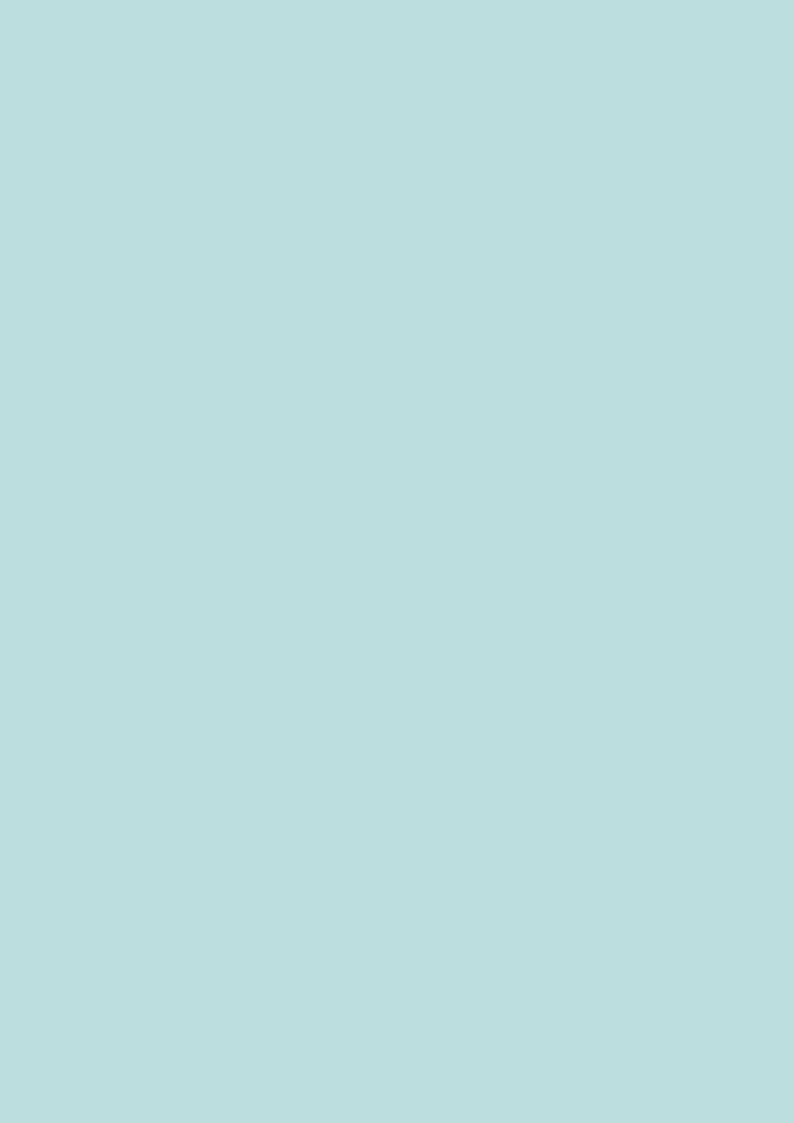




Final Report to the Western Australian Government



Sustainable Health Review

Final Report to the Western Australian Government

Using the term Aboriginal

Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. Aboriginal and Torres Strait Islander may be referred to in the national context and Indigenous may be referred to in the international context. No disrespect is intended to our Torres Strait Islander colleagues and community.

Citation

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Foreword

On any given day, an average of 500 presentations to WA Emergency Departments (ED) could have been avoided and 140 hospital admissions potentially prevented with more appropriate care and support in the community.¹

Only 16 per cent of a person's overall health and wellbeing relates to clinical care² and the role of health ministers and leaders is increasingly requiring them to address issues out of their direct control. This includes housing, social care, isolation and other areas imperative to improving overall health and wellbeing outcomes and minimising rising costs.

WA has made significant historical investments in hospitals but the dial now needs to shift to keep Western Australians healthy irrespective of where they live, their backgrounds or income, and to give people who receive services a real say in changing the system.

This Final Report brings together extensive and passionate input from people who receive health services, carers, clinicians and staff in the WA health system, Health Service Providers, nongovernment organisations, industry and the wider community. We have also drawn on good practice in WA, nationally and internationally.

We have identified eight Enduring Strategies that will ensure WA continues to provide high quality healthcare while striving towards a more sustainable future. They are supported by well thought out, staged, and challenging but achievable recommendations. Our Enduring Strategies and recommendations are highly interdependent and do not lend themselves to cherry picking. They warrant bipartisan support as challenges and external pressures are unlikely to change, nor should strategic directions for sustainability.

WA needs to reconsider investment priorities that go beyond simply announcing more beds to focus on what will make a real and enduring difference to the health of Western Australians, including ensuring that an engaged health workforce can make best use of emerging technologies and models of care to drive change. Capacity challenges in areas such as mental health must be addressed as part of sound system planning and a commitment to early intervention and person-centred care and value.

Success is dependent on an acknowledgment that problems cannot be solved by the health system alone. Sustainability is highly reliant on purposeful partnerships and active engagement with people receiving services, government and non-government organisations, and the use of both state and national policy levers. People need access to information that will enable them to improve their health outcomes, with health and social care providers being supported to plan and deliver integrated services across complex, interlocking sectors.

Throughout the Sustainable Health Review (SHR) all stakeholders have consistently expressed a desire to see talk turn into action and a clear approach to implementation. This will require leadership, courage and an unwavering commitment to staying the course.

The Panel extends its gratitude to every person who has contributed their insights and expresses its sincere optimism that the WA Government's commitment to the SHR brings enduring conversation and action for a more sustainable WA health system.

This review would not have been possible without the expertise and experience of its Panel:
Ms Pip Brennan, Dr Hannah Seymour, Mr Warren Harding, Ms Meredith Hammat, Mr Michael Barnes and Dr D J Russell-Weisz; and the support of its Secretariat led by Mr Ryan Sengara.

Robyn Kruk AO, Independent Chair

November 2018

A wide range of supporting information is available at www.health.wa.gov.au/sustainablehealthreview

Executive Summary

Courage, collaboration and system thinking are needed to change how health care is delivered in WA for a healthier, more sustainable future.

The Sustainable Health Review (SHR) Panel was tasked by the State Government to guide the direction of the WA health system to deliver patient-first, innovative and financially sustainable care.

Spending on health in WA has more than doubled in the past 10 years yet outcomes in population health and acute care in WA have not improved at the same rate. Without intervention, health spending is projected to approach 38 per cent of the State budget by 2026-27 at the expense of other critical services such as education, housing, policing and transport.³

Our pillars of sustainability are anchored to the internationally recognised 'quadruple aim of healthcare': patient experience; staff engagement; quality, safety and population health; and cost and waste reduction.^{4,5}

We have heard loud and clear that Western Australians want health and social care that addresses all of the factors that influence health rather than focusing solely on hospitals and beds.

The SHR is not about cutting costs, it is about understanding how costs can be avoided, waste reduced, and where re-investment will have the most impact on people's lives and minimise rising costs in the future.

Through eight Enduring Strategies and 30 Recommendations, this Final Report seeks to drive a cultural shift from a predominantly reactive, acute, hospital-based system – to one with a strong focus on prevention, equity, early child health, end of life care, and seamless access to services at home and in the community through use of technology and innovation.

These necessary changes cannot be achieved overnight. Sustained change takes time and requires leadership and ongoing political commitment. It must build upon effective community, consumer, carer, staff and service provider input.

Implementation will require a meticulous dedication to change that must reinforce the importance of acting together, while holding people accountable for agreed outcomes. A staged approach with publicly reported measures to drive progress and collaboration between the health system, partners and the community will support lasting change.

The facts are clear

Western Australia's health system is among the best in the world. Despite this, there is no doubting the increasing pressures the WA health system currently faces. Demand for health services has grown substantially over the past 20 years as the population has grown and aged, and the incidence of chronic disease, obesity and mental health conditions has risen.

Not all people in WA have fair access to health care and some experience worse health outcomes because of social, economic and cultural inequality. More Western Australians are part of a 'sandwich generation': caring for young children and older relatives.⁷ They are required to navigate multiple systems that have become so complex that people often do not receive services when they need them or end up in hospitals when they do not need to be there.

Many people recognise that for every decision made about services or treatments provided, there is a cost and trade-off for the WA community that cannot be ignored. Expectations may be beyond that which the public sector can deliver and honest discussions need to be had to consider the best use of public funding and about what is driving up underlying costs. We need to see shifts in behaviour and people doing things differently and the better use of resources to get the best value for the health of all Western Australians.

Key Facts

Demand for services

- ED attendances have outpaced population growth over the past 10 years.^{1,8}
- Approximately 190,000 of the one million attendances to WA Emergency departments (ED) in 2017–18 could have been potentially avoided with treatment in primary care or community settings.¹
- Five per cent of people going to EDs in WA in 2017–18 accounted for more than 20 per cent of all attendances; they often had complex conditions and visited EDs frequently.¹
- 90 per cent of people attending an ED for acute mental health care in WA in 2016–17 waited for up to 15 hours before progressing to a suitable care environment.
- Seven per cent of all hospital admissions in 2017–2018, costing an estimated \$368 million, were potentially preventable with appropriate care and management outside of hospitals.¹¹
- There are growing waiting lists for public surgical outpatient clinics, with people waiting on average nine months for their first appointment for an initial surgical assessment.¹²

Population health

- Chronic diseases are responsible for 73 per cent of deaths in Australia. \$715 million of hospital costs in WA were attributed to chronic conditions in 2013. 13,14
- 69 per cent of WA adults aged 16 years and over were classified as overweight or obese in 2017; 26.5 per cent of children aged five to 15 years were classified as overweight or obese in 2017.^{15,16}
- WA's older adult population (people aged 65 years and over) is projected to rise by 50 per cent in the next 10 years.¹⁷
- The number of new cases of dementia in Australia is projected to increase to 451 people per day by 2036 and over 650 people per day by 2056.¹⁸
- Up to 70 per cent of Australians prefer to die at home – but currently in WA, 61 per cent of people were in hospital on the last day of their life.^{19,20}
- In WA approximately one-third of people aged 16–44 years (35.7 per cent) drink at levels considered to be high risk for long-term harm.¹⁵

- The life expectancy for people with mental illness in WA, who often have multiple physical and mental health conditions, was 15.9 years lower for males and 12 years lower for females compared to the general population.²¹
- WA's suicide rate was approximately 20 per cent higher than the national average in 2016 and has been consistently higher than the national average since 2007.²²
- Aboriginal Western Australians experience a significant gap in life expectancy; a gap of 13.4 years for males and 12 years for females compared to non-Aboriginal people.²³
- People living in regional WA experience significant difference in health outcomes, with mortality rates for some conditions, such as coronary heart disease, 1.5 times higher than for people living in metropolitan areas.²⁴
- People who live in lower socioeconomic circumstances face much poorer health outcomes, with diabetes 2.6 times as high and coronary heart disease and stroke 2.2 times as high compared to people in the highest socioeconomic group.²⁴
- Heatwaves are responsible for more deaths in Australia than any other natural disaster and will likely worsen with climate change.²⁵

Funding

- The WA health system remains focused on acute care, with 74 per cent (\$6.5 billion) of the State health budget (\$8.8 billion) directed at hospital services in 2018–19.²⁶
- Only 1.6 per cent of total health expenditure in WA is spent on prevention activities each year – this includes Commonwealth, State and Local Government expenditure.²⁷
- Out-of-pocket gaps that Western Australians have to pay have widened and are linked to Commonwealth policy decisions.²⁸
- Practitioners (GPs) per person (79 GPs per 100,000 population compared to national average of 96 GPs per 100,000); does not receive a fair share of Commonwealth expenditure on the Medicare Benefits Schedule (\$695 per capita compared to national average of \$888 per capita); and does not receive a fair share of Commonwealth expenditure on the Pharmaceutical Benefits Schemes (\$270 per capita compared to national average of \$332 per capita).²⁹



Figure 1: Shaping a more sustainable health system

Culture change

The WA health system cannot deliver sustainability on its own. To truly address sustainability, WA must expand its definition of health care and acknowledge that the WA health system extends beyond hospitals, and is strongly interdependent with primary care and a wide range of health and social care services.

Change is inextricably linked to creating purposeful partnerships with people, communities, industry and the non-government sector, and between levels of government to address the myriad of factors that are essential to health and wellbeing. These partnerships must be based on shared objectives and common purpose, new levels of trust and respect, and formal sharing of risks and benefits.

Western Australians expect to shape the health and wellbeing system they will potentially rely upon. The expectations of people using health services and their carers are changing. They want their views sought and respected. They want more knowledge about their health and the means to improve it, and to have both quality in life and dignity in death.

They expect their health and wellbeing services to act transparently, work with them, and cooperation between various agencies, levels of government and the public and private systems to co-create services that work.

Throughout the course of the SHR, many submissions from WA's health and social care sector noted the importance of shared responsibility and partnership, and highlighted the win-win outcomes that could result for individuals and the community.

Consumer and clinician engagement through partnership is recognised as the most effective and enduring catalyst for sustainable change. We have heard from Western Australia's passionate and committed health workforce about how important leadership and courage will be going forward to improve workforce practice and culture, and the need to take a more proactive role in shaping a health workforce fit for the future. They have shared with us first-hand experiences of great practice and innovation already underway.

Consumers and staff acknowledge and appreciate the role digital health can play to enable equitable access to a modern efficient health system. Patient navigation apps, telehealth and virtual treatment, remote monitoring, health robotics, artificial intelligence and virtual reality are just some of the innovations shaping health care of the future. These innovations fundamentally change the nature of the relationship between people, providers and systems.

A more sustainable trajectory

Over the past five years, the WA health system has taken steps to improving the foundations of system sustainability with a decrease from a decade average of nine per cent expenditure growth per annum to two per cent per annum in 2017–18 and 1.4 per cent budgeted growth in 2018–19.²⁶

There are signs which indicate that the health system is gradually becoming more efficient; however, the cost of hospital services and labour in WA still remain well above national benchmarks. Perverse incentives remain where health service providers get more funding for more activity carried out in hospitals than in the community. Investment in prevention is not driven across the health system and more often funding is short-term. In the longer-term, the WA health system needs greater predictability of the budget footprint in which it operates.

Health will need to stay within agreed budget parameters set by Government that recognise growth in demand, adjustments for national and state policy, funding changes such as private to public shifts, and Government Wages Policy. Any significant increases in wages, operating costs or budget over-runs in the short to medium term will make it challenging for the WA health system to stay within its existing budget forecast.

The WA health system will need the ability and incentives to reinvest in areas that promote sustainability objectives. There needs to be greater flexibility for the WA health system to invest and reinvest in more proactive health interventions that acknowledge the importance of having a safe place to live and the benefits of social participation, prevention and early intervention in good health care.

There will also need to be a more strategic focus on capital and recurrent expenditure, making it clear where it is necessary to invest to save. Opportunities exist to improve efficiencies in operational areas, support services and procurement to reinvest savings into frontline person-centred care. The WA health system will also need significant investment in digital healthcare and in training the workforce of the future.

Enduring Strategies

This report puts forward eight Enduring Strategies to progress the sustainability agenda. We have made 30 Recommendations that identify what needs to be changed, with priorities that must be considered in implementation. They come as an interdependent package and to be effective at sustaining change, should not be 'cherry picked'.

These Enduring Strategies were developed following extensive engagement on the 12 Preliminary Directions in our Interim Report.

They are strongly informed by evidence and best practice, and were consistently reinforced in discussions with stakeholders in metropolitan and country areas.

We have focused on issues that will be fundamental to shift the system over the next two, five and 10 years that should result in better outcomes across the pillars of sustainability for people using services, health workers, and the WA community as a whole.



Commit and collaborate to address major public health issues

Recommendations 1–5



Improve mental health outcomes

Recommendations 6–7

2.4

Great beginnings and a dignified end of life

Recommendations 8_9



Person-centred, equitable, seamless access

Recommendations 10–15



Drive safety, quality, and value through transparency, funding and planning

Recommendations

16 - 20



Invest in digital healthcare and use data wisely

Recommendations 21–22



Culture and workforce to support new models of care

Recommendations 23–27



Innovate for sustainability

Recommendations



Implementation

Recommendation 30

Figure 2: The Panel's eight Enduring Strategies for sustainability



Commit and collaborate to address major public health issues

Commitment and collaboration to address major public health issues will see a greater focus and investment in community health and prevention at a local and State level. A bold, generational focus on lowering levels of obesity and harmful alcohol use will be led through partnership with local communities, local government, not-for-profit organisations, industry, schools and the Commonwealth. New levels of consumer, carer and public engagement and conversation will be embedded into the fabric of the health system to maintain a focus on improving the overall health and wellbeing of the population.

A sustained effort to reduce disparities in health outcomes and access to care, especially for Aboriginal people, Culturally and Linguistically Diverse communities and people living in low-socioeconomic circumstances, will be prioritised. The health system will strive to be a leader in reducing its environmental footprint and actively mitigate the effects of climate change.



Improve mental health outcomes

Mental health is one of the most critical issues to be addressed to meet sustainability objectives and improve health and wellbeing outcomes. The whole system requires sustained, holistic and transformational reform. Difficulties in mental health services are not limited to any one area of service and the complexity of mental health service delivery and funding is not unique to WA. The Panel has observed a number of highly concerning matters which have been consistently reinforced through consultation.

Priorities must be identified and investment made to address poor mental health outcomes and immense pressures. This includes capacity and balance in prevention, early intervention, community, step up / step down, acute and recovery mental health, alcohol and other drug services. Mental health care must be integrated with physical health. Efforts should be focused on improving the patient journey and greater transparency of quality, safety, patient experience and outcomes.

There must be a strengthened collective focus and clearer accountabilities to plan and deliver evidence-based services that are built around people experiencing poor mental health. Planning should acknowledge the criticality of those with lived experience and providing adequate and safe housing and supported accommodation. Models of care that improve access to responsive and connected mental health, alcohol and other drug services in the most appropriate setting should be prioritised and implemented.



Great beginnings and a dignified end of life

A whole-of-government and community focus on support during pregnancy and the first 1,000 days of life will see children and families achieving the best start in life to become physically and mentally healthy adults.

A dignified end of life will become part of community conversations, with greater planning and support for people to have more choices and access to appropriate end of life care.



Person-centred, equitable, seamless access

Strong partnerships with primary care will improve care in the community for people with a range of chronic and complex conditions and enable more appropriate and timely access to specialist outpatient services. Telehealth and virtual services will become a regular part of service delivery in country and metropolitan areas, with much greater coordination and safer access for country patients to the services they need.

Older people will be better supported at home and have better access to treatment in aged care facilities. WA Health will pursue negotiations with the Commonwealth to ensure hospitals no longer continue to be the default aged care provider because of a lack of appropriate aged care places. The interface between health, aged care and disability services will be managed to enable care in the most appropriate setting and to ensure people do not fall between the gaps as changes to aged care and disability services are rolled out.



Drive safety, quality and value through transparency, funding and planning

Partnerships with consumers, clinicians and researchers for high value health care will ensure clinical variation and waste is reduced, and that only treatments with a strong evidence base are funded. New funding mechanisms will drive quality and value for patient care and community, supporting new models of care and joint commissioning with primary care and the non-government sector. A strong partnership with the Commonwealth will see a fairer allocation of resources while progressing common areas of reform through Primary Health Networks.

A steadfast focus on long-term system planning to best meet community need will involve partnerships with primary care providers and the mental health sector to share data to jointly plan for population health needs.

