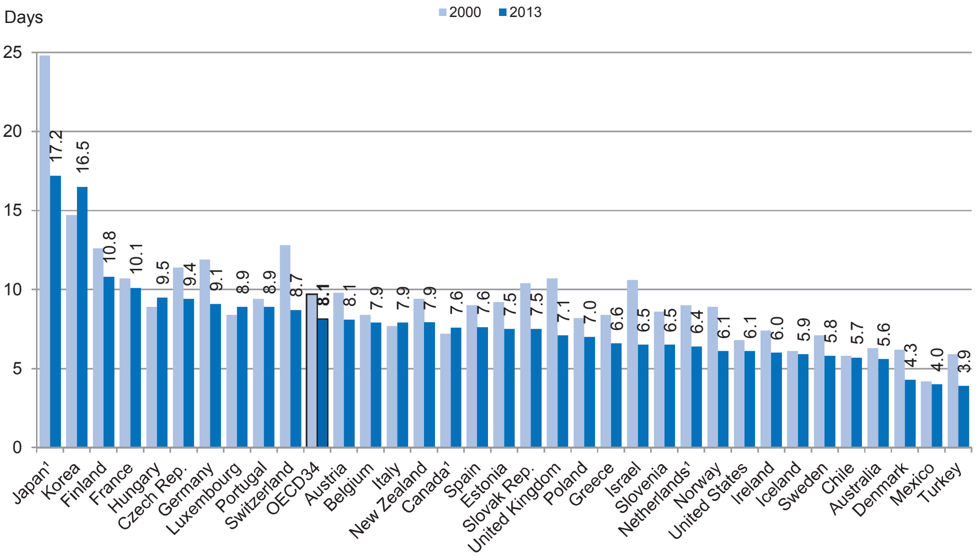
Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

The role of primary health care is likely to increase in importance in the future

As with most OECD countries, Australia is facing increased hospital activity. Australia had 9.4 million hospital discharges in 2012-13, of which 5.5 million were in public hospitals. Between 2008-09 and 2012-13, the number rose by an average of 3.6% per year (AIHW, 2014a). Demand for hospitalisation may grow as the population ages, and there is continuing growth in chronic disease. At the same time, the length of stay in hospital is declining, as shown in Figure 2.2.

In Australia, the average length of hospital stay fell from 6.3 days in 2000 to 5.6 days in 2012, reflecting an OECD-wide trend. It is also among the shortest lengths of stay in the OECD (OECD, 2015).

Figure 2.2. Average length of stay in hospital, 2000 and 2013 (or nearest year)



1. Data refer to average length of stay for curative (acute) care (resulting in an underestimation).

Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

This is likely to put more pressure on the primary health care sector to take on the care of more patients at an earlier stage of their recovery. The decision to release a patient earlier must be weighed up carefully against the risks. A hospital stay that is too short can have adverse effects on a patient's health outcomes. If this leads to a higher readmission rate, the costs per episode of illness may fall only slightly, or even rise (OECD, 2013). With this in mind, it is imperative that effective models of primary health care that prevent and manage disease and reduce reliance on expensive hospital care are in place.

There is also pressure for primary health care and for GPs to play a bigger role in the long-term health care of patients. With chronic diseases often implying that a patient will see multiple health practitioners, GPs are increasingly being asked to co-ordinate the care of more complex patients.

Australia has already made considerable efforts to reward doctors for engaging in mental health care. GPs provide referrals to psychiatrists, and can also provide referrals to psychologists and appropriately trained social workers and occupational therapists, which are partially subsidised by Medicare as part of a scheme that requires GPs to create a mental health treatment plan. The federal government also provides incentive payments to general practices and private psychiatrists who engage mental health nurses to assist in providing co-ordinated care for people with severe mental illness.

There has been a shift away from GPs working in isolation, in favour of larger multidisciplinary practices

Australia has experienced a shift towards GPs working in larger practices. The percentage of GPs reporting as working in a solo practice fell from 15.7% in 2004 to 12.2% by 2013, according to the National Health Workforce Dataset. This trend reflects changes in clinical practice and potential administrative efficiencies for doctors who choose to co-locate. There is an increasing importance given to group environments in primary health care services, particularly among the younger generation of GPs who prefer to work fewer hours and alongside colleagues. At the same time, government policies have tried to nudge GPs in this direction, with the introduction of a pay-for-performance scheme (the Practice Incentives Programme, see Box 2.3), requiring practices to be accredited. The costs associated with accreditation make it economically advantageous for GPs to move to bigger practices to share costs.

As well as consolidation among doctors, there has been a shift towards horizontally integrating general practices with other primary health services, such as allied health professionals. This approach seeks to encourage collaboration between different health care providers that might be involved in a patient's care and to make it easier for patients to draw on multiple services. Health services offering a comprehensive range of services increase the uptake and coverage of preventive programmes like cancer screening. They prevent complications and improve outcomes, facilitate early detection and prevent problems (WHO, 2008).

Allied health professionals play an important role in delivering services. For example, community pharmacies play a key role through the delivery of Pharmaceutical Benefits Scheme medicines and related services. Community pharmacies provide some primary health care services, usually in consultation with GPs and other health professionals. Pharmacies are involved in screening and testing, medication reviews and post-hospital care, and also provide advice to address the needs of specific population groups. The pharmacy sector has been advocating for an enhanced role and better use of pharmacists' skills in primary health care, such as in the provision of vaccinations (discussed in more detail in Chapter 4). In 2013, there were 426.3 full time equivalent allied health professionals per 100 000 population in Australia (SCRGSP, 2015). Allied health professionals may work in public and private hospitals, private practice, or in community health centres.

Government policy efforts have sought to accelerate the trend of consolidation, with the creation of "GP super clinics". The federal government has been providing financial support to encourage consolidation of practices and in some cases, funding the establishment of new clinics. These facilities co-locate doctors with allied health professionals, mental health practitioners, drug and alcohol services, specialists, practice nurses and dentists. In some cases, incentives have been provided to health professionals to work in these clinics. Evaluations of this policy (Box 2.2) suggest that these clinics have helped attract clinicians, but are not necessarily changing the model of care away from one focused around GPs.

Box 2.2. Evaluations of government support for consolidation of health care services under a single location

An early evaluation of seven "super clinics" found they appeared to be meeting unmet needs in their communities, and had prompted a net increase of GPs and allied health staff in these communities – not just a transfer from other local practices. Many clinicians indicated that the multidisciplinary model of care was a major factor in their decision to work in the clinics.

A more detailed analysis of 18 clinics by the Australian National Audit Office (ANAO) indicated most had achieved, or were making good progress towards achieving, measures including opening hours, bulk billing, service mix, future medical workforce training, and electronic shared patient records. Staff recruitment and retention were the most significant challenges. Despite more allied health professionals, GPs still accounted for about 72% of patient attendances at December 2012, with nursing and allied health professionals each accounting for 14%. However, in some clinics, more than 90% of presentations were for GPs, while at one clinic GPs accounted for only 30% of attendances and more than 50% were for nursing staff. The analysis did not indicate a trend supporting the government's objective of a shift towards more services being delivered by nurses and allied health professionals.

Source: Australian National Audit Office (2013), *Administration of the GP Super Clinics Program*; Consan Consulting (2012), *Evaluation of the GP Super Clinics Program 2007-2008*, Department of Health and Ageing.

Accreditation of primary health care services is voluntary, and general practices differ in their approaches to quality assurance

While accreditation of public and private hospitals is now mandatory in Australia, accreditation for general practice remains voluntary. About 75% of general practices in Australia participate in accreditation (RACGP and ACSQHC, 2014).

The accreditation process involves independent third-party review, in which practices are assessed against national standards developed by the Royal Australian College of General Practitioners (RACGP). There is wide variation in accreditation of other primary care services. For instance, accreditation is mandatory for community health services if they are required to access government or health insurance funding and if it is health department policy. At January 2008, 435 community services and 332 hospitals providing these services were accredited, although it is not known what percentage this represents (ACSQHC, 2008).

For most other primary care services, it is voluntary. Where accreditation is voluntary and not supported by incentives, few practices are accredited. For example, at January 2008 just 1.9% of physiotherapist practices were accredited, and 2.2% of optometrist practices (ACSQHC, 2008). With regards to community pharmacies, over 90% have been accredited against the Quality Care Pharmacy Program Standards (Pharmacy Guild of Australia, 2012). The quality assurance programme was developed by the Pharmacy Guild of Australia in 1997 in consultation with the Pharmaceutical Society of Australia and other industry stakeholders.

The aged care sector provides one example of mandatory accreditation. This information about individual facilities can be found on a website, which can help consumers make informed decisions.

Accreditation aside, many primary health services have implemented their own quality assurance systems, such as governance arrangements requiring the collection of information on safety and quality. These organisations use processes such as incident reporting, root cause analysis and safety indicators to inform their local risk management processes. However, it has been acknowledged that these types of tools are under-used in parts of the primary health care system (ACSQHC, 2011).

A number of quality assurance mechanisms exist, but practices are not compelled to use them. Practice-level safety and quality indicators developed by the ACSQHC are voluntary, and their level of uptake is not known. The Royal Australian College of General Practitioners (RACGP) developed its own set of 22 clinical indicators dealing with safety and quality of clinical care in general practice, but they are not intended to be linked to accreditation or used to measure performance, and they are voluntary.

There are challenges in accessing GPs across the country and outside standard working hours

Geography plays a significant role in determining access to GPs across Australia. This manifests in variations in out-of-pocket costs across the country, and access to GPs after hours. Compared with other OECD countries, Australia does poorly in terms of access to after-hours care. In a Commonwealth Fund survey of 11 countries, 54% of older Australian patients surveyed reported that obtaining after-hours care was somewhat or very easy. The proportion was lower in only two countries (Canada and Sweden), while this stands in contrast to the Netherlands (77%), the United Kingdom (71%), and France and New Zealand (69% each) (Osborn et al., 2014).

In part, these national results are likely to reflect significant variation in after-hours GP visits across the country, with after-hours visits ranging from 0.05 per person in the remote Kimberley-Pilbara and regional New England areas, to a high of 0.79 in suburban south western Melbourne in 2011-12. But even differences between metropolitan areas exist, with only 0.15 visits in the metropolitan area of Fremantle in Western Australia (NHPA, 2013c).

In a survey of Australian GPs, the proportion reporting they worked in practices providing their own after-hours services declined from 36% in 2004-05 to 31% in 2013-14. Fewer GPs reported working in practices providing after-hours services in co-operation with other practices (16% compared with 14%). However, the proportion of GPs working in practices solely using deputising services for the provision of after-hours care increased from 35% in 2004–05 to 47% in 2013–14 (Britt et al., 2014). Medical deputising services enable general practices to contract out the after-hours component of their patients' care to other practices.

The Australian Government has tried to deal with this issue by providing financial incentives for GPs to provide after-hours care. The government has also expanded MBS after-hours items, and reintroduced the after-hours incentive in the Practice Incentives Programme (PIP) in 2015. The government also provides funding to Primary Health Networks to support local after-hours services, with a focus on addressing gaps in service provision, at-risk populations, and improved service integration. GP and nurse-led telephone helplines also exist across the country.

Adding to the access challenge is wide discrepancies in out-of-pocket costs. In 2011-12, the proportion of people who delayed or did not see a GP due to cost in the preceding 12 months was highest in the Australian Capital Territory, where it was 13% (NHPA, 2013b). At the same time, the ACT had the nation's lowest percentage of GP attendances that were "bulk-billed", in which patients had no out-of-pocket costs, of 49.7% (NHPA, 2013b). This is well below the national bulk-billing rate of 82% (AIHW, 2014b).

The Australian Bureau of Statistics' Patient Experience survey indicates that of all people who needed to see a GP in the previous 12 months, 5.4% delayed or did not see a GP at least once because of the cost (ABS, 2013). Some GPs provide bulk billing only for particular patients – such as pensioners, the unemployed and children under 16 – while charging others a co-payment. This is in part due to incentives the government gives GPs to provide free services to more disadvantaged patients.

Payment for GP-led primary care services is dominated by a fee-for-service model that struggles to promote quality

As has been noted across several OECD countries, the sessional nature of payments under fee-for-service (FFS) encourages increased activity. FFS rewards practitioners based on the number and types of services they provide, with little incentive to promote quality. In Korea, for example, FFS is likely to be encouraging the oversupply of medical services and may be contributing to the higher number of doctor consultations (OECD, 2012b). In the United States, which spends more on health care than any other country, FFS creates an incentive for the overuse of medical services. This contributes to a high cost of health care, but does not equate to better health outcomes in the United States – which are the same or worse than many other countries that spend less (Emanuel and Fuchs, 2008).

Physicians paid on a FFS basis generally have an incentive to see more patients and to provide more services than salaried physicians, since their income is linked with the volume of services. This can mean that patients receive a higher number of services per episode of care. A review of four studies including 640 primary care physicians and more than 6 400 patients suggests FFS results in more consultations compared with capitation funding (Gosden et al., 2000).

With chronic disease becoming a more challenging issue in Australia, FFS is unlikely to be appropriate in cultivating high-quality care for these patients who require proactive and co-ordinated care with an emphasis on preventive aspects. There is limited research on the impact of time on quality of care. One review suggests that visit rates above three to four per hour may lead to suboptimal visit content, decreased patient satisfaction, higher patient turnover, or inappropriate prescribing. It could also mean reduced patient participation, education and preventive health measures. Meanwhile, physicians with longer consultation times ask more questions related to health history and psychosocial concerns (Dugdale et al., 1999).

FFS is unlikely to provide a setting in which doctors are encouraged to educate patients about self-management and devise primary and secondary prevention strategies. For instance, in a survey of Australian GPs, only 34% reported providing smoking cessation advice during every routine consultation with a smoker, in accordance with national guidelines (Young and Ward, 2001). With these considerations in mind, FFS may be appropriate for one-off episodic care in patients with low complexity, but is less suited to patients requiring support for one or more long-term conditions.

The Australian Government has sought to diversify funding for primary health care away from fee for service, with mixed results

Efforts have been made to move towards more blended payment systems. In 1998, the government introduced the Practice Incentives Programme (PIP), which sought to reward a range of activities considered to be associated with quality (such as cost-effective prescribing), or policies relating to the modernisation of operations (such as take up of eHealth initiatives). While they share a common payment delivery infrastructure, the PIP is more of a compilation of 11 different incentive programmes each with their own rationale, indicators and performance monitoring arrangements (Box 2.3). Practices may apply for as many of these as they wish, providing they meet eligibility requirements. PIP holds the worthwhile potential of reducing the overall financial risk to the health budget by increasing the share of funding that is capped rather than demand-driven. More importantly, it offers a means to diversifying financing away from simply the provision of a service, and linking it to desirable clinical activities.

In 2013-14, the Australian Government made PIP payments to around 5 400 general practices and 19 000 GPs. In 2008-09, the average PIP payment to a general practice was AUS 61 000, or AUS 19 700 per FTE GP in participating practices; 5% of practices averaged AUS 426 000 (ANAO, 2010). These payments are based on a formula that takes into account practice size, and the age and gender of patients. Nonetheless, the share of GP-related government expenditure by PIP decreased from 8% in 2002-03 to 5.5% in 2008-09 (ANAO, 2010), making it a relatively modest source of financing for the primary care system at large. PIP expenditure rose by 25% in the six years since 2002-03, while MBS expenditure on general practice and GP items increased by 86% (ANAO, 2010). Despite attempts to focus on disease-specific and outcome-based incentives, FFS by far remains the dominant approach to funding primary care.

Box 2.3. The Australian primary care Practice Incentives Programme

After Hours Incentive: Aims to support general practices to provide their patients with appropriate access to after-hours care.

Asthma Incentive: Aims to encourage GPs to better manage the clinical care of people with moderate to severe asthma.

Cervical Screening Incentive: Aims to encourage GPs to screen under-screened women (i.e. women aged 20 to 69 years who have not had a cervical smear in the previous four years) and to increase overall screening rates.

Diabetes Incentive: Aims to encourage GPs to provide earlier diagnosis and effective management of people with established diabetes mellitus.

eHealth Incentive: Aims to encourage practices to keep up to date with the latest developments in eHealth. To be eligible to receive the incentive, practices must meet a range of requirements to encourage the adoption of eHealth technology.

General Practitioner Aged Care Access Incentive: Aims to encourage GPs to provide increased and continuing services in federal government-funded residential aged care facilities.

Indigenous Health Incentive: Aims to support general practices and Indigenous health services to provide better health care for Aboriginal and Torres Strait Islander patients, including best practice management of chronic disease.

Procedural General Practitioner Payment: Aims to encourage GPs in rural and remote areas to maintain local access to surgical, anaesthetic and obstetric services.

Quality Prescribing Incentive: Aims to encourage practices to keep up to date with information on the quality use of medicines, and rewards participation in activities recognised or provided by the National Prescribing Service, which provides quality use of medicines education and support to health professionals.

Rural Loading Incentive: Participating practices with a main location outside capital cities and other major metropolitan centres are automatically paid a rural loading. The rural loading recognises the difficulties of providing care, often with little professional support, in rural and remote areas. The rural loading is higher for practices in more remote areas.

Teaching Payment: Aims to encourage general practices to provide teaching sessions to undergraduate and graduate medical students preparing for entry into the Australian medical profession, to ensure they are appropriately trained and have gained experience in general practice.

Source: Australian Government Department of Human Services (2015), "Practice Incentives Programme (PIP)", available at: www.humanservices.gov.au/health-professionals/services/practice-incentives-programme/?utm_id=9 (accessed 3 June 2015).

Today, only half the incentives under the PIP relate to driving improvements in the quality of clinical care. These are the incentives for diabetes, cervical screening, asthma, prescribing and Indigenous health. Four of these include the monitoring of outcomes; for example, the cervical screening incentive comprises a sign-on payment, an outcomes payment when at least 70% of eligible patients are screened in a 30-month period, and a service incentive payment to GPs for each cervical smear on an under-screened woman. The diabetes incentive includes a sign-on payment, an outcomes payment when at least 2% of patients are diagnosed with diabetes and GPs have completed a diabetes cycle of care for at least 50% of these patients, and a service incentive payment for each completed cycle of patient care. The Indigenous incentive also attracts outcomes payments when certain levels of care are provided, in addition to sign-on and patient registration payments.

The opt-in model of the PIP has been worthwhile in encouraging take-up to date, but having arrived at some scale, may now suffer from a selection bias among the practices choosing to participate. As practices can choose which incentives they wish to participate in, this may encourage participation in incentives that are easier to gain. The incentives related to chronic disease are harder to achieve and require more investment by practices, so may be less attractive to GPs. This is supported by an ANAO analysis, which found in 2008-09, incentives related to asthma, diabetes and cervical screening combined made up just 3.8% of payments to GPs, compared with 32.5% for payments related to the information technology incentive, which has since been replaced with the eHealth incentive (ANAO, 2010). More recently, in 2013-14, a little under half (47.3%) of practices participating in PIP had taken up the diabetes incentive (SCRGSP, 2015). However, it has been difficult to assess the extent to which PIP has improved quality (Box 2.4).

While the overall contribution of PIP to improving focus on the quality of care is difficult to measure, PIP does not have some of the worthwhile features that characterise pay-for-performance arrangements in other OECD countries. The PIP combines attempts to use financing to drive policy changes as well as desirable changes to clinical practice. However, the number of domains of clinical practice is quite limited, extending only to asthma, diabetes and cervical cancer. By contrast – as discussed later in this chapter – countries such as Israel and the United Kingdom have sought to develop a series of indicators that reach more aspects of clinical practice. The poor take-up among the three areas where PIP does touch on clinical practice is a cause for concern, particularly if they suggest that practices do not feel the clinical indicators are worthwhile.

Box 2.4. The impacts of the Practice Incentives Programme

PIP has been credited with increasing general practice accreditation, where Australia is a leader among OECD countries. To participate in PIP, a practice must be accredited against standards set by the RACGP. While PIP appears to be the primary reason for most practices attaining accreditation, this could also serve as a barrier to smaller practices. The PIP participation of solo practices was estimated at 34% at May 2009, compared with 67% of all practices (ANAO, 2010).

It has been difficult to gauge the extent to which PIP has improved quality, and a limited number of studies have sought evidence on this. The ANAO's analysis suggests that for quality prescribing, there was evidence of improvements, but the effect was limited by low take-up. For diabetes and asthma, there was evidence to indicate improvement to quality of patient care. There was also some evidence that PIP improved access to care (ANAO, 2010).

Another study assessed the impact of the incentive payment for diabetes management, as measured by the probability of ordering an HbA1c test (a test for glycated haemoglobin, which gives an indication of blood sugar levels). The study found the incentive has a positive impact on quality of care in diabetes management. The magnitude of the effect lies between a 15% and 20% difference in the probability of ordering an HbA1c test since the reform was introduced (Scott et al., 2008).

Still, a World Bank study concluded that the evidence that PIP has had an impact on quality of care and outcomes that justify its cost is limited. It found the almost AUS 3 billion spent on the programme since its inception seemed to be disproportionate to the overall results. There were modest impacts on service delivery and quality of care, but there were also serious concerns about PIP's role in exacerbating inequity between large urban practices and smaller practices serving disadvantaged populations (Cashin and Chi, 2011).

Other examples in Australia exist of alternatives to FFS, such as in the provision of mental health care where access may be more challenging. Under the Access to Allied Psychological Services (ATAPS) programme, GPs can refer patients to mental health professionals such as psychologists, social workers, mental health nurses, occupational therapists and Aboriginal and Torres Strait Islander health workers with mental health qualifications. Primary Health Networks act as fund holders for the programme. Additionally, the Mental Health Services in Rural and Remote Areas (MHSRRA) programme provides funding to Primary Health Networks and other non-government organisations to provide mental health services to rural communities with limited access to Medicare-subsidised mental health care.

Blended payment systems that take patient outcomes into account will better facilitate quality and co-ordinated care for people with chronic health conditions

Primary health care services that have the capacity to meet the needs of complex individuals should be backed by flexible payment systems that reward health practitioners for demonstrating optimal patient outcomes and quality. While FFS remains an effective means of reimbursing patients for visits to the doctor, there is considerable scope in Australia to shift the balance of funding. Payment systems should not encourage doctors to "cherry pick" patients who are young and healthy, and require less management than patients with multiple co-morbidities. Nor should they stifle innovative models of care. FFS comes with the benefit of being simple and rewarding productivity. However, the tendency towards higher volumes can be moderated through a greater proportion of funding linked to outcomes.

The current MBS allows for doctors to be reimbursed more for chronic disease management. Under such an arrangement, a GP develops a care plan for a patient that can include Medicare-funded referrals with up to five allied health professionals annually. About 97% of GPs used MBS chronic disease management items for care planning or case conferencing in 2013-14, up slightly from 96.1% in 2009-10 (SCRGSP, 2015). While the existence of such a scheme might have the implication of building in incentives for better care, the extent to which it has improved quality of care is difficult to gauge, as the MBS items are not linked to performance indicators or patient outcomes. In the case of diabetes, for example, only 25% of people with the condition received the annual cycle of care in general practice in 2012-13, up slightly from 22.7% in 2011-12 (SCRGS, 2014). Harris and Zwar (2007) argue that about half of patient care for those with chronic disease does not meet optimal standards – as demonstrated by the care of children with asthma, and adults with type 2 diabetes and hypertension. They cite among the key barriers to optimal care the dominance of FFS encouraging reactive rather than systematic care, and a lack of multidisciplinary patient care teams within general practice.

With these challenges in mind, Australia should build on the current PIP, and adopt a more robust blended payment system that rewards processes associated with more indicators of quality of care and better patient outcomes. Such an arrangement would allow governments to align funding with health system goals and patient outcomes, reducing the reliance on activity-based FFS. Importantly, financially rewarding practices for providing good multidisciplinary care, as opposed to individual GPs working in isolation through FFS, is more likely to drive quality gains.

OECD countries are increasingly adopting mixed payment schemes. In an OECD survey of 26 countries, 54% used mixed payment systems for primary care, and 42% reported using a FFS arrangement (Hofmarcher et al., 2007). The added benefit of blended payment systems is they appear to facilitate better care co-ordination. The authors of the study noted that countries perceived FFS payments in primary care as making care co-ordination problems in ambulatory care more likely. Mixed payment schemes in specialist ambulatory care made system-wide perceived problems of care co-ordination less likely. Yet relatively few countries encouraged care co-ordination on a contractual basis, and the use of financial incentives was infrequent. Only 31% often had explicit payments for care co-ordination at the primary-care level, and widespread application was limited (Hofmarcher et al., 2007).

In a bid to incentivise quality improvement, Australia is among a number of OECD countries that have experimented with pay-for-performance schemes (Box 2.5) through the PIP.

Despite the existence of PIP, outcomes-based payments rewarding practices that meet particular indicators remain under-used in Australia. As earlier mentioned, only a handful of PIP incentives include payments linked to outcomes. As part of a move towards a greater emphasis on a blended payments system in Australia, there is scope for PIP to be broadened and refined, with the inclusion of more quality indicators. The current existence of only 11 incentives is very limited. General practices should be required to do more than sign up to receive incentives; they should be required to meet a range of performance indicators demonstrating high quality of care. As discussed later in this chapter, other OECD countries have implemented a comprehensive performance framework that could be used as the basis for rewarding quality care.

It is welcome that the Australian Government has established a Medicare Benefits Schedule Review Taskforce to consider how services can be aligned with contemporary clinical evidence and improve health outcomes. Building on more robust blended payment systems could be considered as part of this review. The government has indicated it will also consider introducing a PIP quality improvement incentive to encourage general practices to better manage chronic disease.

Alongside new quality incentives, the existing PIP payments to support rural practice are vital and should remain. Efforts to boost uptake of the eHealth incentive should also continue, as a means to encourage the use of electronic health to improve care co-ordination through better sharing of information.

Box 2.5. International experience with pay-for-performance schemes

Since their inception in the United States, United Kingdom and Australia in the late 1990s and early 2000s, pay-for-performance schemes have become increasingly popular payment mechanisms for primary health care across the OECD. Pay-for-performance is more widely used in primary health care than in secondary care. Primary health care schemes operate in around half of countries, focusing mainly on preventive care and care for chronic disease. Design varies widely, ranging from relatively simple schemes in New Zealand (ten indicators) or France (16 indicators) to the complexity of the United Kingdom's Quality and Outcomes Framework (QOF) – the largest scheme currently in operation. QOF covers over 100 indicators in 22 clinical areas.

Given its scale, and the fact that it was a system-wide reform, much research has focused on the impacts of QOF. Gillam et al. (2012), in a systematic review covering 124 published studies, note that evaluation is complicated by lack of a control group and the difficulty of ascribing changes in clinical practice or outcomes (each with manifold determinants) to a complex intervention such as the QOF. Nevertheless, against a background of improving care generally, they report that quality of care for incentivised conditions during the first year of implementation improved at a faster rate than prior to QOF, although subsequently returned to prior rates of improvement. Given the cost of QOF (an extra GBP 1 billion per year), much debate has focused on its cost-effectiveness. Gillam et al. reported evidence of modest cost-effective reductions in mortality and hospital admissions in some areas, such as epilepsy. Of note, however, work by Walker et al. (2010) finds no relationship between the size of payments in a clinical domain (ranging from GBP 0.63 to GBP 40.61 per patient), suggesting substantial efficiency gains by reducing the upper spread of these figures.

In a review of 22 systematic reviews looking at pay-for-performance schemes internationally (not confined to primary care), Eijkenaar et al. (2013) find that P4P seems to have led to a 5% improvement in performance of incentivised aspects of care. Effects were generally stronger in primary care than in secondary care although, given the extent of variation in findings and the paucity of rigorous study designs, the authors conclude that there is insufficient evidence to support or not support the use of pay-for-performance in the quality of preventive and chronic care in primary care.

Beyond clinical effectiveness and efficiency measures, pay-for-performance schemes have been associated with improvements such as narrowing of the quality-gap between deprived and non-deprived areas (Doran et al., 2008); systems strengthening by expanding use of practice-based IT, patient registers, call-recall procedures and audit; and expansion of nursing roles and competencies, including better team working. They may also support better dialogue between purchasers and providers, promote broader public debate and thereby clarify the objectives of primary care services (Cashin et al., 2014). Some evidence of negative effects, such as deprioritisation of non-incentivised activities or a fragmentation of the continuity of care, have also been noted.

Pay-for-performance in primary health care should not be seen as the ideal or only payment system, but a potentially useful tool in a blended payment system, particularly where it might spur other activities such as development of quality indicators and better monitoring. As stated in an editorial cautioning against over-enthusiastic adoption of the schemes, "the choice should not be P4P or no P4P, but rather which type of P4P should be used and with which other quality improvement interventions" (Roland, 2012). Fundamentally, pay-for-performance should be seen as part of the means to move toward better purchasing (including, in this case, GPs' time), in which quality plays a more prominent role.

Source: OECD (2014), "Primary Care Physicians in Norway", *OECD Reviews of Health Care Quality: Norway 2014: Raising Standards*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264208469-6-en.

Australia's health system features a division between primary care and community health that is unusual

Australia's unique split of federal-state boundaries makes a distinction between "primary care" and "community health" that is unusual among OECD countries. In broad terms, this emerges as the federal government has responsibility for the reimbursement of GPs and for Aboriginal medical services that provide primary care. Meanwhile, a range of specialist health functions that are generally undertaken in the community – such as drug and alcohol services, mental health and maternal and child health – are the responsibility of state and territory governments. There is, too, variation among the states as to the community health services they provide. The states are simultaneously responsible for running public hospitals, which accounts for the bulk of their spending and organisational focus on health. The explanation for this distinction has its origins in the history of federal-state financial relations (Box 2.6).

The Australian distinction between "primary care" and "community health" is unique among OECD countries, even those with a federal governance structure. In Austria and Germany, both primary care and community health services are run by self-governing regional associations. In Belgium and Switzerland, the responsibility falls under the regional governments, and there is no split between primary care and community health. Canada shares Australia's policy of making the health of the Indigenous population a federal responsibility but otherwise locates both primary care and community health services with its regions. Finally, in Mexico, state governments manage primary care and community health, with most of the latter funded at the federal level and provided by the same state level services that provide primary health care. The exception to this is those covered by social security (Table 2.1).

Australia's unusual split of responsibilities complicates planning across "primary care" and "community health" services that work closely together in other countries. Supervision by different levels of government can manifest in entirely avoidable difficulties for patients. Some of these challenges include different eligibility and payment arrangements, the poor transfer of health information and the irrational location of facilities at a community level. As one example, among those surveyed in Australia who had seen three or more practitioners, 12.8% reported that there were issues caused by a lack of communication between health professionals (ABS, 2013). More substantially, with state governments dominated by their hospital responsibilities, it may bias the care provided through community health facilities towards pre- and post-hospital step-down services for more acute patients, rather than identifying and intervening early. There are, however, examples of states, such as Victoria, where community health services have a strong focus on prevention as well as on improving the health of disadvantaged populations.

Box 2.6. Community health in Australia

The federal government established the Community Health Program in 1973. Its aim was to develop a national network of primary care services with multidisciplinary teams, including primary medical care. The federal government later introduced a less centralised model and by 1981, it had rolled community health funding into block grants to the states and territories – effectively ending its involvement. When Medicare was established in 1984, the role community health centres played in providing access to GPs became very limited.

The present system, as described by the National Healthcare Agreement, recognises that the states and territories fund community health, and provide public health, community health, public dental services, and deliver vaccines purchased by the federal government under the national immunisation arrangements and health promotion programmes. There are, however, variations across the states and territories in the delivery of community health services. Meanwhile, the federal government funds private medical care and community-controlled Aboriginal and Torres Strait Islander primary health care services, and will seek to ensure equitable and timely access to affordable primary health care, predominantly through general practice.

This split in responsibilities has been criticised as promoting fragmentation and complicating co-ordination across health facilities.

In recent years, the federal government has sought to take financial responsibility for community health services. Under the National Health and Hospitals Network Agreement, this would have given the federal government full funding and policy responsibility for GP and primary health care, and made the states “key partners supporting the Commonwealth’s responsibility for system-wide GP and primary health care policy and service planning co-ordination”. However, this policy was abandoned due to a lack of national agreement.

Source: Australian Government Department of Health and Ageing (2009), *Primary Health Care Reform in Australia,* (Information taken from Paul Laris and Associates (2002), *Community Health Centres in South Australia: A Brief History and Literature Review*, Report commissioned by the Generational health review, available from: www.library.health.sa.gov.au/Portals/0/community-health-centres-in-south-australia-a-brief-history-and-literature-review.pdf (accessed June 2009); and Australian Academy of Medicine & Surgery (2000), *Health Funding and Medical Professionalism – A Short Historical Survey of the Relationship Between Government and the Medical Profession in Australia*, available from: www.aams.org.au/contents.php?subdir=library/history/funding_prof_med_au/&filename=index (accessed June 2009); Council of Australian Governments (2010), *National Health and Hospitals Network Agreement*; Council of Australian Governments (2012), *National Healthcare Agreement 2012.*

Table 2.1. Primary care and community health arrangements in OECD countries with a federal governance structure

Country	Primary care and community health
Austria	Apart from hospitals, health care provision is organised by negotiations between the social insurance institutions and the professional or statutory representatives of the service providers. The federal government defines the legislation for outpatient care. Competencies are delegated to membership-based insurance associations and service providers that operate in the form of self-governing organisations.[1]
Belgium	The regions are responsible for primary care. There is no distinction between primary and community health.
Canada	Primary care and community health are the responsibility of provincial and territorial governments. The exception is the federal government provides some primary and/or community health services to certain "federal populations", which may include members of the armed forces, veterans, some Aboriginal people, and inmates in federal correctional facilities.
Germany	The self-government of physicians (National Association of Statutory Health Insurance Physicians and regional Associations of Statutory Health Insurance Physicians) is responsible for organising and guaranteeing outpatient care and primary health care, including mental health and child and maternal health. Self-government is organised regionally. The legal framework is defined at a federal level and specified under law by the partners of self-government. In general, community health services are limited to official medical services, health monitoring, health promotion, implementation of the Infection Protection Act and hygiene monitoring.
Mexico	State governments manage primary care (including maternal and child health and drug and alcohol services), and community health. Community health can include all health promotion campaigns and activities, injury prevention policies, epidemiological surveillance, illness prevention campaigns and actions and prevention and control of addictions. Most community health is funded through the Ministry of Health at the federal level and provided by the same state level services that provide primary health care. The exception is that for the population covered by social security (about half the population), primary care is provided by family medicine clinics, funded and controlled at the central level through regional offices.
Switzerland	Provision of primary care is generally organised at the cantonal (regional) level. There is no division between primary care and community health.

1. Hofmarcher, M.M. and H.M. Rack (2006), "Austria: Health System Review", *Health Systems in Transition*, Vol. 8, No. 3, pp. 1–247.

Of particular concern is poor communication between facilities funded by federal and state governments. For example, in a Commonwealth Fund survey of 11 countries, 19% of Australian respondents reported experiencing a medical, medication or lab error. While six other countries reported proportions of 20% or higher, it is in contrast to the 8% reported in the United Kingdom and the 9% reported in Switzerland (Schoen et al., 2011). In an earlier survey by the same authors, the likelihood of error increased with the number of health care providers seen. Of the Australians who saw one doctor in the previous year, 15% reported an error, and the figure almost doubled (27%) for those who saw three or more doctors. The likelihood of error also increased with the number of chronic conditions – 19% of respondents with one condition reported an error, compared with 26% of those with two or more (Schoen et al., 2007). While errors are not always necessarily due to poor communication between health providers, the risk of error seems to increase with diagnoses, along with the number of health practitioners a patient visits.

Mental health is another area that has suffered from relations between Australian federal and state authorities, and where this fragmentation is particularly evident (Box 2.7).

Box 2.7. Fragmentation of mental health services

Like many OECD countries, Australia has moved towards deinstitutionalisation of mental health services. While this shift away from institutions towards care in the community is laudable in terms of reducing stigma, it is also recognised to have brought occasional unintended consequences of homelessness, inappropriate incarceration and difficulties in accessing care in the community.

Today mental health services are split across two levels of government. The states provide acute mental health care in psychiatric wards in general public hospitals – which are jointly funded by the federal and state governments. The states also provide specialised, clinical and community-based mental health services for people with severe and persistent mental illness. Other responsibilities are some prevention programmes, community support such as housing, disability services, drug and alcohol services, police, and corrections.

The federal government funds medical care with GPs and psychiatrists through Medicare, for people with common mental health issues such as mild or moderate anxiety and depression. It also established a scheme providing Medicare funding for allied health professionals such as social workers and psychologists, if a GP prepares a mental health treatment plan. This can sometimes place those in rural areas at a disadvantage as it is harder to access a GP. The federal government also subsidises medication and provides some community and social support services in partnership with non-government organisations. It provides income support for people with a mental illness.

The existence of multiple successive national mental health agreements between federal and state governments has done little to ease the system's fragmentation. The present system means a vulnerable patient with a mental illness can be discharged from hospital to no particular service, and then be left to seek out care in the community provided by an array of federally and state-funded providers.

Efforts to co-ordinate services across both levels of government have been hampered by a failure to establish a nationally agreed picture of the scope of each government's responsibilities and their accountabilities. The National Mental Health Commission notes that – unlike Canada and New Zealand – Australia has no nationally agreed picture of what a good mental health service framework should look like and how it should be resourced. Such a framework would give a clear view of the appropriate coverage, levels and range of mental health services needed. The Commission also notes that at a national level, data are not collected to measure whether evidence-based mental health care is being provided, or the services available to support people in their recovery. Nor is information collected on the experience people with a mental health condition have in the system.

Efforts are being undertaken through the Council of Australian Governments to improve this situation, with a view to establishing a new national mental health plan.

Source: Council of Australian Governments (2012), *The Roadmap for National Mental Health Reform 2012-2022*; National Mental Health Commission (2012), *A Contributing Life: the 2012 National Report Card on Mental Health and Suicide Prevention*.

Through its history of federal-state financial relations, Australia has arrived at a split between "primary care" and "community health" that is not rational from a health policy perspective. The experience of other federal OECD countries suggests that there exist potential benefits in planning and regulating these services under the same level of government. The present system means that attempts to co-locate services can involve an unnecessarily complex process engaging two levels of government. It also promotes a culture of health services working independently of each other. Australia's health system operates in an environment that promotes the existence of these siloes. The continuing split between primary care and community health also undermines attempts to promote the role of the GP as the care co-ordinator.

Australia should consider removing the distinction between primary care and community health, and handing responsibility for all primary health services to the states and territories, to improve the interface with hospital services. Under such a move, the states would act as regional commissioning agencies for health care in Australia. This would help promote the co-ordination of care for patients who currently move between state-managed acute hospitals and community health services, and primary care.

This shift will require a major upheaval of federal and state financial relations, and a careful consideration of the transition and management of risk given the current open-ended nature of the Medicare system. Such a move is likely to be very challenging, will take time, and will require the co-operation of governments and a sincere willingness to achieve reform that will be in the best interests of patient care. The move to align new Primary Health Networks with existing Local Hospital Networks could help facilitate further structural and funding reforms that bring more responsibility for service delivery to the states. Efforts can then be made to promote primary health care services that are shaped around the needs of patients.

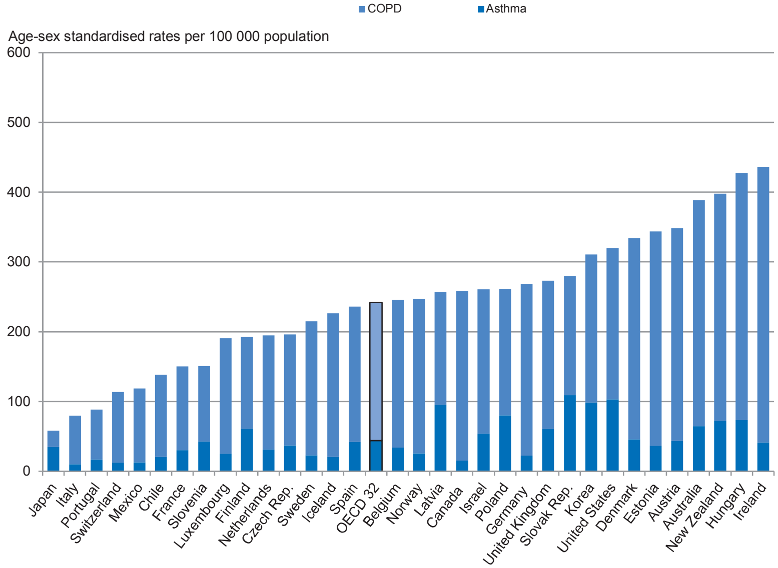
2.3. Primary health care outcomes in Australia

The few partial indicators available at an international level suggest there is scope for improving primary health care services in Australia

Data submitted to the OECD's Health Care Quality Indicator project show that hospital admission rates for asthma and chronic obstructive pulmonary disease (COPD) – an indirect measure of the quality of primary care for these conditions – are higher in Australia than for the majority of the OECD (Figure 2.3). Of note, rates are not standardised for background prevalence of the condition or other factors that are likely to influence admission rates such as, in this case, international variation in smoking rates.

By contrast, hospital admission rates for diabetes in Australia are below the OECD average (Figure 2.4).

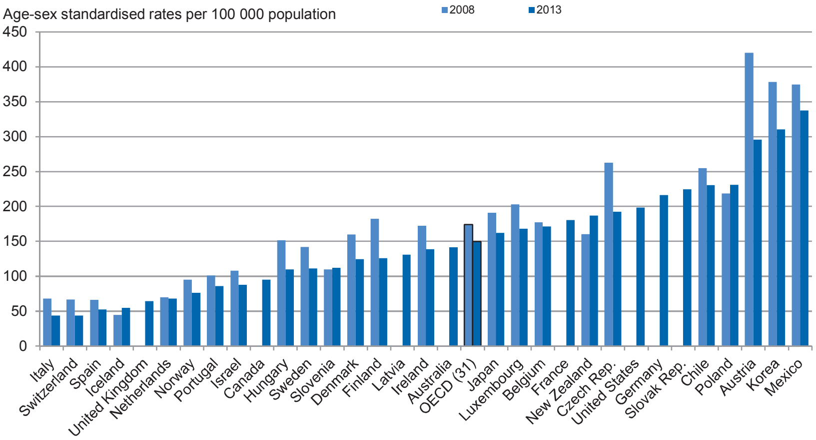
Figure 2.3. Asthma and COPD hospital admission in adults in OECD countries, 2013 (or nearest year)



Note: Three-year average for Iceland and Luxembourg.

Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Figure 2.4. Diabetes hospital admission in adults in OECD countries, 2008 and 2013 (or nearest year)

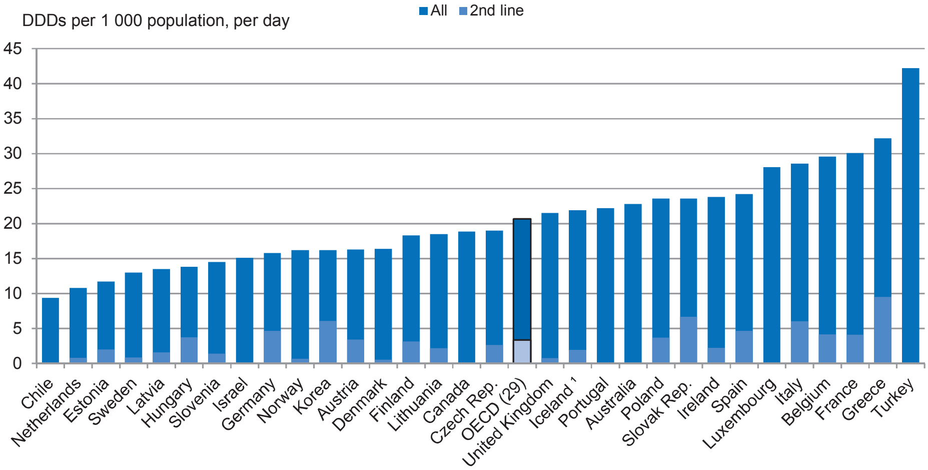


Note: Three-year average for Iceland and Luxembourg.

Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Practices around antibiotic prescribing in primary care can be considered an indicator of quality of care. There is international recognition that the volume of antibiotics prescribed is correlated with the spread of resistant bacterial strains, and can increase antibiotic resistance in the community. As shown in Figure 2.5, Australia's overall volume of antibiotics prescribed, of 22.8 defined daily dose (DDD – the assumed average maintenance dose per day for a drug used for its main indication in adults) per 1 000 population per day, is higher than the OECD average of 20.7 (OECD, 2015).

Figure 2.5. Overall volume of antibiotics prescribed, 2013 (or latest year)



1. Data refer to all sectors (not only primary care).

Source: European Centre for Disease Prevention and Control 2015 and *OECD Health Statistics Database 2015*, www.oecd.org/els/health-systems/health-data.htm.

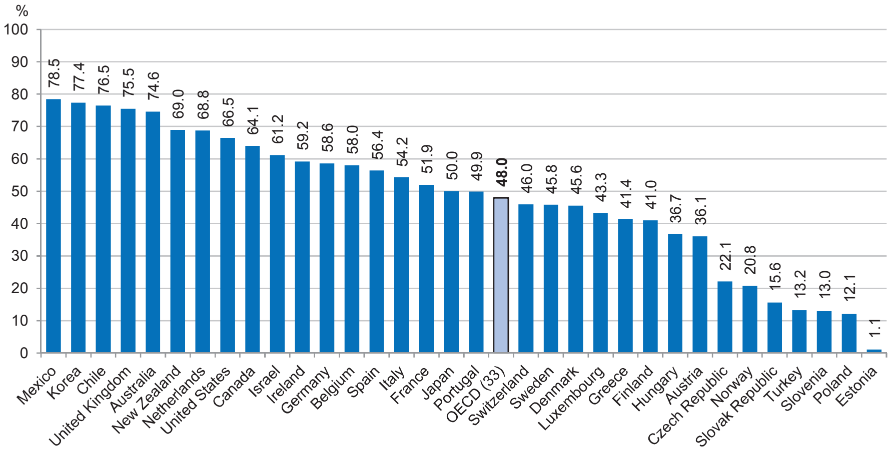
The Australian Institute of Health and Welfare observes it is not clear why the volume of antibiotics prescribed in Australia is higher than the OECD average. Programmes aimed at tackling antibiotic resistance and reducing infections in primary care and hospitals exist, but there is no systematic monitoring of antibiotic prescribing in primary care (AIHW, 2014b).

There is strong evidence that vaccines provide safe and effective protection against diseases such as diphtheria, tetanus, pertussis (whooping cough), measles and hepatitis B. Most OECD countries have childhood vaccination programmes. The proportion of children protected from these diseases as part of childhood vaccination programmes can be considered an indicator of quality in primary care. In 2013, 94% of Australian children aged around 1 were vaccinated against measles, the same as the OECD average. Additionally, 91% of Australian children aged around 1 were vaccinated against diphtheria, tetanus and pertussis, compared with an OECD average of 95%. Australia achieved 91% coverage for vaccination against hepatitis B for children aged around 1, compared with the OECD average of 92% (OECD, 2015).

The Australian Government has sought to increase immunisation coverage by – from January 2016 – removing "conscientious objection" as a valid reason for vaccination exemptions, in order for families to continue to receive certain family assistance payments. Exemptions for approved medical conditions will continue to apply (Australian Government Department of Human Services, 2015).

Influenza is a common infectious disease that can have a significant impact on health systems, and young children and the elderly are among the most vulnerable. In industrialised countries, most deaths associated with influenza are among people aged 65 or older (WHO, 2014). In 2003, countries participating in the World Health Assembly committed to the goal of attaining vaccination coverage of the elderly population of at least 50% by 2006 and 75% by 2010 (World Health Assembly, 2003). Few OECD countries have achieved this target (Figure 2.6). At 74.6% coverage, Australia just falls short, and is among the better performers in the OECD (OECD, 2015).

Figure 2.6. Influenza vaccination coverage, population aged 65 and over, 2013 (or nearest year)



Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Significant variations in health outcomes can be seen at a more local level

In the three years from 2009 to the end of 2011, more than 33 000 Australians died prematurely on average per year from causes that might have been avoided through better prevention or medical treatment. These deaths accounted for 66% of all deaths before the age of 75 (NHPA, 2013a). These potentially avoidable deaths were more than three times higher in rural central and north west Queensland (316 deaths per 100 000) compared with the lowest rate in inner east Melbourne of 96 deaths per 100 000 (NHPA, 2013a).

The rate of potentially preventable deaths – which could have been prevented through better preventive health activities such as screening and healthier lifestyle habits – was highest in rural central and north west Queensland (206 deaths per 100 000) and lowest in northern Sydney (53 deaths per 100 000) (NHPA, 2013a). The most common causes were lung cancer, ischaemic heart disease and suicide and self-inflicted injuries.

The rates also varied for potentially treatable deaths – which might have been avoided through better therapeutic interventions like surgery – which ranged from a low of 41 deaths per 100 000 people in inner east Melbourne to a high of 110 deaths per 100 000 people in rural central and north west Queensland (NHPA, 2013a). The most common causes were ischaemic heart disease, colorectal cancer and breast cancer.

Chapter 1 documents the differences in life expectancy in different parts of Australia, and the gap between Aboriginal and Torres Strait Islander people and non-Indigenous people. Significant variations also exist in other indicators of health status. This data present an opportunity to inform prevention strategies at a local level.

The proportion of Australians who rate their health positively also significantly differs across the country. In 2011-12, 92% of people living in the Sydney north shore and beaches area reported they were in excellent, very good or good health, but the figure dropped to 77% in rural southern South Australia. That region also had the highest proportion of people reporting they had a long-term health condition (60%), while the lowest proportion (34%) reporting they had a long-term health condition was in inner west Sydney (NHPA, 2013b). Chapter 4 discusses in greater depth the poorer health outcomes in rural and remote Australia.

Patients' experience of primary care appears to be good, but more information is needed

There is insufficient information on the experience of patients in primary health care. What is known indicates that when it comes to ambulatory care, Australia fares better than the OECD average when it comes to whether patients think doctors spend enough time with them (86.5% compared with 84.9%), give patients an opportunity to ask questions or raise concerns (88.3% compared with 85%), and involve patients in decisions about their treatment (86% compared with 81.3%). Australia trails the OECD average on patients reporting their doctor provides easy to understand explanations (85.9% compared with 87.9%) (OECD, 2015).

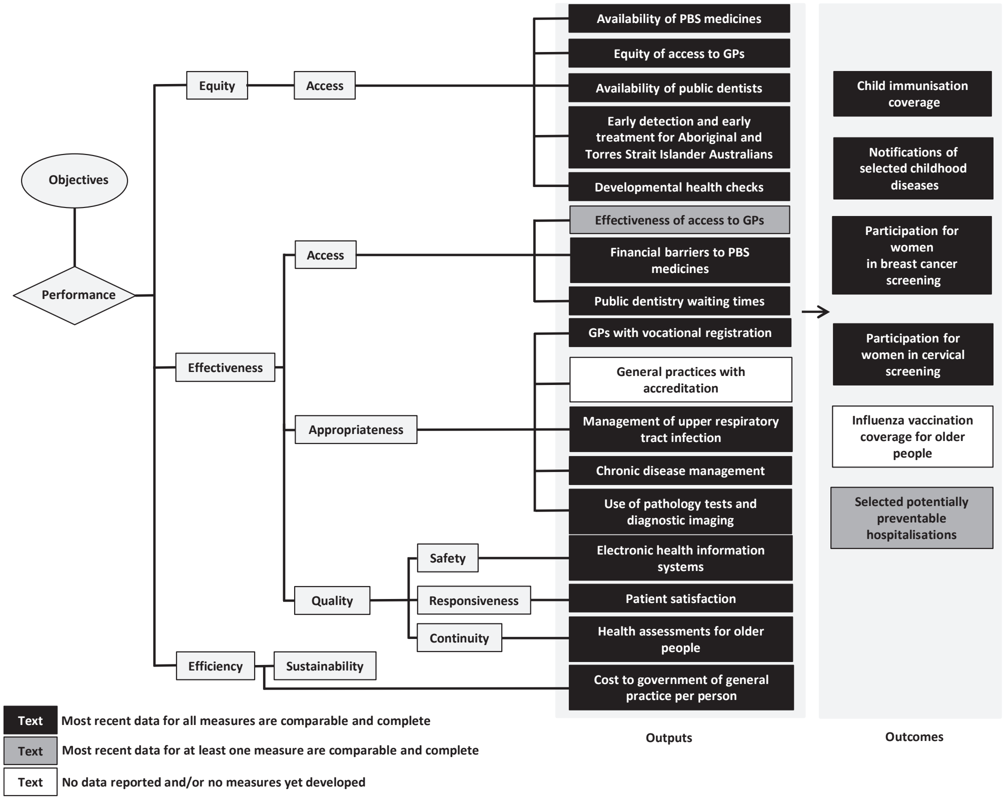
While the National Health Performance Authority publishes a wealth of information about the experience of patients with GPs, little is known about the experience patients have with allied health professionals. Given the increasing push for more multidisciplinary care in the treatment of chronic disease, developing a mechanism to measure the patient experience beyond physicians would provide a more comprehensive overview of the patient journey.

Improvements in care co-ordination and quality require a better information system and regular reporting that benchmarks general practices against their peers

Compared with some other OECD countries, and compared with the volume of hospital information that exists, there is a surprising lack of data relating to quality of care in primary health care in Australia. Ideally, an information system should have the capacity to follow a patient as they move from primary care services to hospitals, and are discharged back to the community, while tracking a patient's long-term outcomes.

A report is published annually with data reporting on the equity, efficiency and cost-effectiveness of government services. Included in this is a primary and community health performance framework (Figure 2.7). The indicators relate to objectives in the National Healthcare Agreement. The focus of the information collected is on service use and activity, while information on quality and patient outcomes is more limited.

Figure 2.7. Primary and community health performance indicator framework



Source: Based on Steering Committee for the Review of Government Service Provision (2015), *Report on Government Services 2015,* Vol. E: Health, Productivity Commission, Canberra.

Efforts are being made to improve the availability of data. For example, in 2015, the Steering Committee for the Review of Government Service Provision for the first time reported on the incidence of heart attacks by state and territory; the prevalence of type 2 diabetes by Indigenous status; and allied health workforce data.

Overwhelmingly, however, the lack of primary health care information limits the ability to track the patient pathway through the health system. For example, despite being Australia’s largest general practice study, the Bettering the Evaluation and Care of Health (BEACH) study does not have the capacity to link to other health records, or the capacity to follow patients longitudinally (Britt et al., 2013).

There is also a lack of information on patient safety in primary health care. One of the few studies examining the incidence of errors by GPs is the Threats to Australian Patient Safety (TAPS) study, which suggests that when an anonymous reporting system is provided, about two errors are reported for every 1 000 individual patients seen by a GP per year (Makeham et al., 2006). But, in common with many other OECD countries, patient safety information in primary health care is not systematically collected. Australia does not consistently collect information about patient harm, over-use of pathology testing and antimicrobial stewardship in primary care.

In a survey of primary care physicians, 32% of Australian doctors said their practice had a process for identifying adverse events and taking up follow-up action, and the system worked well, while 53% said they had such a process but it needed improvement. About 15% said they had no process. Still, Australia fared better than Germany, Italy, Canada, France and the Netherlands, where nearly half or more doctors said their practices had no process for identifying adverse events and taking action (Schoen et al., 2009).

There is also a dearth of information on the performance of individual general practices. Such information could help to lift quality by enabling health professionals to benchmark themselves against their peers. Additionally, the ability of Australia’s GPs to improve the quality of care they provide their patients is hindered by a lack of feedback enabling them to compare their performance to that of their peers. Unlike other OECD countries, most of Australia’s GPs do not have information about their clinical practice or patient outcomes. Australia ought to look to models in Britain and Israel for examples of how quality in primary care can be measured (Box 2.8).