Capacity pressure points will be addressed where possible through repurposing or updating existing facilities, using current unused capacity or collaborating with providers to deliver services with greater use of contemporary models of care and digital technology.

The Panel has given priority to progressing the co-location and integration of women's health services currently located at King Edward Memorial Hospital to the Queen Elizabeth II Medical Centre site. This is a priority to ensure access, safety and quality of maternity and neonatal services, and presents an opportunity to introduce more contemporary, integrated models of care.

Pressure points in the Peel-Murray region, Armadale and Bunbury will need to be addressed through consideration of any infrastructure requirements through collaborative planning with local communities, primary care and other providers.



Invest in digital healthcare and use data wisely

Investments in data systems and analytical capability will drive safety and quality, and support decision making for high value health care, innovation and patient choice. Digital technology will empower people through greater access to data and health information with privacy appropriately managed; provide access to innovative, safe and efficient services; and assist in promoting and protecting the health of Western Australians.

Building capacity and capability for data analytics and transparent reporting will deliver the benefits of making information more freely available while protecting the need for privacy and confidentiality. This will support the WA health system to capitalise on new and emerging technologies such as predictive analytics, big data, and moving towards the real-time use of data to further transform health care.

Steps to build system capacity will include the progression of a phased and prioritised roll out of electronic medical records across the WA health system to improve patient experience, quality and efficiency of services. People with complex health conditions will be supported and encouraged to use electronic health records to improve their care and health outcomes.



Culture and workforce to support new models of care

A systemwide culture of courage, innovation and accountability will build on the existing pride, compassion and professionalism of staff and support the collaboration necessary for sustainable change. Capability will be developed to produce a cohesive, outward-looking system that works in partnership across sectors, with a strong focus on system integrity, transparency and public accountability.

Contemporary workforce roles and scope of practice will be progressively implemented where there is a proven record of supporting better health outcomes based on community health needs and interdisciplinary models of care, rather than profession-based approaches. Partnerships with universities, vocational training institutes and professional colleges will be harnessed to shape the skills and curriculum to develop the health and social care workforce of the future.



Innovate for sustainability

A systemwide approach to innovation built upon partnerships between clinicians, consumers and a wide range of external partners will quickly develop, test and spread initiatives delivering better patient care and value. There will be an open approach to experimentation and a culture that supports innovation at all levels, from whole-of-system policy and program design, to the most basic aspects of on-the-ground service delivery.

Research, innovation and translation activities and investments will be linked to the WA health system's clinical, public health and mental health priorities. Innovation and research will be embedded into core business, supported by the Government's Future Health Research and Innovation Fund to nurture a more vibrant innovation, research and translation culture in WA.

How will change succeed?

The WA health system is already on the journey toward improved sustainability. The implementation planning to support the rollout of the SHR needs to acknowledge that the health system must continue to manage demand and provide high quality care, while progressively transforming the way it operates.

Recommendations must be appropriately prioritised and supported as part of a well-executed implementation strategy which provides regular and ongoing feedback to Government and the community on changes being made.

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The focus will be on driving change rather than ticking boxes and the sequencing may change as new information emerges. In the short-term, the focus should be on setting up for success, identifying early priorities and building momentum. More significant change should be seen in the medium-term with a sustainable system being embedded at 10 years.

Implementation of the SHR will benefit from the lessons of past reviews and draw upon more recent changes in the governance of the WA health system. The SHR comes more than a decade after the 2004 Review, *A Healthy Future for Western Australians* (the Reid Report).³⁰ Though \$7 billion of infrastructure investment transformed the health system, implementation of the Reid Report fell short in bringing about the required cultural and behavioural change, and the embedding of sustained changes to models of care that were needed to address underlying sustainability pressures.

Our Interim Report identified a number of 'inconvenient truths' that need to be acknowledged and addressed. We have therefore identified a collection of critical success factors for implementation.

Metrics and transparency to drive change

You cannot improve what you do not measure or fully understand. It needs to be clear from the outset what the WA health system seeks to change, with commitment to openly reporting progress. Transparency and metrics to drive change will be fundamental to gain and maintain public trust and drive ongoing system improvement. We have selected 12 domains for outward facing measures to drive changes that go to the heart of sustainability. These are essential to support the health system moving from transactional and process driven measures to outcomes that focus on improving health and wellbeing, which support sustainability objectives. Progress should be publicly reported and become part of the WA health system performance dashboard.

Leadership and engagement

Sustained change takes time, and requires authentic leadership and ongoing political commitment. It requires system thinking, systems change expertise and a culture of fortitude and support to successfully innovate and improve. Good health outcomes require the health system to be decisive, and partner with the community to collaborate. These partnerships will be critical to providing the State Government with the social licence to make changes.

Investment

Funding and investment in health will need to be more value and outcome driven, with greater flexibility to innovate and partner. The WA health system must prioritise and look at where it makes its investment in prevention, service redesign and innovation, alongside finding ways to become more efficient.

Analytical and diagnostic capability

Focusing on key population groups according to their health status or stage of life is also critical to sustainability. It is vital that we support those with the greatest health needs and target the root cause of the demands on the system of people needing care. Data analytics is considered one of the most valuable tools for transforming health care in the future.

Governance and implementation

We have recommended the formation of an Independent Oversight Committee, independently chaired, appointed by and reporting to the Minister for Health. This should be supported by a strong and appropriately resourced Sustainable Health Implementation Support Unit to support and facilitate innovative approaches to change, benefits realisation, engagement and communications.

Initial and ongoing prioritisation and sequencing of recommendations based on data, evidence and key stakeholder input will be vital, with staging designed to build momentum and develop capacity for long-term system transformation.

We support the development of a 10-year State health plan – effectively used by major health systems nationally and internationally. This approach should include integrated clinical, infrastructure, public health, digital, and workforce planning and provide the opportunity for local communities to have their say and enable more detailed discussions across issues at a local level.

The SHR is not intended to be a comprehensive corporate or service improvement plan for the WA health system. It seeks to build on what works well in WA, to address where there is scope to improve, and to identify where it clearly needs to act to progress sustainability objectives.

Recommendations

The Final Report contains 30 Recommendations to Government. The recommendation statement articulates the intent or outcome of the recommendation. The priorities in implementation are actions or milestones that provide critical context and must be considered as part of implementation planning. To achieve maximum benefit, each Recommendation endorsed by Government needs to be addressed as a whole.

Strategy 1: Commit and collaborate to address major public health issues

Increase and sustain focus and investment in public health, with prevention rising to at least five per cent of total health expenditure by July 2029.

Priorities in implementation:

- Transparent annual public reporting and benchmarking of investment in public health and prevention from December 2019.
- Investment based on clear evidence and evaluation of costs, benefits and impacts regularly published from December 2019.
- In partnership with Lotterywest/Healthway, stronger support provided to local government, local communities, not-for-profit organisations and schools to address key public health issues, including physical activity and nutrition.
- Partnerships with employer peak bodies, unions and industry leaders and staff to support health and wellbeing in the workplace.
- Health Impact Assessments proactively used in community and Government planning decisions to promote health and prevent disease and injury.
- a) Halt the rise in obesity in WA by July 2024 and have the highest percentage of population with a healthy weight of all states in Australia by July 2029.

Priorities in implementation:

- Development of an obesity action plan for Western Australia aligned to national efforts and strategies, and covering prevention, physical activity, management and treatment, and working with primary care, government and non-government agencies, consumers and carers, and industry.
- Unhealthy food and drink promotions banned from all State premises and healthy food policies complied with across all State agencies.
- Changes to planning laws to limit unhealthy food outlets and to support access to healthy food options, including near schools.
- Pursuit of a sugar tax and marketing restrictions at a national level along with other proven reforms.
- b) Reduce harmful alcohol use by 10 per cent by July 2024.

- Introduction of a minimum floor price for alcohol with regular adjustments for inflation, guided by reform in the Northern Territory.
- Health system action plan for alcohol-related violence aligned to whole-of-government approach to family and domestic violence including the WA Alcohol and Drug Interagency Strategy 2017-2021.

Strategy 1: Commit and collaborate to address major public health issues

Reduce inequity in health outcomes and access to care with focus on:

a) Aboriginal people and families in line with the WA Aboriginal Health and Wellbeing Framework 2015-2030

Priorities in implementation:

- Ongoing recognition and strengthening of Aboriginal Community Controlled Health Services as leaders in Aboriginal primary health care including through sustainable funding for partnerships in prevention and early intervention including mental health.
- Employment of additional Aboriginal staff, including in leadership positions, to meet the WA health system target of 3.2 per cent of Aboriginal employees by 2026, with priority to increasing the proportion of Aboriginal nurses, allied health professionals and medical practitioners as part of multidisciplinary teams.
- Expansion of mandatory systemwide cultural learning to develop knowledge and understanding of Aboriginal health and to support the growth of a culturally competent and responsive health system.

b) Culturally and Linguistically Diverse (CALD) people

Priorities in implementation:

- Improved data and benchmarks of health outcomes of CALD people, with benchmarked training in cultural competence to ensure staff are aware, responsive and sensitive to cultural diversity.
- Evaluation and spread of a collaborative approach to providing support to the CALD community, guided by the approach in Mirrabooka.

c) People living in low socioeconomic conditions

Priorities in implementation:

- Collective approach to improved understanding, benchmarking and targeting of health needs of people living in low socioeconomic conditions, including social determinants such as housing, child and family safety and disability support.
- 4 Commit to new approaches to support citizen and community partnership in the design, delivery and evaluation of sustainable health and social care services and reported outcomes.

- Expansion of Patient Opinion, Care Opinion and real-time consumer feedback mechanisms; and introduction of deliberative approaches where citizens are engaged in a detailed review of a given topic to inform decision making.
- Transparent public reporting of patient and carer reported experience and outcomes (PREMs and PROMs) by July 2021 with ongoing development of measures in line with emerging best practice.
- Greater shared decision making between patients, carers and clinicians through open and honest conversations on treatment options, evidence, benefits and risks.
- Consumer and carer voices embedded into health system governance structures and make consumer/carer/clinician partnerships and co-designed projects a normal part of business.
- Introduction of community-based and online approaches to better link people to support and navigation assistance, including a pilot of Community Booths.

Strategy 1: Commit and collaborate to address major public health issues

- Engagement and support for carers embedded through early recognition in patient administration systems, and enhanced training to support and strengthen carer resilience and overall health and wellbeing.
- Reduce the health system's environmental footprint and ensure mitigation and adaptation strategies are in place to respond to the health impacts and risks of climate change. Set ongoing targets and measures aligned with established national and international goals.

Priorities in implementation:

- Reduction in environmental footprint including energy use, water use, emissions and consumables; driven by local staff, supported by system executives, and coordinated by dedicated resources on a systemwide basis guided by the successful National Health Service (NHS UK) model.
- Transparent public reporting on the WA health system's environmental footprint by July 2020.
- Establishment of an inquiry under the Public Health Act 2016 to review current planning
 and response to the health impacts of climate change and make recommendations for
 improvement in terms of climate change mitigation and public health adaptation strategies,
 including principles of smart cities.

Strategy 2: Improve mental health outcomes

a) Prioritise and invest in capacity to balance early intervention, community, step-up/step-down, acute and recovery mental health, alcohol and other drug services.

Priorities in implementation:

- Determine and progress key investment priorities across the spectrum of mental health, alcohol and other drug services in line with the Western Australian Mental Health, Alcohol and Other Drug Services Plan 2015–2025 and the decommissioning of Graylands hospital; this includes adequate housing and supported accommodation to support recovery in the community.
- b) Immediate transparent public reporting of patient outcomes and experience.

Priorities in implementation:

- Public reporting of measures for quality and safety, patient experience and outcomes from December 2019.
- c) Ensure clear accountabilities for joint planning, commissioning and service delivery for more integrated services.

- Consumer and carer voices continually embedded in the planning, design and evaluation of services.
- Enhanced contractual arrangements and evaluation of both acute and community mental health services to assess and achieve better patient outcomes and value; and identification and spread of evidence-based models of care.

Strategy 2: Improve mental health outcomes

- Development and implementation of more integrated, connected and visible services commencing with vulnerable groups, including young people and people transitioning from acute to community settings, including hospital, forensic and correctional facilities.
- Development of joint Regional Mental Health Plans as agreed by the State under the 5th National Mental Health and Suicide Prevention Plan.
- 7 Implement models of care for people to access responsive and connected mental health, alcohol and other drugs services in the most appropriate setting.

Priorities in implementation:

- Introduction and evaluation of further early intervention response, assessment and treatment outreach models to provide immediate assistance to people experiencing a mental health crisis in the community, including through telehealth.
- Development and implementation of contemporary models of optimal integrated patient flow to enhance better care across WA.
- Further development, evaluation and spread of models to allow people with mental health, alcohol and other drug presentations to move out of Emergency Departments and access the right care as early as possible; including greater use of interdisciplinary teams and Emergency Stabilisation Assessment and Referral Areas that expand on existing Mental Health Observation Areas.
- Expansion of community-based models and peer workforce (people with lived experience) for recovery services including the Mental Health Recovery College Model, Hospital In The Home and step up/step down services.
- Accommodation based needs addressed as a matter of priority to ensure accommodation and support are available across acute and community settings in an integrated, coordinated, collaborative seamless system.
- Subject to State Government consideration and approval of the final Justice Health Project Report including an analysis of costs and benefits and any required infrastructure audits, plan for the transfer of custodial health services from the Department of Justice to the WA health system.

Strategy 3: Great beginnings and a dignified end of life

8 Health actively partner in a whole-of-government approach to supporting children and families in getting the best start in life to become physically and mentally healthy adults.

- WA health system actively partner in the Early Years Initiative, Supporting Communities Forum, and Early Years Network.
- Introduction and evaluation of new approaches to delivering and co-locating services in partnership with the Department of Education, Department of Communities and other relevant agencies.
- Investment in whole-of-government data and analysis to identify and target at-risk children and families, including through the Purple Book (child health record), Community Health Information System and others guided by the approach used in the Target 120 initiative.

Strategy 3: Great beginnings and a dignified end of life

- System level targets set for healthy women and babies for example healthy pre-natal booking weight and breastfeeding.
- A statewide program to ensure that all Aboriginal families have access to culturally secure antenatal, birth and postnatal care including child health checks and immunisations.
- Introduction and evaluation of further targeted, cross-agency approaches to reducing the incidence of alcohol consumption during pregnancy, and for screening and management of the effects of Fetal Alcohol Spectrum Disorder.
- Targeted expansion of the School Dental Service to include at-risk 0–4 year olds and continue to work with the Commonwealth to achieve fair, long-term public dental funding arrangements.

9 Achieve respectful and appropriate end of life care and choices.

Priorities in implementation:

- Directions of the My Life, My Choice: Report of the WA Parliament Joint Select Committee on End of Life Choices progressed for greater use of Advance Health Directives, expansion of successful palliative care models, and patient choices.
- Use of 'realistic medicine' and 'compassionate communities' models with individuals, local communities, patients, carers and health professionals to promote and integrate social approaches to dying, death and bereavement in everyday lives.
- Introduction, evaluation and spread of a model for community-based wrap-around services for supporting older people with complex chronic illness and cognitive impairment dementia involving GPs and multidisciplinary services.
- Introduction, evaluation and spread of outreach models to improve linkages between hospital and residential aged care facilities in partnership with primary care based on models such as CARE-PACT in Queensland, building on the current Residential Care Line.

Strategy 4: Person-centred, equitable, seamless access

Develop a partnership between the WA Primary Health Alliance and the Department of Health, and partnerships between Primary Health Networks and Health Service Providers to facilitate joint planning, priority setting and commissioning of integrated care.

- Introduction, evaluation and spread of models to improve care into the community for people with a range of chronic conditions, guided by the collaborative Western Sydney Diabetes model as an example targeting chronic health conditions such as chronic heart failure, diabetes, and chronic obstructive pulmonary disease based on the principle of having care delivered in the most appropriate setting.
- Improved communication, relationships and coordination between primary care and hospital specialists to ensure appropriate access to advice and guidance models such as HealthOne NSW and multidisciplinary case conferencing as used in Queensland.
- Hospital-based staff and junior doctors receive training to increase understanding and to build relationships and trust with the primary care sector.

Strategy 4: Person-centred, equitable, seamless access

11 Improve timely access to outpatient services through:

a) Moving routine, non-urgent and less complex specialist outpatient services out of hospital settings in partnership with primary care.

Priorities in implementation:

- Transparent public reporting of outpatient wait times to inform GPs and patients of the time they will be waiting when booking.
- Increased number of new attendances compared to follow-up attendances, aligned with best practice (new to follow-up ratio).
- Introduction and evaluation of a 'choose and book' approach for more choice and transparency of wait times for urgent appointments.
- Development of mandatory pathways and capacity building with primary care commencing with urology; plastic surgery; ophthalmology; neurology; ear, nose and throat (ENT).

b) Requiring all metropolitan Health Service Providers to progressively provide telehealth consultations for 65 per cent of outpatient services for country patients by July 2022.

Priorities in implementation:

- Partnerships with consumers, carers, health professionals and providers to identify opportunities to expand the take-up and development of telehealth and virtual care services across disciplines.
- Risk-benefit analysis completed of telehealth and other virtual care opportunities including an assessment of the impacts on Patient Assisted Travel Scheme.
- Telehealth becomes the regular mode of outpatient service delivery for most appointments in both country and metropolitan areas across all disciplines by July 2029.

Improve coordination and access for country patients by establishing formal links between regions and metropolitan health service providers for elective services including outpatients and telehealth, patient transfers, clinical support and education and training.

- Planned and unplanned patient flow pathways for all new referrals from country to metropolitan hospitals aligned by July 2021.
- Introduction and evaluation of a 24-hour WA Health Operations/Command Centre, commencing for country patients to improve safety and quality, access to emergency and specialist services and patient transport and retrieval.
- Consideration of a systemwide approach utilising digital technology and data analytics to improve patient flow and use of capacity, patient outcomes and sustainability.
- Continued roll-out of the online mapping service platform, 'Mapping Health Services
 Closer to Home' (MAPPA) to assist country people to find and access health services
 close to family, home and country.

Strategy 4: Person-centred, equitable, seamless access

Implement models of care in the community for groups of people with complex conditions who are frequent presenters to hospital.

Priorities for implementation:

- A systemwide approach to identifying and supporting people who are frequent users of health services including emergency and outpatient services to improve pathways of care and reduce presentations.
- Introduction and evaluation of a medical respite centre model for homeless people in Perth.
- Expansion of the range of hospital substitution programs including Hospital In The Home and technology-assisted independent living solutions to increase the number of people who receive acute care at home, commencing with respiratory patients.
- In partnership with primary care, introduction, evaluation and spread of a coordinated multi-disciplinary team approach to care for people with the most chronic and complex needs, supporting their transition between healthcare settings guided by models such as the Victorian HealthLinks and HealthOne NSW initiatives.
- 14 Transform the approach to caring for older people by implementing models of care to support independence at home and other appropriate settings, in partnership with consumers, providers, primary care and the Commonwealth.