Australia should investigate options to begin collecting performance information at a practice level. This could be done through a refined and vastly expanded PIP that requires practices to routinely report on a comprehensive set of indicators. A transparent and consultative process should be undertaken, to construct a set of the most appropriate indicators. Disaggregating this data geographically would enable areas of need to be identified, where more resources could be directed. The collection of this data should be sensitive to recognising that solo-practitioner doctors may find it harder to administratively collect such information.

Box 2.8. Measuring primary care performance

In Israel, health funds have a sophisticated information infrastructure that supports care delivery and quality monitoring. The Quality Indicators in Community Healthcare (QIHC) programme involves the systematic collection of data for the entire population of Israel from all four health plans to create national-level quality indicators that are publically reported (Jaffe et al., 2012). The QICH indicators cover six clinical areas: asthma, breast and colorectal cancer screening, immunisation for older people, child and adolescent health, cardiovascular health, and diabetes. The focus on prevention is demonstrated by the inclusion of indicators relating to risk factors, such as BMI. The programme is not compulsory, but its success is due to the voluntary involvement of the health funds in its conception and design, their active participation in developing the indicators, and the consensus around a scientifically robust quality measurement programme (OECD, 2012a).

There is evidence that the programme has improved quality. One evaluation found documentation of BMI for adolescents and adults increased by 30 percentage points to 61% and 70% respectively. Other improvements were an increase in the appropriate use of asthma control medication, while the rates of influenza vaccination among Israelis aged 65 and over increased from 52% to 57%. The authors concluded the overall quality of community health care in Israel had improved in the previous three years (Jaffe et al., 2012). While physicians in Israel do not receive financial incentives for participating in the programme, it could be argued that they benefit from the feedback they receive, which enables them to compare their performance to that of their peers. This can provide a persuasive incentive for doctors to improve quality.

The United Kingdom’s voluntary Quality and Outcomes Framework (QOF) takes this further by linking performance to financial incentives. Payments from QOF can constitute as much as a third of a general practice’s income (Willcox et al., 2011). QOF comprises almost 150 indicators covering chronic disease management and other areas. Each indicator is weighted, and general practices accumulate points that are used to determine the payments they receive. The performance of every practice is publicly reported on a website.

Some of the indicators include the establishment of disease registers. For example, one register relates to the percentage of patients aged 14 to 19 with asthma for whom there is a record of smoking status. QOF also has a stronger focus on clinical outcomes. For instance, one indicator relates to the percentage of patients on the chronic kidney disease register whose notes include a record of blood pressure, while another indicator links that to patient outcomes in that the blood pressure measure is 140/85 or less. There are also ten indicators related to mental health, such as the percentage of women with schizophrenia, bipolar affective disorder and other psychoses who have had a cervical screening test.

While the existence of more than 100 indicators may not necessarily be useful or drive quality gains, the QOF scheme demonstrates that there is significant scope for Australia to introduce a more comprehensive primary care performance framework, and link it to quality patient care.

The move to public reporting may initially seem confronting to GPs, who have not been exposed to the same level of public scrutiny as hospitals. However, this can be implemented in several stages to minimise risk. It could start with non-public, anonymous data reported to the government, progressing to non-public reporting of named practices. Eventually, this information should be publicly reported. This progression would take place over time, giving GPs a period of adjustment.

Given GPs work in private practice, it is harder to impose on them data collection requirements. There is also the risk of over-burdening general practices with red tape. The federal government should collaborate with doctors to determine the best way to move to a routine system of data collection, one that is not too administratively onerous. Incentives could be provided for this data collection, and practitioners should be educated about the value of collecting information and reporting on performance. The benefits of transparent reporting and the ability to benchmark against one's peers provide a powerful incentive to improve quality.

2.4. Maximising primary health care's contribution to high-quality health care

Considerable policy efforts have been made in recent years to try and overcome challenges with access and fragmentation in Australia

Ensuring co-operation across the two levels of government responsible for health care has been a constant policy challenge in Australia. As in other OECD countries, this has coincided with efforts to try and develop a stronger primary health care sector.

The federal government established Primary Health Networks that began operation in July 2015. The new Primary Health Networks are responsible for improving the efficiency and effectiveness of medical services delivered to individual patients by working directly with GPs, other primary health care providers, secondary providers and hospitals to ensure better co-ordination of care across the local health system. Notably, the Primary Health Networks are aligned with Local Hospital Network boundaries.

This is not Australia's first attempt to create primary health organisations to improve care co-ordination. Previous versions of the Primary Health Networks are Divisions of General Practice and – more recently – Medicare Locals. Australia is not alone in going down this path, with other models existing in countries such as the United Kingdom. In theory, a primary health organisation that can evaluate the needs of its community and strategically construct and link services around those needs should be in a position to co-ordinate services, thus improving the patient experience. The potential – and the need – to do this is particularly strong in planning the provision of after-hours care, which has lingered as a challenging issue in Australia. There could also be the potential for shared infrastructure, promoting the co-location of services.

Such an organisation should ideally extend the thinking around health care to tackling the broader social determinants of health, and have the capacity to link patients with welfare and other services that can provide them with broader support. Developing strategies to improve health literacy, keeping in mind the unique needs of local communities, should be a key role adopted by primary health organisations. Given the complexity of Australia's health system, the existence of a primary health organisation whose main brief is to co-ordinate services, improve population health and facilitate shared knowledge across service providers could go some way to easing fragmentation. It could also be the basis for a more robust system of nationally consistent data collection, which remains a weakness in Australian primary care.

The alignment of Primary Health Networks with Local Hospital Networks is a necessary initiative to help join the dots between federally and state-funded services. Such a move should foster improved planning around local population needs, help identify service gaps, enable health services to forge relationships with other providers in their local areas, and facilitate a more seamless patient pathway.

Primary Health Networks should be subject to a performance monitoring framework. The quality clinical governance that had been embedded in Medicare Locals should be strengthened in the Primary Health Networks. Medicare Locals had great diversity in their structures, objectives and activities. While this had the advantage of allowing innovation, it also came with the risk that some core functions may be variably delivered.

The funding approach to these organisations should also promote flexibility to adapt to the local needs of their communities. They should be permitted to have a greater proportion of their budget in flexible funding rather than specific funds for certain outputs. Agreeing on more general outcomes – such as reducing avoidable hospital admissions – and allowing them to determine how they do this, would be a better approach than tightly prescribing their activities. Primary Health Networks should not duplicate existing services by becoming service providers, unless a need is identified, including where there is demonstrable market failure.

Encouraging the development of a continuous relationship with a single clinic could help improve the co-ordination of patient care

A co-ordinated primary health care system is ideally straightforward for patients to navigate. Where complications arise, patients should be equipped with the information they need to move around the system. Health professionals should be educated in communicating with patients in a manner in which patients are able to understand important information about their own care, particularly where there are potential safety issues such as medication use. Educating patients about the self-management of chronic disease should form part of an integrated care approach, and is a role that could be adopted increasingly by general practice nurses working closely with physicians.

The health system entry point for patients with chronic health conditions should ideally be in the form of a comprehensive primary health care clinic that offers a range of co-located services delivered by a multidisciplinary team of health practitioners, incorporating prevention and health promotion activities. Such a system is more patient-centred and more efficient, the likelihood of duplication of services is reduced, and the patient experience is improved. People who use the same source for most of their health care needs tend to comply better with professional advice, rely less on emergency services, require less hospitalisation and are more satisfied with their care (WHO, 2008).

One approach to providing more co-ordinated care is the "medical home". There is evidence that medical homes that help co-ordinate patient care are associated with more positive experiences. Such a model enables a patient to have a regular doctor or place of care; the practice staff know important information about the patient's medical history; the patient received an appointment the same or next day the last time they were sick, or the practice always or often called back the same day to answer questions; and the practice always or often helped coordinate or arrange care from other providers. If the patient reported a chronic condition, there was one person responsible for care received for that condition (Schoen et al., 2007).

The benefit of such a system is a patient with chronic disease is likely to be better managed. In a survey, 45% of Australian patients with a chronic disease who had a medical home reported they were given written instructions on managing their care to take home, compared with 32% who had no medical home. Those who had a medical home were also less likely to report any kind of medical, medication or lab error (18% compared with 30%) and less likely to report receiving conflicting information from a variety of health professionals (11% compared with 18%). Similar results were reflected in six other countries in the survey (Schoen et al., 2007).

The current trend in Australia towards the establishment of multidisciplinary clinics is worthwhile, and policy efforts to support this should continue. Such clinics not only potentially improve co-ordination between a number of services, they can also provide patients with a setting in which they can be seen by a team of professionals. They also provide shared services infrastructure, to help improve coding of patient conditions and measure outcomes.

A high proportion of Australians already report having a family doctor. However, the current FFS payment system does not support a medical home-type model, or encourage GPs to take on the role of care co-ordinator. Another barrier is that while eHealth remains weak in Australia, attempts to co-ordinate care by sharing information with other health providers will continue to be compromised.

It is welcome that Australia is currently exploring policy levers to enhance care co-ordination for more complex patients. The Diabetes Care Project was a three-year pilot that aimed to improve the quality of care and health outcomes of adults with either type 1 or type 2 diabetes. Type 2 diabetes patients account for almost 10% of patients presenting to GPs, and most of these patients have additional comorbidities (Britt et al., 2013). The pilot sought to take a more patient-centred approach by providing more choice, and better co-ordinated care. The pilot tested:

- a new IT system to enable better care co-ordination through enhanced information sharing;
- a flexible funding model that included quality improvement support payments for practices;
- a care facilitator role to support more integrated care; and
- an education and training programme for consumers and health care providers.

The trial has been evaluated and should be used to inform future policy development regarding arrangements for the management of chronic disease. The results should also inform the new National Diabetes Strategy that is expected to be developed.

Government policy should support the creation of more multidisciplinary and integrated primary health centres. This is already happening to some degree with the GP super clinics, although the federal government is providing funding for capital infrastructure for only

61 clinics, of which 45 were open as at August 2014. Such comprehensive primary health care centres could become the hubs by which performance of health care services might more readily be tracked. A greater emphasis of these clinics should be teaching patients to self-manage chronic conditions. However, in a Commonwealth Fund survey, only 24% of Australian physicians reported routinely giving chronically ill patients instructions on managing their care at home, compared with a high of 63% in Italy and more than 30% in the United Kingdom and the United States. Just 12% of Australian physicians said they routinely gave chronically ill patients a written list of their medications, compared with 83% in the United Kingdom (Schoen et al., 2009). The primary health care system needs to get better at engaging patients as partners in decision making, and in taking responsibility for managing their care.

Another approach to chronic disease co-ordination worthy of exploration can be found in Germany. The country's disease management programme enrols patients with a chronic disease at an early stage, and there is an emphasis on care co-ordination, secondary prevention and the use of evidence-based guidelines. To be eligible for the programme, patients must be willing to participate in managing their own disease (Stock et al., 2011).

Improvements in quality and co-ordination of care have been reported, alongside a reduction in expensive complications such as heart attacks – pointing to the programme's cost-effectiveness. In some areas, close to 90% of patients with diabetes and more than two-thirds of primary care physicians are participating, and much of this is attributed to financial incentives. Co-payments for patients are waived if they enrol in the programme, while doctors are paid a fee for enrolling patients and for documenting certain parameters. Doctors can also be paid more for patient education and counselling, and referral to specialists. Sickness funds receive lump sum payments for enrolled patients. The programme has quality assurance mechanisms in the form of feedback to physicians and benchmarking a practitioner's performance to that of a peer group. Another quality assurance measure is national standards requiring, for example, a GP to refer a patient to a specialist if the GP cannot bring a patient's HbA1c or blood pressure level into the recommended range within six months. The specialist in turn has to refer the patient back to the GP in a specified time. The mandatory use of electronic medical records helps ensure care co-ordination between providers (Stock et al., 2011).

The German experience demonstrates that Australia could enhance its management of chronic disease in general practice with a combination of financial incentives and quality assurance mechanisms that encourage care co-ordination and ensure a patient's outcomes are followed. Such a system requires the GP to take on the role of care co-ordinator.

Governance should be strengthened, with a greater focus on quality assurance across all primary health services

In addition to the lack of information about quality in Australian primary health care, little is known about the quality assurance initiatives individual health services engage in. A starting point to improving quality in primary health care is gaining a better understanding of the mechanisms that general practices and other health professionals are using to maximise quality.

With 75% of general practices accredited, Australia should investigate the barriers to accreditation. The RACGP and the ACSQHC are developing a governance and reporting framework for general practice accreditation. The project aims to identify issues practices have with the existing scheme, maximise opportunities to enhance safety and quality, and identify options for the co-ordination of accreditation, including an appeals mechanism (RACGP and ACSQHC, 2014).

These results should be used by the federal government to determine what supports it can provide general practices – particularly smaller clinics – to gain accreditation. The ANAO's analysis indicates that PIP incentives alone do not appear to be enough to encourage smaller practices to seek accreditation (ANAO, 2010). The government should investigate what supports smaller general practices require, with a view to moving towards a system of mandatory accreditation.

A model that Australia could consider is the United Kingdom's, where general practices must all be registered with the Care Quality Commission, the independent health care regulator. It is anticipated that by April 2016, every GP surgery in England will have been inspected and rated (Care Quality Commission, 2013). Notably, among the inspection measures is how well people with long-term conditions are cared for by the practice, and whether the care helps to avoid unnecessary hospital admissions. After-hours services are also subject to inspection. Detailed individual practice inspection reports are publicly available on a website.

The quality assurance of other primary health care services also needs to be strengthened. As previously mentioned, when accreditation is voluntary, the rates tend to be very low. The rate of practice accreditation for community pharmacies under the Quality Care Pharmacy Program is high, due to government remuneration for certain professional services tied to accreditation. The design of the programme also lends itself to quality with inspections and self-assessment. Similar drivers could be considered for other primary health care services.

The government should engage with stakeholders to determine how rates of accreditation can be bolstered, perhaps drawing on the pharmacy experience. Consumers have the right to expect that any health service has met minimum standards before opening its doors to patients.

2.5. Conclusions

Australia is facing the same challenges as many other OECD countries, in trying to combat a rise in chronic disease. While efforts have been made to move towards a multidisciplinary system of care, these attempts have been undermined by a largely fragmented and unnecessarily complex primary health care system.

To promote a more patient-centred system, primary health care services should adapt to the needs of the patient. The current practice forces patients to navigate their way through a complicated system, where the federal and state governments play different roles as funders and managers of different aspects of primary health care. Removing the distinction between primary care and community health services and devolving responsibility of primary care services to state and territory governments would ease fragmentation and facilitate better co-ordination.

Australia should also strengthen its preventive efforts, or risk being overwhelmed by chronic disease. The creation of more flexible payment systems that align funding to health system goals and patient outcomes provide incentives to promote quality care for those requiring more complex health care.

A necessary first step in the improvement of quality in primary health care is its measurement. Given that primary care is for many patients the front door to the health system, measuring and publicly reporting on quality should be a priority. Such a move is challenging, but should not be too arduous a task, given Australia is already moving towards greater transparency.

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Chapter 3

The implementation of National Safety and Quality Standards in Australia's health system

This chapter reviews the recent implementation of the National Safety and Quality Health Service (NSQHS) Standards. The standards form the foundation of a nationally consistent accreditation system, building on a long-standing history of hospital accreditation administered at regional and local levels. The arrangements seek to improve co-ordination and reduce fragmentation and duplication of the standard setting and assessment functions across the health system. While the new system provides for greater feedback of performance for governments, further clarification of roles at different levels of government is still required to streamline hospital performance oversight processes.

The standards have been well received across the system, with key stakeholders endorsing the consultative approach to their development, enhanced clinical relevance and alignment with existing national and regional programmes. Broader application of the standards beyond the acute hospital sector will require development of further guidance, along with careful consideration of existing accreditation arrangements in mental health and primary and community care.

The standards address important but relatively uncontested safety issues. Follow through on the planned evaluation of the standards is important.

3.1. Introduction

The National Safety and Quality Health Service (NSQHS) Standards and accreditation scheme represent important elements of the overall quality improvement architecture of the Australian health system. Along with strengthening consumer protection and participation (e.g. use of co-payments) in health services and team-based quality improvement efforts within health services, external accreditation and licensing of professionals and the application of standards or guidelines are recognised as the key categories of methods for improving quality (WHO, 2008). Since the 1990s accreditation programmes have developed in many countries. The independent assessment of the standards, that these programmes incorporate, reflect an emphasis on patient care, safety and clinical performance and are therefore attractive to health funders, service managers and the public (Shaw, 2004).

The NSQHS standards (see Box 3.1) address well established safety issues for health services. There is broad agreement from stakeholders that the new standards are a positive initiative, promoting greater clinical involvement and more directly addressing specific and fundamental safety priorities (e.g. safe handover, identifying and responding to clinical deterioration) than other standards. Clinicians comment on the direct alignment of the standards to specific areas of their clinical practice, indicating that tangible outcomes for care could be readily generated from action taken to address areas identified for improvement. While the standards are acute care focused, they are already being used in non-hospital settings. Development of further guidance is required to broaden application of the standards in non-hospital care sectors, including primary and community care and mental health care.

3.2. Accreditation of health care providers in Australia

Australia has a strong tradition in hospital accreditation that has spanned over 40 years

Accreditation has been part of the landscape for improving the safety and quality of care in Australia since the 1970s. The Australian Council on Healthcare Standards (ACHS) is an independent, non-profit organisation, established in 1974. ACHS pioneered hospital accreditation in Australia and remains a major provider of accreditation services. Its approach to accreditation was largely influenced by the accreditation system in Canada and the United States in the late 1950s. The Joint Commission in the United States was established in 1951 and has been influential in the development of many systems of health service accreditation across OECD member countries.

Some hospitals have sought accreditation through other providers including Quality Innovation Performance (QIP), formerly the Quality Improvement Council. It is noted the QIP does not have major focus on acute care accreditation. The Hospitals can also be certified as compliant with the International Organization for Standardization's (ISO) 9000 quality family. These organisations have historically accredited to a number of different standards, some of which they have developed themselves and refined over time.

Accreditation of hospitals was initially embraced by providers as a form of self-regulation but increasingly became mandated by state and territory governments in the public sector and linked with funding in the private sector. For example, all Victorian public hospitals have been required to be accredited since 2000. However, while not all jurisdictions and sectors have formally required accreditation of their constituent hospitals (or the particular standards to be applied), it is notable that most hospital facilities and nearly all hospital beds in Australia were accredited in 2011-12 (see Table 3.1), with accreditation of 100% of public hospital separations (admissions).

Table 3.1. Selected accreditation statistics by state and territory, public hospitals, 2011-12, private hospitals, 2010-11

	NSW	Victoria[1]	Queensland	Western Australia	South Australia	Tasmania	ACT	Northern Territory	Total
Public hospitals									
Total hospitals	225	151	170	96	80	23	3	5	753
Accredited hospitals	210	151	159	96	79	4	3	5	707
Accredited (%)	93	100	94	100	99	17	100	100	94
Total beds[2]	20 073	13 370	11 245	5 677	5 232	1 188	939	696	58 420
Beds in accredited hospitals	19 536	13 370	11 236	5 677	5 228	1 031	939	696	57 713
Accredited (%)	97	100	100	100	100	87	100	100	99
Separations in accredited hospitals (%)	99	100	100	100	100	95	100	100	100
Patient days in accredited hospitals (%)	97	100	100	100	100	90	100	100	99
Private hospitals[3]									
Total hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	593
Accredited hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	567
Accredited (%)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	96
Total beds[2]	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	28 351
Beds in accredited hospitals	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	27 825
Accredited (%)	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	98

Note: n.p.: not published.

1. For Victoria, two hospitals were enrolled in the accreditation process as at 30 June 2012. These hospitals are shown as accredited.

2. The number of average available beds presented here may differ from the counts published elsewhere. For example, counts based on bed numbers at a specified date such as 30 June may differ from the average available beds over the reporting period.

3. Accreditation statistics for private hospitals were sourced from the Australian Bureau of Statistics (BAS unpublished)

Source: Australian Institute of Health and Welfare (2013), *Australian Hospital Statistics 2011-2012*.

The NSQHS standards reflect Australia's sustained policy focus on developing strong national patient safety governance

Along with other OECD countries, Australia has been strongly pursuing a patient safety agenda over the past decade or so (Arah and Klazinga, 2004). During this time, a key focus has been on establishing appropriate governance and structures to enable a nationally co-ordinated approach to safety that provides for greater consistency, transparency and effectiveness.

In 1995, the landmark Quality in Australian Health Care Study found that an adverse event occurred in nearly 17% of hospital admissions studied and that around 50% of them were preventable (Wilson et al., 1995). In response to this study, the Australian Governments subsequently formed a Taskforce on Quality in Australian Health Care. The Taskforce made 56 recommendations to government in its final report in 1996, many of which were not implemented (Smallwood, 2006).

A second national body was established in 1998. The National Expert Advisory Group on Safety and Quality in Australian Health Care made ten national recommendations, including the revision of current governance arrangements through the establishment of the Australian Council for Safety and Quality in Health Care (Review Team, 2005). At the time, the head of the Advisory Group reiterated the central importance of a more coherent national approach to safety and quality in Australia noting the "need for a generic quality framework that can harmonise the external quality review methods used in health care, but still enable differentiation of the products and organisations within the marketplace" (Fletcher, 2000).

In 2000, Australian Health Ministers established the Australian Council for Safety and Quality in Health Care to lead national efforts to improve the safety and quality of health care provision in Australia. The Council subsequently undertook a review of standard setting and accreditation, which generated a number of research and consultation reports. While it is acknowledged that much was accomplished over the five-year life of the Council, commentators noted that improvements were "patchy, fragmented and, in many cases, transient – with excellent and instructive projects failing to be sustained and incorporated into lasting improvements" (Smallwood, 2006).

A review of safety and quality governance arrangements known as the Paterson Review noted several limitations to the effectiveness of the Council (including inadequate links between the Council, jurisdictions and other stakeholders, narrow focus on safety in the acute sector and unwieldy internal arrangements), which ultimately led to the establishment of the Australian Commission on Safety and Quality in Health Care (ACSQHC) in 2006.

During the review, consideration was given to the current processes of accreditation and found that standards were being developed by various organisations resulting in duplication and gaps requiring organisations to comply with multiple sets of standards directed at the same outcome. Further, that access to the standards was often limited to members of the standard setting body and the process of development was not always transparent. The conclusion of the review team was a proposal that a plan be developed to enhance the role of accreditation in both quality improvement and in the implementation of agreed national standards (Review Team, 2005).

The ACSQHC's subsequent work led to in-principle support being given in 2008 to an accreditation model that involved national co-ordination of accreditation and national standards. The model built on existing health accreditation models to:

1. address issues of co-ordination, fragmentation and duplication,
2. allow government to be involved in the development of standards,
3. provide government and consumers with greater access to information,
4. introduce a single set of standards that set minimum levels and apply to all services.

The Australian Government then endorsed a National Safety and Quality Framework in 2010 that placed safety as the central organising theme and approved the Australian Health Service Safety and Quality Accreditation Scheme. The NSQHS standards were subsequently endorsed (see Box 3.1), with implementation of both the standards and accreditation scheme commencing on 1 January, 2013.

3.3. National Safety and Quality Health Service Standards

Acceptance of the new standards and accreditation scheme is strong, underlining the importance of clinical engagement, relevance and support in their development and implementation

The development of the national accreditation scheme and standards took five years and over that time, the ACSQHC undertook significant research and consultation. The comprehensive nature and level of input afforded stakeholders in the development process appears to be one of the key factors for the broad acceptance of the new national standards and accreditation scheme in the health system. A strong level of support for the standards was expressed by key actors in the system including policy makers, service managers, clinicians and consumer groups. The ACSQHC identified the acceptance of the standards by clinicians as the single biggest enabler. Locally, key stakeholders appear to confirm this.

The first two of the ten standards relate to governance and consumer input and set the overarching requirements for implementation of the other eight standards, which align with specific priority areas of clinical safety. This structure instils the importance of strong leadership and a culture of co-production with consumers (see Box 3.1).

Box 3.1. National Safety and Quality Health Service Standards

1. **Governance for Safety and Quality in Health Service Organisations** which describes the quality framework required for health service organisations to implement safe systems.
2. **Partnering with Consumers** which describes the systems and strategies to create a consumer-centred health system by including consumers in the development and design of quality health care.
3. **Preventing and Controlling Healthcare Associated Infections** which describes the systems and strategies to prevent infection of patients within the health care system and to manage infections effectively when they occur to minimise the consequences.
4. **Medication Safety** which describes the systems and strategies to ensure clinicians safely prescribe, dispense and administer appropriate medicines to informed patients.
5. **Patient Identification and Procedure Matching** which describes the systems and strategies to identify patients and correctly match their identity with the correct treatment.
6. **Clinical Handover** which describes the systems and strategies for effective clinical communication whenever accountability and responsibility for a patient's care is transferred.
7. **Blood and Blood Products** which describes the systems and strategies for the safe, effective and appropriate management of blood and blood products so the patients receiving blood are safe.
8. **Preventing and Managing Pressure Injuries** which describes the systems and strategies to prevent patients developing pressure injuries and best practice management when pressure injuries occur.
9. **Recognising and Responding to Clinical Deterioration in Acute Health Care** which describes the systems and processes to be implemented by health service organisations to respond effectively to patients when their clinical condition deteriorates.
10. **Preventing Falls and Harm from Falls** which describes the systems and strategies to reduce the incidence of patient falls in health service organisations and best practice management when falls do occur.

The recent experience of Prince Charles Hospital in being accredited against the NSQHS standards provides practical insights into the nature and implementation of the standards at the service level (see Box 3.2). The hospital had previously been accredited by the ACHS under the EQIP 4 programme and required a transition to meet the NSQHS standards, which it has successfully achieved.

Box 3.2. Case Study Prince Charles Hospital

The Prince Charles Hospital is a tertiary public teaching and research facility with approximately 600 beds, about 3 500 staff and an annual budget of around AUS 500 million. It provides a range of general and specialised services, including statewide services for heart and lung transplantation, congenital heart disease, advanced heart failure and other complex cardiac care. The hospital is co-located with a general private hospital with 225 beds, specialising in tertiary cardiology and cardiac surgery. The campus is recognised as a national leader in cardiothoracic services.

The executive leadership of the hospital comprises the clinical leads of the clinical streams or programmes of the organisation, which are responsible for the budget, workforce and service provision, quality and safety. The level of clinical engagement in leadership and decision making in the hospital was clearly apparent and a characteristic of the organisation that the executive indicated was a success factor for supporting a safety culture and implementing the NSQHS standards. The Clinical Council established by the organisation provides an innovative forum for clinicians to engage with the executive team at the hospital and regional Clinical Advisory Group to ensure coherency between local and regional clinical decision making.

The generation and use of performance-related data at the hospital was impressive, with real time electronic data on patients' status and service pathways displayed on ward level screens. While integration of information systems remains a challenge at the hospital, impressive levels of data consolidation from the ward level to executive reporting was being achieved through a balanced scorecard and monthly dashboard of performance indicators.

In making the transition to the NSQHS standards the Prince Charles Hospital noted:

- existing organisational strengths in meeting the standards relating to leadership, medication safety, patient identification, blood management, pressure injuries, falls and clinical deterioration,
- standards relating to partnering with consumers, healthcare-associated infections and clinical handover presented challenges to the organisation.

The hospital noted that the transition presented a challenge to the organisation. However strengths in leadership, clinical engagement and a team culture of safety were key success factors for achieving accreditation. This supports the premise that the first two standards set the overarching requirements for implementation of the other eight standards.

The executive emphasised the relevance and validity of the new standards, indicating they are more clinically relevant and provide a greater line of sight between service provision and quality and safety objectives than the previous ACHS standards.

The remaining eight standards deal with longstanding priority issues in patient safety, particularly in the hospital sector. Regional health authorities indicate that the standards align well with existing safety and quality programmes in their jurisdictions and the accreditation scheme builds on long standing accreditation processes and relationships with external agencies.

The ACSQHC has provided strong support to health services in the implementation of the standards and the accreditation scheme and this has been acknowledged with appreciation by key stakeholders. Support strategies include teleconferences with health service representatives, accreditation workbooks, implementation guides for each standard, a telephone and e-mail advice centre and mediation service for health services and accreditation agencies.