Priorities in implementation:

- Introduction, evaluation and spread of a 'Home First' model to reduce delays to/from home and enhance support for early assessment and access to health and support services for people in their own home.
- Negotiate with the Commonwealth to address the significant shortfall in residential aged care places in WA by adopting a flexible approach to ensuring there are enough places to meet population needs.
- Development of modelling in partnership with the Department of Treasury, Department of the Premier and Cabinet and Commonwealth to better understand the implications of the ageing population and to develop proactive and collective responses.
- Introduction, evaluation and spread of approaches to reduce social isolation and unplanned admissions to hospital guided by the successful Compassionate Frome Project, UK.
- Partnership with primary care for the introduction, evaluation and spread of secondary prevention models of care to maintain physical and cognitive function.
- Improve the interface between health, aged care and disability services to enable care in the most appropriate setting and to ensure people do not fall between the gaps.

- Partnership with the National Disability Insurance Agency (NDIA) and Aged Care sector
 to adopt a person-centred approach rather than a provider-centred approach to manage
 complex care including navigation and joint case planning.
- Agreements between the NDIA and mainstream services in WA coordinated by the Department of the Premier and Cabinet to facilitate effective patient and carer linkages, similar to recent agreements in NSW.

Strategy 5: Drive safety, quality and value through transparency, funding and planning

Establish a systemwide high value health care partnership with consumers, clinicians and researchers to reduce clinical variation and ensure only treatments with a strong evidence base and value are funded.

Priorities in implementation:

- Transparent public reporting of clinical variation commenced by December 2019 using sources such as Australian Atlas of Healthcare Variation and Choosing Wisely to reduce the number of treatments with low benefit to generate efficiencies for reinvestment.
- Development of a coordinated approach to identifying and actioning existing and new excluded/restricted procedures through a systemwide clinical review committee with public reporting of excluded/restricted procedures.
- Ensure the approach to high value health care uses contemporary data analytics to support
 systemwide benchmarking and transparent public reporting (Recommendation 21) and
 drive implementation of standardised care pathways to maximise value to patients and
 communities and reduce clinical variation and waste; aligning with a systemwide approach
 to improvement and innovation (Recommendation 28).
- Develop a coordinated approach to assessing and implementing new and existing equipment, procedures, medications and technologies, initially through partnerships with other health jurisdictions.
- 17 Implement a new funding and commissioning model for the WA health system from July 2021 focused on quality and value for the patient and community, supporting new models of care and joint commissioning.

- Continued commitment to emerging national and other Council of Australian Governments (COAG) reforms, including Activity Based Funding, to drive system level efficiency, innovation and improve health outcomes.
- Introduction of methods which shift away from health services being funded on a
 historical basis on the volume of services they provide to progressively adopt a flexible
 approach based on population health needs and outcomes.
- New funding mechanisms trialled and embedded to facilitate implementation of SHR recommendations, providing Health Service Providers with the flexibility to be innovative in responding to the health needs of their populations. This should include minimising contacts with the hospital system including benefit/risk sharing approaches with State and Commonwealth governments, non-government partners to deliver person-centred care.
- Funding agreements incorporate incentives and penalties in relation to patient and population outcomes and other aspects of performance e.g. rewarding the achievement of high service standards; not rewarding unplanned readmissions or admissions involving sentinel events; and reviewing funding provisions for services significantly beyond or below agreed targets.
- Pursuit of strategies to increase the uptake of telehealth and other digital solutions including with the Commonwealth.
- Investment in the development of skills and capacity to adhere to the spirit and requirements of the Delivering Community Services in Partnership Policy through the procurement of not-for-profit community services.
- Consideration of a resource distribution method and formula to drive equity in health outcomes across the State.

Strategy 5: Drive safety, quality and value through transparency, funding and planning

Establish an agreement between the Departments of Treasury and Health for a sustainable funding footprint to support the necessary change and reinvestment required in the health system in particular over the next three to five years.

Priorities in implementation:

- Agreed operating base and parameters guided by i) age-weighted population growth,
 ii) specific adjustments for national and state policy and funding changes such as private to public shifts and iii) Government Wages Policy.
- Agreement of reinvestment principles and priorities allowing continuous and flexible reinvestment of efficiencies within Health Service Providers.
- Working with the Departments of Treasury and Finance, identify and realise short and medium term savings in the procurement of goods and services and facilities management (ensuring appropriate benchmarking is undertaken).
- Joint research of future investment options to better understand social and economic benefits, risks and costs of health expenditure through a social investment approach, including use of Social Impact Bonds.

Continue to seek a fair allocation of resources from the Commonwealth while partnering on common areas of reform.

Priorities in implementation:

- Shortcomings in Commonwealth programs that are adversely impacting on health outcomes and costs for State services, including inadequate effort on primary care and aged care, are strongly pursued together by the WA health system and central agencies.
- Regular review and updates of Independent Hospital Pricing Authority settings are used to seek appropriate recognition of WA's higher cost in delivering public hospital and other services in rural and remote WA.
- Introduction, evaluation and spread of joint State/Commonwealth commissioning and pooling of funding for health services, based on shared data, commencing with a regional commissioning trial in the Kimberley.
- Opportunities pursued to maximise the use of Medicare Benefits Schedule (MBS) funding
 for specialist outpatients services; services delivered via telehealth and other digital
 solutions; expansion of MBS coverage for prevention of chronic conditions; and the use of
 Pharmaceutical Benefits Scheme funding for subsidised prescription medications.
- Strategies pursued with the Commonwealth to ensure private health insurance arrangements do not disadvantage Western Australians.

Address key short to medium term capacity pressure points and develop system planning to ensure a comprehensive long-term plan for the health system to best meet community needs.

Priorities in implementation:

 Commitment to progress planning, and then implementation of the co-location and integration of Women and Newborn Health Services including King Edward Memorial Hospital at the Queen Elizabeth II Medical Centre site.

Strategy 5: Drive safety, quality and value through transparency, funding and planning

- Development of a 10-year State Health Plan, based on the Enduring Strategies of the Sustainable Health Review, to establish contemporary systemwide planning across the health system which should:
 - Focus on population health needs, contemporary models of care and robust modelling in partnership with consumers, carers and the community, Health Service Providers, primary care and mental health sectors.
 - Include integrated clinical, infrastructure, public health, digital and workforce planning.
- Ensure sufficient capacity in the system with a focus on repurposing and adequate maintenance of existing facilities, using current unused capacity and collaborating with providers to deliver services with greater use of contemporary models of care and digital technology including:
 - Joint planning approach undertaken for health needs in the Peel-Murray region with citizens, local communities, primary care, aged care and other providers.
 - Consideration of any infrastructure requirements to address specific pressure points including in Peel-Murray, Armadale and Bunbury; and long-term options for the development of Royal Perth Hospital.
 - Proactive community and health planning approach undertaken for anticipated growth in the Yanchep area, working with local communities and multiple partners to design and integrate transport, education, early childhood and other services to actively promote community health and wellbeing.

Strategy 6: Invest in digital healthcare and use data wisely

Invest in analytical capability and transparent, real-time reporting across the system to ensure timely and targeted information to drive safety and quality, to support decision making for high value healthcare and innovation, and to support patient choice.

- Investment in systemwide Business Intelligence systems, health informatics and predictive analytics using modern technology including block chain and artificial intelligence to streamline and leverage data collections, and to support systemwide data sharing and benchmarking.
- Investment in the development of analytical capability and supporting clinical and corporate users including consideration of partnerships with universities.
- Introduction of data sharing and privacy legislation for WA. Development of key policy frameworks in health for informed consent for use, sharing and release of data.
- Implementation of modern governance for more timely and comprehensive whole-ofgovernment and research access to data linkage services for more effective research, service planning and investment to meet community needs.

Strategy 6: Invest in digital healthcare and use data wisely

Invest in a phased 10-year digitisation of the WA health system to empower citizens with greater health information, to enable access to innovative, safe and efficient services; and to improve, promote and protect the health of Western Australians.

Priorities in implementation:

- Standard of digital infrastructure and network capability achieved across the health system; prioritisation of improved access to rural and remote communities that could benefit the most from receiving telehealth and other virtual care services.
- Development and commitment to a long-term Digital Strategy for the health system including identification of the priority health outcomes to be supported through digital transformation, technology and investment requirements, and benefits capture of ICT investments.
- Preparation for a phased and prioritised rollout of an electronic medical record across the WA health system, with a goal of all health services having a functional electronic medical record or equivalent by July 2029.
- Increased take-up of My Health Record for people and communities with complex health needs to support a shared approach to care in partnership with the National Digital Health Agency and community groups to support complex patients.
- Introduction and evaluation of digital health technologies to improve patient outcomes, and patient and staff satisfaction, commencing with priority areas identified in this review such as:
 - A patient self-management solution helping patients take greater responsibility and enjoy healthier, happier lives through the use of new and emerging technologies to support behaviour change where required, and day-to-day management of chronic conditions.
 - A customer relationship management platform to support informed consent delivering procedure-specific information, appointment reminders and peer support links for patients prior to scheduled procedures.
 - A virtual clinic that provides improved access to specialist outpatient services and reduces unnecessary visits where in-person consultations are not required.
 - A shared care platform for integrated, chronic disease management between WA health and community-based clinicians.
 - Assisted independent living solutions to support more care in the community and Hospital In The Home.

Strategy 7: Culture and workforce to support new models of care

Build a systemwide culture of courage, innovation and accountability that builds on the existing pride, compassion and professionalism of staff to support collaboration for change.

- Measurement of culture included in leadership performance agreements, system measures and governance documents by July 2021.
- Implementation of a mechanism for staff to voice ideas supporting systemwide sustainability.

Strategy 7: Culture and workforce to support new models of care

- Facilitation of ongoing conversations between all staff and recognition of the representative role of unions and professional associations in staff engagement and as part of the future landscape of health to drive sustainability.
- Systemwide framework and program developed and implemented for corporate and clinical leadership to support systems change, including supporting current leaders and identification and development of emerging leaders.
- Consistent systemwide implementation of mental health first aid models to support workforce mental health.
- Ongoing commitment to a 'zero tolerance' approach to workplace bullying, violence and harassment consistent with best practice.

Drive capability and behaviour to act as a cohesive, outward-looking system that works in partnership across sectors, with a strong focus on system integrity, transparency and public accountability.

Priorities in implementation:

- Continued implementation of mechanisms for Health Service Providers' Executive, Boards and the Department of Health Executives to collectively discuss key systemwide issues, monitor enterprise risk and drive health systemwide reforms.
- Independent capability/skills review completed to ensure that the Department of Health and Health Service Providers are ready and able to deliver on Government priorities, and identify opportunities for improvement.
- Investment in the development of skills and capability in systems thinking and change, cross-sector collaboration and facilitation, research and policy, as part of the systemwide framework for corporate and clinical leadership development.
- Active participation and leadership in cross-government groups including the Supporting Communities Forum and Director General Implementation Group to progress key areas for sustainability including obesity, early childhood, family safety and homelessness.
- Continued maturation of governance arrangements across the WA health system including accountabilities of the System Manager and Health Service Providers in planning, strategy, safety and quality, workforce, digital and commissioning.
- Establishment of boards of governance for Health Support Services and PathWest by July 2020.

25 Implement contemporary workforce roles and scope of practice where there is a proven record of supporting better health outcomes and sustainability.

- Evaluation of workforce roles and scope based on community health needs and interdisciplinary models of care, rather than only profession-based approaches.
- Progressive introduction, evaluation, or expansion of workforce models that support
 working to full scope of practice including Nurse Practitioners (including primary care and
 residential aged care), Enrolled Nurses (including sub-acute and community care sectors –
 aged care, rehabilitation and geriatric evaluation and management), and GP Proceduralists/
 Rural Generalists (country).

Strategy 7: Culture and workforce to support new models of care

- Progressive introduction, evaluation, or expansion of workforce models that support
 advanced skills including Advanced Scope Physiotherapists (including outpatients
 and emergency departments/fast track); Advanced Scope Community Pharmacists
 (including community interdisciplinary team models and immunisations); Advanced
 Scope Registered Nurse Endoscopists; Aboriginal Health Workers/Practitioners (including
 advanced scope immunisations); and Peer Support Workforce (including community
 recovery; acute interventions; employment pathways).
- Progressive expansion of Midwifery Group Practice models to provide a single point of care through a woman's pregnancy.
- Build capability in workforce planning and formally partner with universities, vocational training institutes and professional colleges to shape the skills and curriculum to develop the health and social care workforce of the future.

Priorities in implementation:

- Investment in a systemwide integrated workforce information system to support workforce planning and support through linked information including payroll, Human Resources, learning management, rostering, training, credentialing and performance development.
- Investment in improved workforce analytics and modelling capability.
- A 10-year health and social care workforce strategy developed by July 2021 with key stakeholders including joint planning of training needs and placements; ensure an interdisciplinary approach to care with training exposure in both acute and community settings, and equitable and adequate placements across professional groups with a focus on regional areas.
- Encourage and advance health and social care educational curriculum to include a sound understanding of how health, mental health and social care systems are organised and operate, including training in the skills needed for a digitally literate workforce.
- **27** Remove barriers to equity, flexibility and transparency in workforce arrangements.

- Continued review of attraction and retention agreements systemwide to ensure they are contemporary and relevant for achieving patient outcomes and supporting sustainability. Publish key findings.
- Standard approach to recognising completed mandatory competencies across the WA
 health system to reduce the need for repeated assessments and to support staff mobility
 across the WA health system.
- More flexibility provided to Health Service Providers to manage workforce within budget rather than an FTE cap.
- Consistent support for employment and organisational arrangements that enable a culture and workforce to support new models of care.

Strategy 8: Innovate for sustainability

Establish a systemwide network of innovation units in partnership with clinicians, consumers and a wide range of partners to quickly develop, test and spread initiatives delivering better patient care and value.

Priorities in implementation:

- The Future Health Research and Innovation Fund aligned to provide a secure source of funding and foster a culture of innovation.
- Establishment of local innovation units that support a local culture of improvement, experimentation and entrepreneurism where staff are empowered and encouraged to co-create new and innovative solutions with consumers.
- Establish a WA health system central unit to provide advice and guidance on innovation such as intellectual property, legal, marketing, protocols commercialisation; and facilitates sharing and connecting of innovative work across the health system.
- Exploration of the merits of introducing a clinical innovation and improvement support approach along the lines of the NSW Agency of Clinical Innovation ensuring use of contemporary data analytics, benchmarking and transparent public reporting (Recommendation 21); the approach to high value health care (Recommendation 16); supported by local innovation units collaborating across clinical specialties, regional and service boundaries.
- Enhanced reputation as a world leader in the emerging field of precision medicine and public health that includes new data/digital, informatics, genomics, phenomics and geo-spatial technologies, and their application to health.
- Focus on developing WA's presence as a thought leader in Asia, linked to commercial potential for WA in the region.
- Ensure that future research activities and investments are linked to the priorities of the WA health system and are actively translated into practice.

- The Future Health Research and Innovation Fund aligned to provide a secure source of funding and foster a vibrant research and translation culture in WA.
- Establish an enduring and ongoing sustainability research and development function in order to gather evidence-based research to guide health service economic, environmental and social sustainability.
- Hardwire research and translation metrics into leadership performance agreements and system governance documents.
- Development of a systemwide research strategy, with public reporting on health research and research translation activities.

Implementation

30 Ensure a robust, disciplined and integrated approach to the implementation of endorsed Sustainable Health Review Recommendations.

- Establishment of governance arrangements including an Oversight Committee
 independently chaired, appointed by and reporting to the Minister, with membership
 ensuring an outward focus, to monitor progress across the sustainability agenda and
 alignment with accountability frameworks under the *Health Services Act 2016* and public
 sector reform program.
- Establishment of a systemwide, multi-skilled, Sustainable Health Implementation Support Unit with core functions including support and facilitation; capacity building, problem solving, benefits realisation management; engagement, communications, and program assurance; and driving innovative approaches to change.
- Initial and ongoing prioritisation and sequencing of the implementation of the recommendations based on data, evidence and key stakeholder input, with staging designed to build momentum and develop capacity for long-term system transformation.
- Development and publication of a WA health system dashboard that incorporates key system level measures for sustainability and key existing performance, safety and quality measures to drive and report progress on change.
- Development of comprehensive implementation plans in partnership with consumers, staff and external community stakeholders, which clearly define measures for success aligned to key system level measures for sustainability.
- Establishment of regular transparent public reporting on outcomes, ongoing monitoring, review and evaluation, coupled with lessons learnt on the overall progress and impact of implementation. Gateway review initially at 18 months and beyond.

Interim Report Recommendations for Immediate Action

The Panel's Interim Report was released in February 2018 and identified nine Recommendations for Immediate Action where work could commence immediately. These were endorsed by the Government and implementation is underway.

IR1	The Department of Health should take an active leadership role across the public sector in developing whole-of-government targets with potential impact for better health outcomes, commencing with childhood obesity.
IR2	Implement a pilot of the Emergency Telehealth Service Model in at least one other specialty in the country and metropolitan area.
IR3	In collaboration with the Mental Health Commission (MHC), Department of Health, Health Service Providers, consumers and carers, immediately develop and then implement, an effective, contemporary clinical needs-based model that enhances or replaces the current patient flow model across all health services.
IR4	Support the immediate review of mental health clinical governance as identified by Professor Hugo Mascie-Taylor in the 2017 Review of Safety and Quality in the WA health system.
IR5	Identify and report publicly key system quality, safety, financial and performance information at the whole of system, and hospital level as a priority; and further progress public reporting down to department and clinician level.
IR6	Implement a WA health systemwide employee survey process and benchmark findings to inform and drive systemwide staff engagement programs.
IR7	Develop and implement innovative approaches to sharing of patient-level data across public/private providers, including a pilot to demonstrate necessary policy and technology approaches, commencing with pathology results, patient discharge information and medical imaging as an initial priority linked directly to work with the expansion of My Health Record.
IR8	Cut red tape to hasten the recruitment of staff and reduce unnecessary agency costs. Pilot the broader implementation of a streamlined recruitment process, as tested in the Pilbara region.
IR9	Continue implementation of financial sustainability measures ensuring budgetary transparency and enhanced Health Service Provider funding predictability.

Chapter 1: Courage to take action

Sustainability is a complex and ongoing worldwide concern that is not confined to health systems. Resources are not simply financial: they include people and the environment. The health system is not an island. It operates within broader systems, with social, cultural, economic and environmental responsibilities. Change will require shared responsibility to address global challenges.³¹

There is no denying the increasing pressures on the WA health system. Demand has grown substantially over the past 20 years as the population has grown and aged, and the incidence of chronic disease, obesity and mental health conditions has risen.

Recent trends suggest that if health's current demand and cost trajectory continues it will require a much greater share of government expenditure and revenue. Rising costs in health come at the expense of other public services such as education, housing, policing and transport.

Community expectations are also changing about the way in which services are designed and delivered. We are more connected to information and services than ever before, and our expectations for transparency have grown.

Change is a necessity for sustainability. We need to see shifts in behaviour and people doing things differently; genuine partnerships across sectors, health professionals, consumers, carers and communities; and better use of resources to get the best value for the health of all Western Australians.

This is not the first time WA has looked at the future of its health system and we have seen that the system has already made positive steps on a journey toward sustainability.

1.1. The WA health system is under pressure

Growth in demand and expenditure

Over the past 20 years, WA's health system has continued to experience unsustainable budget growth and demand. With the State's population of 2.7 million people projected to grow to more than 3.2 million by 2026, pressures on WA's health system will persist.²⁸

We have seen continuing unsustainable demand through Emergency Department (ED) activity, hospital admissions and in the surging numbers of people accessing mental health care in WA's hospitals. Between 2005 and 2015, ED attendances increased by 49 per cent, and are now at just over one million per year. During the same time period, hospital admissions grew by 39 per cent.^{1,11}

We know that there are a significant number of people who attend EDs for low acuity care who are often discharged quickly after being assessed, also known as avoidable ED attendances. In 2017–18 approximately 191,000 (18 per cent) of the one million attendances to WA EDs could have been avoided.¹ In 2017–18 approximately 51,000 (seven per cent) of the 707,000 hospitalisations at a cost of \$368 million each year could have been prevented if timely and appropriate healthcare and management had occurred in community settings.³2

Both avoidable ED attendances and preventable hospitalisations are important to consider as part of the broader issue of growing demand on WA's health system. In both cases, we know that the majority of people could have avoided hospital altogether, if they had appropriate care outside of hospital in primary care and community-based care (including by general practitioners, medical specialists, dentists, nurses and allied health professionals).^{1,32}

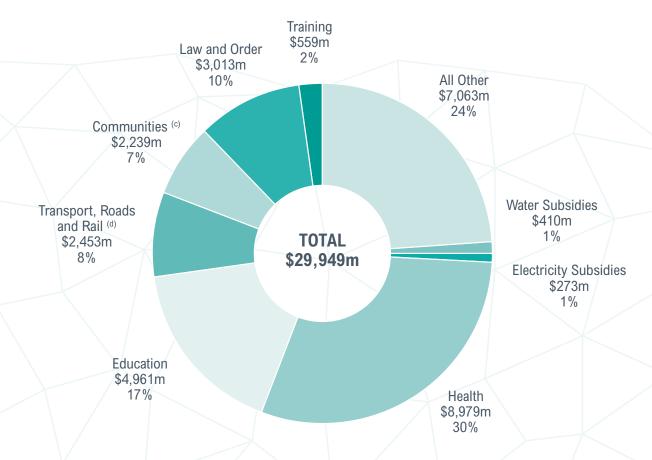


Figure 3: An overview of the State's expenditure by portfolio

Source: Department of Treasury

There are also growing waitlists for public surgical outpatient clinics, with people waiting nine months on average, for their first appointment for an initial surgical assessment at a tertiary hospital.²⁸

Health has been carefully managing its resources to address shifting demand. However, pressure on the health system will be compounded by Western Australia's challenging financial situation and the impact of rising chronic health conditions.

Health's share of total WA Government expenditure has risen from approximately 18 per cent in 1993–94 to almost 30 per cent in 2016–17. Health's expenditure, compared to other State Government agencies is shown in Figure 3.

Analysis completed by the Department of Treasury for the SHR has also shown that growth in WA's health expenditure has generally outstripped growth in the State's general government expenses, revenue and the size of the economy, as measured by Gross State Product (GSP). As a share of GSP, health's expenditure has risen from 2.6 per cent to 3.5 per cent over the same period.³

If this path continues, the health budget will consume nearly 38 per cent of the WA State Budget by 2026–27, significantly impacting other essential services such as policing, transport and housing.³

Over the past five years, the WA health system has taken steps to improving the foundations of system sustainability with a decrease from a decade average of nine per cent expenditure growth per annum to two per cent per annum in 2017–18 and 1.4 per cent budgeted growth in 2018–19.3

It will be essential for the health system to manage future demand within low expenditure growth and progress planning to minimise preventable rising costs. Any significant increases in wages, operating costs or budget over-runs in the short to medium-term will make it challenging for health to stay within its existing budget forecast. In the longer-term, health needs greater predictability of budget footprint in which it operates.

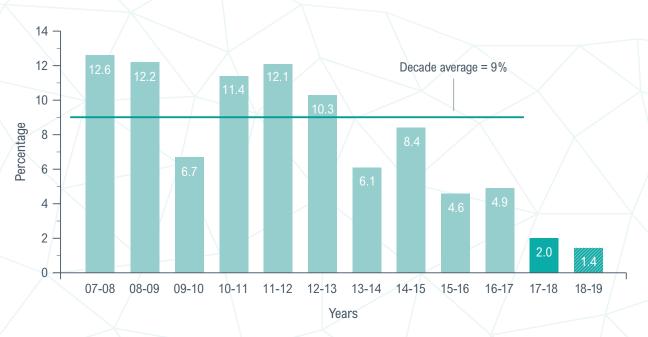


Figure 4: WA's expenditure growth reduction from a decade average of nine per cent to two per cent in 2017–18. Budgeted growth is 1.4 per cent in 2018–19

Sources: Department of Treasury and Department of Health

A report recently released by the Grattan Institute highlighted the difference in health system performance and the cost of hospital admissions in the five years up to 2015–16. WA ranked the second most expensive state in Australia, with an average cost of \$6,355 (per weighted patient treated) – \$1,648 more expensive than Victoria. The Grattan Institute emphasised that all Australian jurisdictions, including WA, should seek to 'reduce the overall cost and the variation in cost between public hospitals'.³³

The Grattan Institute also reported that 'large cost differences between states persist even if only major metropolitan hospitals are compared' and highlighted that the cost of treating patients in WA varies – even between similarly sized hospitals.³³

Figure 5: Some major hospitals in WA are more expensive than others in WA and nationally – cost per patient treated, large and major hospitals 2013–14

Source: adapted from the Grattan Institute³³



WA has been working to close the gap between the cost of delivering hospital services over a number of years. The difference between the cost of delivering hospital services in WA and the national average cost has been reduced from 22.2 per cent in 2015–16 to 15.6 per cent in 2017–18.²⁹⁻⁴³

However, despite efforts to close this gap, the cost of providing healthcare services is still more expensive in WA, compared to other States and Territories in Australia.³³

We noted in our Interim Report that there are a number of factors that affect the cost of providing healthcare services in WA, which the health system has been working to reform.

Some of the factors include:

- low population density
- communities with significant disadvantage
- costs from delivering basic services in regional areas that cannot achieve the same efficiencies as metropolitan hospitals
- a more expensive labour market
- providing a higher number of specialised statewide services that deal with a low volume of highly complex specialist cases.

Providing health services in rural and remote WA continues to be challenging. Distance, serving a dispersed population, high costs, and attracting and retaining staff are all important factors that contribute to the challenges, often making it unviable for providers to remain.²⁹

The WA health system is continuing efforts to make services more efficient as part of the Government commitment to the Council of Australian Governments Health Agreement. However, there are challenges in WA that are unique that need to be acknowledged by the Commonwealth and reflected in bilateral agreements.

Shortfalls in Commonwealth investment

Since 2009–10 Western Australia, along with the rest of the country, has faced a growing gap between the investment made by the Commonwealth in primary care compared to that spent by the State on hospital-based services. For WA this represents a shortfall of approximately \$1 billion a year in Commonwealth healthcare funding, seen in the:

- difference between investment in WA compared to other states and territories despite the cost of providing care in regional and remote areas of WA. In 2015–16, the Commonwealth spent \$2,639 per person in WA, compared to other states and territories, which received \$2,924 per person.³⁴
- shortfall of approximately \$430 million in Medicare funding and nearly \$300 million in funding through the Pharmaceutical Benefits Scheme.²⁹
- lower number of General Practitioners (GPs) per person (79 GPs per 100,000 population compared to national average of 96 GPs per 100,000)^{28,29}. Very remote areas of WA are significantly under resourced.²⁹
- lack of access to GPs, especially in country WA, which accounts for approximately \$100 million of the gap in Medicare funding.

Health insurance and out-of-pocket expenses

Western Australians spend \$1.8 billion on health insurance, which represents approximately 10 per cent of total spending on health. Western Australians have the highest rates of private health insurance nationally (69.7 per cent, June 2017) with more than 55 per cent of people holding hospital cover. However, health insurance premiums have been increasing steadily — rising by 50 per cent since 2010. The proportion of Western Australians with private health insurance hospital cover has been declining since 2015.²⁸

This shift away from private health insurance has flow-on impacts on the public health system, with 12.5 per cent of hospital admissions funded by private health insurance.²⁸ It also affects the affordability of public health services and makes the fee-for-service model difficult to sustain.

As more people are faced with rising out-ofpocket costs, and fewer affordable options for health care, the State's public hospitals may continue to see growing demand for services.

1.2 Population health driving demand

Australia has one of the highest life expectancies in the developed world and fairs better than average on a number of health outcomes.⁶ However a high proportion of health costs to the community and health system arise from diseases and conditions that are preventable.

As Western Australians live longer and our population grows, we have seen a rise in chronic diseases, many of which are preventable through lifestyle changes, including health conditions such as heart disease, stroke, arthritis and type 2 diabetes. Chronic disease has overtaken infectious disease as the leading cause of death and is now responsible for approximately 73 per cent of deaths in Australia in 2013.³⁵

In WA, cancer, cardiovascular conditions (such as heart disease and stroke) mental and substance use disorders, and musculoskeletal conditions (such as osteoarthritis and arthritis) are the most common causes of poor health or early death.³⁶

Being overweight or obese, tobacco use, and excessive drinking are among the leading causes of preventable illness and preventable hospital admissions.³⁵ Chronic diseases have a significant individual impact and can stop people from leading productive lives in the community.

Major health challenges

Modern healthcare systems, including Western Australia's, have evolved out of a model centred on acute care in hospitals. The WA health system remains strongly focused on acute care, with 74 per cent of the State health budget directed at hospital services. This represents \$6.5 billion of the \$8.8 billion expected total health expenditure in 2018–19. ²⁶ In contrast, it is estimated that only 1.6 per cent of total Commonwealth, State and Local Government health expenditure in WA is spent on prevention activities each year. ²⁷ It is clear that to address population health challenges, now and into the future, a different type of response is needed.

- Chronic diseases are responsible for 73 per cent of deaths in Australia. \$715 million of hospital costs in WA were attributed to chronic conditions in 2013.^{13,14}
- 69 per cent of WA adults aged 16 years and over were classified as overweight (37 per cent) or obese (32 per cent) in 2017; 26.5 per cent of children aged five to 15 years were classified as overweight or obese in 2017.^{15,16}
- Western Australia's older adult (people aged 65 years and over) population is projected to rise by 50 per cent in the next 10 years.¹⁷
- Approximately 244 people are diagnosed with dementia each day, with the number of new cases projected to increase to 451 people per day by 2036 and over 650 people per day by 2056.
- The life expectancy for people with mental illness, who often have multiple physical and mental health conditions, in WA was 15.9 years lower for males and 12 years lower for females compared to the general population.²¹
- In 2016-17, 90 per cent of people attending an emergency department for acute mental health care in WA waited for up to 15 hours before progressing to a suitable care environment. This is 3.5 hours above the national average for mental health, and well above the State's 4 hour access target.^{9,10}
- Western Australia's suicide rate was approximately 20 per cent higher than the national average in 2016 and has been consistently higher than the national average since 2007.²²
- In WA approximately one-third of people aged 16–44 years (35.7 per cent) drink at levels considered to be high risk for long-term harm.¹⁵
- Heatwaves are responsible for more deaths in Australia than any other natural disaster and will likely worsen with climate change.²⁵

Inequity and risk

Figure 6: Key examples of health inequality in WA

Sources: Various 21,23,24,29,109









There is an unacceptable difference in the health status of many people in the WA community. We know that Aboriginal people, those living in country areas, those with mental health conditions, and people living in low socioeconomic areas all experience poorer health outcomes and mortality rates than the rest of the WA population.³⁷ **Appendix 5** outlines further information regarding health inequity in WA.

Health inequity is apparent in different ways for different groups of people, depending on factors such as housing, education, occupation, income, race/ethnicity, gender, Aboriginality, disability and sexuality.³⁸

Evidence from Australia and internationally shows a small proportion of people in the community, managing more than one complex health issue, are going to hospitals and EDs far more than all others in the community – with just five per cent of people going to EDs accounting for more than 20 per cent of all attendances each year.¹

Analysis by the Department of Health regarding ED use shows there are an increasing number of people in these vulnerable population groups who manage more than one chronic health condition.¹ In many cases, people who are frequently attending hospital are also needing significant support in other areas such as social, disability or housing services.

We also know from evidence and experiences shared throughout the course of the SHR, that the fragmented nature of the health system is often amplified for people who are most in need. The current range of services, both public and private, and the intersection with the aged care and disability sectors across State and Commonwealth boundaries, creates a difficult maze for people to navigate at a time when they are most vulnerable. We know that when there are gaps in services the State's public hospitals become the last resort for people who have not recieved the care they need.

A growing global and national evidence base shows that a more proactive and sustained approach addressing the specific health and wellbeing of vulnerable populations will lead to significantly better outcomes for those most in need.^{39,40} There is strong evidence, such as the experience of Kaiser Permanente in the United States,⁴¹ to demonstrate that this approach will assist the sustainability goals of the health system by investing effort in improving the health and wellbeing of population groups who are the most frequent users of the health system.

1.3 Disruption is accelerating change

Figure 7: Digital disruption is shaping the future of healthcare

Personalised health **Smart cities** Healthcare **Treatment and Innovation** · Smart phone Patient navigation apps Advances in diagnosis and treatment Internet of Things Apps Telehealth of conditions through genomics Reduction in carbon emissions Use of spatial technology · Wearable health and fitness trackers Robotics Efficient, connected planning · Interconnected appliances Artificial intelligence Precision medicine may be used to and infrastructure Virtual reality deliver personalised treatments Drones 高 ...

Digital

Digital disruption and the related advances these technologies bring are rapidly accelerating change in health care. Health systems globally are now seeing more empowered consumers looking for better value and convenience. This device-driven reform is reaching past some of the existing health systems, straight to consumers.

Patient navigation apps, telehealth and virtual treatment using video conferencing for 'on-demand' medical care, remote monitoring, health robotics, artificial intelligence and virtual reality are just some of the innovations that are shaping health care of the future.

As new players in health care begin to offer new products, consumers are starting to embrace their convenience, similar to the way they used to interact with banks or travel – shifting from in-person visits to a bank teller or travel agent, to fully online options.

Smart cities and towns connected by technology are expected to transform the way we live, but also improve our health and quality of life, in areas such as emergency response times, lowering disease, greenhouse gases and carbon emissions.⁴²

As these innovations fundamentally change the nature of the relationship between people, providers and systems, new approaches will be needed to evaluate the costs and benefits of adopting new technologies ensuring that the health system is well-placed to take advantage of these changes.

The health system must figure out how it interfaces with this disruption. Australia's health system is currently dominated by very large State and Commonwealth systems, each responsible for managing significant extensive internal processes, regulations and legislation. Both systems have been built from a profession-based service model. They have not been designed to be agile. Current payment systems associated with Medicare need to reflect the changing ways in which healthcare is being delivered.

Treatment

Globally, health care has seen a radical shift in the capacity and options available to treat illness and disease. Australia's health system has been formed around the premise of universal access to health care, which has dramatically shaped consumer expectations, and the willingness to consider a wider array of possible options.

Australians now have access to a range of treatments and therapies to treat health conditions that were previously fatal, such as cancer and heart disease. It is now common for a person to have stents inserted into blocked arteries in a procedure that normally takes 45 to 90 minutes. People with cancer receive targeted radiation and chemotherapy, and even chemotherapy treatments in the comfort of their own home. With increasingly sophisticated treatment options, the amount that can be spent on health has also dramatically increased.

Looking further into the future, advances in the way diseases are diagnosed and treated will also radically shift health care. Genomic testing, using a person's individual DNA, may help people wanting to become parents understand the health needs of their future family; while precision medicine could deliver personalised treatments for conditions such as type 2 diabetes and cancer.

1.4 Closing the gap between health outcomes and cost

Australia's Productivity Commission in its recent five-year productivity review highlighted the need to shift the focus of the health system to prevention and promotion through better integration, and noted that 'reform of Australia's healthcare system will not just be better for patients, but may save up to \$140 billion over the next 20 years'.43

The review also recognised the importance of people having access to services that are provided in a way that is coordinated around their needs, respects their preferences, and is safe, effective, timely, affordable and of acceptable quality.⁴³

The Sustainable Health Review draws from the insights of these broader global and national conversations. Similarly, WA's health system has many lessons from its journey to date which are further outlined in **Appendix 4**.

Social determinants of health

Research suggests that clinical care influences only 16 per cent of a person's overall health and wellbeing, with socioeconomic factors, health behaviours, cultural factors, genetic factors, and the physical environment all influencing health outcomes.² The social determinants of health describe all the factors that contribute to a healthier life – at home and at work, and in the environment, housing and transport.^{37,44}

Evidence shows that when people do not have the kinds of support they need to manage their physical or mental health, it also affects how they connect with other people in their community — it affects their jobs, education and participation in other activities; and can have long-lasting impacts on the wellbeing of their carers, family and friends.²⁴

In WA, data shows that people who are socially or economically disadvantaged have poorer health outcomes.³² Improving health outcomes starts with giving people more opportunities to make choices that support them to lead healthier, more active lives, regardless of their income, education or cultural background. Supporting and empowering people can take many forms and improving hospitals and health care is only one of them.

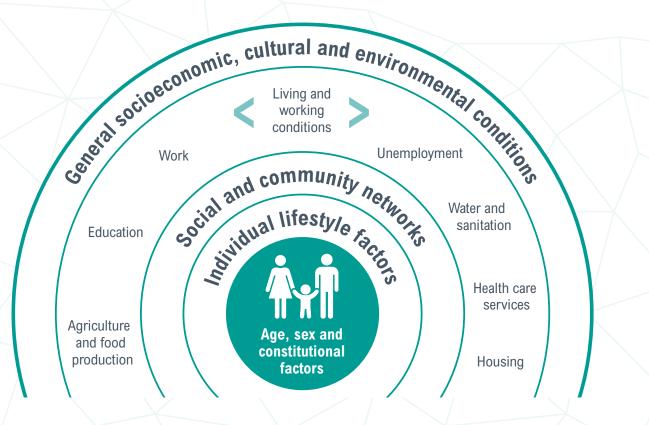


Figure 8: A framework for determinants of health

Source: AIHW 201644

Partnerships

It is clear that the WA health system cannot hope to improve the social determinants of health on its own. It is a collective responsibility to create the conditions in which people can lead healthier lives including early childhood experiences, social supports, housing and the environment, education and employment.

Within the WA Government and the health and social services sectors, there is growing recognition of the need to partner to address complex factors that affect people's health and wellbeing. This year the WA Council of Social Services (WACOSS) has been working with Government and community stakeholders on an outcomes framework, showing the importance of addressing the determinants of health and wellbeing.⁴⁵

The health system must also look beyond established partnerships – and focus outward, to work with other partners in the broader health and community sector. The value of the health and social assistance sectors in WA is growing and now ranks third across all sectors in WA behind mining and construction.⁴⁶ This represents 'an enormous opportunity for new ventures that aim to transform how health is produced, to positive ends.'⁴⁷ Empowering consumers and using their feedback to shape and improve services is essential for truly person-centred care.

Governments must partner and use the opportunities available to collaborate and take action. Partnership is also a major theme shaping broader reforms in WA's public sector. 48 Relationships must be based on new levels of trust, respect and backed by the skills and capabilities to collaborate across sectors. A commitment to outcomes, through a vision for the future that is shared with the community, will be key to supporting people in their pursuit of healthier, more active lives.

The WACOSS Outcome Domains

Stable – We are financially secure and have suitable and stable housing.

Safe – We are safe and free from harm.

Healthy – We are healthy and well.

Equipped – We have the resources to contribute to our community and economy.