Consistent application of standards for private hospital licensing and accreditation purposes is an issue that needs resolution

It is a requirement that all Australian public hospitals and private hospital and day procedure centres are required to be accredited to the NSQHS.

While private health insurance arrangements and regional government roles in regulating private hospitals enable the mandating of the new standards, the state and territory regulatory role currently requires application of licencing standards, which can include mandatory clinical standards (e.g. infection control). Existing discussions between regional governments and the ACSQHC to address issues of consistency in the application of standards for licensing and accreditation need to result in recommendations to government to reduce duplication through greater harmonisation of licensing and accreditation arrangements.

Further clarification of the Safety and Quality Commission's role may be required to avoid confusion with the regulatory functions of the states and territories in managing health service performance

In the past, government responsibility for quality and safety has largely rested with the states and territories as the operators of the public hospital system. Over time, there have been moves to a more shared jurisdictional approach with a greater focus on the development of a national agenda for quality and safety in health care. Today, quality and safety continues to be a role and responsibility of both the federal and states and territory governments, and is enshrined in key inter-government reform and funding agreements (e.g. the National Health Reform Agreement and National Healthcare Agreement).

While the ACSQHC does not have a performance oversight role, some stakeholders consider the current role played by the ACSQHC in setting national health care standards and providing oversight for the national accreditation system has added an additional level of complexity to the system, given the existing role that state and territory governments play in health service regulation and performance management. Commentators are concerned that this situation could also contribute to a lack of clarity over responsibilities for hospital performance oversight, which is reported at both state and federal levels, giving rise to potential for conflict between levels of government on the responsibility for poorly performing hospitals (Hort et al., 2013). There are questions over the appropriateness of the ACSQHC having a role in overseeing the accreditation process, noting in other sectors the roles are more clearly separated between agencies (e.g. Aged Care, General Practice).

A variety of organisational arrangements exist in other countries. For example, in Ireland, the Health Information and Quality Authority combines regulatory, standard setting, compliance, investigation and information management roles for the health and social services sectors across the country, whereas in England the standard setting, regulatory and compliance roles are divided between the United Kingdom's National Institute for Care and Health Excellence (NICE), Monitor, and the Care Commission. Although there is not an ideal governance model for assigning these various roles across organisations, OECD member countries tend to separate standard setting, control, disciplinary action and quality improvement/knowledge exchange functions in accordance with the division of legislation, policing and judging (OECD, 2013b).

Further clarification and communication to key stakeholders of the role of the ACSQHC in the Australian health system is indicated, particularly during periods of organizational reform and structural transition, to avoid confusion over the respective roles of other central agencies in performance monitoring and quality improvement (for example, Independent Hospital Pricing Authority, National Health Performance Authority) and the state and territory governments in regulation and performance management.

3.4. Additional standards and indicators

The existing safety standards are a great start, but further developments are required to broaden their application beyond hospital services

The NSQHS standards are one of the main priorities for the ACSQHC and underpin the ACSQHC's work programme. The ACSQHC is working towards a universal set of standards as the basis of all accreditation schemes that assess health services.

Existing accreditation agencies are continuing to develop and maintain their own accreditation standards to which hospitals may elect to be accredited against, in addition to the nationally mandated standards. For example, Prince Charles Hospital has recently been accredited to the new national standards by ACHS (the leading hospital accreditation agency) and additional ACHS standards relating to the performance of service delivery processes, provision of care and non-clinical systems.

Other standards and accreditation programmes currently exist for other health services including National Standards for Mental Health, Diagnostic Imaging Accreditation Scheme Standards, Royal Australian College of General Practitioner (RACGP) Standards, Community Care Common Standards and Quality Improvement Council Health and Community Services Standards.

The ACSQHC's standards have been designed for use by all health services. However, a number of observations are made that indicate the role of the ACSQHC in developing standards may need to be strengthened in order to achieve this aim, including:

1. Separate accreditation standards were developed for the business operations of the former Medicare Locals (which ceased operation in June 2015) subsequent to the development of the ACSQHC's set of standards. While there are indications of a limited degree of integration and alignment (for example, in relation to governance), these standards were quite different in nature and scope to the ACSQHC's standards and the primary care standards developed by the RACGP that apply to General Practice. For example, the RACGP standards considered broader service, physical resource and management dimensions than those of the ACSQHC.

   This created a complexity in accreditation that had the potential to be confusing and potentially inefficient for organisations with service provision responsibilities, funding agencies and consumers, particularly in a policy context where greater service integration is being sought across primary health care services and the acute and primary care sectors. It is quite possible that if separate standards are developed for the newly formed Primary Health Networks, a different accreditation agency could assess separately against each of the RACGP, ACSQHC and Primary Health Network standards, reducing the potential for economies in assessment processes and further convergence of the standards.

2. Some organisations require accreditation against multiple standards given the service profile of the organisation. For example, rural and remote services provide more fully integrated services but at a smaller scale. This can include Aged Care, Community Care, Hospital and Mental Health services, which all have separate standards and accreditation processes. In addition to the resources required to carry out separate assessments against each set of standards, stakeholders pointed out the challenges in adjusting to differences in their orientation – reporting some are compliance focused while others are more aligned to learning cultures and continuous improvement. The burden of accreditation in this context can be disproportionate for some services.

3. The NSQHS standards have justifiably been developed and largely applied to the acute hospital sector initially. The ACSQHC intends for the standards to have broad system application and recognises, along with service providers and accreditation agencies, that while applicability of the standards to other health services is evident, there is the need to consider the provision of guidance about how the NSQHS Standards should be interpreted for different settings and contexts. This work should be encouraged and progressed, particularly in relation to the range of services under the purview of the newly formed Primary Health Networks.

The ACSQHC has identified potential areas for change in the standards including mental health and cognitive impairment. In seeking to broaden the impact and application of the standards, the ACSQHC would like to see the requirements under the standards built into standards and curriculum of health professional training and education programmes.

Clarification and strengthening of the ACSQHC's role in standard governance would provide a sound basis for pursuing further rationalisation and improved coherency of health care standards across sectors. This would reduce duplication and inconsistencies between standards and clarify the role of accreditation agencies in the assessment of national standards. A particular consideration should be given to expanding the role of the ACSQHC in setting standards for health and social services, including aged care, community care and support, mental health and disability.

Strengthening the model for standards development and accreditation to a broader set of health services in Australia would appear sensible, particularly given policy intent around more co-ordinated and integrated service delivery. It will be important that relevant standards and accreditation processes applied to services are coherent and minimise duplication. Initiatives such as the disease management programme (e.g. diabetes, breast cancer, heart disease) accreditation model in Germany may provide insights for Australia in this respect.

Development of clinical care standards are required to drive further quality improvements

The general sentiment of stakeholders is that the standards represent a move in the right direction and provide a good start that adds value to the existing system. However, stakeholders indicated there is more to be done, noting the current standards focus on relatively uncontested priorities for health care safety rather than addressing key quality issues around clinical appropriateness.

The overuse, underuse and misuse of care are critical issues for research and policy on quality of care. Following on from a seminal study in the United States that showed that adults received "recommended care" only 55% of the time over the years 1999-2000, a recent Australian study known as the CareTrack Study found (using a similar methodology) that the adult Australians in the study sample received appropriate care 57% of the time (Runciman et al., 2012b). This study underlines that the provision of highly variable and often inappropriate care remains a national problem, and based on financial considerations alone would suggest that maximising the rate of appropriate care is a priority.

The key issues appear to not lie in the lack of an evidence base. For example, the National Health and Medical Research Council Clinical Practice Guideline Portal hosts over 2 000 documents and contains nearly 600 clinical practice guidelines. However, the utility of these guidelines is unclear, with some commentators questioning the value of them for day-to-day clinical practice and quality improvement and accountability citing the volume, overlap and duplication, different recommendations for care, lack of maintenance, inconsistent structure and content and hard-to-use and measure nature of the guidelines as factors contributing to this situation. The proposed way forward is to develop clinical standards, indicators and tools using a consistent structure and language and with an emphasis on being succinct and usable for clinicians and consumers (Runciman et al., 2012a).

The National Health Reform Agreement arrangements, which commenced on 1 July 2012, support major reforms to the funding and delivery of health and hospital services. This agreement specifies that the objectives for both the state and federal governments include, amongst others, the improvement of standards of clinical care through the ACSQHC. It also says the responsibility of Local Health Networks for local implementation of national clinical standards is to be agreed between the federal and state governments on the advice of the ACSQHC.

Stakeholders make greater reference to the potential benefits accruing from recent work by the ACSQHC on exploring and addressing variation in health care provision, and on Clinical Care Standards. These standards describe the minimum elements of care for a particular condition or intervention. Three standards have been developed by the ACSQHC: acute coronary syndrome, stroke and antimicrobial stewardship. Further standards covering dementia, delirium and repair of hip fracture are under development.

The ACSQHC has established a Clinical Care Standards Advisory Committee to provide advice and input on the development and implementation of the Clinical Care Standards programme. Working groups, with representation from consumers, clinicians, researchers and health organisations, were established to support the development of the standards for acute coronary syndrome, stroke and antimicrobial stewardship.

In addition to this work, there have been related initiatives in Australia being developed at the regional level that require articulation with the development of clinical standards, including development of clinical networks, care pathways and integrated care partnerships.

This work is considered important. Development of further standards is strongly encouraged to address areas where significant practice variation exists, and impact on health outcomes and service costs is significant. Further, this work should extend its focus on methods and tools to improve usage of agreed standards in service decision making by clinicians and patients and monitoring and feedback of adherence to the standards for quality improvement purposes.

3.5. Linkage with overall systems of measurement and improvement

Developments in information infrastructure and safety and quality indicators are required to underpin quality standards and drive improvements

In 2009, the Australian Institute of Health and Welfare (AIHW) released a report proposing 55 national quality indicators. It is noted that only two of the hospital and health service-specific indicators are currently being reported nationally by the National Health Performance Authority (NHPA) (Evans et al., 2011). The work of the ACSQHC in further developing clinical indicators and the role of the NHPA in promulgating data collection and reporting through the National Performance and Accountability Framework is noted, but further progress is required.

Priority should be given to the specification and alignment of indicators to support measurement of the health service safety and clinical care standards. In addition to the merits of developing additional data collections (e.g. Clinical Quality Registries), it is noted that organisations such as the ACHS and Health Roundtable have established clinical indicator programmes, offering opportunities for leverage and consistency in indicator development, reductions in data burden for service providers and alignment of data to facilitate existing opportunities for benchmarking.

The NHPA is responsible for improving accountability in the health system through the Performance and Accountability Framework, which is designed to support improved local-level performance assessment. The framework has been designed to facilitate the achievement of key national health policy objectives, including those relating to quality and safety, service efficiency and sustainability, integration of acute and primary care services and cross-sector comparisons.

In 2011, the framework integrated a set of core hospital-based outcome indicators endorsed by Australian Health Ministers for routine reporting and review at local and regional levels. These indicators broadly align with key elements of the ACSQHC's standards and include indicators of the appropriateness and effectiveness of Local Hospital Networks and Primary Health Networks (i.e. potentially preventable hospitalisations, potentially avoidable deaths) and patient experiences of hospital care.

The NHPA is undertaking development of the national hospital-based outcomes indicators including hospital Standardised Mortality Ratios, Deaths in Low Mortality Diagnostic Related Groups, Condition-specific In-Hospital Mortality, Readmission Rates, and Hospital-Related Infection Rates. While significant progress has been made with indicator development, data collection and reporting within the Performance and Accountability Framework (PAF), significant gaps exist where further development work is indicated. For example:

1. Appropriateness: At this time, no indicators exist in relation to the overuse, underuse or misuse of health services.
2. Safety and Quality Indicators: While indicators exist for in-hospital mortality, infections and patient experiences, unplanned readmissions and community follow-up of mental health patients, there are still significant gaps in terms of national reporting of indicators supporting the NSQHS standards (e.g. adverse events – falls, pressure injuries, medication errors) and clinical quality indicators in the PAF.

It is noted the Productivity Commission prepares an annual Report on Government Services (ROGS), including health services, which also reports on key indicators of safety and quality. Some of the indicator gaps identified for the PAF are already reported in the ROGS report or are being explored by various states or territories (e.g. the NSW Ministry of Health).

The United Kingdom's National Institute for Care and Health Excellence (NICE) produces evidence-based guidance and advice for health professionals and develops quality standards and performance metrics for those providing and commissioning health and social care services. NICE has been working recently with indicator frameworks to show how standards can be reflected in outcome indicator sets and inform payment mechanisms and incentive schemes such as the Quality and Outcomes Framework (for primary care) and Commissioning for Quality and Innovation Payment Framework. There would appear to be scope for similar mapping in Australia between the PAF and the clinical and health service quality and safety standards developed by the ACSQHC. This may amplify specific priorities for indicator specification and data infrastructure development.

There are opportunities to further refine the national set of quality and safety indicators for hospitals through greater articulation with existing data collections used by organisations with established sets of performance and clinical indicators such as the Health Roundtable and the ACHS and developments in the use of hospital administrative data, establishment of clinical registries and in the future electronic patient health records.

Use of hospital administrative data to monitor adverse events will help build capacity for indicator development to support the safety and quality standards

The establishment of effective mechanisms for reporting, collecting, classifying, analysing and acting on patient safety problems at a national level is a challenge for many OECD member countries. Given the nature of adverse events, effective and reliable identification and reporting is problematic. Interpretation of aggregate data is confounded by the dual objectives of a) maximising the identification and reporting of adverse events for analysis and systems of care improvement (formative function); and b) the assessment of performance with a view to reducing adverse events (summative function).

This tension was demonstrated in a review of the NSW Health incident information system where the reviewers, on the one hand, identified that the international literature indicates that timely and accurate responses to reporting and non-punitive and improvement-oriented feedback mechanisms are paramount to the effectiveness of incident reporting and, on the other hand, stating the end result should be a reduction in adverse events, errors, iatrogenic harm and the prevention of recurrences of common errors and near misses. The reviewers observed that while the objectives of both improved reporting and reduced incidence were both articulated by NSW Health, neither were demonstrated as being achieved through the evaluation (Braithwaite et al., 2006).

There have been repeated proposals from commentators over the past decade for the development of a national safety monitoring system, including international classification development, multiple reporting systems and large-scale database developments (Runciman et al., 2006; Runciman, 2002). Each state and territory in Australia has some form of system-wide incident reporting system in place, for at least their hospital system. However, at this time, a national system does not exist.

As part of its overall information strategy, the ACSQHC is working with the states and territories to develop a national patient safety measurement model for hospital safety. The aim of this work is to obtain a comprehensive and accurate picture of hospital patient safety by monitoring a range of measures. The development of a robust patient safety reporting system has the potential to improve the capacity for indicator development and data to support the national quality and safety standards and related assessment and improvements processes through the accreditation scheme.

In addition to existing adverse event reporting and monitoring capacity, one of the building blocks for a safety monitoring system could be based on hospital administrative data. Early work in Victoria illustrates the use of hospital administrative data to identify the incidence and cost of adverse events, given the existence of a condition onset flag diagnosis arising during the course of hospital treatment, such as infection or pressure injury (Ehsani et al., 2006).

Subsequent developments have emerged over subsequent decade, including the Classification of Hospital Acquired Diagnoses (CHADx). The CHADx was developed in 2008-09 by researchers at the University of Queensland with funding from the ACSQHC. The CHADx is a tool that allows hospitals to identify, classify and monitor hospital-acquired diagnoses as markers of patient safety using hospital administrative data. The occurrence of a hospital-acquired complication is identified using the condition onset flag. Although the CHADx represents a valuable advance in developing hospital-based patient safety information capacity based on routinely collected administrative data, the clinical utility of the tool has been questioned.

Further development work, under the auspice of the ACSQHC and IHPA, has led to the creation of an alternative classification scheme for 'high priority hospital complications' that through further validation and development, including reliable risk-adjustment, could potentially enable it to be used in cross-facility and longitudinal comparisons. The complications broadly correspond with the NSQHS standards and there is potential to develop indicators to support evaluation and monitoring the standards and accreditation processes.

The development of clinical quality registries will help build capacity for clinical indicator development to support clinical standards

The National Health Reform Act 2011 and the National Health Reform Agreement require the ACSQHC to develop clinical standards and recommend indicators and data sets. A clinical care standard is a set of specific, concise statements and associated quality measures. The ACSQHC has developed clinical standards for acute coronary syndrome, stroke and antimicrobial stewardship, while others, including hip fracture repair, are under development. The development of indicators is a core part of the process of developing clinical care standards, with indicators released for the first three clinical care standards released at the same time as the standards themselves.

The need for the development of Clinical Quality Registries to further build capacity in clinical indicator data collection and reporting has been well argued (Evans et al., 2011) and is seen to complement various clinical indicator and tool development proposals put forward by other commentators (Runciman et al., 2012a).

Clinical registries collect an identical minimum data set from patients treated in multiple hospitals or clinics throughout the country. Consistency is ensured through the use of identical definitions and data collection procedures. This data is then analysed to provide opportunities for:

- benchmarking for quality improvement,
- monitoring compliance with guidelines,
- determining long-term safety of drugs and devices,
- monitoring system performance,
- identification of risk factors.

In Australia, there are only a handful of national registries including those covering joint replacement, intensive care, renal dialysis and various forms of organ transplantation (see Box 3.3). In Sweden, over 70 clinical registries have been developed. The National Board in Sweden has the task of developing national guidelines, and one part of the process is to propose national indicators that reflect the performance of the care provider based on the guideline's key recommendations.

Box 3.3. National Intensive Care Registry

The Australian and New Zealand Intensive Care Society (ANZICS) Centre for Outcome and Resource Evaluation (CORE) comprises three clinical registries that collect de-identified data from contributing intensive care units in Australia and New Zealand. It is understood that collectively this is one of the largest repositories of intensive care patient episodes in the world (over 1.4 million). The data collected by the registries is used to compare, monitor and benchmark intensive care performance across institutions, and is then reported back to participating services and jurisdictional committees. Key measures monitored through CORE registries are the observed and predicted mortality rates in intensive care units. The recently established Central Line Associated Bloodstream Infection Registry was a joint initiative between ANZICS and the ACSQHC and was set up to monitor the rate of infections across all Australian intensive care units and contribute to the support of the ACSQHC standards and overall improvements in hospital patient safety.

National quality registers develop indicators for their specific diagnostic areas, and individual county councils and regions develop indicators for local follow-up work. The database today contains over 800 indicators covering a wide variety of diagnostic areas and levels. The registries are considered a strength of the Swedish health system's approach to quality assurance and safety improvement (OECD, 2013b).

Evans et al. (2011) emphasise the need for registry development to be underpinned by robust governance structures to ensure transparency to stakeholders in terms of data collection, analysis and reporting. The Monash University School of Public Health and Preventive Medicine plays a significant role in the development of national registry science including registry design, ethics, privacy and legal issues, quality control and governance. It has been working with the ACSQHC and the National E-Health Transition Authority (NEHTA) to develop standards and data governance arrangements for clinical quality registries in Australia.

The ACSQHC has been working on developments for clinical quality registries for several years recommending to government that a limited number of good clinical quality registries are essential in ensuring the availability of quality information to enable consistent improvements in clinical outcomes. The OECD urges that work be brought forward to identify priority areas for registry development and seek to bring about the establishment of a set of national registries to address key gaps in clinical indicator data required for national reporting and benchmarking.

Evans et al. (2011) recommend that registry development target three areas:

1. conditions or procedures associated with large variations in processes or outcomes of care, which have a significant impact on overall health care costs and patient morbidity (e.g. cardiac procedures involving angioplasty and stenting),
2. areas where transition of care across health services influence optimal outcomes (e.g. myocardial infarction and stroke),
3. medium-term to long-term safety of new clinical interventions (e.g. high-risk implantable devices or procedures).

These areas align with recognised priorities for clinical care development and aspects of the NSQHS standards.

A strengthened focus on clinical standards and indicators and the development of clinical quality registries will contribute significantly to the gaps in the national performance framework relating to appropriateness of service provision (i.e. underuse, overuse and misuse of services).

Greater population coverage and depth of information is required before the electronic health record will enable meaningful national quality indicator data

A recent review of OECD member countries involved in the OECD Health Care Quality Indicators Project revealed there is potential for data from electronic health record systems to be used for health care quality monitoring over the next few years. However, there are considerable and troubling differences across OECD countries in the extent to which such data are contributing to quality of health care (OECD, 2013c).

Australia has overcome many of the design, legislative and privacy issues related to the establishment of a national system for electronic health records. The government has invested over AUS 1 billion in an e-health programme aimed at improving patient care by making it easier for health care providers to access and share information about patients throughout the health system.

In 2013 a review of the programme was announced. The outcomes revealed that, while sign-up for patients had been roughly in line with expectations from the government (reaching over 900 000 at the time) the number of documents being created and used in the system was relatively low. Only a few hundred health care professionals were reported as having put up the "shared health summary" that lists a patient's details on the system and around 5 000 documents had been uploaded in total.

In 2015, the federal government announced the intention to trial an opt-out system to replace the previous opt-in system for the establishment of the national system for electronic health records. This change has the potential to improve the uptake and use of the system in the future.

The ACSQHC standards are currently focused on the acute sector. While there is potential for the electronic health records system to support the standards through improved care (for example, clinical handover and medication management) and data provision, its impact is likely to be peripheral given the current scope of safety issues and hospital information systems.

The longer-term intent of the ACSQHC is for the standards to apply to all health services. In tandem with recommendations in this report to progress the further development and broadening of the application of the ACSQHC standards, the electronic health records system could facilitate quality improvement by promoting patient-centred care and generating longitudinal quality and safety data across providers. However, until national coverage of the population or identified disease populations (e.g.

diabetes) can be achieved and relevant data are reliably and consistently uploaded by consumers and health professionals (e.g. acute admissions for diabetes complications, GP and allied health consults, comprehensive primary care plans, HbA1c results, measures of self-efficacy) the utility of the system for national quality and safety monitoring and improvement will be limited.

A national data warehouse would appear to be an important development in the information infrastructure for safety and quality, efficiency and access measurement

Under the new national accreditation scheme, accreditation information will be provided by accreditation agencies to the ACSQHC. The ACSQHC has developed a dataset specification for use by accrediting agencies to guide the provision of this information. The guidance specifies that where a health service agrees, or is required to by its regulator, accrediting agencies will not only cite but also submit this information. The information will then be accessible by regulators and the ACSQHC via an Enterprise Data Warehouse (EDW) for the purposes of reporting.

The federal Department of Health has developed the EDW database to provide for the collection of data from the four agencies – the ACSQHC, IHPA, NHPA and the National Health Funding Body. The EDW is also providing the data warehouse solution for the Department of Health.

The accreditation information specified includes patient experiences measurement, use of clinical guidelines, core hospital outcomes indicators (e.g. in-hospital mortality), sentinel events, compliance with the national hand hygiene programme, hospital-acquired infection rates, medication reconciliation, falls resulting in harm, assessment of risk and occurrence of pressure injuries, patient identification and procedure matching, wastage of blood products and clinical handover discharge summary.

The EDW could potentially provide the foundation for a strong evidence base and enabling greater access to comparable quality and safety data. Further identification and specification of the indicator data to be collected and reported under each domain of accreditation information is required. It is considered that ongoing development of the EDW database is an area for urgent action in relation to the ACSQHC's work on developing a national system for safety reporting for hospitals. The EDW could be used to support continuous quality improvement through the provision of benchmarking information and the active promotion of mutual learning across service providers.

The development of information infrastructure and performance indicators to support standards should lead to greater learning opportunities across health services

Increasingly, accreditation processes are expected to encompass both assessment of compliance with minimum standards (summative function) and encourage continuous improvement (formative function). While the focus of the NSQHS standards implementation has initially focused on improving health service accountability and community assurance of health care safety, stakeholders have expressed considerable interest in ways to strengthen the evidence base from the use of the standards resulting from the national accreditation scheme to help health service learning through comparing and contrasting service outcomes, safety and clinical data and further improve the quality and safety of their services.

In assessing health service performance in relation to the agreed standards, accreditation agencies access a wide range of information and data generated by the services, which when aggregated can provide a basis for system improvements and benchmarking across peer services.

Awareness of formal mechanisms for health services to compare and contrast their performance and participate in detailed benchmarking relationships is limited. Apart from hospital executives, many stakeholders appear to have limited knowledge of established agencies and processes in place (e.g. Health Roundtable, Australian Primary Care Collaboratives Programme). Clinicians, in particular those involved in primary care, have expressed a desire and willingness to be further involved in peer review mechanisms in relation to safety and quality.

There are a number of organisations in Australia that have developed indicators suites to support health services to participate in voluntary data collection processes that can provide useful mechanisms for local improvement and peer review (see Box 3.4). In addition, there has been substantial investment over time from state and territory health departments and private hospital groups to support the collection of safety and quality information and system improvement in their jurisdictions.

It is noted that the ACSQHC is pursuing developments that will potentially strengthen the capacity for system improvements through indicator development and data collections, including the development of clinical standards and indicators, clinical quality registries, a patient safety reporting system for hospitals, input into the EDW database and joint work with the IHPA, which is looking at options for integrating safety and quality into the efficient pricing of public hospital services in Australia.

Box 3.4. Examples of organisations with National Quality Improvement Programmes

The Australian Council on Healthcare Standards Clinical Indicator Program

The ACHS has had a long-standing national programme of clinical indicator development and data collection that seeks to support the evidence base for its accreditation standards and facilitate continuous improvement.

The Clinical Indicator Program (CIP) was established in 1989 and there are now more than 330 indicators across 22 different clinical areas in the programme. It examines data sourced from a broad range of clinical specialty areas and covers both public and private systems, and includes indicators relevant to inpatient, outpatient and community health facilities.

The national clinical dataset generated through this programme facilitates benchmarking by participating health care organisations at a peer and national level and provides for national reporting on aggregate trends in the indicators. The ACHS has mapped its indicators to the NSQHS standards, which may improve the coherency and utility of the indicators under the new national accreditation scheme. Participation in the CIP is voluntary, allowing organisations to select those indicators that are most relevant to their needs and considering their capacity to collect the data. Data on specific health services or organisation indicator data on performance are not publicly reported.

Health Roundtable Indicator Data

A similar role is provided by the Health Roundtable, a non-profit membership organisation of health services across Australia and New Zealand. It provides opportunities for health executives to learn how to achieve best practice in their organisations by collecting and analysing information comparing organisations, identifying ways to improve operational practices, and promoting interstate and international collaboration and networking amongst health organisation executives.

The organisation has a strong membership from the Australian hospital sector and collects a wide range of clinical and operational indicator data from members, including patient safety and quality indicators to inform its benchmarking activities. It also conducts a range of groups focused on innovation and improvements in specific aspects of health care, including a patient safety improvement group. For example, during 2014, a patient safety group met to specifically focus on issues relating to clinical handover and escalation of unwell patients. Participants shared experiences and innovations and correlated these with Health Roundtable safety indicator data comparisons.

Similar to the ACHS, data provided to the Health Roundtable, while shared amongst participating members, are not disclosed to outside organisations.

The Australian Primary Care Collaboratives Program

The Australian Primary Care Collaboratives Program is delivered by the Improvement Foundation to help general practitioners and primary care providers work together to:

Box 3.4. Examples of organisations with National Quality Improvement Programs *(cont.)*

- improve patient clinical outcomes;
- reduce lifestyle risk factors;
- help maintain good health for those with chronic and complex conditions and;
- promote a culture of quality improvement in primary health care.

The programme is focusing on greater engagement of practice managers, practice nurses and other primary health care professionals to lead quality improvement work within their organisations. The Improvement Foundation works with national organisations such as the Australian Association of Practice Managers and the Australian Primary Health Care Nurses Association to ensure the design and delivery of the programme adequately supports the relevant health professionals. The programme includes access to a web-based measurement system with over 15 000 indicators. Participants collect and submit data and track results of their improvements.

The visibility and use of this programme appears limited, with stakeholders displaying low awareness and access to the opportunities available. Greater appreciation of the utility of the programme and articulation with performance data of primary care provided through the NHPA's *Healthy Communities* reports would be advantageous.

However, while the ACSQHC promotes continual use of measurement and reporting and the NHPSA publishes comparative hospital reports (e.g. *staph aureus* bactaeremia, length of hospital stay), neither the ACSQHC nor the NHPA are actively involved in establishing, promoting or facilitating benchmarking activities for health services in both the public and private sectors as part of an overall approach to indicator data reporting and continuous quality improvement. There is further scope for a national function to be established that promotes sharing and learning across health care providers and jurisdictions, to better understand the underlying factors behind performance variations at the organizational and regional levels and to facilitate the identification and diffusion of effective innovations for improving service quality and safety.

As with medical practitioner protection in participation in quality review activities, the success of hospital participation in benchmarking activities, such as the Health Roundtable, is underpinned by confidentiality. One systemic factor potentially further inhibiting opportunities for more open benchmarking of peer individual health services is the inherent risk aversion and resistance to performance comparisons inherent in the current organisation of health service funding and delivery roles and responsibilities between federal and state and territory governments in Australia.

In 2010, the Productivity Commission in Australia joined with the Forum of Federations to hold an international roundtable on *Benchmarking in Federal Systems*. The report on the proceedings contains a contribution from Canada on benchmarking health care, where the authors note that "implementing meaningful benchmarking activities in the Canadian health system is complicated by the difficulty of comparing different health systems in a context of asymmetrical and at times strained relationships between orders of government" (Productivity Commission and Forum of Federations, 2010).

Further, given the arrangement of jurisdictional powers in Canada, it was noted that linking of performance data to quality improvement has been largely left to individual health services and as a result system improvements are largely dependent on the context of jurisdictions and the desires, skills and priorities of service management. The authors note, however, there is now growing interest in moving from performance benchmarking (summative) to practice benchmarking (formative) through the comparison of performance with peer groups and the learning from better performers. They cite examples of programmes that have been developed, including a) collaboration between the Canadian Academic Science Centres, Canadian Institute for Health Information and others to establish a quality and patient safety practice benchmarking programme for acute care facilities; and b) provincial health quality councils actively encouraging regional health authorities to learn from each other by sharing best practices (Productivity Commission and Forum of Federations, 2010).

The authors conclude that despite ongoing data issues and complications regarding Canadian federal relations, there is a growing willingness to collaborate, indicating the fear of comparison has now given way to the need for improvement (Productivity Commission and Forum of Federations, 2010). The exploration of benchmarking programmes that have been developed in Canada may provide insights into the further development and evolution of collaborative programmes in Australia.

Extend the role of the central body to include active promotion and facilitation of benchmarking activities between health services and sharing of innovations to improve health care safety and quality

A strengthened role for the NHPA could initially be considered in this regard, particularly in relation to indicator specification, data collection, public reporting and benchmark analysis by peer groups. This role could then be subsequently integrated into any rationalisation and consolidation of relevant organisations in the future. It is urged that consideration be given to strategies that strengthen the articulation of performance data and reporting to facilitate opportunities for health services to engage in activities to help them understand what is driving their performance and to learn from identified "best practice" or "benchmark" peer organisations in seeking to improve service quality and safety. In the first instance, this may involve greater communication and collaboration with existing programmes (Health Roundtable, ACHS) to ensure greater alignment. There may also be opportunities for greater investment in benchmarking programmes and incentives for health service involvement, with greater visibility of effective innovations to enable broader diffusion.

These programmes will require careful construction to ensure an appropriate balance between creating a safe and blame-free environment for health services and the need for performance accountability. Some commentators have pointed to the experience in the United Kingdom and elsewhere and cautioned the use of performance indicators in a summative approach, concluding this is "almost inevitably corrosive and corrupting of the indicators themselves", whereas the formative use of indicators can foster trust and communication between clinicians and mangers in working through issues with care and improving quality (Freeman, 2002).

3.6. Linkage with performance incentives

The dynamics that drive individual and organisational performance in health care are complex. While it is a requirement that all public and private hospitals and day facilities be assessed against the new safety and quality standards under the new national accreditation scheme, it is not clear what the implications will be for high-performing and poor-performing organisations, and further what level of government or organisation is ultimately responsible for their performance management.

Greater clarity over national health care quality governance is required, particularly in relation to acute care and the overall arrangements for performance management

As discussed earlier, the governance of health care quality and safety continues to be a shared role and responsibility of both the federal and state governments. While the ACSQHC has assumed a central role in standard-setting and oversight of accreditation processes, further clarification of system responsibility for quality governance and overall system performance management is warranted.

A number of national and regional agencies contribute to the intelligence, improvement and reporting on hospital quality and safety and system performance more generally, including the AIHW, NHPA, IHPA, ACSQHC, Productivity Commission, Accreditation Providers, South Australian Health Performance Council and the NSW Clinical Excellence Commission. The roles and responsibilities of these various organisations and how they work together to provide a co-ordinated framework for standard setting, control, disciplinary action and quality improvement and knowledge exchange functions is complex and confusing, with what appears to be duplication (e.g. data collection, analysis and reporting of quality indicators) and gaps in functions (e.g. benchmarking and mutual learning, structural incentives for improvement, performance management).

There is scope for reconfiguration and consolidation of various national and regional organisations in order to clarify and better coordinate responsibilities for the assessment of health care performance and promotion of quality and safety improvement across the health system. Initial attention would usefully be directed to acute care given the focus of the existing ACSQHC standards and the specific national and regional government funding and regulatory responsibilities to be considered in this context.

Public education and reporting on health service accreditation outcomes should be co-ordinated through the MyHospitals website to improve transparency

One of the primary objectives of the new national accreditation scheme is to provide greater transparency for both government and the community. There is a global trend towards greater accountability and transparency in health care. Public disclosure of health service performance information is being seen as a factor contributing to improved service outcomes.

While accreditation agencies are required to report on the outcomes of their assessment of health service compliance with the standards to the relevant jurisdiction under the national accreditation scheme, it is not clear what jurisdictions will do with this information or whether consumer and community information and education on health service performance will be made available by the NHPA through the MyHospitals website. For example, the Quality Check website of the Joint Commission in the United States provides access to accreditation information on individual health services including:

- the accreditation decision of the health care organisation and where the accreditation is other than in compliance with all applicable standards, and the specific standards out of compliance will be posted on its Quality Report,
- the locations and services offered at each accredited organisation,

- special Quality Awards the organisation has achieved,
- compliance with National Patient Safety Goals,
- data for hospitals that submit National Quality Improvement Goals results.

Public disclosure is increasingly a requirement of accrediting agencies and governments. A recent study involving stakeholders of Australian primary, acute and residential aged care accreditation programmes generated a number of key interrelated messages for consideration. The researchers identified broad agreement across the three sectors for public disclosure of accreditation information. Participating stakeholders indicated that the provision of easily understood information provides opportunities for consumers to assess the relative quality of service provision of providers and inform their future decision making. The researchers noted significant differences in the nature and extent of information currently provided by each sector.

Stakeholders identified the need for community education about accreditation information to avoid unnecessary criticism and negative media. Issues with opaqueness, incompleteness and lack of context were raised in relation to existing information provided. A lack of clarity over the responsibility for this activity and the depth of detail that should be provided were expressed.

Given the potential negative impact of public disclosure, stakeholders indicated that some organisations engage in "gaming" behaviours to meet accreditation requirements and protect their organisations' public image. For example, some organisations were cited as complying with quality standards for accreditation purposes and then reverting back to previous practices – thus undermining the integrity of the information and the value of public disclosure.

It is apparent that the impact of public disclosure of accreditation information on consumers is not well understood. For example, it was considered that the immediate personal experience of aged care consumers may render accreditation information less relevant, and issues of access to primary care may override consideration of accreditation. This points towards further research in this area and the evaluation of the impact on consumer behavior resulting from initiatives aimed at improving public disclosure.

Public disclosure of accreditation information has widespread support but is challenging to put into practice, so as to produce appropriate, meaningful information (Greenfield et al., 2013). One proposed response that could be taken by government is to develop a single policy and standardised template to cover the public reporting of accreditation information across sectors.

It is considered this role could be taken up by the NHPA and the MyHospitals website could be used as a portal that explains accreditation programmes and provides a central repository for information to promote the uptake and use of information by consumers. Consideration of this form of proposal is warranted, given the current lack of public information and education provided at a national level.

Robust national trials of models for integrated financial incentives for quality and safety improvement will help build the evidence base for future policy decision making

Australia introduced a national approach to activity-based funding for public hospitals in 2012, with a pricing policy based on underlying principles for improving the technical efficiency of service provision. While there is broad support for this funding approach in the health system, there are stakeholders who are anxious to ensure funding mechanisms are put in place to improve health care quality and safety.

The IHPA is responsible for the pricing framework for public hospitals in Australia and setting the National Efficient Price. The IHPA decided not to make any adjustments to the NEP for safety and quality for 2014-15 after concluding that the research on linking funding and quality to date is equivocal and weak on empirical evidence that it has material impact (Eagar et al., 2013; IHPA and ACSQHC, 2013; Sansoni et al., 2013). However, this matter is clearly on the agenda and the IHPA is now working with the ACSQHC to work through potential future policy consideration. A Joint Working party comprising eminent clinicians, consumers, academics and policy makers was established to oversee and advise on options for consideration (IHPA, 2013).

This working party concluded that:

1. Much of the existing research suffers from methodological weaknesses and there is a need for robust well-evaluated trials to build the evidence base in Australia (Eagar et al., 2013).
2. The evidence for quality pricing structures that allow clinical services to participate in clinical quality registries linked to clinical benchmarking is strong in terms of achieving improvements in quality and safety (Eagar et al., 2013).

The working party also reviewed Queensland and Western Australia's learnings from the implementation of initiatives to incentivise safety and quality in the delivery of public hospital services. For example, in Western Australia the health department has been trialling a performance-based payment system in focusing on clinical areas where there is evidence of accepted best practice, current variation in practice and good quality data exist. One payment being trialled aims to ensure appropriate admission to a designated stroke unit for patients suffering stroke. In the National Stroke Audit, in hospitals with a stroke unit, only 56% of Western Australian patients were on the stroke unit on the day of the survey, compared with a national rate of 71%. Similar quality-based payment systems are continuing to be explored in Queensland, including withholding of payments for "never events", financial penalties for adverse events (i.e. infections, pressure ulcers) and quality improvement payments for improved access to quality care (e.g. stoke care).

Based on findings of the literature review and additional research, two projects were initiated. First, a proof of concept, underway in four Australian hospitals, to test a draft national set of high-priority hospital complications derived from administrative data. The aim is to identify if the national set of high-priority complications is a useful way of monitoring and supporting improvements in health care safety. The second is investigating potential application of 'best practice pricing' focusing initially on care following hip fracture. Best practice pricing describes a funding mechanism where the price or remuneration for a certain procedure, or care of a specific condition, depends on whether providers fulfil agreed criteria of accepted best practice for that procedure and condition.

Both projects, due to be completed in 2015, and the initiatives in Western Australia and Queensland, represent an opportunity for Australia to a) enhance consistent measurement of clinical quality and safety in its health services, and b) take steps towards funding mechanisms that consider quality of care in addition to volume and output. Linking funding to clinical indicators that are related to accreditation standards, clinical registries and benchmarking may also be fruitful priority areas.

3.7. An assessment of Australia's health care standards and accreditation mechanisms

Evaluation of the standards and accreditation scheme in Australia will be important, both in terms of their impact on improvements in national co-ordination and safety and quality outcomes

In a review of the national arrangements for safety and quality of health care in Australia in 2005, the review team formed the view that accreditation is an important driver for safety and quality improvement, which is widely used internationally in the health sector and in other industries (Review Team, 2005).

A recent review paper by the Deeble Institute in Australia provided an overview of the research evidence on the effectiveness of accreditation programmes to improve quality and safety in health care and concluded that the evidence is limited and varied in some areas. For example, when considering the relationship between health service accreditation outcomes and quality of care measures, some studies have found hospitals that receive positive accreditation ratings are more likely to score well on a range of other quality indicators for clinical care whereas in other studies it was found this was not necessarily the case where some poor-performing services were accredited (Hinchcliff et al., 2013).

Alkhenizan and Shaw (2011) concluded rather more positively from a systematic review of the literature to evaluate the impact of accreditation programmes on the quality of health care, recommending that general accreditation programmes of health organisations and accreditation of sub-specialties should be encouraged and supported.

The Deeble Institute found that some health professionals have concerns about the human and financial resources needed for organisations to participate successfully in accreditation programmes and participation might divert attention and resources away from more critical organisational and system-level problems (Hinchcliff et al., 2013). Shaw (2011) identifies skepticism of health professionals, particularly physicians, regarding the benefits of accreditation as the most important barrier to implementation of accreditation programmes.

While support was expressed by many stakeholders, reservations in relation to the overall role and utility of guidelines, standards and accreditation in assuring and improving quality were expressed, giving rise to calls for additional initiatives and action to build a more robust and comprehensive approach.

The introduction of the NSQHS standards and the establishment of a new accreditation scheme in Australia provide an opportunity for robust and structured evaluation, including design considerations to facilitate cross-national comparisons. The ACSQHC is currently evaluating the impact of the NSQHS standards, including an assessment of costs and benefits of the standards. This could contribute significantly to the body of knowledge in this area and inform ongoing design and refinement of the programme in Australia.

3.8. Conclusions

The introduction and broad acceptance of the NSQHS standards and accreditation scheme is a significant landmark in the development of national governance on patient safety in Australia. While it is too early to assess the full impact of these developments, they provide a sound foundation from which to drive greater consistency, co-ordination and accountability on health care safety and quality in Australia.

Greater co-ordination and reduction in duplication in accreditation is required through further development and broader application of the standards across health service sectors (mental health and primary and community care), particularly given the policy intent around more co-ordinated and integrated service delivery.

While the NSQHS standards are providing a strong focus on patient safety, further development and application of clinical standards and care pathways is required to drive improvements in the effectiveness and appropriateness of care and reduce inefficient variations in practice.

Alignment of standards to the further development in national information infrastructure and quality and safety indicators is required to build capacity to monitor and compare performance and improve transparency, including greater use of administrative hospital data, development of clinical quality registries and further maturation in the uptake and application of electronic health records.

Greater clarity over quality governance at the national level, along with more active promotion and facilitation of opportunities for information sharing and learning between health services, coupled with greater public disclosure of accreditation outcomes and appropriate financial incentives, will provide clearer organisational accountability, better inform decision making and encourage improvements in quality and safety.

Evaluation of the impact of the standards and accreditation scheme will be important to understand the relative success in achieving 1) greater consistency and co-ordination and a reduction in duplication; and 2) improving the quality and safety in the processes and outcomes of care.

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Chapter 4

Improving the quality of health care in rural and remote Australia

Australia's geographical vastness compounds the complexity of its health system and poses unique predicaments for health service delivery. While efforts have been made to address some of these problems, much of the policy conversation thus far has revolved around improving access and workforce shortages that are critical in some parts of the country. Little is known about the quality and outcomes of health care services delivered to rural and remote communities in Australia.

Adding to the challenge, Aboriginal and Torres Strait Islander people continue to considerably trail the non-Indigenous population in relation to life expectancy and other health status indicators. In Australia's most remote areas, Aboriginal and Torres Strait Islander people account for almost half the population, highlighting the importance of culturally competent services.

While more health professionals would help, strong governance, innovations in funding, creative thinking and a smarter use of technologies are all required. While efforts to improve access to health care should continue, these should be accompanied by an equal emphasis on measuring and improving quality.

4.1. Introduction

Australia's size adds another layer of complexity to its health system. The nation's population and services are heavily concentrated in coastal vicinities in and around urban centres. Yet people living in remote areas experience poorer health outcomes.

Adding to the challenge is that much of the ageing of the population will take place outside of Australia's major cities. People aged 65 and over are expected to make up about 30.1% of the population in metropolitan areas, 30.2% of the population in inland areas, and 26.8% of the population in coastal areas, in 2045 (Productivity Commission, 2005). With older people often experiencing multiple chronic conditions, this suggests the need for health care will grow. Some of this need will be in areas with insufficient services to meet the demand for health care associated with ageing.

Australia has long had geographical challenges in health care delivery in a way that few OECD countries have experienced. This is compounded by a maldistribution in the health workforce. The country has dealt with this situation with a heavy reliance on overseas-trained doctors, and government policy has directed them to areas of need. In a bid to become more self-sufficient, Australia has also made efforts to increase the number of locally-trained doctors and has provided incentives for doctors to relocate to areas of need. Other policy levers Australia has experimented with include task delegation among health professionals, and the use of technology to facilitate access to health services for people in the most remote parts of the country.

4.2. Setting out the challenge: the geography of health care need in Australia

Australia's population is heavily concentrated in urban centres

Australia is large in area and, compared with other countries, its population is small. There are on average three Australians for every square kilometre of land, a density similar to Iceland and Canada (OECD, 2009). This statistic hides the fact that Australia is a highly urbanised nation, with most of the population concentrated in two widely separated coastal regions. As Figure 4.1 shows, the larger of these is the east to south-east region, and the smaller lies in the south-west of the continent.

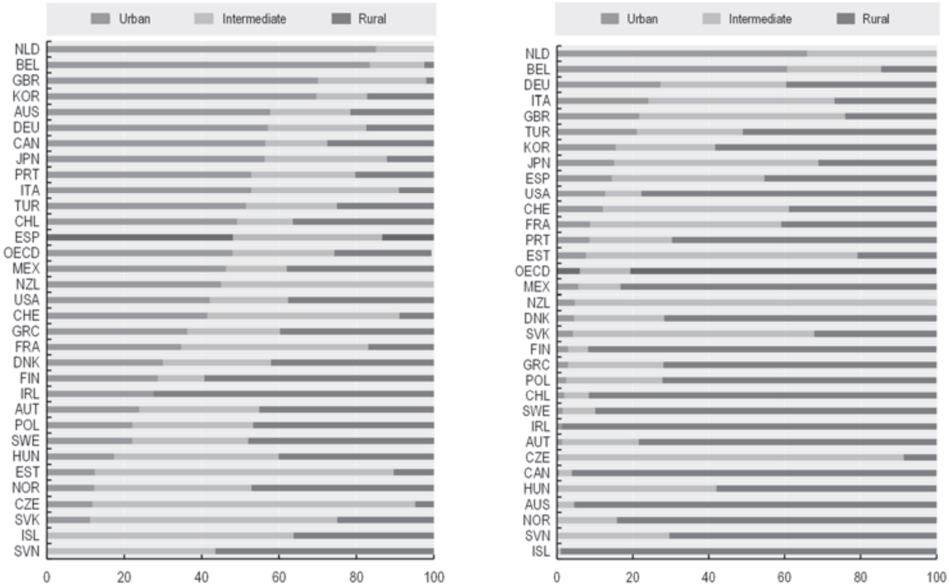
As Figure 4.2 shows, compared with other OECD countries, Australia has one of the highest proportions of rural land, relative to the national area. It also has one of the highest proportions of urban dwellers, relative to the national population. As a result, the spatial concentration of population in Australia is the highest in the OECD – almost two-thirds of the population live in 10% of the regions with the largest populations.

The move towards urban living has been taking shape since Australia's Federation in 1901. From then until 1976, the proportion of Australians living in capital cities rose from a little over one-third (36%) to almost two-thirds (65%) (ABS, 2008). This figure has remained relatively stable. In 2014, 15.6 million people, or 66.5%, were living in capital cities. Overall, almost a third of Australia's 23.5 million people reside in New South Wales, making it the country's most populous state (ABS, 2015).

Figure 4.1. Australia's population density

Source: OECD (2013), *Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

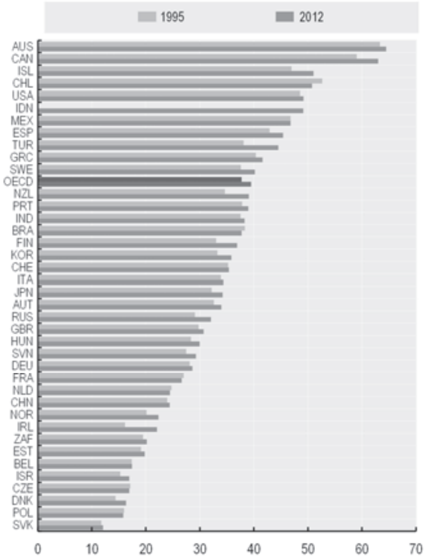
Figure 4.2. Distribution of the national area and national population into urban, intermediate and rural regions (top) and share of national population in the 10% of regions with the largest population (bottom)



National area

National population

Share of national population in the 10% of regions with the largest population



Source: OECD Economic, Environmental and Social Statistics.

A classification system is used to demonstrate the remoteness of Australia's regions. The Australian Standard Geographical Classification – Remoteness Areas system was developed by the Australian Bureau of Statistics (ABS) and enables quantitative comparisons between "city" and "country" Australia. It allows data from census collection districts to be classified into geographical categories by remoteness area. These categories are defined in terms of the physical distance of a location from the nearest urban centre, based on population size. The system has five categories:

- RA1 – Major Cities of Australia
- RA2 – Inner Regional Australia
- RA3 – Outer Regional Australia
- RA4 – Remote Australia
- RA5 – Very Remote Australia

Non-Indigenous Australians overwhelmingly live in urban areas. Almost three-quarters (71.3%) live in major cities. Those living in the most remote parts of Australia are few – 1.2% live in remote and 0.5% in very remote areas (ABS, 2013c). The story is somewhat more complex for Australia's Aboriginal and Torres Strait Islander people, who make up about 3% of the nation's population. More than half reside in major cities or inner regional areas, but their density compared with non-Indigenous people is higher in more remote areas. As Table 4.1 shows, at the end of June 2011, about a third of Aboriginal and Torres Strait Islander people lived in major cities, while more than 20% lived in remote and very remote areas (ABS, 2013c).

Table 4.1. Estimated resident Aboriginal and Torres Strait Islander population, remoteness areas, 30 June 2011

Remoteness areas	Aboriginal and Torres Strait Islander (%)	Non-Indigenous (%)	Total (%)
Major City Areas	34.8	71.3	70.2
Inner Regional	22	18.3	18.4
Outer Regional	21.8	8.7	9.1
Remote	7.7	1.2	1.4
Very Remote	13.7	0.5	0.9

Source: Australian Bureau of Statistics (2013), "Estimates of Aboriginal and Torres Strait Islander Australians", June 2011.

Aboriginal and Torres Strait Islander people account for almost half the population (45%) in very remote areas, and 16% in remote areas. They progressively account for less of the population as they move closer to cities, comprising 7% of the population in outer regional areas, 4% in inner regional areas and 1.5% in major cities (ABS, 2013c).

Australians living in rural areas experience poorer health outcomes

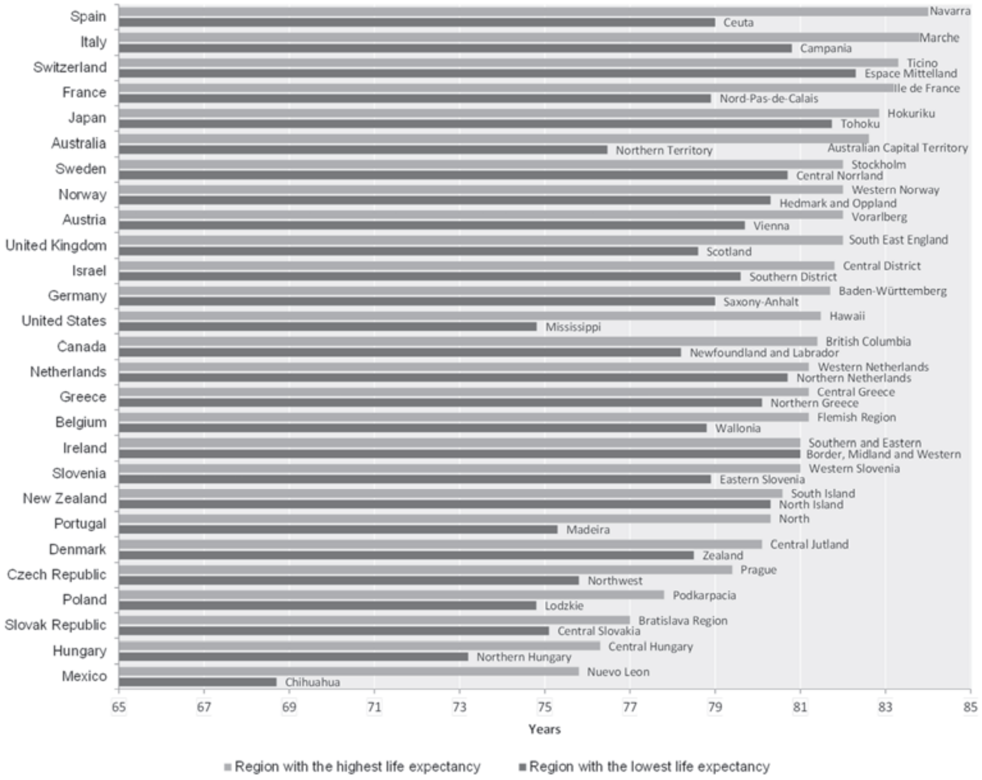
Remote Australia covers about 85% of the country's land mass, mostly in northern and central Australia (Standing Council on Health, 2012). For the most remote communities, services are limited. People may live hundreds of kilometres from their nearest major centre, with limited transport. Travel on unsealed roads can be difficult and even dangerous during the wet season, and access to affordable nutritious food can be difficult. Opportunities for education and work may also be more limited. This locational disadvantage perpetuates socioeconomic disadvantage and existing health conditions.

People living in cities can expect to live longer than people in more remote areas. In 2010-12, Australian men in major cities and inner regional areas had a life expectancy at birth of 79.7 years, compared with 77.4 years for men in outer regional, remote and very remote areas. Women in major cities and inner regional areas had a life expectancy of 82.8 years, compared with 81.5 years for women in outer regional, remote and very remote areas (ABS, 2013d).

As Figure 4.3 shows, Australia displays the third highest regional disparity in life expectancy in the OECD, with a difference of 6.1 years between the Australian Capital Territory (life expectancy at birth in 2010 of 82.6 years) and the mostly rural Northern Territory (76.5 years). Only the United States (6.7 years) and Mexico (7.1 years) have wider regional disparities in life expectancy (OECD, 2013a).

Rural Australia has higher mortality rates associated with cancer and other chronic disease, a higher prevalence of mental health problems, more potentially preventable hospitalisations, and higher rates of injury. The higher proportion of Aboriginal and Torres Strait Islander people in more remote areas only partially explains this; the poorer state of health extends to non-Indigenous people in remote Australia. As Table 4.2 demonstrates, people in the most remote areas experience poorer health outcomes on a range of measures.

Figure 4.3. Maximum and minimum regional life expectancy at birth, 2010 (TL2)[1]



1. To address the issue of comparability across countries' regional classification systems, the OECD has classified regions within each member country to facilitate comparability at the same territorial level. The classification is based on two territorial levels: the higher level (TL2) consists of 362 large regions and the lower level (TL3) consists of 1 794 small regions. These two levels are used as a framework for implementing regional policies in most countries. In Brazil, China, India, the Russian Federation and South Africa only TL2 large regions have been identified. This classification (which, for European Union countries, is largely consistent with the Eurostat NUTS classification) facilitates comparability of regions at the same territorial level.

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/888932914767.

Table 4.2. Health outcomes of people in cities and rural and remote areas

	Major cities	Inner regional	Outer regional	Remote	Very remote
Mortality per 1 000 people	5.5	6.1	6.4	6.7	8.4
Proportion of live-born babies of low birth weight	4.6	5	5.2	6.3	7.7
Lung cancer incidence per 100 000 people	40.4	43.5	46	46.9	55.8
Separations for potentially preventable hospitalisations per 1 000 people	11.1	12.5	14.4	20.1	27.3

Source: Australian Institute of Health and Welfare (2014), “Australia’s Health 2014”; Steering Committee for the Review of Government Service Provision (2015), “Report on Government Services 2015”, Vol. E, Health, Productivity Commission, Canberra.