Connected – We have strong relationships and are connected to culture and community.

Empowered – We are empowered and able to exercise our capacity.

Person-centred services

The health sector in WA is a mix of State and Commonwealth funded public hospitals and community services; primary care, mental health, aged care and disability services; and private and community health services. To truly address sustainability, WA must expand its definition of care and acknowledge that the WA health system extends beyond hospitals, and requires strong links with primary care and a wide range of health, wellbeing and social care services.

We have seen a growing divide between physical and mental health outcomes, and disconnected, bureaucratic service structures that often make little sense to the people they support. Each year people rely on a range of services across the health, mental health, aged care and disability sectors, often at the same time for multiple conditions. Consumers and carers told us in their submissions, at public forums and in our Reference Group of their frustration that there were limited ways for them to contribute to the design of services that are meant to be meeting their needs.

Service integration and person-centred services have been emphasised globally by the World Health Organization (WHO) as a 'fundamental shift' needed in the way services are funded, managed and delivered.⁵¹

The WA Public Sector Reform Agenda

A key feature of this agenda was the completion in October 2017 of the sector-wide Service Priority Review into the functions, operations and culture of the Western Australian public sector. In its final report, the Service Priority Review Panel identified four directions for reform, including 'building a public sector focused on community needs'.⁴⁹ A key recommendation was the introduction of whole-of-government targets to resolve complex, long-standing problems facing the community.

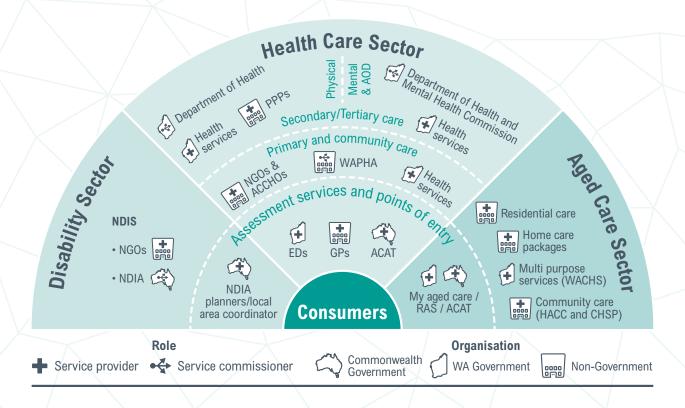


Figure 9: High level mapping of the health, aged care and disability sectors in WA Source: Adapted from Nous Group⁵⁰

In 2016, the WHO recognised that service integration and person-centred services are effectively two-sides of the same coin, as it established a global framework for Integrated People-Centred Health Services⁵¹, something picked up further by the Productivity Commission in its five-year productivity review. ⁴³ Both recognise the importance of an integrated system in which all people have access to services that are provided in a way that is coordinated around their needs, respects their preferences, and is safe, effective, timely, affordable and of acceptable quality.

Integrated, people-centred health services

— is an approach to care that consciously adopts individuals', carers', families' and communities' perspectives as participants in, and beneficiaries of, trusted health systems that are organised around the comprehensive needs of people rather than individual diseases, and respects social preferences. People-centred care also requires that patients have the education and support they need to make decisions and participate in their own care and that carers are able to attain maximal function within a supportive working environment.⁵¹

A focus on supporting integration through person-centred care is also a strong feature of the national health agenda. The Commonwealth, States and Territories have worked together to develop six long-term health reform proposals, underpinning the next National Health Agreement. This agreement is expected to be negotiated by all states and territories and considered by COAG for implementation from July 2020.⁵²

These reforms are intended to sit alongside reforms in public hospitals and focus on:

- 1. joint planning and funding at a local level
- 2. paying for value and outcomes
- 3. nationally cohesive Health Technology Assessment
- 4. prevention and wellbeing
- 5. empowering people through health literacy
- 6. enhanced health data.

Value

A significant amount of money is invested into health in WA, but we know that there are opportunities to improve people's experiences and the overall quality of care they receive. There is strong international interest in pursuing value-based or outcome-based care that delivers the best possible outcomes to patients for the lowest possible cost.

At the heart of this is developing more meaningful ways of measuring outcomes and experience. For example the International Consortium for Health Outcomes Management develops standardised, internationally accepted metrics of the results that matter most to patients, for example physical functioning or level of pain.⁵³

Low value care has been described as the 'use of an intervention where evidence suggests it confers no or very little benefit on patients or risk of harm exceeds likely benefit, or, more broadly, the added costs of the intervention do not provide proportional added benefits.'54

High value care has been described as the use of an intervention which evidence suggests 'confers benefit on patients, or probability of benefit exceeds probable harm, or, more broadly, the added costs of the intervention provide proportional added benefits relative to alternatives.'55

Choosing Wisely is a worldwide organisation, led in Australia by health professional colleges, societies and facilitated by the National Prescribing Services' MedicineWise. It promotes conversations between people and clinicians, about what care is 'truly needed – identifying which practices are helpful and which are not'.56

Choosing Wisely estimates that nearly one-third of the total health expenditure in Australia could be deemed wasteful and potentially expose people to unnecessary risk and harm.

Wasteful care may include instances where patients don't receive the right care – resulting in complications and avoidable hospitalisations; where resources are duplicated or wasted – such as tests or prescription drugs; and where there is variation in identical procedures, between doctors or hospitals, for little or no benefit to the patient.⁵⁶

The Grattan Institute recently reported on safety and quality and its impact on people's health outcomes and cost to the health system:

one in nine patients who go into hospital in Australia suffers a complication. Those complications cost public hospitals more than \$4 billion a year, and private hospitals more than \$1 billion a year. If all hospitals in Australia lifted their safety performance to match the best 10 per cent of hospitals, an extra 250,000 patients would go home complication-free each year and the health system would save about \$1.5 billion every year, freeing up beds and resources so another 300,000 patients could be treated.⁵⁷

Another critical area related to value is clinical variation. The Australian Atlas of Healthcare Variation explores the extent to which healthcare use in Australia varies according to where people live investigating why this variation may be occurring.⁵⁸ For example:

In 2015, Bunbury had one of the highest rates of knee arthroscopy hospital admissions for the state for people 55 years and over. Reviews have found that arthroscopy for degenerative knee disorders (particularly osteoarthritis) deliver little benefit. This is an example of people potentially receiving low value health care which does not increase quality of life where there are other evidence-based treatment options such as exercise, physiotherapy, weight management and medication for pain relief.⁵⁸

The concept of low value care is commonly associated with disinvestment which has been described as 'the processes of (partially or completely) withdrawing health resources from any existing health care practices, procedures, technologies or pharmaceuticals that are deemed to deliver little or no health gain for their cost, and thus are not efficient health resource allocations.⁵⁹

Prioritising high value care can produce considerable benefit for the community and individuals.⁶⁰

Transparency

One of the key mechanisms to support high quality health care and reduce waste is transparency. This was highlighted by Professor Hugo Mascie-Taylor's 2017 *Review of Safety and Quality in the WA health system* which noted that 'safe, reliable healthcare depends on access to, and the use of, information that is transparent, timely, reliable and attributable'.⁶¹

We observed in our Interim Report that 'WA lags behind other health systems in providing patients, staff and the community with key information regarding safety and quality of services, costs and other measures of performance.'

Transparency empowers health workers, patients and carers and helps develop a better understanding of health investments. The New South Wales Bureau of Health Information has also concluded that there is strong and consistent evidence which shows that public disclosure of performance data stimulates quality improvement activities and can improve patient clinical outcomes and benefit the system as a whole.⁶²

As the Grattan Institute has articulated, 'hospital safety statistics are collected, but they are kept secret, not just from patients but from doctors and hospitals. This has to change. Patients have a right to know the data on complication rates in different hospitals and for different procedures, so they – and their GPs – can make better-informed decisions about how and where they are treated.'57 Clinicians also need to know how they are performing compared to their peers, so that they can learn from best practice.

Innovation

Through the course of the SHR we have seen the benefits of a systemwide approach to innovation, collaboration and service improvement – notably adopted by New South Wales and Victoria. 63,64
These models link key areas around clinical variation, data and analytics and approaches to innovation. They foster strong collaboration between clinicians, consumers and managers to design and promote better healthcare, through service redesign and evaluation; specialist advice on health care innovation; implementation support; knowledge sharing; and continuous capability building. 63

New South Wales' *Agency for Clinical Innovation* is a model that should be considered in WA. It fosters strong collaboration between clinicians, consumers and managers to design and promote better healthcare, through service redesign and evaluation; specialist advice on health care innovation; implementation support; knowledge sharing; and continuous capability building.⁶³

New South Wales Agency for Clinical Innovation (ACI)

- The ACI heavily engages with clinicians, managers and consumers to undertake a number of initiatives; for instance more than 600 clinicians and managers across New South Wales engaged in the stroke clinical audit process to reduce unwarranted clinical variation.
- More than 40 Clinical Networks, Taskforces and Institutes have been established by the ACI to discuss health care, share knowledge and collaborate to develop initiatives.
- The ACI have facilitated 45 different specialist areas to provide evidence-based resources to the community, made available on the ACI's website.
- The Innovation Exchange has been established by the ACI to provide a single, collaborative place to share and promote local innovation; this has resulted in the development of around 410 local projects, based at 87 sites.
- The ACI focuses on continuous improvements through a range of programs, such as the New South Wales Health Coaching Program to improve system performance and develop leadership and management capability in implementing strategic change.

A more systematic approach to clinical innovation and improvement in WA will support staff engagement and satisfaction, consumer engagement, safety and quality, health outcomes and cost and waste reduction.

Chapter 2: A sustainable WA health system

Sustainability requires a deliberate and measured approach through targeted interventions and evidence-based improvements. Sustained change takes time and requires leadership and ongoing political commitment. It must build upon effective community, consumer, carer, staff and service provider input.

2.1 Pillars to sustainability

The Panel has considered sustainability through the 'Quadruple Aim of Healthcare' 4,5, an internationally recognised approach organised around four pillars:

- 1. patient experience improving the patient journey and satisfaction
- quality, safety and population health –
 working to improve the health of the
 population, and improving safety and quality
 of healthcare
- cost and waste reduction improving the value of what is spent on health services and reducing waste
- staff engagement recognising that a happier, more engaged workforce delivers higher quality care.

Achieving these pillars requires courage to change, and the support of genuine partnerships with communities to shift the system more towards prevention and community-based care. It will be important for the WA health system to demonstrate the benefits of the changes that are made to the people of WA.

Sustainability can only be achieved by a strong and enduring systemwide focus driven at a local level. The WA health system must utilise the provisions in its legislation to drive necessary systemwide changes. Health entities must be supported and held accountable for making necessary changes. In parallel, the Department of Health as System Manager is also accountable for leading, directing and supporting the WA health system.

The makings of a more sustainable health and social care system in WA are already emerging through the voices of people receiving and providing care in and around the current system. Our vision of the health landscape in WA in 2029 has been inspired by the passionate contributions of staff, consumers and carers throughout the SHR.

Health landscape of WA in 2029





Patient experience

- People have choices and care options.
- Care is inclusive for all people.
- People are accessing information and services through technology to suit their needs.
- Consumers, carers and health providers are partners in team based approaches to health and wellbeing.
- Patient experience and feedback shapes services and holds providers accountable.



Quality, Safety and population health

- Physically and mentally healthy Western Australians with a high quality of life.
- Inequity and inequality are reduced and the health and wellbeing of all Western Australians improved.
- The public health system provides safe, high quality care that achieves world-best standards.



Staff Engagement

- Health system staff are valued and respected for their expertise, contribution, and dedication.
- There is a strong identity and culture of innovation and continuous improvement to support sustainability.
- Training and education ensure a highly skilled, digitally ready workforce.
- The health system is transparent and collaborative, open and accountable.

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Cost and Waste Reduction

- The health system 'lives within its means' so other essential services are not adversely impacted.
- The health system eliminates duplication, reduces waste, and minimises its environmental footprint.

2.2 Enduring Strategies

This report puts forward eight Enduring Strategies the Panel believes must become the focus for the system to progress a sustainability agenda. These Enduring Strategies build upon the 12 Preliminary Directions articulated in our Interim Report, taking the feedback received from the community, staff and partners across the health sector, to address the underlying imperatives of sustainability.

Given the breadth of the WA health system, it is unrealistic for the Panel to propose strategies across every area of service delivery, nor is that its role. The SHR is not a health plan, and does not attempt to address every area of service delivery.

Our selection of the eight Enduring Strategies demonstrates there is no single 'lever' to achieve sustainability. These are the key priorities that will be fundamental to shift the system over the next two, five and 10 years that warrant bipartisan recognition and support.

Priorities to shift the system (Figure 10) outlines the context, actions and outcomes informing the Panel's Enduring Strategies.

The SHR is not about cutting costs. It is about understanding how costs can be avoided, waste reduced, and where re-investment will have the most impact on people's lives and minimise rising costs in the future.

Health will need to stay within agreed budget parameters set by Government that recognise growth in demand, adjustments for national and state policy, funding changes such as private to public shifts, and Government Wages Policy. The WA health system will need the ability and incentives to reinvest in areas that promote sustainability objectives.

WA must look at where it makes its investments including public health, prevention and promotion, service redesign and innovation, and take advantage of the benefits of digital health.

The emphasis should be on primary care rather than secondary and tertiary care, avoiding costly acute care when more appropriate care in the community is available. There should be a sustained focus on helping people experiencing mental health issues with prevention, early intervention, treatment and a path to recovery.

There will also need to be a more strategic focus on capital and recurrent expenditure, making it clear where it is necessary to invest to save. A greater focus on cost and waste reduction through pursuit of high value health care, procurement and other key areas should also improve the efficiency of the WA health system.

Opportunities for investment and reinvestment should be taken to reinforce short-term changes and secure long-term transformation. The WA health system will need significant investment in digital health and in skills and training the workforce of the future.

These strategies cannot be achieved overnight. The WA health system is already on the journey toward improved sustainability. The implementation planning to support the rollout of the SHR needs to acknowledge that the health system must continue to manage demand and provide high quality care, while progressively transforming the way it operates.

Priorities to shift the system

Figure 10						
Context	Actions	Outcomes				
Strategy 1: Commit and collaborate to address major public health issues						
 Focus on treatment over prevention High levels of obesity and harmful alcohol use Ongoing health inequity Limited community voice in service design Climate change is impacting health 	 Invest more in prevention and social determinants of health Set targets for obesity and harmful alcohol use Increase community participation Address impacts of climate change 	 Population health outcomes improved for all Obesity and harmful alcohol use reduced Inequity reduced Services are responsive to people's needs An environmentally responsible health sector 				
Strategy 2: Improve mental h	ealth outcomes					
 Capacity and balance limited across acute, community, early intervention and recovery settings Poor coordination making services difficult to navigate Limited focus on a person's outcomes, journey and recovery Commonwealth increasing investment through Primary Health Networks 	 Invest in a balance of acute and community services to meet community needs Ensure people with lived experience influence and shape services Implement models of care to increase access to services Partner to plan and set priorities 	 Improved mental and physical health outcomes Connected and visible care pathways Care is person-centred and responsive People know where to go to access support 				
Strategy 3: Great beginnings and a dignified end of life						
 Focus on acute care over prevention and early intervention Limited integration of early childhood services People do not have access to information or support for end of life discussions Treatments do not always support better quality at the end of life 	 Collective approach to supporting healthy babies, children and families Prevent and manage Fetal Alcohol Spectrum Disorder Support people to make informed choices about care Provide care in the community or at home for people who are dying 	 Children receive the best start to life Early intervention where it is needed most People choose the services they receive and where they die People experience a dignified end of life 				
Strategy 4: Person-centred, equitable, seamless access						
 People with chronic and complex conditions rely on Emergency Departments Hospital and primary care not well coordinated 	 Partner with primary care to treat people in the community Improve access and efficiency of outpatient services Increase telehealth and virtual 	 People are cared for in the most appropriate setting Patient experience and quality of life is improved through integrated care 				

- Outpatient services hard to access and inefficient
- Challenges in access and coordination for country patients
- People fall through gaps across systems
- Improve interface between health, aged care and disability services
- Hospital readmissions are reduced
- Country patients receive care closer to or at home
- People's data follows them on their journey

Context Actions Outcomes

Strategy 5: Drive safety, quality and value through transparency, funding and planning

- Unnecessary variation in care and waste
- Funding systems reward activity over high value
- Health service providers feel restricted by funding uncertainty
- Commonwealth and State funding could better support health outcomes
- Health system planning is reactive

- Provide care based on contemporary evidence
- Report patient safety and quality outcomes publicly
- Collaborate with the Commonwealth for better outcomes
- Integrate systemwide planning
- Address health system capacity pressure points

- People receive high value services
- Funding system rewards high value care
- Access to primary care and aged care increased
- Health system is accountable
- Health system capacity meets community needs

Strategy 6: Invest in digital healthcare and use data wisely

- Digital technology can transform service delivery
- Challenges in ICT planning and investment
- Data and information could be linked and used more effectively
- Health information is not easily shared

- Leverage digital technology
- Enhance workforce use of data and digital technology
- Build data analytics capacity and capability
- Report outcomes and information transparently
- Enhanced clinical engagement with data and technology improving patient outcomes
- Digitally enabled health services with care better coordinated
- Accountability is increased

Strategy 7: Culture and workforce to support new models of care

- Scope and mix of workforce not fully utilised
- Health system workforce planning needs to improve
- Next generation of health workers must meet changing needs of the community
- Recent reviews highlight importance of staff morale and culture
- Build an interdisciplinary workforce
- Introduce innovative and contemporary workforce models
- Empower staff to work to full scope of practice
- Genuinely partner with universities and training institutions
- Integrate workforce planning

- Health workers' skills and capabilities are fully utilised
- Workforce planning guides future investment
- Community need shapes the health workforce training pipeline
- Staff are engaged, empowered and productive

Strategy 8: Innovate for sustainability

- Innovation is stifled, haphazard and good practice does not spread
- Research is not aligned with health system needs
- WA attracts a low proportion of research funding
- Create a systemwide innovation network and adopt modern approaches to clinical innovation
- Build an innovative, entrepreneurial culture
- Link research to health system priorities and prioritise research translation
- Innovation and experimentation in health care delivery
- Research agenda responds to health system needs
- Research translation improves patient care and outcomes

2.3 Recommendations

The Final Report contains 30 Recommendations to Government. These Recommendations are intended to provide clear and specific direction but allow implementation to be adaptive.

Each Recommendation contains a recommendation statement and priorities in implementation. The recommendation statement articulates the intent or outcome of the recommendation. The priorities in implementation are actions or milestones that provide critical context and must be considered as part of implementation planning. Priorities in implementation are not listed in order or considered an exhaustive list.

To achieve maximum benefit, each Recommendation endorsed by Government needs to be addressed as a whole. Drawing on lessons from the past, the Panel suggests that independent oversight of implementation allows an appropriate level of flexibility in addressing the priority steps while ensuring the intent of the Recommendation is met.

Implementation should be based on detailed planning and assessment of prioritisation, sequencing, key partners, new and existing work, emerging evidence and issues, and development of specific measures to track progress and outcomes.

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The focus will be on driving change rather than ticking boxes and the sequencing may change as new information emerges. In the short-term, the focus should be on setting up for success, identifying early priorities and building momentum. Deeper change should be seen in the medium-term, with full change at 10 years.