Aboriginal and Torres Strait Islander people continue to trail others in their state of health

Despite a marginal improvement, the life expectancy gap between Aboriginal and Torres Strait Islander people and non-Indigenous people remains considerable. Life expectancy at birth for Aboriginal and Torres Strait Islander men was 69.1 years in 2010-12, about 10.6 years lower than for non-Indigenous men. For Aboriginal and Torres Strait Islander women, it was 73.7 years, about 9.5 years lower than for non-Indigenous women (ABS, 2013d). The gap has narrowed more for Aboriginal and Torres Strait Islander men, whose life expectancy increased by 1.6 years between 2005-07 and 2010-12, compared with a little less than a year for non-Indigenous men. For women in both groups, life expectancy increased by about half a year during that period (ABS, 2013d).

Improvements can be seen in the Aboriginal and Torres Strait Islander infant mortality rate, which was 6.1 deaths per 1 000 live births in 2013, compared with 3.4 per 1 000 births among non-Indigenous infants (ABS, 2014b). The Indigenous infant mortality rate declined by 62% from 1991 to 2010 (AIHW, 2013a). It is currently within the range required to meet the target set by the Council of Australian Governments in 2008, to halve the gap between Aboriginal and Torres Strait Islander and non-Indigenous child death rates by 2018.

Aboriginal and Torres Strait Islander people engage in more potentially harmful behaviour. For example, 41.6% aged 15 years and over reported smoking on a daily basis. These rates have declined from 48.6% in 2002, but are still much higher than for non-Indigenous people (15%) (ABS, 2014a). Harmful patterns of alcohol consumption are similar among Aboriginal and Torres Strait Islander and non-Indigenous groups. About 18% of Aboriginal and Torres Strait Islander people aged 15 years and over had exceeded the lifetime risk guidelines. This was similar for non-Indigenous people. However, Aboriginal and Torres Strait Islander people aged 15 years and over were more likely than non-Indigenous people to exceed the single occasion risk guidelines. Just over half (53.6%) of those aged 15 years and over had consumed more than four standard drinks on a single occasion, compared with 43.4% of non-Indigenous Australians (ABS, 2013a). Conversely, Aboriginal and Torres Strait Islander adults are twice as likely as non-Indigenous Australians to have abstained from alcohol consumption in the previous 12 months (AIHW, 2013a).

Aboriginal and Torres Strait Islander children aged 2 to 14 years are significantly more likely than non-Indigenous children to be obese (10.2% compared with 6.5%). Obesity rates for Aboriginal and Torres Strait Islander males and females are significantly higher than for non-Indigenous people in almost every age group (ABS, 2014a).

These adverse risk factors, combined with social determinants of health as well as more challenging social circumstances, explain the higher rates of ill health experienced by Aboriginal and Torres Strait Islander people. Findings from the Australian Aboriginal and Torres Strait Islander Health Survey indicate that the population fares significantly worse when it comes to heart or circulatory disease, diabetes, asthma and psychological distress (Table 4.3).

Table 4.3. Australian Aboriginal and Torres Strait Islander Health Survey key findings

	Prevalence (%)	Adjusted rate ratio
Self-rated “excellent” or “very good” health[1] (a)	39.3	0.6
Asthma[2] (b)	17.5	1.9
Heart or circulatory disease[3] (a)	12.7	1.2
Diabetes/high sugar levels[4] (a)	8.6	3.2
High or very high psychological distress[4] (b)	30	2.7

1. Estimates for persons aged 15 years and over.

2. Estimates for all persons.

3. Estimates for persons aged 2 years and over.

4. Estimates for persons aged 18 years and over.

Source: a) Australian Bureau of Statistics (2014), *Australian Aboriginal and Torres Strait Islander Health Survey: Updated results, 2012-13*. b) Australian Bureau of Statistics (2013), *Australian Aboriginal and Torres Strait Islander Health Survey: First Results, Australia, 2012-13*.

The high rate of kidney disease among Aboriginal and Torres Strait Islander people has been a considerable concern. In 2010-11, almost 11% of people with end-stage kidney disease who were beginning treatment were identified as Indigenous (AIHW, 2014b). Access to dialysis treatment or a kidney transplant can be more limited in remote communities, because there are no hospitals in proximity to these areas, or there may be difficulties in accessing transportation to travel to health services.

Between 2001 and 2011, the number of Aboriginal and Torres Strait Islander people with treated kidney disease almost doubled (from 762 to 1 491), compared with a 59% increase among non-Indigenous people over the same period (from 11 613 to 18 289). However, in 2011, Aboriginal and Torres Strait Islander people with kidney disease were less likely to receive a functioning kidney transplant than their non-Indigenous counterparts (13% compared with 47%) (AIHW, 2014b).

There is limited information on the number of people with kidney disease not receiving dialysis or a kidney transplant. It is estimated there were 21 370 new cases of end-stage kidney disease in Australia between 2003 and 2007, about 21 new cases per 100 000 population. In all age groups up to 60 years, more than 90% of cases were treated, but the rate fell substantially among older age groups. Data provided for five jurisdictions suggest the age-standardised ratio of treatment rates between Indigenous and non-Indigenous Australians was 0.96, indicating that Indigenous Australians had slightly lower treatment rates (AIHW, 2011).

Aboriginal and Torres Strait Islander people also have higher death rates for a range of health conditions. Between 2007 and 2011, they were most likely to die from circulatory conditions (26% of all Indigenous deaths), followed by cancer (19%) and external causes such as suicides, falls, transport accidents and assaults (15%). Circulatory disease deaths also account for the largest gap in death rates between Indigenous and non-Indigenous Australians (22% of the gap). This is followed by endocrine, metabolic and nutritional disorders – particularly diabetes – which account for 14% of the gap (AIHW, 2014b).

Overall, potentially avoidable death rates are more than three times higher for Aboriginal and Torres Strait Islander people than non-Indigenous people. In 2006-10, overall death rates were twice as high. Circulatory diseases accounted for the largest gap (27% of the gap), followed by diabetes (17%) and cancers (12%). In 2007-11, 81% of Indigenous deaths occurred before the age of 65 years, compared with 35% for non-Indigenous Australians (AIHW, 2014b). These are striking figures, and could suggest that Aboriginal and Torres Strait Islander people have more trouble accessing health care and are less likely to engage in preventive health measures. This can point to poor health literacy, affecting the capacity to adopt preventive behaviours that would improve their health, and seek timely treatment for long-term health conditions.

The ABS health literacy survey does not provide information based on Indigenous status, nor does it provide data for very remote parts of Australia. While it is difficult to accurately measure health literacy levels among Aboriginal and Torres Strait Islander people, it is known that they are among the most disadvantaged populations in Australia. Higher rates of avoidable deaths and poor health can be influenced by social determinants such as education, employment and the environmental conditions in which people live. Inequalities in health care access and use of services may exacerbate inequalities in health status.

Less is known about discrepancies in meeting the health needs of Aboriginal and Torres Strait Islander people. In the Australian Aboriginal and Torres Strait Islander Health Survey, about 21.9% of Aboriginal and Torres Strait Islander people had consulted a general practitioner (GP) or specialist in the last two weeks of 2012-13, 6% had visited the casualty, outpatients or day clinic, and 18% had been admitted to a hospital in the previous year (ABS, 2013a). But due to methodological differences between the Australian Aboriginal and Torres Strait Islander Health Survey and the Australian Health Survey, there are no directly comparable data for consultations with health professionals.

The Australian Aboriginal and Torres Strait Islander Health Survey, which is based on self-reported data, also indicates that remoteness seems to affect the extent to which Aboriginal and Torres Strait Islander people access services. The survey indicates that 24% of Aboriginal and Torres Strait Islander people in major cities had consulted a GP in the two weeks before being surveyed, compared with 18.5% in very remote areas. Aboriginal and Torres Strait Islander people in very remote areas were also more likely to have been admitted to hospital in the previous 12 months (21.5% compared with 18.3%) (ABS, 2013a). More hospital admissions may partially reflect difficulties in accessing primary health care, and delayed testing and medical attention requiring more complex treatment at later stages of disease.

However, Aboriginal and Torres Strait Islander people in non-remote areas were more likely than those in remote areas to have rated their health as fair or poor (26% compared with 21%). There was no significant difference between the proportion of Aboriginal and Torres Strait Islander people reporting excellent or very good health in non-remote and remote areas (40% compared with 38%), although more people in remote areas (41%) reported being in good health than non-remote areas (35%) (ABS, 2013a).

About 323 600 Aboriginal and Torres Strait Islander people accessed a Commonwealth-funded Indigenous-specific health service in 2013-14. If these people went to only one organisation, this would represent about 45% of the total Indigenous population. However, as those accessing health services may have attended more than one organisation and can be counted at multiple locations, this may be an overestimate of the proportion of the total Aboriginal and Torres Strait Islander population who received these health services (AIHW, 2015).

Data from more than 200 primary health care organisations receiving funding from the Australian Government to provide services primarily to Aboriginal and Torres Strait Islander people indicate that organisations with better performance are spread across diverse geographical and service delivery environments. Small organisations perform well, as do larger organisations. For example, remote services are more likely to comply with guideline-based care and routinely performed better than those in other locations on a range of process of care indicators such as GP management plans, team care arrangements and HbA1c results for people with type 2 diabetes (AIHW, 2014e).

The vital role primary health care can play in improving the health of Aboriginal and Torres Strait Islander people is demonstrated in a cohort study of more than 14 000 Indigenous residents living in remote communities. It found the average annual number of hospitalisations per person decreased with increasing levels of primary care for five conditions. Hospitalisations were reduced by 84% in the medium primary care group and 86% in the high primary care group for renal disease; 78% and 80% respectively for diabetes; and 73% to 78% for hypertension. The reductions in hospitalisations for ischaemic heart disease and chronic obstructive pulmonary disease were the lowest among the five conditions, but still statistically significant, ranging from 61% to 75% and 62% to 71%, respectively. Death rates in the high and medium primary care groups were lower than in the control group for all conditions. There were 69% and 75% reductions in death rate for diabetes, and 72% and 75% decreases for renal disease. In addition to better health outcomes, the study also demonstrates the cost-effectiveness of strengthening primary health care (Zhao et al., 2014).

4.3. The geography of health care services in Australia

Australia’s health workforce is characterised by a maldistribution that is particularly acute in the country’s rural and remote parts. In some areas, a low volume of patients makes a hospital or a specialist unviable. These are also places that are not perceived by health practitioners as attractive to live. Succession planning for an ageing workforce presents another challenge for policy makers.

There is a scarcity of health professionals and other resources in remote Australia

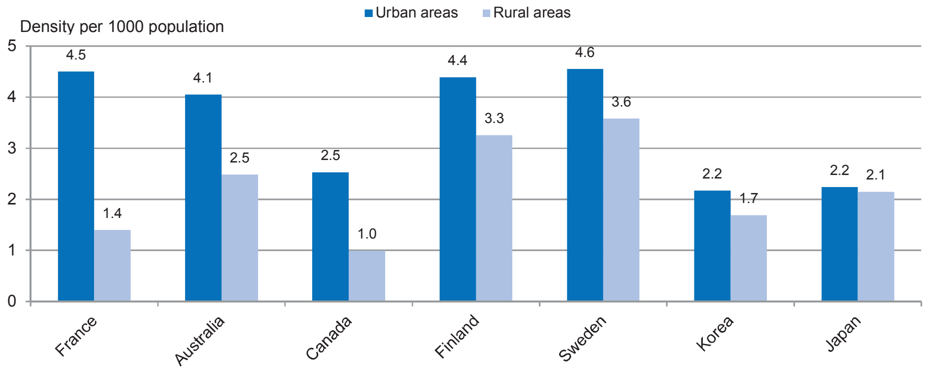
Difficulty in accessing health services, in particular medical specialists, grows with increasing distance from major cities. Compounding the issue is the fact that social disadvantage is typically higher in regional and remote areas, where workforce shortages are more acute. It is not infeasible, for example, that a rural patient in Western Australia faces the prospect of travelling 3 000 kilometres to attend an appointment with a specialist in the state's capital of Perth. If potential poor co-ordination between health services is added to the equation, this can compromise a patient's care and lead to avoidable hospitalisations. As discussed later in this chapter, the federal government has provided a range of financial and non-financial incentives to encourage doctors, including specialists, to relocate to, and remain in, rural and remote areas.

Australia's health workforce is characterised by a geographical maldistribution of medical practitioners. The overall supply of employed full-time equivalent (FTE) clinicians in 2013 was significantly higher in major cities compared with other areas. However, analysis by the type of clinician shows that the disparity was much less with regard to the supply of GPs specifically, with 106.4 FTE GPs per 100 000 population in major cities compared with 110.1 FTE per 100 000 in inner regional areas and 112.2 FTE GPs in outer regional areas. The supply of GPs in remote/very remote areas was the highest of all areas in 2013, with 134.7 FTE per 100 000 population (AIHW, 2015b). However, this equates to only about 600 GPs working across a very broad geographical area consisting of many small communities and a total estimated population of more than 500 000 people (AIHW, 2014d).

By contrast, Australian specialists work predominantly in major cities. In 2013, 154.8 FTE specialists per 100 000 population worked in major cities, with supply decreasing to 80.2 FTE per 100 000 population in inner regional areas, 58.3 FTE per 100 000 population in outer regional areas, down to 30.7 FTE per 100 000 population in remote/very remote areas (AIHW, 2015b). This last group equates to only about 140 specialists (AIHW, 2014d).

The overall physician density in Australia is 4.1 per 1 000 population in urban areas, compared with 2.5 per 1 000 in remote and very remote areas (OECD, 2015). This excludes areas in Australia classified as "regional". The Australian urban versus remote/very remote distribution of doctors represents one of the wider disparities in the OECD (Figure 4.4). However, the disparity is less pronounced than in Canada, a country whose large size presents similar challenges in terms of health service delivery.

Figure 4.4. Physician density in predominantly urban and rural regions, selected countries, 2013 (or nearest year)



Note: The classification of urban and rural regions varies across countries.

Source: Australia: AIHW National Health Workforce Data Set (NHWDS) 2013. Canada: Scott's Medical Database, 2013, Canadian Institute for Health Information. France: RPPS médecins au 1er janvier 2015. Other: *OECD Regions at a Glance 2015*.

Unlike the situation with medical practitioners, the supply of all nurses (including registered and enrolled) is more evenly distributed, ranging from 1 111 FTE nurses per 100 000 population in outer regional areas to 1 265 FTE nurses per 100 000 population in very remote areas in 2013. In major cities, there were 1 161 FTE nurses per 100 000 population in 2013 (AIHW, 2015c).

A higher proportion of Indigenous-specific primary health organisations service the most remote areas. Of the 203 Australian Government-funded Indigenous-specific primary health care organisations that provided data in 2013-14, around one-third (33%) were located in very remote areas, almost one-quarter (22%) were in outer regional areas and 21% were in inner regional areas. A smaller proportion were in remote areas (13%) and major cities (11%) (AIHW, 2015a).

Difficulty in accessing health care in remote areas extends to acute health care. Of Australia's 746 public acute hospitals, only 71 are in remote areas and 83 in very remote areas, where full hospital services are not viable. These communities are serviced largely by small and very small public hospitals with a relatively narrow range of services. They mostly provide emergency services rather than formal emergency departments (AIHW, 2014a). In many of these communities, patients who require surgery or who have other complex issues travel to bigger regional centres for hospital treatment that cannot be provided by outreach specialists.

Rural Australians face major barriers in accessing health care

In an ABS Australian Health Survey, about 32.8% of people living in major cities had consulted a specialist in the previous 12 months, compared with 27.6% of people living in outer regional and remote areas. The trend was similar when it came to seeing a dentist (48.8% of people in major cities, compared with 41.1% of people in outer regional and remote areas). However, the extent of GP visits was relatively similar. About 84.6% of people living in major cities had consulted a GP in the previous 12 months, compared with 82.3% in inner regional areas and 81.7% in outer regional and remote areas (ABS, 2013b).

In an ABS Patient Experiences survey, people living in outer regional and remote areas were more likely to visit an emergency department than those living in major cities (17.1% compared with 12.3%) (ABS, 2013f). As highlighted in Chapter 2, this could be explained by difficulties in accessing a GP with no out-of-pocket cost, particularly outside of standard working hours. It could also reflect delays in seeking health care that could exacerbate an existing medical condition.

In the ABS survey, of those who had seen a GP in the previous 12 months, people living in outer regional, remote or very remote areas were more likely to report waiting longer than an acceptable period than those living in major cities (23.8% compared with 19.3%) (ABS, 2013f).

The co-ordination of care for people living in these areas can also be affected. Among those who had seen three or more health professionals for the same condition, more people living in outer regional, remote or very remote areas reported issues caused by a lack of communication between health professionals, compared with those in major cities (16.5% compared with 11.7%) (ABS, 2013f).

Similar patterns are seen in preventive programmes. For example, the uptake of cervical screening is lower in very remote areas (54%), compared with 59% in inner regional areas and 58% in major cities (AIHW, 2014c). Very remote areas also have the lowest participation rate in breast cancer screening of 45.8%, compared with 53.2% in major cities and a high of 58.5% in outer regional areas (AIHW, 2013b).

While sometimes variations in the provision and use of health care are warranted, they can also signal that resources are not being used efficiently or effectively. An Australian study undertaken as part of an OECD project analysed health care variation based on the areas in which people live. The variation was smallest for caesarean sections (1.6-fold) and largest for cardiac catheterisation (7.4-fold). Variation between local areas was evident across all interventions and conditions. For example, in 2010-11, the national standardised rate of admission for hip fracture was 102 per 100 000 population. There was a five-fold difference between the highest admission rate of 253 admissions per 100 000 population in Western Australia's remote Kimberley-Pilbara region, compared with 50 per 100 000 in the inner regional Perth South Coastal region. Once the Kimberley-Pilbara region, and outlier, was excluded, the variation fell to 2.7-fold. Some explanations for this may include higher rates of osteoporosis and obesity in the region, and that Aboriginal and Torres Strait Islander Australians are more likely than others to fracture their hip (ACSQHC and AIHW, 2014).

In another example, the national standardised rate of admission for cardiac catheterisation was 596 per 100 000 population. There was over a 7-fold difference between the highest rate (1 551 admissions per 100 000 in outer regional Murrumbidgee) and the lowest rate (210 admissions per 100 000 population in metropolitan Inner West Sydney). However, the authors noted that Murrumbidgee was an outlier in the results. Removal reduced the difference to 5.1-fold. No clear relationship between remoteness and admission rates was observed (ACSQHC and AIHW, 2014).

This kind of analysis is useful in determining public health or access problems unique to particular regions, and can help inform policy making. There are inconsistencies, however, in how the states and territories are doing this work. For example, the report notes that the Australian Capital Territory currently does not have any ongoing local activity measuring or targeting health care variation. It also notes that the first step in reducing unwarranted variation in health care is the systematic collection, analysis and publication of variation. That needs to go beyond hospitals to variation in community and primary care. The Australian Commission on Safety and Quality in Health Care (ACSQHC) will explore variations in community care as part of an Australian Atlas of Healthcare Variation. But it says a lack of routine information on outcomes of care is the key limitation of this work (ACSQHC and AIHW, 2014).

4.4. Policies, data infrastructure and payment systems in rural and remote health care in Australia

In addition to heavily relying on foreign doctors and increasing the number of medical graduates, Australia has made efforts to embrace workforce innovation. Strategies have included changing scopes of practice, flying specialists and other health practitioners in and out of remote areas, and offering doctors financial incentives to move to areas of need.

In recognition of the complexities of delivering health services in Australia's most remote areas, a National Strategic Framework for Rural and Remote Health has been developed (Box 4.1). The framework aims to promote a national approach to policy, planning, design and delivery of health services in rural and remote communities. The framework cites wide variations between rural and remote communities. As a consequence, a "one size fits all" approach cannot be applied throughout rural and remote Australia. The framework therefore encourages health service planning and delivery that recognises the need to develop solutions to meet the unique needs of local populations (Standing Council on Health, 2012).

Box 4.1. Australia's National Strategic Framework for Rural and Remote Health

Goals

Rural and remote communities will have:

1. improved access to appropriate and comprehensive health care
2. effective, appropriate and sustainable health care service delivery
3. an appropriate, skilled and well-supported health workforce
4. collaborative health service planning and policy development
5. strong leadership, governance, transparency and accountability.

Outcome areas

The framework lists objectives and strategies under five outcome areas. These are:

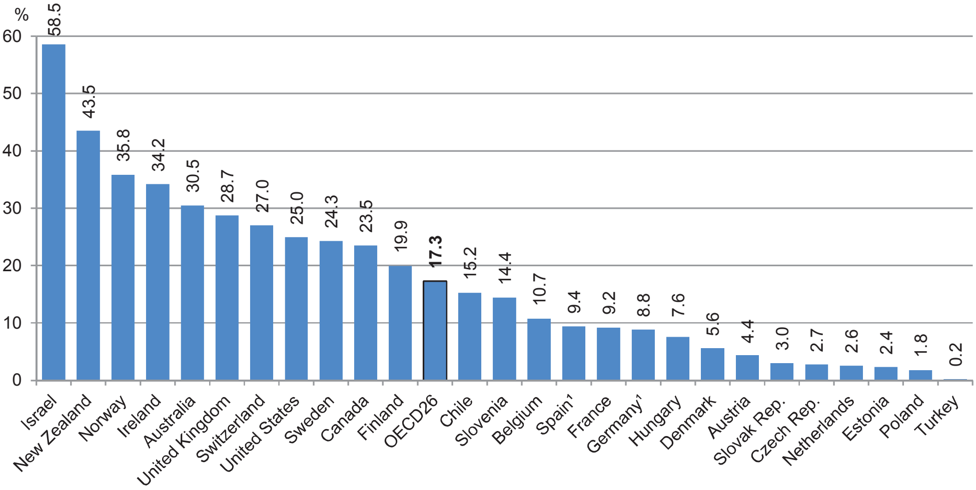
1. access
2. service models and models of care
3. health workforce
4. collaborative partnerships and planning at the local level
5. strong leadership, governance, transparency and performance.

Source: Standing Council on Health (2012), "National Strategic Framework for Rural and Remote Health".

Australia has relied heavily on foreign-trained doctors to fill health workforce gaps

Australia's dependence on overseas-trained doctors (OTDs) has been described as "extraordinary" by the World Health Organization (Siyam and Dal Poz, 2014). Figure 4.5 shows Australia has one of the highest proportions of foreign-trained doctors in the OECD (OECD, 2015).

Figure 4.5. Share of foreign-trained doctors in OECD countries, 2013 (or nearest year)



1. In Germany and Spain, the data is based on nationality (or place of birth in Spain), not on the place of training.

Source: OECD Health Statistics 2015, www.oecd.org/els/health-systems/health-data.htm.

Australian Government policy has sought to direct overseas-trained GPs to more remote areas to fill workforce gaps. Federal Department of Health GP statistics based on Medicare data indicate that overseas-trained GPs in Australia make up a higher proportion of the GP workforce in outer regional areas (57%) and inner regional and remote areas (50%), on a full-time workload equivalent (FWE) basis. They account for less of the workforce in major cities (44% of FWE GPs).

One explanation for this is a scheme that gives overseas-trained GPs incentives to work in areas of need. Currently, under the Health Insurance Act 1973, there are restrictions on access to Medicare provider numbers for overseas-trained doctors. To gain access to Medicare benefits, they are required to work in a district of workforce shortage. This scheme is known as the ten-year moratorium. However, OTDs can reduce the period of their restriction by practising in a regional or remote area. The OTD Scaling programme enables doctors to reduce the period of restriction by up to 50%. The Five-Year Overseas-Trained Doctor Scheme can provide even greater reductions for OTDs who practise in locations deemed to have severe workforce shortages. By agreeing to work in a difficult to fill rural or remote position, overseas-trained GPs can gain a Medicare provider number to practise anywhere in Australia, once the requirements are met. Box 4.2 provides an example of how it works in one state.

Box 4.2. Graded incentive categories by Health Workforce Queensland

- *Category A:* Exceptionally difficult for GP recruitment and retention. Includes small, very remote communities, and very remote and difficult to retain Aboriginal and Torres Strait Islander communities. Every year in this category counts as two years in the scheme, with the maximum reduction being from five to three years.
- *Category B:* Very difficult for GP recruitment and retention. Includes remote locations, small communities, very difficult community attributes, and high Aboriginal and Torres Strait Islander people need. Also includes demonstrated requirement for advanced practice skills, special services, and extreme climate. Every year in this category counts as one and a half in the scheme, with the maximum reduction being from five to four years.
- *Category C:* Difficult for GP retention and recruitment. A default category that includes all locations previously approved unless otherwise agreed. The GP must serve five years in the scheme, with no additional concessions.

Source: Health Workforce Queensland, *Fact Sheet: Five Year Overseas Trained Doctors (OTD) Recruitment Scheme*, available at: www.healthworkforce.com.au/Portals/0/Documents/Support/Fact%20Sheet_29Apr13.pdf (accessed 27/05/2015).

Efforts have been made to increase the number of Australian doctors, and encourage them to work in rural and remote areas

Australia has set an ambitious goal of workforce self-sufficiency by 2025, and has increased the number of university places to try to achieve this. In 2003, 1 511 domestic students and 378 international students commenced medical courses. By 2012, the number had grown to 3 035 domestic and 651 international students. This trend is also reflected in graduating students. A combined 1 425 students completed medical courses in 2002, and the number doubled to 2 964 in 2011 (Health Workforce Australia, 2013).

Based on evidence that medical graduates from a rural background and those who have had rural exposure during training are more likely to practise in a rural area, the federal government has invested in a number of rural training programmes. The Rural Clinical Training and Support programme funds a network of rural clinical schools and requires participating medical schools (17 of a total of 19 schools) to deliver short-term rural placements to all medical students, and long-term (over one year) rural placements to 25% of their medical students. Medical schools must also fill 25% of medical school places with students from a rural background. The University Departments of Rural Health programme supports rural clinical placements for students from a range of health disciplines, including medicine, nursing and allied health.

However, university medical places are partially subsidised by the federal government, while funding for internships in public hospitals is provided by state governments. The increasing number of graduating medical students has put pressure on available internship positions. The Australian Government has an agreement with the states and territories that guarantees intern positions for all Australian domestic medical graduates.

In 2014, the Medical Board of Australia and the Australian Medical Council implemented a new framework for internships. While the framework improves consistency across the states, it does little to encourage doctors to get a taste of rural medicine early in their careers. The scheme requires interns to gain a minimum of ten weeks each in medicine and surgery, and at least eight weeks in emergency medical care. However, these placements are not necessarily available in small rural hospitals. Of rural health, the framework says combinations of services in rural, regional or outer metropolitan areas may provide a "suitable context" for more integrated placements (Australian Medical Council and Medical Board of Australia, 2013).

Separately, the federal government has its own Commonwealth Medical Internship initiative, which aims to increase the training of medical interns in the private sector in rural Australia. This scheme is not open to Australian citizens, as domestic medical graduates are expected to be placed in internships by states and territories. This scheme is open only to full-fee paying international medical graduates who completed their medical course in Australia. These interns must enter a Return of Service Agreement with the federal government, requiring them to complete a year's return of service in an approved rural location within five years of starting their internship. Failure to complete the internship year or the return of service is considered a breach of the Agreement and may require the intern to repay the cost of providing the internship place, of up to AUS 132 000 in 2014 (Department of Health, 2014a).

Another federal government strategy to increase numbers of medical graduates in country areas is the Higher Education Contribution Scheme (HECS) Reimbursement Scheme. It reimburses the student debt for medical students, should they train and work in rural communities. Scaling of the HECS Reimbursement Scheme allows the debt to be repaid in greater amounts for doctors working or training in outer regional, remote and very remote locations. Scaling also allows doctors to reduce the period for reimbursing the cost of their medical studies from five years to two, depending on the classification of their training or practice location according to area of remoteness. Nurses can also receive HECS reductions under a different system. However, allied health professionals, dentists and public health graduates are not eligible for these sorts of schemes.

The federal government has also sought to increase numbers of medical graduates in rural areas through the Medical Rural Bonded Scholarship (MRBS) scheme and the Bonded Medical Places (BMP) scheme. The MRBS provides 100 medical school places with an attached scholarship each year to first-year Australian medical students. The scholarship recipients sign a contract that requires them to work as a medical practitioner in a rural or remote area for six years after they attain fellowship.