2.4 System measures for sustainability

Unless something is measured and understood it cannot be improved. The WA health system already has key performance indicators intended to drive efficiency and performance. Experience suggests the WA health system's focus on driving value, quality and better performance across new areas will require sustained systemwide effort and draw upon the devolved governance structure now operating.

For success, good health outcomes require the WA health system, partners and the community to work together bound by agreed outcomes. We have selected 12 domains for outward-facing measures to drive changes that go to the heart of sustainability.

This approach has been informed by system level measures developed by the New Zealand Ministry of Health with domains centred on children, youth and reducing equity gaps for Maori and other population groups that consistently experience poor health outcomes. ⁶⁵ A summary of the New Zealand measures is provided at **Appendix 6**.

The domains selected by the Panel for the WA health system sit across the proposed Enduring Strategies to shift focus and measure progress towards sustainability. Each of these domains emphasise the longer-term change required at system level, and should drive change and support collaboration between the WA health system with health and social care, industry partners and the community.

i Nine Recommendations for Immediate Action were also endorsed by Government as part of our Interim Report – these are listed in the Executive Summary.

Domain	Examples of metrics that should be considered
Patient and carer experience	Public reporting of patient reported experience and outcome measures across healthcare settings; health literacy.
Staff engagement and culture	Consistent, benchmarked, publicly available; reflect core values and commitment to ongoing engagement; can be supplemented by Health Service Provider local surveys.
Health equity outcomes	Increased funding; avoidable deaths; prevention, early detection and treatment by cohort e.g. Aboriginality, country.
Improve mental health	Youth access; early intervention; emergency department wait times; patient flow; progress to implement proven models of care.
Child health	Points of contact during pregnancy and after birth; preventable deaths and hospitalisations, injury prevention, immunisation and dental health measures for children aged 0–4 years.
End of life	Number of people with recorded Advance Health Directives; personal preferences for end of life care.
Obesity	Childhood obesity; maternal overweight and obesity; percentage of population with a healthy weight.
Safety and Quality / Clinical Performance	Meeting key standards; public reporting of adverse events across services; overall mortality measures; access to data.
Care in right setting	Emergency department readmission rates; unnecessary readmissions; outpatient metrics such as increasing the number of appointments that should be provided in primary care.
Partnerships	Alignment with whole-of-government targets WACOSS outcomes framework; wellbeing index; joint planning/commissioning; consumer/ clinician partnerships; partnership to reduce alcohol and drug-related violence and family violence.
Workforce	Tracking the staffing mix in specific service delivery areas, to support transition towards alternative models of care; workforce diversity; occupational safety and health metrics such as absenteeism, stress leave, return to work after injury.
Financial/use of resources/value	Reductions in key cost drivers; cost of service; cost curve trajectory; reduce waste – unnecessary tests.

These measures represent a progressive shift from a focus on transactional efficiency to include other areas key to sustainability and improving overall health and wellbeing outcomes. They also give recognition to the importance of an engaged staff and people using the health services to drive reform.

Metrics should be developed in partnership, and be flexible, evidence-based, easily understood, end-user driven, and transparent. These could involve behavioural, experiential and quantitative aspects and should be regularly reviewed and updated as data and evidence from implementation grows.

The Panel has recommended that these are progressively included in a WA health system dashboard with key existing metrics to drive and report progress of change, and should be regularly reviewed and updated. This provides space to develop specific operational measures and targets that can be used to monitor change alongside SHR implementation plans to better respond to emerging issues. We expect performance against these domains to be reported publicly on a regular basis.



Strategy 1 – Commit and collaborate to address major public health issues

A strong focus on prevention is fundamental to sustainability, reflecting a greater focus on supporting health and wellbeing, rather than the current focus on mainly treating acute illness.

Changes in health and population trends show that people are now more likely to die from complex and chronic disease. Many chronic conditions share common risk factors (preventable or modifiable behaviours that can be improved through lifestyle changes), such as excess body weight, tobacco smoking, excessive alcohol consumption and insufficient physical activity.⁶⁶

WA has many well established programs and initiatives focused on areas such as physical activity, nutrition, immunisation and tobacco control that demonstrate the value of prevention in maximising good health outcomes.

Learning from successes: Smoking cessation in WA

Approaches to changing the trajectory of health outcomes in WA must commit to a bold approach that prioritises prevention, such as past initiatives to reduce the impacts of smoking on the health of Western Australians.

In 1971, 39 per cent of Western Australian adults smoked.⁶⁷ By 2017, this was reduced to 11.8 per cent.⁶⁷

The success of the anti-smoking movement in Australia has been underwritten by sustained commitment at a national, state and local level, exemplifying the long-term vision that is needed to bring about behavioural and structural change.

Increases in tobacco taxation and the introduction of plain packaging legislation at a national level have been complemented by local action to drive change, such as WA's highly regarded *Make Smoking History* campaign, which effectively combines mass-media advertising, capacity building and research.

We firmly believe that by picking a limited number of key health issues, investing in enhanced prevention and health promotion, and staying the course, WA will make real difference to health outcomes and sustainability.

This has been reinforced by members of the community and WA health staff throughout our consultations. Australian research on the return on investment has also demonstrated that preventive interventions have led to improved health outcomes and reduced overall health costs. 68

Recommendations made by the Panel have been strongly informed by the recent <u>WA Preventative</u> <u>Health Summit</u> in March 2018, which discussed contemporary issues tackling obesity and alcohol.⁶⁹

Recommendation 1

Increase and sustain focus and investment in public health, with prevention rising to at least five per cent of total health expenditure by July 2029.

Priorities in implementation:

- Transparent annual public reporting and benchmarking of investment in public health and prevention from December 2019.
- Investment based on clear evidence and evaluation of costs, benefits and impacts regularly published from December 2019.
- In partnership with Lotterywest/Healthway, stronger support provided to local government, local communities, not-for-profit organisations and schools to address key public health issues, including physical activity and nutrition.
- Partnerships with employer peak bodies, unions and industry leaders and staff to support health and wellbeing in the workplace.
- Health Impact Assessments proactively used in community and Government planning decisions to promote health and prevent disease and injury.

In our Interim Report we noted that Western Australia is being outpaced by other jurisdictions in how much it spends on prevention and public health. The most recent international comparison data from the Organisation for Economic Co-operation and Development indicates that as of 2015, Australia spent approximately 1.9 per cent of total health expenditure on preventative care.⁷⁰

It is estimated that only 1.6 per cent of total health expenditure in WA is spent on prevention activities each year – this includes Commonwealth, State and Local Government expenditure.²⁷

This is significantly lower than comparable countries such as Canada (6.2 per cent of expenditure), the United Kingdom (5.3 per cent), Italy (4 per cent) and South Korea (4 per cent), and less than the OECD average (2.8 per cent).

We believe the WA health system must set an ambitious yet achievable target and commit to greater investment in prevention and early intervention over a number of years to minimise rising costs in the future.

The Panel believes WA must aim to increase its investment in public health, with expenditure on prevention activities rising to at least five per cent of total health expenditure by 2029. An investment of five per cent would make WA a leader in this space in Australia and internationally. To reach this target, there would need to be detailed planning and transparency to support greater understanding of WA's spending in public health and prevention activities.

Investment should be backed by evidence to deliver the most value for money for the community. Similarly, there should be more transparency in how this money is invested and regular reporting of progress.

Priority public health areas for increased funding should include obesity, reducing health inequities and other areas identified in this report. The Panel accepts that sustainability needs to be driven and supported by purposeful partnerships. We have heard that locally-driven solutions are essential to the way forward to better support outcomes. Working in partnership with Lotterywest and Healthway is a clear opportunity to work across Government and with local communities to prioritise initiatives that support key public health issues, including supporting people to be more physically active and improve nutrition. Lotterywest and Healthway have recently reviewed their grant making strategy with priorities that align well with the SHR including an 'Active Healthy People' priority area.⁷¹

Healthier workplaces should also be a priority

– employers, unions and staff all have a role to
play in supporting this. People spend a large
proportion of time at work, and workplaces can
contribute to a safe and healthy environment.
By investing in a workplace health and wellbeing
program, workplaces can also benefit through
increased staff motivation, productivity and
reduce absenteeism.

A recent report on the Fly-in / Fly-out (FIFO) workforce highlighted the importance of workplaces to understand and support the health needs of its workforce. FIFO workers are at greater mental health risk, with one third (33 per cent) of workers experiencing high or very high levels of psychological distress.⁷² They are also more likely to drink alcohol at risky levels, be current smokers and be overweight or obese.⁷³

Health Impact Assessments are a key way in which health and wellbeing can be considered in planning decisions and will strengthen the link between health and planning legislation. This will involve identifying key risks and measured approaches for improved community health and wellbeing. It will be necessary to bring forward the preparation and implementation of *Part 7* of the *Public Health Bill 2014* to expedite a robust Health Impact Assessment capability in Western Australia.

Recommendation 2a

Halt the rise in obesity in WA by July 2024 and have the highest percentage of population with a healthy weight of all states in Australia by July 2029.

Priorities in implementation:

- Development of an obesity action plan for Western Australia aligned to national efforts and strategies, and covering prevention, physical activity, management and treatment, and working with primary care, government and non-government agencies, consumers and carers, and industry.
- Unhealthy food and drink promotions banned from all State premises and healthy food policies complied with across all State agencies.
- Changes to planning laws to limit unhealthy food outlets and to support access to healthy food options, including near schools.
- Pursuit of a sugar tax and marketing restrictions at a national level along with other proven reforms.

Obesity and harmful alcohol consumption are deep-rooted societal problems that require sustained long-term effort at all levels of government and the community to fix. The Panel holds no illusions as to the difficulty in creating positive and sustained change in these areas. Enduring focus on these issues over the next 10 years is required to impact the sustainability of the WA health system, but more importantly, the health of all Western Australians.

The steps we have outlined will provide a path for change, but are by no means exhaustive. They reflect what Government can do now and build upon the key policy themes and options discussed at the WA Preventive Health Summit.⁶⁹

The Panel has recommended steps aimed at increasing the number of people in the population at a healthy weight, and places a focus on reducing harmful alcohol use. Setting ambitious targets are a way of generating momentum and making progress. Success is dependent on purposeful partnerships.

Excess body mass is among the leading causes of preventable chronic diseases such as type 2 diabetes, cardiovascular disease, and certain cancers.⁷⁵

Obesity is having an increasing impact on the population, undermining the long-term sustainability of the WA health system, and is leading to increased rates of diabetes, liver and heart disease, many types of cancer and multiple musculoskeletal health conditions.

It is an issue affecting entire families. Currently in WA, a quarter (26.5 per cent) of children are overweight or obese, and seven in 10 (69 per cent) adults. Recently released figures from the Department of Health show that Western Australians are the heaviest they have ever been, with 32 per cent of people now classified as obese, and 37 per cent overweight. For the first time, there are more people in WA that are obese than categorised as either healthy or underweight (31 per cent). 15

Capitalising on home grown initiatives

LiveLighter is a WA program to encourage people to eat well, be physically active and maintain a healthy weight. LiveLighter includes a mix of mass media television advertising and also engages with people through social media, using digital platforms. Most people will have at least seen and be familiar with the 'Grabbable Gut' advertisements, which present confronting images.

The LiveLighter Campaign has now been licensed for use in Victoria, the Australian Capital Territory and the Northern Territory. Components of its TV advertising have also been licensed for use by New York City's Department of Public Health and Mental Hygiene.

Most recently, an evaluation of the impact of the LiveLighter sugary drinks advertising campaign in Victoria has drawn attention to the economic and health benefits of this investment. The analysis estimated that the three-year campaign costing approximately \$9.8 million and run in 12, six-week bursts saved \$51.3 million in health system costs, 1,085 new cases of type 2 diabetes and 153 new cases of heart disease. The analysis has been published in the British Medical Journal's *BMJ Open*.⁷⁶

Responses to the growing rate of obesity should be undertaken on the understanding that obesity is the physical response to living in an environment that is dominated by the high availability and promotion of energy dense foods, in combination with conditions promoting a sedentary lifestyle.

The social determinants of health are also driving the rise in obesity. Factors such as housing, working environments and education need to be considered as part of a whole-of-government approach. Recent research from the United States has highlighted the importance of addressing the social determinants of health and the role they play on obesity and nutrition-related health issues, particularly living in low socioeconomic conditions.⁷⁷

Efforts to address obesity should include a focus on children to give them the best start at life, acknowledging evidence to suggest it is much harder to make lasting changes to health later in life.

Progress will only be made through long-term, multi-dimensional and robust coordination.

A comprehensive, coordinated approach across all sectors, including State and Commonwealth agencies, not-for-profit groups and industry is needed.

A grassroots program based in North West Victoria provides an example of a partner-driven approach to tackling obesity. Through a partnership between Rural Northwest Health, the Yarriambiack Shire Council, West Wimmera Health Services and Deakin University, the program has been established to combat high levels of obesity by encouraging local businesses to increase the availability of nutritious food. As a result of this change, local health practitioners have reported a large shift in the community's mindset.⁷⁸

Work must also take place with large retailers and food producers to identify voluntary actions over the short to medium term, including changes to packaging, labelling and using behavioural economic strategies to influence buyer behaviour and choice of products to reduce sugar intake.

It will also require strengthening workforce capacity and diversifying perspectives to effectively address health, behavioural and other factors involved. To achieve this, the right workforce will be needed to implement robust prevention activities and campaigns.

In October 2018, the Commonwealth, States and Territories agreed to a proposal put forward by WA for a national approach to curb the growing obesity epidemic. A National Obesity Strategy will set an overarching policy agenda for obesity prevention according to best practice, and ensure a consistent approach across jurisdictions. WA must capitalise on the national approach and align its own State policy.

The State Government should use its role as an employer, regulator, purchaser and landlord to set a new standard and model for healthier lifestyles by removing unhealthy food and drink promotions and sales from State assets, and introducing healthy food policies across all WA Government entities.

We have recommended steps to explicitly make health and healthy food environments a priority in State planning, including opportunities to work with employers, peak bodies and industry leaders. This would bring WA into line with Queensland and Tasmania, which have used planning laws to build healthier local communities.

The Obesity Policy Coalition highlighted best practice steps in creating healthier communities⁷⁹

- South Korea has created 200-metre 'Green Food Zones' around schools in which sales of 'unhealthy' foods are prohibited.
- Queensland has incorporated health as a key consideration as part of its Planning Act, and provides detailed resources (Active Healthy Communities) for local councils on ways to limit access to unhealthy fast food outlets.
- South Australia created the Healthy Kids Menus Initiative through partnership between the Government and industry to increase the availability and access to healthy menu options for children in restaurants, cafes, hotels and clubs.

Working with local governments to improve urban planning is critical to enhancing the design of open spaces and public facilities to encourage participation in the community, and living healthy lifestyles. In Victoria all local governments develop a municipal public health plan to address these issues, and similarly WA's *Public Health Act 2016* empowers local government authorities to promote health and wellbeing within their communities.

Proactive planning approaches can include consideration of the location of retail food outlets, but more broadly, other issues affecting communities such as cycle paths, public transport and open spaces. The importance of leveraging these opportunities was highlighted to us by a number of stakeholders within WA's State and local governments.

While the State Government can do much to promote healthier environments, some of the most powerful opportunities to address obesity do not fall within its control. WA's efforts to reduce the growth of obesity must align with Commonwealth objectives, as well as leverage its policy directions. The introduction of a sugar tax and marketing reforms intended to restrict children's exposure to unhealthy food and drink advertisement will require cooperation with the Commonwealth.

Globally, more than 30 countries, including the UK, South Africa, Norway and the Republic of Ireland, and seven cities in the United States have introduced sugar taxes – a levy on beverages according to their sugar content – to tackle the health impacts of sugar sweetened drinks.

Recent modelling by Deakin University on the impact of a 20 per cent tax on sugar sweetened drinks predicted positive health gains, minimal individual financial hardship and the potential to save \$1.73 billion in healthcare costs over the lifetime of the population.⁸⁰

Recommendation 2b

Reduce harmful alcohol use by 10 per cent by July 2024.

Priorities in implementation:

- Introduction of a minimum floor price for alcohol with regular adjustments for inflation, guided by reform in the Northern Territory.
- Health system action plan for alcohol-related violence aligned to whole-of-government approach to family and domestic violence including the WA Alcohol and Drug Interagency Strategy 2017–2021.

Alcohol-related health problems are largely preventable and account for significant social, physical, emotional and economic and health system costs. As the most prevalent drug used in WA, behind tobacco, alcohol causes the most drug-related harm in the community.

In WA approximately one-third of people aged 16–44 years (35.7 per cent) drink at levels considered to be high risk for long-term harm.¹⁵

Excessive alcohol consumption increases the risk of some health conditions, including coronary heart disease, stroke, high blood pressure, and liver and pancreatic disease. It also increases the risk of violence and anti-social behaviour, accidents and mental illness. Alcohol related violence also represents a risk to the safety of health workers.

Table 1: Total costs of Family and Domestic Violence related hospitalisations by spouse or domestic partner and family member and health region, 2009–2015 89

Health region	Total cost	
Kimberley	\$9,159,645	
East Metro	\$7,279,915	
North Metro	\$4,617,383	
South Metro	\$4,110,385	
Pilbara	\$3,922,269	
Midwest	\$2,507,767	
Goldfields	\$1,953,747	
South West	\$1,255,796	
Wheatbelt	\$1,205,131	
Great Southern	\$545,150	

Setting a minimum floor price for alcohol is a major opportunity to help reduce alcohol-related harm. This approach, recently adopted by the Northern Territory, acts by setting a minimum price for alcohol based on the number of standard drinks it contains. The impact of this arrangement mainly affects those who drink at dangerous levels by increasing the cost of cheap forms of alcohol, while having minimal impact on casual drinkers.⁸²

Family and domestic violence is a major public health and social concern, with women being at most risk.⁸³ It is estimated that one in four women have experienced family and domestic violence in Australia.⁸⁴

While there are many factors that contribute to family and domestic violence, 85 there is considerable research available that suggests alcohol is a significant factor (including intimate partner violence). 86,87

The costs of alcohol-related violence, especially family and domestic violence, are felt at all levels of society. Heavy drinking can be linked to a range of negative effects on children, families and the community, including family disputes, injury, neglect, abuse and violence.⁸⁸ Our recommendation in this Strategy to reduce harmful alcohol use recognises these negative effects, particularly on families and children, and in health conditions such as Fetal Alcohol Spectrum Disorder (FASD), outlined in Strategy 3.

In 2017, a project led by the North Metropolitan Health Service in collaboration with the Department of Health, identified that between 2009 and 2015, \$51.9 million was spent on hospital care for people harmed through family and domestic violence.⁸⁹

The project also confirmed that 71 per cent of this cost was attributed to injuries caused by a spouse, domestic partner or a family member. It is imperative that the WA health system partners to progress efforts in line with whole-of-government activities to curb the impact of alcohol-related violence and implements measures to reduce family and domestic violence.

Recommendation 3

Reduce inequity in health outcomes and access to care with focus on:

a) Aboriginal people and families in line with the WA Aboriginal Health and Wellbeing Framework 2015–2030

Priorities in implementation:

- Ongoing recognition and strengthening of Aboriginal Community Controlled Health Services as leaders in Aboriginal primary health care including through sustainable funding for partnerships in prevention and early intervention including mental health.
- Employment of additional Aboriginal staff, including in leadership positions, to meet the WA health system target of 3.2 per cent of Aboriginal employees by 2026, with priority to increasing the proportion of Aboriginal nurses, allied health professionals and medical practitioners as part of multidisciplinary teams.
- Expansion of mandatory systemwide cultural learning to develop knowledge and understanding of Aboriginal health and to support the growth of a culturally competent and responsive health system.

b) Culturally and Linguistically Diverse (CALD) people

Priorities in implementation:

- Improved data and benchmarks of health outcomes of CALD people, with benchmarked training in cultural competence to ensure staff are aware, responsive and sensitive to cultural diversity.
- Evaluation and spread of a collaborative approach to providing support to the CALD community, guided by the approach in Mirrabooka.

c) People living in low socioeconomic conditions

Priorities in implementation:

 Collective approach to improved understanding, benchmarking and targeting of health needs of people living in low socioeconomic conditions, including social determinants such as housing, child and family safety and disability support.

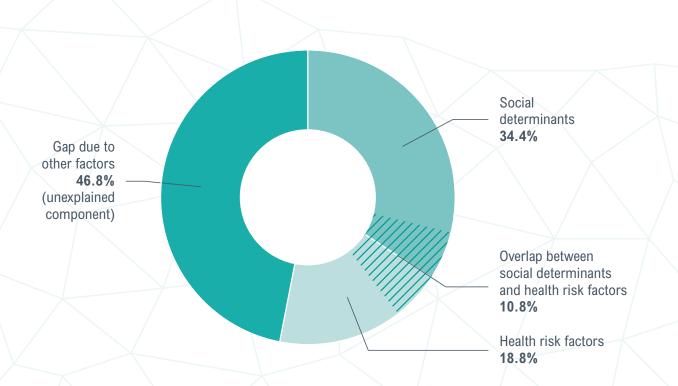


Figure 11: The size and causes of the health gap between Indigenous and non-Indigenous people. Source: AIHW 92

The Panel strongly supports further action to reduce health inequity and inequality across the State. Addressing all sources of health inequity is relevant to sustainability. This is highlighted in analysis completed by the Australian Institute of Health and Welfare, which demonstrates the strong relationship between the social determinants and other factors on health outcomes of Aboriginal Australians compared to other Australians, shown in Figure 11.

We have highlighted the need to improve health outcomes for people who are Aboriginal and Culturally and Linguistically Diverse. We have also emphasised the importance of better support for people with low socioeconomic status, recognising the needs of carers, and people who live in country areas.

 Aboriginal Western Australians experience significant life expectancy gaps compared to other people in the population, with a gap of 13.4 years for men and 12 years for women. The childhood mortality rate is three times higher for Aboriginal children, compared to non-Aboriginal children.²³

- Similarly, the mortality rate for people living in regional and remote areas of WA is 1.5 times higher than for people living in metropolitan areas.²⁴
- On a range of health measures, people living in the lowest socioeconomic areas tend to experience worse health outcomes than people living in the highest socioeconomic areas.²⁴
- Mortality from all causes in the lowest socioeconomic group was 29 per cent higher than in the highest socioeconomic group in 2009–2011 (639 and 495 per 100,000 population, respectively).²⁴
- Some chronic diseases are substantially higher among adults in the lowest socioeconomic group. Diabetes, for example, was 2.6 times as high, and coronary heart disease and stroke 2.2 times as high, as for those in the highest socioeconomic group.²⁴

In our Interim Report we noted the need to develop a continuing focus on reinforcing and strengthening collaboration between the State Government and Aboriginal Community Controlled Health Organisations (ACCHOs).

The State Government should recognise ACCHOs as leaders in Aboriginal primary health care and seek to strengthen their capability through sustainable funding for partnerships in prevention and early intervention, including mental health. Funding must also be embedded to support capacity building, including governance.

We must reinforce the importance of Aboriginal health and build a capable, culturally aware and supportive health system. Having a greater number of Aboriginal people in the workforce, and increasing cultural awareness of all health staff will improve the knowledge and understanding of Aboriginal health issues. The WA health system currently seeks to increase its Aboriginal workforce through the application of Section 51 of the *Equal Opportunity Act 1984*.

The Panel recognises the importance of supporting cultural security through the roles of Aboriginal Health Workers and Practitioners and other roles.

The impact of racism upon the health and wellbeing outcomes of Aboriginal people is supported by a growing evidence base, 90 and striving for inclusive, culturally secure and non-discriminatory care must continue to be emphasised as a key social determinant of health.

Care must be strongly connected to Country and cultural heritage, and needs to recognise the important role that family and community play to the overall physical, mental and spiritual wellbeing of an Aboriginal person and community. The Aboriginal Community Controlled Health Services (ACCHSs) Model of Care is a key example of how the eight cornerstones for Aboriginal Health and Wellbeing operate.⁹¹

Each year, WA's ACCHSs provide almost 500,000 episodes of care to over 50,000 Aboriginal and 10,000 non-Aboriginal patients around the state per annum using this model of care.⁹¹

These services are the first point of contact for many Aboriginal people seeking community support. This care extends far beyond the scope of primary health services, and encompasses a wide range of types of care, including mental health, suicide prevention, disability, youth, environmental health, and aged care.⁹¹

To respond better to the health needs of CALD people, the WA health system needs to begin by getting a better understanding of the health status and issues of different groups within the CALD population.

A proactive approach to working with CALD people to better understand their health and wellbeing needs must be adopted. We have seen successful strategies to support families newly arrived in Western Australia, in areas such as Mirrabooka, that aim to create a sense of community and acceptance, supporting people to live healthy and active lives in their local communities using a range of education, mentoring and support programs. Access to appropriate and quality translation services is also important, particularly when people are most vulnerable.

The social determinants of health, including socioeconomic circumstances such as secure housing, education, employment and the environment play a significant role in an individual or community's health outcomes.

Environment influences inequity

In his report, *A Promising Future: WA Aboriginal Health Outcomes*, Professor D'Arcy Holman estimated that environmental factors, such as water, food, air, buildings and waste, were likely responsible for 13 per cent of the overall gap in premature mortality between Aboriginal and non-Aboriginal people in country WA.⁹²

Recent research suggests that in 2016, \$17 million of the cost of hospitalisations in the Kimberley region was attributable to environmental factors, including \$3 million of the cost of hospitalisations for Aboriginal children in the region.

Additional effort to improve the living environment in remote Aboriginal communities, such as improvements to housing, facilities for washing, food preparation and working sewerage facilities, could have a major impact in reducing the burden of disease.

In Western Australia, there are more people living in socioeconomically disadvantaged areas in the country compared to the Perth metropolitan area. ⁹³ There are also stark socioeconomic differences between Aboriginal and non-Aboriginal Western Australians, such as differences in education levels, unemployment rate and overcrowding. ⁸ Each of these factors contributes to overall health and socioeconomic status.

Throughout the course of the SHR, many submissions from WA's health and social sector noted the importance of shared responsibility, partnership and outcomes, and highlighted the win-win outcomes that could result for individuals and the community.

People's needs must be met in a holistic way. While the WA health system has a clear leadership role to play in this, more must be done to partner with local government, the Department of Communities, the community sector and industry.

The WA Supporting Communities Forum, which consists of leaders from WA's community services sector and heads of public sector agencies, provides another avenue in which the WA health system can work closely with the other government agencies and the community services sector to break down barriers and find new ways to provide better value services for the people of WA.

Recommendation 4

Commit to new approaches to support citizen and community partnership in the design, delivery and evaluation of sustainable health and social care services and reported outcomes.

Priorities in implementation:

- Expansion of Patient Opinion, Care
 Opinion and real-time consumer feedback
 mechanisms; and introduction of
 deliberative approaches where citizens are
 engaged in a detailed review of a given topic
 to inform decision making.
- Transparent public reporting of patient and carer reported experience and outcomes (PREMs and PROMs) by July 2021 with ongoing development of measures in line with emerging best practice.

- Greater shared decision making between patients, carers and clinicians through open and honest conversations on treatment options, evidence, benefits and risks.
- Consumer and carer voices embedded into health system governance structures and make consumer/carer/clinician partnerships and co-designed projects a normal part of business.
- Introduction of community-based and online approaches to better link people to support and navigation assistance, including a pilot of Community Booths.
- Engagement and support for carers embedded through early recognition in patient administration systems, and enhanced training to support and strengthen carer resilience and overall health and wellbeing.

Health, mental health and wellbeing must be part of everyone's agenda. The Panel is firm in its belief that the WA health system must have a greater focus on authentic shared decision making with the community.

WA must also reframe how people talk about health. It is no longer acceptable for services to be delivered 'to' people. They must be delivered 'with' people. This will require greater commitment to building the consumer voice into the way care is designed, delivered and evaluated, through transparent public reporting and by partnering with consumers and carers to design and improve health services.

Many of the determinants of a person's health are in the community in which they live and work. Solutions therefore must also be found in these places.

There is a clear need to embed and act on the way patient voices are surfaced, shared and acted upon. Patient Opinion is an important mechanism recently introduced at all hospitals in WA that is driving this change. This online portal enables consumers and carers to share their feedback and experiences of care in hospitals with the health system. The insights from feedback are then actioned by hospitals, which help to improve future experience.

Likewise, Care Opinion is an independent site where people can share their personal experiences of care and support services beyond hospitals, such as aged and disability services. Care Opinion should be used to encourage consumers to share their experiences across the health and social sectors, to help improve care for the future.

Other ways to build more community support and link people to broader support they need must be pursued. A recently introduced Community Booth is one example of an approach that is helping people navigate their healthcare at Fiona Stanley and Fremantle Hospitals Group. 94 The Community Booth provides people with information on a range of community-based support options to support them. The Panel believes there is opportunity to expand this resource to link people with local, non-medical sources of support and take greater control of their care.

Experience from similar initiatives around the world demonstrates that socially-based support through community activation and engagement can help to improve health outcomes, quality of life and emotional wellbeing. The UK's Compassionate Frome Project is another example which has successfully engaged the local community to improve health outcomes and quality of life for patients and has achieved a reduction in emergency admissions by 17 per cent. According to the Project, this represents five per cent of the health budget for the region, and no other factors were attributed to the reduction in hospital admissions.

The Compassionate Frome Project

Based in the south-west of the UK, the Compassionate Frome Project is a whole-of-community approach that has sought to address the link between loneliness and ill health by bringing together general practice, social services, charities, and the community hospital and improve the connectedness of both staff and patients.

Volunteers are trained as Community
Connectors to help people they meet find the
right service for them. To date there are nearly
400 groups and organisations offering support,
advice, companionship and creative activity.
Through the project, GP services integrate the
links with the community they serve in their
daily work, and are able to reconnect people
into the community in which they live.

The critical role of carers will only become more important as the WA population grows and ages. A report by Deloitte Access Economics estimated that the replacement value of the care provided by unpaid carers in Australia to be \$60.3 billion per year, over \$1 billion saved every week.⁹⁷

Most Western Australians will know someone who is a carer or who needs care because of disability, mental illness, chronic condition or frailty. For example, it was recently estimated that 240,000 Australians are informal carers for a person with mental illness.⁹⁸

WA must acknowledge and do more to support carers. Recent findings from the Select Committee into Elder Abuse also highlight the importance of supporting those who care for older people. 99 One of the ways to improve our support for carers is to embrace open, transparent feedback and look to introduce additional opportunities for consumers, carers, and family to be involved in improving health and wellbeing services.

There is strong and consistent evidence that open and transparent reporting drives efficiency, stimulates quality improvement, improves patient clinical outcomes and enhances patient choice. This benefits the system as a whole through enhanced accountability, and consumer and clinician engagement.

We recommend working with consumers and carers to develop more meaningful ways of measuring outcomes and experience. The WA health system can achieve this by building upon the existing Patient Evaluation of Health Services program and enhancing its commitment to open and transparent reporting. The WA health system also should work to report on improvements made at a local level in response to this feedback.

Not only will this hold all partners in the journey accountable for outcomes, but it also supports proper tracking of progress, and will help identify where further improvements can be made.

Shared decision making – through open and honest conversations – must form part of the foundation for how the WA health system engages with people, improving health literacy and understandings of health costs.

Shared decision making involves the integration of a patient's values, goals and concerns with the best available evidence about benefits, risks and uncertainties of treatment, in order to achieve appropriate health care decisions.¹⁰⁰

It involves clinicians and patients making decisions about the patient's management together – helping patients be better informed and empowered, while also supporting safer, more effective care.

The Panel notes that part of the remit of the Royal Commission into Aged Care Quality and Safety established in October 2018¹⁰¹ is to investigate how to ensure that aged care services are person centred, and allow people to exercise greater choice, control and independence in relation to their care, and improve engagement with families and carers.

Recommendation 5

Reduce the health system's environmental footprint and ensure mitigation and adaptation strategies are in place to respond to the health impacts and risks of climate change. Set ongoing targets and measures aligned with established national and international goals.

Priorities in implementation:

- Reduction in environmental footprint including energy use, water use, emissions and consumables; driven by local staff, supported by system executives, and coordinated by dedicated resources on a systemwide basis guided by the successful National Health Service (NHS UK) model.
- Transparent public reporting on the WA health system's environmental footprint by July 2020.
- Establishment of an inquiry under the Public Health Act 2016 to review current planning and response to the health impacts of climate change and make recommendations for improvement in terms of climate change mitigation and public health adaptation strategies, including principles of smart cities.

Carbon emissions from the Australian healthcare sector are equivalent to seven per cent of the nation's current emissions. 102 A recently released report on the impacts of climate change by the Intergovernmental Panel on Climate Change 103 has received support from across the health sector. In its response, the Australian Medical Association (AMA) noted that 'the report reiterates the scientific reality that climate change affects health and wellbeing by increasing the environment and situations in which infectious diseases can be transmitted, and through more extreme weather events, particularly heatwaves. 102

Acknowledging that all States and Territories, as well as the Commonwealth Government, have a role to play in addressing the impacts of climate change, the WA State Government has recently committed to updating the State's climate change policy.¹⁰⁵

The WA health system has a role in promoting healthier environments and in taking a leadership role in addressing its own environmental footprint. This has major impacts, both for financial and system sustainability.

Health systems tackling climate change

In the United States, the 'We are still in' coalition was formed in response to the US Government's withdrawal from the 2015 Paris Agreement. The healthcare sector's contribution is extremely important to the achievement of climate change goals, with the sector responsible for almost 10 per cent of the US' greenhouse gas emissions.

The 3,500 strong coalition now includes 19 American healthcare systems — representing a total 763 hospitals, about 785,000 employees and \$167.2 billion in revenue across 39 of the country's 50 states.¹⁰⁶

"As we look at the social determinants of health, we look beyond our hospital walls at the factors that impair health. That must include protection for the air, water, and land from which we depend for healthy life. That's why we are committed to making impactful solutions head on."

 Sister Mary Ellen Leciejewski, Vice President of Corporate Responsibility, Dignity Health

Health workers and health systems around the world are beginning to harness opportunities to introduce sustainable practices at all levels of health services to mitigate the environmental footprint of their organisations. There are targets already agreed internationally and nationally to address climate change. It is important for the WA health system to work in alignment with these goals.

Within health care, global initiatives such as the Global Green and Healthy Hospitals network are taking action to address chemicals, waste, energy, water, food and buildings. Organisations such as Western Health are investing in innovative steps to transform the health sector and foster a healthy, sustainable future.

The UK's National Health Service (NHS) has been tackling sustainability in an innovative manner since 2008 through the establishment of a Sustainable Development Unit (SDU). As a result the NHS has been able to reduce greenhouse

gas emissions by 11 per cent between 2007 and 2015. It has been estimated that initiatives by the SDU aimed at reducing the energy, water and waste bill of NHS resulted in annual savings in excess of £90m and carbon saving of 330,000 tonnes. The NHS also demonstrated cost avoidance by reducing the impact of travel on health, avoiding more than £13m in health and care treatment cost between 2015 and 2016.¹⁰⁷

The WA health system must also prepare itself to manage the health effects of climate change through the adoption of appropriate adaptation strategies. Recent Department of Health research shows an increase in hospital presentations and admissions during recent heatwaves, particularly for low socioeconomic areas. Heatwaves are responsible for more deaths in Australia than any other natural disaster and will likely worsen with climate change.²⁵

Climate change projections for Western Australia for 2030 and 2090 present a concerning picture for health (shown in Table 2). WA currently experiences an annual average of 28 days above 35°C. However, if WA continues its current trajectory and only tackles its carbon emissions moderately, the State is projected to see mean temperature increases in the South West region by up to 1.7°C, and annual average days above 35°C are predicted to increase to 36 days in 2030 and 43 days in 2090.¹⁰⁸

Table 2: Summary of climate change projections for Western Australia for 2030 and 2090

Climate variable	2030 RCP ⁱⁱ 4.5	2090 RCP 4.5	2090 RCP 8.5
Mean temperature increase in south-west	0.8°C	1.7°C	3.5°C
Annual average days above 35 in Perth (currently 28)	36	43	63

Representative Concentration Pathways (RCP) reflect different emission pathways. RCP8.5 is a high emissions pathway, where there is little curbing of emissions. RCP 4.5 is an intermediate emission pathway, reflective of a future where emissions peak and then decline to a stabilised level of CO2 (540 ppm) by 2100.

The change journey Horizon 4: Embedding change and realising the full benefits **Horizon 3: Driving deeper change** and seeing results Investment in prevention increased to five per Horizon 2: cent of the total health budget Early priorities, results People accessing care in and building momentum more appropriate More successful settings partnerships with Horizon 1: non-government Shift in the system to organisations, including being more focused on Setting up for success Primary Health Networks prevention Access to care for Improved health Initiatives to increase Aboriginal people outcomes for access to care for increased Aboriginal, CALD, and Aboriginal people funded low socioeconomic Energy and waste Targets set and new communities footprint of the health initiatives underway to system is reduced Highest percentage of reduce the health Whole-of-government population with a system's environmental The rise in obesity is targets agreed on and in healthy weight of all footprint halted, and reduction States in Australia in harmful alcohol use Increased take-up of new System level measures by 10 per cent approaches to citizen and for sustainability agreed community partnerships Increased public on and in place participation in major Health Impact Evidence-based public health issues Assessments underway benchmarks for public health and prevention Transparent public and public reporting in reporting of patient and carer experience and outcomes New approaches to citizen and community Key strategies to address partnership designed obesity and alcohol established Investment in prevention has increased Initiatives to address inequity in Aboriginal, CALD, and low socioeconomic communities designed and underway 2019 **July 2021 July 2024** July 2029

System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.

Strategy 2 – Improve mental health outcomes

Mental health is one of the most critical issues to be addressed to meet sustainability objectives and improve health and wellbeing outcomes. For many people, this has not been the first review they have shared their stories with. Failure to act on well-known problems means the system is failing people. The whole system requires sustained, holistic and transformational reform.