Of all first-year medical places that receive a funding contribution from the federal government, 25% are allocated to the BMP scheme. Students must commit to working in an approved workforce shortage area of their choice, which can include outer metropolitan, rural and remote areas. This applies for a period that equals the length of their medical degree. A scaling system that increases with remoteness allows participants to fast track their return of service period. Graduates who breach the agreement have to repay a proportion of the government contribution to their university fees. The BMP scheme does not include a scholarship to the student.

A review of Australian Government health workforce programmes observed that stakeholders had cited concerns about the potentially “stigmatising” effect of the BMP scheme on students and on the nature of rural practice itself. There have also been concerns about the lack of international evidence for the success of mandatory or bonded schemes in achieving long-term sustainable increases in the rural health workforce. However, the review concluded that very few students in Australia had yet to become eligible for return of service under the scheme, given the long lead time in medical training, and it was premature to abandon the scheme without meaningful data (Mason, 2013).

The federal government also provides a range of scholarship programmes that aim to support the rural and remote health workforce and to recruit students from rural and remote areas. For example, the Nursing and Allied Health Scholarship and Support Scheme provides scholarships to nursing and allied health professionals for continuing professional development (CPD) activities and postgraduate study. There are also scholarships available for undergraduate studies and clinical placements in particular settings.

A range of other schemes and incentives exist for doctors in rural and remote areas. Federal government-funded incentives under the General Practice Rural Incentives Programme are available for graduates undertaking their GP training in regional and remote areas. Additionally, the Australian General Practice Training (AGPT) programme is a postgraduate vocational training programme for medical graduates wishing to pursue a career in general practice. Under the programme, at least 50% of training activity occurs in inner and outer regional and remote and very remote areas. The federal government is increasing the number of positions in the programme.

The Remote Vocational Training Scheme (RVTS) allows doctors to remain and continue to provide general medical services in remote communities that are often single-doctor towns, and receive structured remote supervision to train towards fellowship of the Australian College of Rural and Remote Medicine (ACRRM) and the Royal Australian College of General Practitioners (RACGP). The RVTS gives preference to solo doctors located in inner and outer regional areas, and remote and very remote areas. RVTS doctors can be found practising in a variety of roles, including with the Royal Flying Doctor Service, and Aboriginal Medical Services and private practice in smaller communities. A total of 89 doctors have achieved general practice fellowship through the programme.

State and territory governments provide a significant number of vocational training places in their public hospitals. The federal government funds the Specialist Training Programme, which seeks to extend vocational training for specialist registrars into settings outside traditional metropolitan teaching hospitals. The programme is delivered through 12 medical specialist colleges under funding agreements with the federal government. The colleges then provide funding to health care settings that have successfully applied to support these placements. More than 50% of training posts have an element of training in regional and rural areas.

Multiple health professionals flying in and out of remote communities are a vital service, but can affect the continuity of patient care

Devising strategies to encourage doctors to live in the most remote areas of Australia, which are often devoid of other services, is very challenging.

Given Australia’s geography, it is not uncommon for health practitioners to be flown in to remote areas to deliver health services. These “fly-in/fly-out” and “drive-in/drive-out” services are used to fill the void of medical specialists and other health professionals. The Rural Health Outreach Fund brings together five outreach programmes, including medical specialists, ophthalmologists, maternity services, a rural women’s GP service, and a paediatric outreach programme. More outreach is provided by allied health professionals, midwives and nurses, GPs and multidisciplinary teams.

Mental health and chronic disease are among the priority areas for outreach services. In 2013-14, 190 460 Australians accessed services through this programme.

Outreach is expensive to provide. However, it has become an essential part of the Australian health workforce. Outreach represents 28.7% of specialist services in very remote areas, and 4.2% in remote areas (Health Policy Analysis, 2011). An evaluation of the Medical Specialist Outreach Assistance Programme – which has since been brought into the Rural Health Outreach Fund – indicated it had the greatest impact in reducing the gap in access in very remote areas (Health Policy Analysis, 2011). Among the evaluation's recommendations was that funding be targeted at communities with the highest levels of need, and better mechanisms be used to assess levels of need and gaps in access and take into account the cost of service delivery in more remote locations (Health Policy Analysis, 2011).

The success of these schemes in more remote communities depends on the willingness of specialists to provide outreach services. Only some specialists are willing to participate because of time commitments, the impact on remuneration, and issues with co-ordination (Health Policy Analysis, 2011). Another barrier is a lack of stability in primary care services. In less remote places, GPs and hospitals can provide a reliable basis for specialists to provide outreach, and can assist with managing appointments. Anecdotal evidence suggests there is a high turnover of local primary care staff in remote communities. The evaluation of outreach noted that in some communities, the visiting specialist service was the "most stable" health service providing continuity for patients. Other issues were a lack of physical space to provide services, and broader social and economic issues affecting the most disadvantaged remote communities (Health Policy Analysis, 2011).

The evaluation found outreach services were more likely to be successful if they were provided with some regularity over a long period of time, so that community trust and confidence in the service and specialists could be gained. A good example of this was in Aurukun in far north Queensland, where the general physician and paediatrician had conducted regular clinics in the community for more than 20 years. This helped them to establish good relationships with the local people (Health Policy Analysis, 2011). Services that were free were more likely to be used. Also pivotal to success was a collaborative approach between visiting specialists and local primary care providers. For example, in Leongatha in rural Victoria, the GPs had responsibility for patients before and after any procedure conducted by a visiting specialist. This included administering their anaesthetic before surgery (Health Policy Analysis, 2011).

In another initiative, the Remote Area Health Corps, urban-based health professionals such as GPs, registered nurses, dental and allied health professionals, provide short-term health workforce support to remote Aboriginal and Torres Strait Islander communities around the Northern Territory. These placements can range from three weeks to three months.

Temporary locums are also used to provide respite to local doctors. Locums are temporary doctors who can give local doctors time for rest and to engage in CPD. The aim of such a scheme is also to help boost retention rates of doctors in remote areas. The National Rural Locum Scheme accounts for specialist obstetricians, anaesthetists and GPs. Similar schemes exist to enable rural nurses, midwives, dentists and allied health professionals to take leave.

While locums perform a vital service in providing some respite for doctors, the frequent turnover of professionals means this is not a sustainable long-term approach. If patients are treated by multiple doctors, they can be deterred by having to recount their history over and over again. Their ability to establish trust with a doctor is affected, as is their continuity of care. There have been reports by patients of pathology test results and radiology reports going missing between one GP and the next, and follow-up not taking place (Far West New South Wales Medicare Local, 2013).

Additionally, the Royal Flying Doctor Service, which has existed for about 85 years, complements other rural health services. It receives funding from the federal and state and territory governments, fundraising and private contracts. Its services include 24-hour emergency retrieval, aeromedical transportation of patients between hospital facilities, and a range of primary health services. In 2013-14, it had more than 282 000 patient contacts, including patients at clinics, patients transported, and telehealth; more than 54 000 patient transports; and conducted more than 16 000 clinics (Royal Flying Doctor Service, 2014).

Schemes that subsidise patient transport and accommodation are insufficient to meet patients' costs

Patients who need hospital treatment often have to travel long distances. Patient travel assistance schemes are provided by the state and territory governments. Generally, they subsidise rather than fully cover the cost of travel and accommodation. Criticisms of these programmes include a lack of uniformity, levels of reimbursement being insufficient, and challenges to accessing funds. A government evaluation of medical outreach notes that the lack of uniformity in travel assistance schemes means that access to care is not equal for all Australians – depending on where people live, they may or may not receive funds or they may be insufficient to cover expenses. The levels of reimbursement also do not reflect current costs of travel and accommodation (Health Policy Analysis, 2011).

For example, the eligibility is different in each state regarding the minimum distance of travel. The most common minimum one-way travel criterion is 100 kilometres, with Queensland set at 50 kilometres and Tasmania 75 kilometres. In the Northern Territory, which has a high population of Aboriginal and Torres Strait Islander people with arguably greater need, the minimum distance is 200 kilometres one way. A review into the territory's scheme recommended it remain at 200 kilometres, due to the region's large geography and the high demand for the scheme (Northern Territory Department of Health, 2013).

There are also differences around whether patients must make co-payments. Queensland provides a subsidy of AUS 60 per night per person for commercial accommodation and AUS 10 per night for private accommodation, but the client and carer are required to contribute to the first four nights of accommodation per financial year (Queensland Government, 2014). The Northern Territory contributes AUS 60 per night in commercial accommodation and AUS 20 per night in private accommodation, but the contribution is payable to both client and carer from the first night (Northern Territory Department of Health, 2015).

The fuel subsidy paid in various jurisdictions ranges from 16 to 30 cents per kilometre, with accommodation subsidies ranging from AUS 30 to AUS 60 per night (National Rural Health Alliance, 2014). There have been a number of state reviews into the various schemes, and recurring themes include the inadequacy of the amount paid towards accommodation and travel, the need to lower the threshold that patients must travel before qualifying, and the need to streamline the complex process for claiming reimbursement (National Rural Health Alliance, 2014).

The current state of these schemes can deepen health inequalities between people living in major cities close to hospital care with no out-of-pocket costs, and people in remote communities who have to pay to travel for hospital treatment.

Australia was slow to embrace workforce flexibility and changes to scopes of practice, but is now exploring innovation and new technologies

Many OECD countries are changing the scopes of practice of health practitioners as a means of coping with health workforce shortages. This includes more generalist roles, particularly in rural areas, and roles such as general practice nurses, allied health assistants, and physician assistants.

The creation of a rural generalist programme in Australia enables GPs to be upskilled so they can perform some specialist roles including anaesthetics and obstetrics. The programme has expanded, and there is scope for the creation of more of these positions through rural generalist training pathways.

Another approach adopted in Australia and many countries is that of nurse practitioners. These are nurses who undertake postgraduate education qualifying them to take on some of the duties that previously only doctors could perform. Compared with some other countries, Australia was late in creating these roles. The United States and Canada established nurse practitioners in the mid-1960s (Delamaire and Lafortune, 2010). In Australia, the first nurse practitioners appeared in 2000. Since then, the numbers have slowly grown to 1 165 (Nursing and Midwifery Board of Australia, 2015). These are still very small numbers that are unlikely to meet the need. Only 18 of them are in the Northern Territory – a largely rural jurisdiction that would benefit from more nurse practitioners.

Australian nurse practitioners can now prescribe some medication, order and interpret diagnostic tests and make referrals to other health professionals. Since November 2010, nurse practitioners have been eligible to provide services attracting a Medicare benefit, to make their services more affordable for patients. The items currently available under the Medicare Benefits Schedule include consultations requiring examination and management, providing preventive health care, and arranging necessary investigations. The Medicare rebate also applies to nurse practitioners referring patients to other health care providers, such as specialists and psychiatrists, but not allied health professionals (Department of Health, 2014b). Australian nurse practitioners most commonly work in emergency departments, renal health, mental health and paediatrics. There has also been a growth in nurse practitioners working in primary health care (Middleton et al., 2011).

In the United States, nurse practitioners play a bigger role in rural and primary health care. About 89% of nurse practitioners in the United States are prepared in a primary care focus, with the most prevalent category family health (49.2%). Primary care nurse practitioners are prepared in providing care at first contact for a number of conditions, ongoing management of acute and chronic conditions, health promotion and care co-ordination. Nurse practitioners are also actively working in US rural areas, with 18% practising in communities of fewer than 25 000 residents (American Association of Nurse Practitioners). With serious workforce gaps in remote Australia, nurse practitioners could play a bigger role, particularly given the higher rates of chronic disease in these areas. They could play a critical role in primary care and prevention.

International evaluations of nurse practitioners generally show that they can improve access to services, reduce waiting times and deliver the same quality of care as doctors for services such as routine follow-up of patients with chronic conditions – provided they have had proper education and training. There is also a high patient satisfaction rate, and in many cases a higher satisfaction rate than for similar services provided by doctors. This can partly be explained by the fact that nurse practitioners tend to spend more time with each patient. The few studies that have tried to measure the impact on health outcomes have not found any negative impact following the transfer of certain tasks from doctors to nurses (Delamaire and Lafortune, 2010).

However, the small numbers in Australia indicate barriers remain. One of the key barriers to extending the role of nurse practitioners is some opposition from the medical profession. The main reasons for this include a potential overlap in the scope of practice and loss of activities, the degree of autonomy of nurse practitioners, concerns about legal liability, and concerns about the skills and expertise of nurse practitioners (Delamaire and Lafortune, 2010). In Canada, the nursing and medical professions have tried to work together to set out principles and criteria for defining the scope of practice and clarifying liability issues (Delamaire and Lafortune, 2010).

Some Australian states have embraced the innovative use of nurses in different ways. For example, under the Rural and Isolated Practice Endorsed Registered Nurse scheme, some jurisdictions in Australia permit approved nurses to provide a limited range of medicines, where there is little or no access to GPs, nurse practitioners, paramedics or pharmacists. Queensland and Victoria have both implemented this model.

Australia has adopted other innovative options to address workforce shortages. For example, in central Australia, much of the direct patient contact is provided by nurses and Aboriginal health practitioners, with doctors reviewing tests and examinations remotely.

In the Northern Territory, a web-based electronic patient record with a unique patient identifier has enabled new models of care to be developed, and improved access to patient information. Rural medical practitioners can be anywhere in Australia, and assist remote nurses and Aboriginal health practitioners to manage chronic disease patients appropriately by reviewing pathology and assessment results, then have case discussions with the local team. They also monitor and advise on other pathology testing. The medical practitioners consist of a group of GPs, who have usually previously worked in remote Northern Territory, and have moved away but can continue to provide quality care for remote patients through the innovations of IT systems. These medical practitioners form the core of the 24-hour duty roster that provides emergency advice and arranges medical retrieval to all government and non-government remote health services, as well as pastoral stations, rangers, oil rigs and ships at sea. This is considered an important retention initiative for remote GPs, as it limits the expectation they are on call continuously and provides reassurance and backup for remote nurses and Aboriginal health practitioners that they can contact a doctor who understands the conditions and circumstances they are providing care in.

Another very promising innovation is telehealth. Box 4.3 shows some of its uses in Australia.

Box 4.3. Telehealth in Australia

Mental health is a key area where telehealth can be useful. The technology can link rural GPs to specialists in cities or bigger regional centres via video. It can also link patients directly to city-based specialists, such as psychiatrists, for consultations.

The immense state of Western Australia provides a good example of how telehealth can work well in an area where there is a shortage of health services. In a major motor vehicle trauma in the Great Southern region, patients were able to be triaged, stabilised and treated at a small rural health facility via a telehealth link with surgeons based in the state's capital city of Perth. The patients were later evacuated to a major city hospital for surgery, post-operative care and rehabilitation (Kimberley-Pilbara Medicare Local, 2013b).

Dermatology is another example of how telehealth is used internationally. The Australian College of Rural and Remote Medicine developed Tele-Derm, an online resource enabling rural doctors to receive advice on the diagnosis and management of skin disease. A rural doctor submits a photo of a skin condition, together with information on the patient's history and a possible diagnosis. A dermatologist responds usually within two days with a diagnosis and treatment options. GPs can also access online case studies and education opportunities (Australian College of Rural and Remote Medicine, 2014).

The potential benefits of telehealth include access to a larger pool of specialists, and a corresponding reduction in waiting times. Patients who are unwell are spared the inconvenience of long travel away from their families. A good initiative in Australia is permitting Medicare benefits to apply to telehealth, to make it more affordable. Government figures indicate that 98% of telehealth services have been provided to patients without out-of-pocket costs (Department of Health, 2014c).

While Medicare benefits for telehealth services will continue, a separate scheme in which doctors were given financial incentives to participate ended on 30 June 2014. The financial incentives had been introduced in 2011 to encourage early adoption of telehealth. The incentives had been designed to "step down" each year and eventually cease. Between 1 July 2011 and 30 June 2014, more than 10 300 Medicare providers and 250 residential aged care facilities provided more than 199 000 Medicare-funded telehealth services to more than 71 000 patients.

These are encouraging early signs. The government could explore ways to boost awareness of the benefits of telehealth among doctors, and support practices to have this technology.

Rural hospital funding and financial incentives for GPs to work in remote areas do little to take into account patient outcomes

Under the National Health Reform Agreement, public hospitals are funded mostly on an activity basis, which is based on the actual number of services provided to patients. But the Agreement acknowledges that in some cases, hospital services are better funded through block grants – where hospitals are paid a fixed amount. This is particularly the case for smaller rural and regional health services. The Agreement stipulates that funding be provided on the basis of activity "wherever practicable". The states provide advice to the Independent Hospital Pricing Authority (IHPA) on how their hospital services and functions meet the block funding criteria on an annual basis. For small rural and regional hospitals, this advice can be provided once every six years, or more frequently at the states' discretion. On the basis of this advice, the IHPA determines which hospital services are eligible for federal government funding on a block grant basis only, or a combination of activity-based funding and block funding (Council of Australian Governments, 2011). State governments choose their own level of contribution to block funding.

The federal government's level of block funding is determined by the IHPA's National Efficient Cost, and is based on a small rural hospital's size and allocation. For 2015-16, the IHPA determined that public hospitals are eligible for block grant funding if the technical requirements for applying activity-based funding are not able to be satisfied, and there is an absence of economies of scale that would make some services financially unviable. The IHPA determined low-volume thresholds forming part of the block funding criteria would make hospitals eligible if they are in a major city and provide 1 800 or less acute inpatient National Weighted Activity Unit (NWAU) per year, or are in a rural area and provide 3 500 or less acute inpatient NWAU per year (IHPA, 2015). Complex activities are worth multiple NWAUs, while the more straightforward are worth fractions of an NWAU. Activity-based funded hospitals that treat patients who reside in rural locations receive an adjustment, which results in additional funding.

At a primary care level, the federal government also provides incentives for GPs to work in rural areas. As discussed in Chapter 2, one of the financial incentives for GPs under the Practice Incentives Programme is a Procedural General Practitioner Payment, which aims to encourage GPs in rural and remote areas to maintain local access to surgical, anaesthetic and obstetric services. About 375 practices participated in 2013-14, receiving average payments of AUS 23 900. There is also a PIP rural loading which ranges from 15% to 50% (depending on the remoteness of the practice location) and is applied to the incentive payments of practices in rural and remote areas. The rural loading is paid in recognition of the difficulties of providing care, often with little professional support, in rural and remote areas. Approximately 1 700 practices received an average rural loading payment of AUS 12 300 in 2013-14.

The General Practice Rural Incentives Programme aims to reward long service in rural areas. General practice payments increase with remoteness. A government review reported concerns with the scheme. Some stakeholders argued there had been an unsustainable growth in retention payments to doctors in inner regional areas, relative to those in more remote locations. The programme had originally been intended for GPs, but had since been accessed by some specialists. The programme seemed to be retaining doctors, but not inspiring many to relocate to rural areas, as payments were mostly going to doctors who had been practising in these areas for some time. Take up and participation rates for the two retention components had been higher than originally forecast. In 2010-11 and 2011-12, more than 11 000 participants were assessed as eligible to receive annual incentives. The major growth in retention payments had been in inner regional areas, not the more remote areas (Mason, 2013).

The review described the relocation component of the incentive as disappointing. Only 33 doctors qualified for relocation payments in 2011-12, against a target of 70. Strict eligibility requirements and an overly bureaucratic process were identified as barriers. This included the need to apply for the relocation incentive before commencing work at a rural location, rather than seeking funds retrospectively. In 2011-12, at least half the participants who received initial approval for relocation incentives withdrew from the programme, mostly because they did not meet the minimum level of service requirements to receive their first and second grant payments, and were therefore deemed ineligible. The review also noted the grants themselves may not have been sufficient to motivate doctors to move to rural areas (Mason, 2013). The Rural Relocation Incentive Grant (RRIG) ceased on 25 May 2015 (Australian Government Department of Health, 2015).

There was also concern that the focus on financial incentives for doctors, at the exclusion of other health professionals, was not equitable. There were also calls to refine the classification scheme of remoteness. The review recommended the programme be replaced with a regionalised system for distributing incentives to doctors and other health professionals. This would involve moving to a system of regional management under outcomes-based funding parameters. The allocation of funding would occur at the regional level and would be based on an assessment of local workforce needs rather than the current entitlement approach. This would allow regions to use incentives either for relocation or retention (Mason, 2013).

An outcomes-based approach to funding rural health services – which shifts the focus to the health outcomes of patients – is discussed later in this chapter.

Different approaches have been taken to Indigenous health funding

A new Indigenous Australians' Health Programme (IAHP) was established in 2014, with the aim of consolidating Indigenous health funding, streamlining arrangements, and better addressing health needs at a local level to improve health outcomes.

The IAHP is a consolidation of four existing Indigenous health funding streams: primary health care base funding; child and maternal health activities; Stronger Futures in the Northern Territory (Health); and the Aboriginal and Torres Strait Islander Chronic Disease Fund.

In addition to Indigenous-specific health programmes and activities, Aboriginal and Torres Strait Islander people are also able to access universal health programmes, such as Medicare and the Pharmaceutical Benefits Scheme. The Australian Government's first Implementation Plan for the National Aboriginal and Torres Strait Islander Health Plan 2013-2023 outlines specific actions to make the health system more culturally safe, comprehensive and effective. The intention is to engage other government departments and states and territories to identify actions to address the social and cultural determinants of health.

Through the IAHP, the Australian Government continues to fund Aboriginal Community Controlled Health Organisations (ACCHOs) and state and territory governments to deliver Indigenous primary health programmes. An ACCHO is initiated and operated by the local Aboriginal community to deliver culturally appropriate health care to the community which controls it, through a locally elected board.

In 2013-14, 139 (68%) of the 203 Australian Government-funded Indigenous primary health care organisations that provided data identified as being an ACCHO. There were more ACCHOs than other organisations in all remoteness areas, except in very remote areas, where the number was the same. ACCHOs had about 327 000 clients, accounting for about 78% (AIHW, 2015a). Some ACCHOs provide comprehensive services with several doctors, while smaller services are more likely to be led by Aboriginal health workers. The peak body for community controlled Aboriginal primary health care is the National Aboriginal Community Controlled Health Organisation, with state-based affiliated peak bodies. Box 4.4 provides an example of how such an organisation works.

Box 4.4. The Winnunga Nimmityjah Aboriginal Health Service

The Winnunga Nimmityjah Aboriginal Health Service is an Aboriginal community controlled primary health care organisation, run by the Aboriginal and Torres Strait Islander community of the Australian Capital Territory (ACT). In the Wiradjuri language, "Winnunga Nimmityjah" means "Strong Health".

The services it provides include medical care, maternal health care, immunisations, health checks, child health and dental services. Aboriginal health workers are an important part of the team. A range of allied health services are also available, and the service engages in health promotion activities. Patients can walk into the clinic and be seen by the next available doctor, although appointments are needed for dental services, physiotherapy and psychiatry.

The organisation is also accredited to train medical students and GPs, resident medical officers and general practice registrars. It has won a number of awards for achievements in promoting Aboriginal and Torres Strait Islander health. Winnunga is also the affiliate in the ACT.

Source: *Winnunga Nimmityjah Aboriginal Health Service,* available at: www.winnunga.org.au/index.php?page=about-winnunga (accessed 28/05/2015).

The government also uses the Practice Incentives Programme (PIP) Indigenous Health Incentive, discussed in Chapter 2, to encourage GPs to provide better health care for Indigenous patients, including best practice management of chronic disease. Practices receive a one-off sign-on payment of AUS 1 000, and are required to agree to undertake cultural awareness training and create and use a recall and reminder system to follow up Aboriginal and Torres Strait Islander patients with chronic disease. An annual payment of AUS 250 is made for each registered usual patient 15 years and over who has a chronic disease and has been offered or has had a health check. Practices can also receive "outcome" payments of up to AUS 250 per patient per year, where a target level of care and/or majority of care have been provided.

Variability in the availability of data makes it difficult to assess the quality and outcomes of health care in rural and remote Australia

A wealth of information exists about access to health care in rural Australia. However, it can be difficult to draw direct comparisons on health status and outcomes between people living in very remote areas and those living in major cities. National health surveys by the Australian Bureau of Statistics omit people in very remote areas and in Aboriginal and Torres Strait Islander communities. Such information could provide useful insight into the possible health consequences of remoteness. While the scope of the

Aboriginal and Torres Strait Islander Health Survey does include very remote areas, the different methodologies make the two surveys difficult to compare.

As discussed in Chapter 1, the Aboriginal and Torres Strait Islander Health Performance Framework incorporates data from multiple sources in more than 60 indicators. The framework covers three tiers of health performance – health status and outcomes, determinants of health, and health system performance. A set of 24 national key performance indicators has been developed, focusing on chronic disease prevention and management, and maternal and child health. The *National Key Performance Indicators for Aboriginal and Torres Strait Islander primary health care* report provides data on about 200 primary health care organisations that provide services primarily to Aboriginal and Torres Strait Islander people. The data are focused on process indicators, while there is less data on health outcomes. The data are disaggregated by remoteness, although the report cites the possibility of double counting of the same client at multiple organisations, especially at those in very remote areas. The analysis indicates that organisations participating in continuous quality improvement programmes are likely to outperform other organisations. The report demonstrates improvement by organisations delivering Indigenous primary health care in achieving guideline-based care and patient outcomes over the three reporting periods (18 months), indicating the process of submitting and reviewing data is enabling a focus on achieving quality care. The Online Services Report also provides information on Aboriginal and Torres Strait Islander health organisations. The data are disaggregated by remoteness for a number of health care indicators, including episodes of care, client contacts, maternal and child health and chronic disease indicators.

The National Health Performance Authority (NHPA) website MyHealthyCommunities provides information stratified by local area and allows for comparisons to be made between peer groups in major cities, regional areas and rural areas. However, much of the data focus on activity, while information on quality of care and health outcomes is more limited. The MyHospitals website also compares hospital performance by peer group. Information on the quality of care is also limited on this website.

The Steering Committee for the Review of Government Service Provision's annual *Report on Government Services* provides data on very remote areas for a number of indicators, but data on a range of measure for very remote areas are not included. For example, it reports on preventable hospitalisations, unplanned hospital readmissions and separations for falls resulting in patient harm in hospitals by remoteness. However, data on sentinel events, adverse events and episodes of Staphylococcus aureus (including MRSA) bacteraemia in acute care hospitals are not provided by remoteness. Drawing comparisons on such indicators can be more challenging. While it may not be appropriate to compare major city hospitals with small rural hospitals, allowing small hospitals to benefit from comparisons with their peers across the country would help provide them with the support their metropolitan counterparts are accustomed to.

The Steering Committee has identified primary and community health services for Aboriginal and Torres Strait Islander Australians as a priority area for future reporting. Other priorities it has identified are the quality of data on Aboriginal and Torres Strait Islander Australians with regards to public hospitals and maternity services. Disaggregation of a number of indicators for Indigenous status and remoteness are also considered priorities (SCRGSP, 2015).

Existing data provide some insight into health outcomes, but little is known about the quality of health care in remote Australia. As Table 4.4 demonstrates, the ABS acknowledges in its *Measures of Australia's Progress* report a data gap with regards to quality of health services – not only at a regional level but more broadly. The ABS says a range of possible indicators are being considered for quality health services, such as patient experience and data about private health insurance (ABS, 2013e).

Table 4.4. Measures of Australia's progress indicators

Health (headline)	Life expectancy at birth
Physical health	Disability free life expectancy at birth
Mental health and wellbeing	Levels of psychological distress
Quality health services	Data gap
Healthy Lifestyles	Proportion of adults who are overweight or obese Smoking rates
Healthy environments	Average air quality index for capital cities

Source: Australian Bureau of Statistics (2013), *Measures of Australia's Progress, 2013.*

The ABS' 2011-12 Patient Experience survey was the first to include households in very remote areas, although it still excluded Aboriginal and Torres Strait Islander communities. The Australian Health Survey's exclusion of people in very remote areas is understood to have a small impact except in the case of the Northern Territory, where people in very remote areas make up a relatively large proportion of the population. While distance and road infrastructure may make it difficult to travel to some of these more remote areas, the data that exist on remote areas highlight the usefulness of this information, as shown earlier in this chapter. It can demonstrate where there are greater areas of need, to help guide decisions about policy and resource allocation. Therefore, the first step to improving the quality and outcomes of health care in Australia's most remote areas is more comprehensive data collection to inform decision making about health care provision in rural communities.

4.5. Improving rural and remote health care services through greater quality management

Most discussion around rural and remote health care in Australia has focused on improving access and availability of services. Less attention has been paid to quality of rural health services in Australia. While improving access is important, it is not sufficient. Attention must also be paid to the quality of existing and new health care services. To improve quality, a richer information infrastructure will be key. This could form the basis for reformed payment systems that reward quality and good outcomes. Smarter governance, and in particular continuity in leadership, is also necessary.

To improve health care quality and outcomes in rural and remote Australia, new models of care should be considered, and greater involvement by local populations in the design and operation of services will be instrumental.

Stronger governance, focused on quality, should be consistently embedded within all rural and remote health services

Quality in rural and remote areas needs to be driven by strong, directive governance. A crucial function of open and transparent government is the collection and publication of health system performance data. This provides the public with information about how the health system and their local health service are performing, what outcomes are being achieved, and whether resources are being used appropriately.

Fundamental to good governance is transparency around what standards health services are expected to achieve, and public reporting of accurate data that ensures accountability and provides incentives for health services to achieve good outcomes. Robust data collection, however, is necessary to measuring performance and ensuring accountability.

Ensuring a high level of accountability for spending public funds must remain a priority, although the reporting burden should be reasonable. Alongside these reporting measures should be increased feedback to rural service providers, which they can learn from and use to improve quality.

In rural and remote areas, engaging clinicians who visit communities on an occasional basis in local quality initiatives may be particularly challenging. Understandably, such clinicians may not feel as strong a connection with staff, facilities and patients in remote areas, as with their main practice base. Hence, rural quality governance should address the area of visiting specialist practices specifically. Examples of activities to underpin quality monitoring and improvement in this area include audits of local clinical outcomes, with benchmarking against equivalent metropolitan services, patient opinion surveys, and root-cause analysis of adverse incidents and patient complaints.

With stronger governance, health services achieving good outcomes can be identified and supported to develop innovations that respond to the needs of their local populations.

Innovations in the models of care serving rural and remote communities are needed

Patient-centred health services recognise that it is best to treat patients as close to home as possible. This requires a willingness to think flexibly about how existing local workforces and other resources can be used, putting the patient at the centre and creating roles that respond to their needs.

Some small rural communities have for many years relied on the goodwill of a local doctor to provide health services. However, this is not a feasible long-term solution. Nor is it ideal to rely on flying medical practitioners in and out of remote communities, as this is a costly way to provide health services and does little to promote continuity of patient care. As discussed later in this chapter, overcoming resistance to change and the more strategic use of local health professionals already living in these communities will be key. High-performing health services demonstrating strong governance should be identified and given greater freedom to develop and implement innovative models of care promoting quality health services and good outcomes. One idea worthy of exploration is that of Earned Autonomy, which has been adopted in the United Kingdom (Box 4.5).

Reflecting on this model, Australia could apply the principal of Earned Autonomy where there is evidence of strong governance in health services. In the Australian context, these health services could be empowered with greater freedom to be more innovative, and this could be facilitated with more flexible funding. The evidence suggests, however, that for such a model to have value, the freedom devolved to health services must truly enhance their autonomy. A move to provide health services with greater autonomy should not come at the expense of public accountability.

Box 4.5. Earned Autonomy in the National Health Service

The philosophy of Earned Autonomy is that more decision making is devolved to high-performing health services, so that the best are granted more freedom and less government control. This move away from a top-down centralised approach to greater autonomy is intended to be an incentive to lift health service performance and quality.

In the United Kingdom, Earned Autonomy was introduced in the National Health Service (NHS) in 2000. Under the system, local NHS organisations that performed well were given more freedom, were subject to less frequent monitoring, and had access to a "performance fund". For those health services deemed to not be performing well, the government would intervene. Health services were given star ratings to demonstrate how well or poorly they were performing.

There is debate about the policy's effectiveness in lifting performance, as it is based on the assumption that hospital administrators value enhanced autonomy as an incentive to improve performance. In a study of hospital Trusts in the United Kingdom, almost all the senior managers interviewed believed that the freedoms and flexibilities associated with Earned Autonomy provided only a low-powered incentive to improve performance. Their main motivations were to provide more responsive services for patients, increase community involvement in the organisation, and enhance staff morale. Autonomy was valued insofar as it enabled the development of more responsive services to patients and served as a lever to motivate staff to provide better patient services (Mannion et al., 2007).

More recent research suggests autonomy is increasingly perceived positively, although it depends on the extent to which organisations have the incentives and the capacity to respond to increased autonomy. It concluded that incentives and the capacity to make use of autonomy need to be present if organisational freedom is to generate changed behaviours. Autonomy needs to be accompanied by suitable rewards, skill development and the genuine granting of freedom if there is to be an impact on performance (Anand et al., 2012).

The Care Quality Commission, the independent regulator of health and social care in England, currently applies inspection ratings for all health services on its website, to signify to the public how well health services are performing.

Better information will be key – currently, Australian health statistics focus on big picture reporting, with insufficient context and analysis

Identifying and granting greater freedom to high-performing health services requires robust data systems and the collection of more information about health system performance. However, there are a number of systemic deficits in the information infrastructure underpinning rural and remote health care in Australia. These must be filled as a first step in measuring and improving the quality of care. No single government agency, for instance, holds comprehensive information on data and policies regarding rural and remote health care.

As outlined earlier, data on health needs, service use, outcomes and quality is not consistently available, although the data from the Commonwealth-funded Indigenous-specific health services provides an exception. National health surveys omit people living in very remote areas, comparative consultation rates with health professionals are not available for Aboriginal and Torres Strait Islander people and non-Indigenous groups, and the ABS acknowledges a clear data gap around measures of quality. While the release of the report on national key performance indicators for Aboriginal and Torres Strait Islander primary health care is a good initiative, there is an opportunity to include more indicators of quality in this report.

These issues are not intractable, as evidenced by the Patient Experience Survey's inclusion of people living in very remote areas. Findings from this survey provide a basis upon which a more extensive set of quality measures can be built. Taking the OECD Health Care Quality Indicators as a guide, an extension of the set of quality measures could proceed incrementally. In Australia, a small number of quality indicators are already disaggregated by remoteness. For example, the AIHW provides cervical screening and breast screening rates by remoteness. The data show in both cases, the country's lowest screening rates are in very remote areas. Such information on health care quality disaggregated by remoteness, however, is limited.

The Canadian Institute for Health Information demonstrates what can be achieved. It has publically-available time series for around 30 indicators of health system performance (including in-hospital mortality rates, avoidable admission rates and readmission rates) for all regions and provinces. These include Yukon Territory, the Northwest Territories and Nunavut, which are as sparsely populated as the Australian interior.

At a higher level, health information has not been well used in Australia. The country has had a preference for big picture reporting, with insufficient context and analysis. This stands in contrast not only to Canadian efforts, as described above, but also to significant investment in the open comparison and analysis of regional performance in Sweden, Italy, the United Kingdom, the United States and other countries. Sweden's *Quality and Efficiency in Swedish Health Care – Regional Comparisons*, for example, illustrates and discusses regional variation in more than 150 indicators (OECD, 2013b).

Australia's NHPA has made a good start in this direction with publications such as *Avoidable Deaths and Life Expectancies* and *Selected Potentially Avoidable Hospitalisations*. Such work must now move on to address other priority issues in rural and remote health care, such as mental health.

More attention should also be given to mapping workforce needs. For example, reporting on local GP retention and workforce vacancies in rural areas could be useful. The bulk of workforce projection in Australia has focused on doctors, nurses and midwives. These worthwhile efforts have notably included information on medical practitioners by speciality.

There is scope, however, for this to be broadened. In Finland, for example, health workforce planning is part of an economy-wide workforce planning exercise, rather than occupation-specific. The main objective of overall workforce planning is to provide advice on tertiary education student intake, to achieve a better balance between future workforce supply and demand. Meanwhile, Japan has conducted an analysis of physicians, nurses, long-term care workers, pharmacists and other health workers (Ono et al., 2013).

In Australia, efforts to shift from measuring workforce to projecting shortages are worthwhile projects that can influence future workforce policy. These efforts should be continued, and broadened to take in other parts of the workforce, such as allied health professionals.

Funding models that are closely based on need and reward quality will drive better rural health care

Rural health funding models should be developed that sustainably reward quality and good outcomes. Rural communities should be provided with health services using block funding wherever practicable, as the low volume of patients makes activity-based funding infeasible for smaller health services. Funding needs to be flexible to take into account the discrepancies in the services they provide based on local population need, and ensure they are not locked in to providing particular services. The added complexity associated with remoteness and disadvantage should also be factored in to funding for rural health services. Funding should minimise transaction costs and maximise quality and good outcomes. The appropriate blend of fee-for-service (FFS), capitation payments and project-based grants is unlikely to be invariable across areas or fixed over time. Rather, federal and regional governments should work towards developing flexible and responsive funding models that provide opportunities for innovation.

In primary care, FFS reimbursement may be appropriate for simple, discrete interventions such as vaccination or screening, particularly where population uptake is low. Over-reliance on FFS is unlikely to meet needs sustainably for longer-term or more complex health needs, however, particularly where volumes and demand is low. Services and accompanying infrastructure in remote areas will need to be backed by population and/or project-based funding to a greater extent than seen in urban settings.

One model for funding care for chronic conditions, currently underexploited in Australia, is prospective block grants contracted on outcomes. These enable the insurer, or payer, to specify the outcomes it wishes to see delivered by the care provider, while allowing the care provider flexibility in how services are designed to deliver those outcomes. Australia is already experimenting with advance payments for bundles of care for patients with complex needs, as discussed in Chapter 2, with the Diabetes Care Project. It aims to improve the quality of care and health outcomes of adults with either type 1 or type 2 diabetes.

Similar initiatives have shown promise elsewhere. In Germany, the Gesundes Kinzigtal Integrated Care model aims to provide financial incentives for health care providers to improve population health by investing more in prevention programmes, leading to reductions in morbidity and prevalence of chronic disease. This, in turn, is intended to promote efficiency gains and a reduction in health care costs (Hildebrandt et al., 2010). The programme, which operates on a "shared saving contract" with an up-front block grant, aims to improve co-ordination of care in Germany's fragmented health system – a problem also experienced in Australia. Programmes such as this, along with the Australian trial, should be closely evaluated in the Australian context and, if appropriate, scaled up.

Overall, the rural funding model must prioritise and support primary care – in its fullest sense. Current systems are not flexible enough to do this. FFS does not necessarily need to be modified further for rural and remote areas, but options to expand its use among nurse practitioners could be considered. Generally, group-based payment methods, including payments based on capitation or pay-for-performance schemes, can provide greater incentives for employing nurse practitioners, as long as the supplementary revenues from their services exceed their cost. Fixed salaries also provide a greater incentive to employ nurse practitioners (Delamaire and Lafortune, 2010). The government could examine the feasibility of expanding Medicare accessibility for nurse practitioners beyond their current scope of practice, and limiting this to rural areas to ensure this is fiscally appropriate. It could also explore the feasibility of opening up Medicare to other rural health professionals, and extending incentives to other health practitioners to relocate to rural areas and promote rural retention.

It is important to ensure that all health professionals providing outreach are adequately reimbursed, to give them incentives to continue to provide the service. The value that experienced visiting staff play in quality improvement through training local staff should not be underestimated. Specialists flying in should, as much as possible, see patients jointly with local clinicians to optimise training and support. There could be additional incentives for taking on this mentoring role, which is all the more important in the case of overseas-trained doctors, who need support to adapt not only to Australia, but to an isolated lifestyle in remote communities.

Better use can be made of existing local workforces by changing health practitioners' scopes of practice, and with the clever use of technology

A more strategic use of existing rural health workers already living in areas where there are workforce shortages is crucial to meeting health care need in more remote areas. By using existing workforces more strategically, the need for expensive fly-in/fly-out outreach services may be reduced. This requires overcoming resistance to change, and promoting a culture of mutual respect among health professionals.

As earlier discussed, Australia has already started experimenting with changing scopes of practice, but there is an opportunity to progress this further to develop the roles and competencies of rural health workers. The creation of more rural generalist roles, for example, would help local workforces become more self-sufficient. Expanded roles for allied health professionals and assistants should also be explored.

Nurse practitioners are internationally regarded as a successful innovation but, with just over 1 000 in Australia, their numbers are small. By contrast, the United States has more than 205 000 nurse practitioners (American Association of Nurse Practitioners, 2015). Options to extend their role and increase their numbers in Australia should be considered. Efforts should be made to investigate the key barriers preventing nurses from taking up these roles, and to explore what incentives may encourage them to work in rural areas. As a starting point, it would be useful to conduct a substantial longitudinal study assessing the career choices nurses make. This could help inform policy options to make the role of the nurse practitioner a more attractive career path for suitably qualified nurses. Australia should also monitor the experience of countries like the United States, which is advanced in the use of nurse practitioners, for other innovations in the tasks appropriately trained nurse practitioners could take on feasibly and safely.

With the promotion of nurses to higher duties, nursing assistants in turn could be trained and supervised to take on some of the less complex tasks currently performed by nurses, freeing nurses to focus on more complex clinical work.

Australia should continue to look for other opportunities to create roles involving task delegation, and could look to the overseas experience with physician assistants. This is largely an under-deployed role in Australia, whereas in the United States there are more than 100 000 certified physician assistants across all medical and surgical specialties in all 50 states. They practise medicine in health care teams with physicians and other providers. Their tasks include taking a patient's medical history, conducting physical exams, diagnosing and treating illness, ordering and interpreting tests, developing treatment plans, counselling on preventive care, assisting in surgery, writing prescriptions, and making rounds in hospitals and nursing homes (American Academy of Physician Assistants).

In Australia, physician assistants are supervised by a doctor, and their scope of clinical practice is determined by agreement between the physician assistant and his or her supervising doctor (Miller et al., 2011).

Physician assistants are not regulated by the Australian Health Practitioner Regulation Agency (AHPRA), the body which, as discussed in Chapter 1, regulates 14 health professions in a nationally consistent way. This is not in the best interests of patient safety. Australia should carefully evaluate the experience of physician assistants in other countries and consider ways to incorporate this role into the Australian health workforce. Such a move should involve a robust accreditation scheme with AHPRA oversight, to optimise patient safety. Australia could also examine the feasibility of permitting Medicare benefits to apply to appropriately qualified and credentialled physician assistants in rural areas.

Pharmacists are an under-utilised part of the Australian health workforce, and this stands in contrast to other countries. In most US states, for example, pharmacists play a larger role in primary care and have long been permitted to administer vaccinations. The US Department of Veterans Affairs uses pharmacists for traditional dispensing and quality assurance. Pharmacists can also prescribe under protocol anticoagulation, hypertension and diabetes drugs, and provide preventive medicine in immunisation and smoking cessation (Manolakis and Skelton, 2010).

In England, community pharmacists can provide "enhanced" services, including "minor ailment schemes", in which patients who would have otherwise visited a GP for conditions like a cold can visit a pharmacy for treatment without the need to obtain a prescription from a GP. Such a scheme in Australia could be particularly useful in areas where there may be greater difficulty gaining appointments with GPs.

The expansion of the pharmacist role appears to still be in its infancy in Australia, and is another area in which national inconsistency applies. Pharmacists in South Australia are permitted to administer the influenza vaccine. In the Northern Territory, pharmacists in a pilot are permitted to administer influenza, measles mumps and rubella, adult diphtheria, pertussis and tetanus vaccines for adults. In Queensland, an influenza vaccine pilot has been expanded to include measles and whooping cough vaccines for adults. Western Australia recently amended legislation to allow pharmacists to administer influenza vaccines. Each of the jurisdictions has applied requirements to ensure that pharmacists are appropriately trained before administering vaccinations.

Australia should look to the international experience to inform ways of expanding the role of the pharmacist. By providing local pharmacists with more responsibility, there is the possibility of patients relying less on more expensive health care services, so the expansion of the role of the pharmacist could also represent savings to the health system. Australia could also consider opening up Medicare benefits to patients using pharmacy services in rural areas.

Another under-used role in the Australian health workforce is that of the paramedic. In England, for example, Emergency Care Practitioners (ECPs) are mostly paramedics who have undertaken additional training. ECPs can work in a variety of settings and in some cases can “see and treat” patients rather than taking them to an emergency department. In one setting, for example, they work with GPs in out-of-hours primary care services. Patients phone the out-of-hours service, and the GP makes an initial assessment of any clinical needs. The patient may be given advice on the telephone, or asked to attend the primary care centre. If a home visit is deemed necessary, the GP decides if the patient's condition is suitable for an ECP, or whether a GP is required (Halter et al., 2007). Variations on this model enable the patient to be transferred to another health service, such as a primary care centre, instead of an emergency department.

In Australia, there have been similar initiatives enabling Extended Care Paramedics to treat low-acuity patients in some states, including South Australia, New South Wales, and the Australian Capital Territory. These initiatives should be considered particularly in the rural context, and scaled up where appropriate. In doing so, there is greater capacity for care to be delivered to patients in their homes, reducing potentially unnecessary long travel for rural patients.

With a shortage of psychiatrists in rural areas, mental health is another area that will require more innovation. The mental health impacts of long droughts and severe bushfires and floods will remain a significant issue in Australia, as climate change is likely to be linked with more of these extreme events. Social isolation and reduced cohesion can also have a detrimental effect on mental health, and contribute to more alcohol and substance abuse.

Australia has made a good start in making better use of primary care for mental health services. But there is scope for more innovation. One model that has shown potential is an approach that integrates private psychiatrist and public mental health services. In the Far West Mental Health Integration Project model in remote New South Wales, mental health services are delivered through primary care. Psychiatrists regularly visit from urban centres, as do allied mental health specialists from the regional Broken Hill headquarters. The visits include patient consultations, caseload reviews, and mentoring and training local mental health and primary care staff. In between outreach visits, local staff continue planned care and are able to phone psychiatrists if necessary. They receive regular supervision and support from psychiatrists (Perkins et al., 2006).

A study of the model shows that since it began, many communities had regular access to a psychiatrist for the first time. Access to community mental health teams was also improved. While collaboration with GPs improved, it was not regarded a "spectacular success" because GPs were in short supply and reported being overworked. High GP turnover also made it difficult to form relationships with psychiatrists. Still, this model suggests that more flexibility can improve mental health access, and warrants further exploration. The authors note that this model is not sustainable under the normal FFS arrangements, and its success depends on a commitment to appropriately fund it. There is also a need for flexibility in the use of funds (Perkins et al., 2006). While access was improved, less is known about the quality of the service patients received, and their outcomes. There is also scope to trial models integrating primary and acute care in other specialty areas.

The skills and competence of other rural and remote health practitioners could also be developed further. A necessary pre-requisite is that any such extended roles are attractively reimbursed. The expansion of local skills and competence is not purely a monetary issue, however. One professional group that is typically neglected in discussions around workforce development are the service managers. Responsibility for managing services often falls, by default, to the longest-serving clinician in rural areas. Just as in metropolitan areas, though, it should be recognised that modern-day service management requires specific skills that clinicians may lack or be uninterested in.

Nurses occupy almost 50% of the health workforce, and fill most of the management positions in rural and remote areas (National Rural Health Alliance, 2004). The cadre of rural and remote service managers should therefore be developed. This could occur through internal management training programmes. Many large hospitals have such programmes, but they are rarer in rural services (National Rural Health Alliance, 2004). Compounding these issues is physical isolation associated with remoteness. There is scope for managers and the wider workforce to take the lead in a number of areas of operational research which are particularly important in rural areas, but which have application across the health service. Examples include the creation, use and transmission of electronic health records, patient-held records, telehealth and patient self-management. A programme of dedicated resources to support rural and remote service managers and wider workforce to spearhead operational development of these tools would increase their profile as well as yield direct service improvements. Administrative staff could also be used more strategically, so clinical staff can spend more time on patient care.

Telehealth has proven to be very promising, and Australia should continue to look for opportunities to expand this service into other specialty areas. There is evidence that telehealth is being used in rural areas internationally to assist in the management of diabetes, cancer and many other conditions (Myrvang and Rosenlund, 2007). It is encouraging that such trials are happening in Australia, including one that links Aboriginal Community Controlled Health Services in the Northern Territory with a large hospital. As new evidence of telehealth's uses emerges, Australia should explore the suitability of adapting these models to the Australian experience. This technology should be used to connect isolated patients directly with specialists, as well as to connect small hospitals with larger metropolitan hospitals.

One approach could be the hub and spoke model, where rural facilities are networked with appropriate urban services. This could apply, for example, to cancer services. Another model to explore at is one adopted by the not-for-profit organisation, Silver Chain. It uses telehealth to treat people in remote areas in their own homes, for conditions that would normally require a hospital attendance. Another example is in South Australia, where the Cardiac Clinical Management in rural emergency departments has been set up. It is an integrated, digitally-based and statewide cardiac clinical management network allowing country emergency departments to manage potentially critical situations and reduce the need for hospital transfers (Standing Council on Health, 2012).

An expansion of telehealth could also reduce the need for more expensive outreach and patient travel schemes. Plans to expand telehealth, however, need to be supported by the necessary infrastructure to facilitate this technology.

Where a patient's condition requires travel to a hospital, travel schemes must be sufficient to cover the costs. Patient travel assistance schemes should be evaluated and refined to ensure national consistency around eligibility requirements and levels of reimbursement. As earlier highlighted, the differing criteria make patients eligible in some states but not others. The low subsidies for accommodation do not reflect the true cost of accommodation in Australia. An approach that better reflects the true costs of travel would make the scheme more equitable, and support patients to move more easily.

Training more rural doctors could help boost their numbers close to home

Alongside workforce innovations, efforts should continue to be made to increase the numbers of doctors. This extends to increasing the capacity of rural internships, to encourage young doctors to live and work in these areas. All medical graduates should be required to do at least one rural rotation as part of their internship. Such rotations come with other incentives for interns, such as the opportunity to gain early exposure to an area of medicine they are less familiar with. In addition to helping the workforce, a stint in a rural setting would also be beneficial to the personal development of medical graduates, exposing them to complexities they may not otherwise experience in city hospitals.

Australia has increased the number of medical schools in the country, but more medical schools could be established in rural areas where young people want to live and practise medicine. Getting a taste of rural medicine early may create a desire to stay in these places upon graduation. The University of Sydney says approximately 20% of graduates from its rural programme take up rural postgraduate training positions, where they are available (Mason, 2013).

There is also a need to train more rural generalists. The rise of specialists, particularly in surgery, has contributed to workforce problems in rural Australia. A rural generalist programme began a few years ago in Queensland enabling GPs to be upskilled so they may perform some specialist roles including anaesthetics and obstetrics. The programme has since been expanded to other states. The creation of more of these positions through rural generalist training pathways could help rural communities become more self-sufficient, potentially lessening the need for outreach and improving continuity of care. Given nurse practitioners in Australia are often specialists, options to create and encourage more generalist rural nurse practitioner roles could also be considered.

The Australian Government could consider making available programmes similar to the HECS Reimbursement Scheme, the Medical Rural Bonded Scholarship scheme and the Bonded Medical Places scheme to others, such as allied health professionals and dentists, to provide them with incentives to work in areas of need.

While Australia should be commended for increasing the number of university medical places, this needs to be accompanied by strategies promoting rural retention. An important way of providing support is through CPD and engagement with peers. These are critical to long-term retention. Insufficient training and professional isolation perpetuated by distance are key motivators for professionals leaving. Prior to Medicare Locals being replaced by Primary Health Networks in July 2015 (see Chapter 2), the Kimberley-Pilbara Medicare Local reported holding a chronic disease workshop in the remote town of Derby. The Medicare Local served some very remote communities in Western Australia. More than 50 health professionals from surrounding areas attended, and enjoyed the opportunity to meet each other – sometimes for the first time – having only ever talked to their colleagues on the phone (Kimberley-Pilbara Medicare Local, 2013a). More sessions like these – bringing CPD into remote areas – should be considered to help doctors feel more supported.

Another important consideration in retention is that doctors may not want to work in areas where a wider professional network does not exist. The flow-on effect is pharmacists may not want to work in areas where there are no doctors. Health professionals want to live in places where their children can go to good schools, and an effective locum service means they can have a break and a good quality of life. A more permanent solution to retaining health professionals needs to go far beyond financial incentives, to providing the social infrastructure that communities need to thrive.

Closer involvement of patients and their families in designing, delivering and monitoring health services will drive quality gains

One of the key principles in open government referred to earlier is citizen participation. This means including patients in decisions not only affecting their own care, but more broadly in how their local health services are managed. The National Safety and Quality Health Service Standards include requirements about involving consumers in the governance process. These apply across Australia, including in health services in rural and remote areas.

As discussed in Chapter 1, this could go further with, at a minimum, community representation on hospital boards, or a "citizen council" acting in the interests of patients. Western Australia, for example, has established District Health Advisory Councils to give country residents a voice in how their local health services are managed. Victoria's boards of management in rural public hospitals enhance consumer participation, as they lead the service's strategic planning. Encouraging more community input need not conflict with the need for strong, directive governance.

A consistent way of collecting patient feedback needs to be applied across rural areas. This feedback should not only apply to local hospitals, but also extend to outreach services and telehealth experiences. Tasmania, for example, conducts annual surveys of local communities accessing outreach and telehealth programmes that are used to inform service planning. Such a move is encouraged, and could be applied in a nationally consistent way.

Central to respecting the patient perspective is cultural competence, which requires organisations to have a defined set of values and principles, and demonstrate behaviours, attitudes, policies and structures that enable them to work effectively cross-culturally (Dudgeon et al., 2010). In Australia, this is particularly important when it comes to Aboriginal and Torres Strait Islander communities. Some Medicare Locals that existed before the introduction of Primary Health Networks had developed Aboriginal Health Plans. The best of these recognise the importance of cultural sensitivity. There is a potential double cultural barrier for overseas-trained doctors, who are also trying to adapt to life in Australia. All health service staff catering to large Aboriginal and Torres Strait Islander populations should be required to undergo training for cultural competence. Such training would also benefit staff working in other areas, including in major cities.

Australia's commitment to community-controlled Aboriginal health services stands out among OECD countries, in tailoring health services to meet the needs of Aboriginal and Torres Strait Islander people. These organisations should continue to be the preferred providers of services for their local populations, and should be supported by the government to do so. However, if issues around governance inhibit these organisations from delivering services, alternative providers that are able to deliver culturally appropriate services should be considered.

4.6. Conclusions

People living in remote Australia continue to face poorer health outcomes and access, making this a critical issue for policy makers. The extent to which Aboriginal and Torres Strait Islander people trail others in terms of health status – despite concerted efforts – remains a significant concern. The life expectancy gap remains considerable and, despite some improvements, Aboriginal and Torres Strait Islander people fare worse on a range of health indicators. The significant improvements in the child death rates – including the expected achievement of the COAG target to halve the gap by 2018 – are important. Other improvements, such as the reduction in adult smoking rates from 48.6% to 41.6%, also suggest longer-term gains could be achievable.

Improving the health outcomes of Australia's most remote inhabitants is no easy feat. A maldistribution of the workforce means there is a scarcity of health practitioners in the country's most remote parts. Filling this void requires a willingness to apply creative solutions. Australia has relied heavily on overseas-trained doctors to fill these gaps, but aims to be self-sufficient by 2025. This is an ambitious target – despite a growth in locally-trained doctors.

A smarter use of existing local workforces, and changes in scopes of practice, will become increasingly important strategies if Australia hopes to meet this goal. The country should also continue to expand promising innovations such as telehealth.

While much policy work has been directed to improving access, little attention has been devoted to measuring and improving the quality and outcomes of rural and remote health services. The collection of more data, along with payment systems that reward quality and good outcomes, are central to this. A stronger emphasis on prevention, thus reducing the need for patients to travel long distances for hospitalisation, is also fundamental.

The geographical quandaries confronting Australia place the country in the unique position to be a leader in the development of innovations to cope with rural and remote health care needs.

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