Impacts of mental health

- One in five people in WA experience mental health problems each year and nearly half the population will experience a mental health problem at least once in their lifetime.
- People with mental health issues and/or mental illness have poorer outcomes and a gap in life expectancy in WA.¹⁰⁹
- In 2017, over 400 people in WA died by suicide.²²
- The suicide rate among Aboriginal and Torres Strait Islander people in 2017 was approximately twice that of non-Indigenous Australians.¹¹⁰
- Hospitalisations for people needing mental health and alcohol and other drug care is increasing. In 2017–18, there were over 14,000 hospitalisations for conditions due to mental health problems, amounting to 258,000 bed days at an approximate cost of \$381 million for hospital-based services.¹¹¹
- During the past 18 months, over 85 per cent of mental health beds across the system have consistently been occupied.²⁸
- Mental health is over-represented in serious clinical incidents where serious harm or death is caused while in care.¹¹²

Difficulties in mental health services are not limited to any one area of service and the complexity of mental health service delivery and funding is not unique to WA. The Panel has observed a number of highly concerning matters, which have been consistently reinforced through consultation. We have heard that:

- A person's journey in the mental health system is often disconnected.
- Available services are often not visible or accessible.
- There is immense pressure on mental health services in WA, with capacity issues across the community and acute sectors.
- EDs are not equipped, or in some instances, not trained to support people in need of mental health care.
- People are not treated for their physical symptoms and mental health concerns holistically.
- There is no consensus on the gaps in mental health services across the spectrum of care (i.e. prevention, promotion, early intervention, and step up / step down, acute services), which limits the system's ability to prioritise funding and implement initiatives.
- There is public uncertainty about the future of Graylands hospital, one of the last remaining stand-alone adult psychiatric hospitals in Australia, and the opportunity decommissioning presents to provide enhanced access and support new models of care and sustainability objectives.
- Patient experiences and outcomes are not captured by the WA health system, meaning services cannot sustainably or consistently be improved.
- Mental health information systems are not easily accessible, which impedes decision making and care.

- There is uncertainty about funding for some key prevention and early intervention programs currently transitioning; consumers and carers are very concerned that Commonwealth funding for community-based mental health will cease and they will not be eligible for the NDIS.
- The WA mental health system is convoluted, with multiple providers at a Commonwealth, State and local level. This system is funding-centred, rather than people-centred, and the needs of people have been lost in these confusing arrangements.
- The sector has proven too slow to adapt and shift to address the growing community demand and services remain too siloed.

WA's mental health system has been under substantial strain for some time, manifested by emergency department wait times and poor integration and patient flow through the system. There have been substantial improvements in various emergency departments, including the introduction of Mental Health Observation Areas (MHOAs). However, urgent improvements are still needed in service model integration and patient flow. Assertive patient flow and the clinical governance review, recommended in our Interim Report, remain major priorities to be addressed as part of strengthening the health system's focus on ongoing standards of care and quality improvement.

Both the State and the Commonwealth Government provide funding for mental health services. State-funded mental health services in WA are overseen, planned and funded by the Mental Health Commission (MHC), which purchases services from metropolitan and country Health Service Providers (HSPs), private and community-managed organisations and Non-Government Organisations (NGOs) to provide services.

The MHC was established in 2010 to rebalance the focus of the mental health system on acute and community-based services. Prior to the establishment of the MHC, the Department of Health held responsibility for coordinating public mental health services across the State. Alongside the Commission, the Chief Psychiatrist is an independent statutory officer responsible for the treatment and care of a range of patients defined under the *Mental Health Act 2014*.

Commonwealth funding for mental health services is increasingly being distributed through Primary Health Networks who have also been funded to take a more proactive role in improving integration of service planning at the regional level.

Current mental health arrangements in WA, as in other States, require collaboration between all parties. The recent *Review of Safety and Quality in the WA health system* observed that "the plethora of organisations [in mental health] and their overlapping roles has led to confusion and concern." It is clear from listening to those who work in the system, and more importantly, consumers relying on the system, that the current approach is not working.

In our Interim Report, the Panel put its support behind a review of clinical governance for mental health. This Review, commencing in early 2019, will follow the 2012 review of admission, transfer and discharge practices in public mental health services (the Stokes Review). The Stokes Review made a number of recommendations to improve the effectiveness of services, policies and practices across the State's public mental health services.

Other reviews are also currently underway, which highlight the urgency of the situation. Findings of the Office of the Auditor General, which has undertaken a review of mental health journeys, delivered to WA Parliament in early 2019.

Prior to the establishment of MHOAs, patients were treated in the main area of the emergency department. The open layout of emergency departments is not ideal for managing mentally ill or intoxicated patients. This can be disruptive to many patients and staff and at worst, pose a security and safety risk.

Nationally, mental health has also been a focus of the Commonwealth's Productivity Commission, which has recently begun to examine the role of mental health on the economy, and its effect on people's ability to participate and prosper in the community and workplace. The Productivity Commission will submit its report to Government in May 2020. The Panel notes that the Productivity Commission review provides a national opportunity to drive systemic change.

Strengthening the case for a more integrated and person-centred approach to mental health services Australia-wide, the National Mental Health Commission's National Report, released in October 2018 also strongly supported the growth of community-based interventions.¹¹⁴

We have seen that capacity and current services are falling short across the spectrum of mental health services — with growing pressure on Emergency Departments, unacceptable levels of suicide, and powerful stories from consumers, highlighting disconnected services that don't support people at all stages of their health. Investment is needed to improve capacity across community, acute and forensic settings.

WA was regarded as a leader in mental health in Australia by establishing a Mental Health Commission responsible for setting statewide directions as well as purchasing services. We have emphasised the need for more collaboration in planning and investment to improve capacity, balance and connectivity of prevention, early intervention, acute and community support and treatment. This should not diminish the important role the MHC plays in building support at the community level but seek to make acute and community service work to collectively serve the interests of those in need of care.

Progress has to be focused on providing a full spectrum of adequate mental health services and having the correct balance of services between community and acute sectors. However, it is evident that the problems being faced by WA will persist without commitment to enhanced joint planning, investment across the whole mental health sector, agreed priorities for investment, and the introduction of contemporary models of care.

In a report produced on the economic benefits of investing in mental health, Mental Health Australia and KPMG concluded that investment in mental health delivers significant returns to government and the economy, as well as improving health and social outcomes for people experiencing mental illness, with the greatest benefit resulting from early intervention.

The report estimated that investment of approximately \$4 billion to support people with mental health issues in areas including gaining and maintaining employment; minimising avoidable ED presentations and hospitalisations; and mental health promotion, prevention and early intervention, could yield as much as \$8 billion in short-term savings and longer-term savings of approximately \$12 billion.¹¹⁵

Recommendation 6

a) Prioritise and invest in capacity to balance early intervention, community, step up/step down, acute and recovery mental health, alcohol and other drug services.

Priorities in implementation:

- Determine and progress key investment priorities across the spectrum of mental health, alcohol and other drug services in line with the Western Australian Mental Health, Alcohol and Other Drug Services Plan 2015–2025 and the decommissioning of Graylands hospital; this includes adequate housing and supported accommodation to support recovery in the community.
- b) Immediate transparent public reporting of patient outcomes and experience.

Priorities in implementation:

- Public reporting of measures for quality and safety, patient experience and outcomes from December 2019.
- c) Ensure clear accountabilities for joint planning, commissioning and service delivery for more integrated services.

Priorities in implementation:

 Consumer and carer voices continually embedded in the planning, design and evaluation of services.

- Enhanced contractual arrangements and evaluation of both acute and community mental health services to assess and achieve better patient outcomes and value; and identification and spread of evidence-based models of care.
- Development and implementation of more integrated, connected and visible services commencing with vulnerable groups, including young people and people transitioning from acute to community settings, including hospital, forensic and correctional facilities.
- Development of joint Regional Mental Health Plans as agreed by the State under the 5th National Mental Health and Suicide Prevention Plan.

The Panel believes it is the joint responsibility of the Mental Health Commission, Department of Health, HSPs, and WA Primary Health Alliance, as well as other key peak bodies within the mental health space, to undertake new, authentic and actionable planning in partnership with consumers and carers to better identify the priorities within the WA Mental Health Plan for investment and implementation.

The approach to rebalance mental health services across the full spectrum of settings has been outlined in the *Western Australian Mental Health*, *Alcohol and Other Drug Services Plan, 2015-2025* (The WA Mental Health Plan). ¹⁰⁹ The WA Mental Health Plan was developed in partnership with people with lived experience. It is supported by Government but is currently not funded. It provides a long-term approach to drive person-centred care models, support best use of acute and community-based interventions, recovery based approaches, and give greater voice to consumers.

The closure of Graylands has been prefaced in the Stokes Review and the WA Mental Health Plan, to support better care. There is an immediate need to identify which areas of non-clinical and clinical services currently based at Graylands campus should be decommissioned, transitioned or configured differently. This includes consideration of service models, patient flows and reinvestment priorities to enhance access to early intervention, prevention, treatment and recovery services.

The future of forensic services should also be considered over the coming two to three years.

To support rebalancing the WA mental health system, community treatment services need to become a key point of access for consumers, and not emergency departments. This is further highlighted in Recommendation 7 where we have emphasised the need for models of care to be more responsive and connected.

The Mental Health Commission has also recently released its *WA Mental Health Promotion, Mental Illness, Alcohol and Other Drug Prevention Plan 2018-2025* (the Prevention Plan),¹¹⁶ which identifies a need for investment in promotion and prevention activities in non-health services.

The significance of housing to good mental health is well documented. 117 The WA mental health system needs to be supported with adequate housing and supported accommodation for long stay patients who currently reside in hospital beds instead of receiving continuing and supported recovery in the community. This is one of the highest priorities of the WA Mental Health Plan and is outlined in the MHC's draft WA Mental Health, Alcohol and Other Drug Accommodation and Support Strategy 2018-2025. 118 It has impacts on effective patient flow and the availability of mental health beds for admission of consumers.

Integration of service models and earlier intervention is crucial to reduce the current burden on emergency departments, as well as to rebalance the mental health system to create a smoother, more holistic patient journey through the mental health system. Ensuring capacity across all settings and building a person-centred approach to manage complex care in the most appropriate setting is crucial.

Partnership with the Commonwealth to support quality and value in mental health across all settings will be essential in creating this supportive environment.

This is particularly important for people currently supported through Commonwealth funding, such as Partners in Recovery and Personal Helpers and Mentors (PHaMs), who may be impacted by the transition to the National Disability Insurance Scheme (NDIS). Despite assurances from the Commonwealth that there will be continuity of support, people are very concerned that funding will cease in June 2019. This is an issue we highlight later in this report in Strategy 4, where we have emphasised the need to improve the interface between health, aged care and disability services to ensure people do not fall between the gaps.

The visibility of available mental health services across the State has also been raised as a problem. People do not know where to ask for help. The WA Primary Health Alliance, together with the MHC, has developed an *Integrated Atlas of Mental Health and Alcohol and Other Drugs of Western Australia*. The Atlas provides a comprehensive and systematic description of all the mental health resources available across the State and is intended to assist people and staff to develop more collaborative, coordinated services in WA.

Genuine partnership will be required to agree the pathways in community intervention and acute services for mental health, and drug and alcohol services. This will ensure those with multiple, complex needs will receive the care they need in an appropriate environment. A focus on vulnerable groups including young people and people transitioning from acute to community settings, including from hospital, forensic and correctional facilities, is imperative. It will also be important to ensure people have access to housing and other key social services needed to support their recovery.

We have highlighted the need for continued commitment to emerging national and other Council of Australian Governments (COAG) reforms, including Activity Based Funding (ABF) in Strategy 5. This is needed for WA to drive system-level efficiency and health outcomes with flexibility to innovate. Current ABF settings favour hospital-based care and volume, rather than value. For mental health, this emphasises the importance of shifting to a person-centred approach that rebalances care across all settings, to reduce the funding gap currently seen between hospital-based care and community-based activity.

Under the Fifth National Mental Health Plan and Suicide Prevention Plan¹²⁰ (endorsed by the COAG Health Council in August 2017), state and territory governments are required to support regional integrated planning and service delivery. A key mechanism to progress this is the development of joint regional mental health and suicide prevention plans, which will promote the partnerships and integrated approaches needed to reduce the impact of mental illness, alcohol and other drugs and suicide in WA.

Importantly, regional plans must be developed in line with the broader healthcare context and recognise the need to support people with chronic health conditions, including mental health problems, holistically.

Measuring mental health safety and quality performance is critical to improvement. Through our consultation, it has become obvious that WA does not have the right set of measures to really understand if the services provided in mental health are truly making a difference to improving people's health outcomes and experience. Work in this area lags behind other parts of the health system and is not unique to WA.

The voices of the many consumers and carers we engaged with emphasised the importance of patient experience in developing truly person-centred care. Steps must be taken to work with people with lived experience to co-design and evaluate mental health services.

Consumers and carers are vital in developing more meaningful ways of measuring outcomes and experience, which should be supported by a commitment to open and transparent public reporting. Not only will this hold all partners in the journey accountable for outcomes, but will also support proper tracking of progress, and will help identify where improvements can be made.

Evaluating the outcomes of hospital-based (inpatient) and community treatment mental health services provided by HSPs must become embedded as part of business.

Consumer and carer participation is fundamental in the delivery of public mental health services. The Your Experience of Service (YES) mental health survey is designed to measure consumers' experiences, which in turn can be used to improve services. A nationally consistent YES platform has been introduced across a number of Australian health systems.

Following a pilot program undertaken in 2016, the Mental Health Commission, in partnership with HSPs, commenced a statewide roll-out of the YES survey in October 2018 across all public mental health services.

Recommendation 7

Implement models of care for people to access responsive and connected mental health, alcohol and other drugs services in the most appropriate setting.

Priorities in implementation:

- Introduction and evaluation of further early intervention response, assessment and treatment outreach models to provide immediate assistance to people experiencing a mental health crisis in the community, including through telehealth.
- Development and implementation of contemporary models of optimal integrated patient flow to enhance better care across WA.
- Further development, evaluation and spread of models to allow people with mental health, alcohol and other drug presentations to move out of Emergency Departments and access the right care as early as possible; including greater use of interdisciplinary teams and Emergency Stabilisation Assessment and Referral Areas that expand on existing Mental Health Observation Areas.
- Expansion of community-based models and peer workforce (people with lived experience) for recovery services including the Mental Health Recovery College Model, Hospital In The Home and step up/step down services.

- Accommodation based needs addressed as a matter of priority to ensure accommodation and support are available across acute and community settings in an integrated, coordinated, collaborative seamless system.
- Subject to State Government consideration and approval of the final Justice Health Project Report including an analysis of costs and benefits and any required infrastructure audits, plan for the transfer of custodial health services from the Department of Justice to the WA health system.

The Panel has recommended the expansion or implementation of a number of evidence-based initiatives already underway in WA or other Australian states that can be progressed in the short to medium term. These should provide earlier intervention in the community and support people who are experiencing mental health problems and/or mental illness to have access to the right care, from the right service, at the right time, and in the right place.

The aim is to strengthen person-centred mental health services through integration, coordination and rebalancing investment to prevention and community-based supports, in areas such as:

Crisis assessment and support

WA currently uses team approaches comprised of mental health professionals such as psychiatric nurses, social workers, psychiatrists and psychologists who respond to urgent requests to help people experiencing psychotic episodes, self-harm, experiencing suicidal thoughts, and feeling out of control. These teams also work with other services such as police, ambulance, alcohol and drug services, child protection and community services where necessary.

Opportunities to expand teams to additional locations should be considered, and backed by suitable evaluation of existing models.

Virtual care and coordination

As we noted in our Interim Report, there was a demand and need for more digital and virtual care models such as telehealth to provide more mental health care in the community. We understand work is already underway to progress this, a move we strongly support. WA will also need to argue for appropriate Medicare support for these types of services.

The introduction of a 24/7 Operations/
Command Centre, as recommended in
Strategy 4, also presents a timely opportunity
to take a systemwide approach to improve the
coordination of care for our most vulnerable
mental health patients. This initiative can
provide valuable support in country areas after
hours and help coordinate patient transport
and improve patient flow.

New South Wales Zero Suicide

New South Wales (NSW) recently launched a Strategic Framework for Suicide Prevention in October 2018. The Framework, developed cooperatively between the NSW Mental Health Commission and Ministry for Health, is intended to guide actions over the next five years as part of a State Government goal targeting zero suicides in NSW.^{121,122}

The NSW Government has invested nearly \$90 million to implement key features of the Framework, including new or expanded initiatives such as:

- aftercare services ensuring all people who have been admitted to hospital following a suicide attempt have access to follow-up care and support
- emergency department alternatives –
 providing a more suitable alternative for
 people in crisis, such as designated 'cafes'
 with trained mental health workers at hand.

Emergency Department and acute management models

WA currently uses Mental Health Observation Areas (MHOAs) in Joondalup, Fiona Stanley, St John of God Midland and Sir Charles Gairdner Hospitals. A further location is being progressed in the Perth central business district at Royal Perth Hospital.

While MHOAs provide good support, increasing numbers of people need support not only for mental health issues, but also alcohol and other drugs.

Further work will be needed to develop care pathways that will better support their needs out of emergency departments and help vulnerable people access the right care as early as possible, in the right place within the community.

Mental health safe haven cafés work alongside EDs to provide a safe environment for respite and peer support for people seeking assistance after-hours but do not need acute care.

Mental health safe haven cafés also help people learn more about their own needs and find options available for them locally to get further support.

Community support

Step Up services provide additional support for a person to manage deterioration in their mental health where an admission to a facility such as hospital is not warranted. Step Down services allow people to step down from a stay in an inpatient facility, and provide additional support to a person who no longer requires acute inpatient care but does require assistance in re-establishing themselves in the community.

The Panel believes supporting these types of services with peer workers who have lived experience of mental illness, is a workforce option that should be implemented.

Community-based mental health step up/step down services are being commissioned by the Mental Health Commission in several areas of the State to better support local communities. There are two services currently operating in Western Australia, in Joondalup and Rockingham; however, it is evident that further investment in this area is required. A recent evaluation of the benefit to patients from the Joondalup step up/step down facility included:

- 13-16 per cent reduction in hospitalisations
- 50-59 per cent reduction in likelihood of being admitted
- 7-8 less days per year spent in hospital
- 37-39 per cent reduction in the likelihood of presenting to emergency departments.¹²³

Currently, additional step up/step down facilities have been planned, funded by the Government and being progressed in Albany, Broome, Bunbury, Kalgoorlie and Karratha. Further services of this nature are required to help support people in their journey.

Accommodation needs across the State should also be addressed as a matter of priority to ensure accommodation and support are available to meet the needs of people with mental health and alcohol and other drug issues, enabling their recovery.

The WA health system should also explore options to introduce contemporary Hospital In The Home (HITH) models to provide people with greater choice in the types of care they can access.

Recovery Colleges

Recovery focused approaches support transition from hospitals and other acute settings, minimising risk of self-harm and improving outcomes. Recovery Colleges complement existing mental health, and alcohol and other drug (AOD) support services by enabling self-directed recovery and mental health, and AOD learning opportunities in a safe and welcoming place. Recovery Colleges aim to support individual recovery through creating an education platform and reducing stigma relating to mental health, and AOD problems.

They are based on a co-design model of service and co-production of education-based approaches with consumers, their families and carers, and those who work with them in health services and non-government organisations.

The Broome Recovery College is currently being established through a partnership between people with lived experience and workers from Kimberley Mental Health and Drug Service, Boab Health, headspace Broome, Men's Outreach Service, Kimberley Personnel, Helping Minds and Australian Red Cross.

Justice Health

The poor mental and physical health of people within the justice system is a significant population health issue with direct impacts on overall sustainability. Offenders have higher incidences of mental health problems, self-harm, addiction, and chronic and communicable diseases compared to the average population, for example the prevalence of Hepatitis C among people upon admission to prison is 23 per cent, 124 compared to one per cent in the community. 125 These health issues can play a part in contributing towards crime, reoffending and social exclusion.

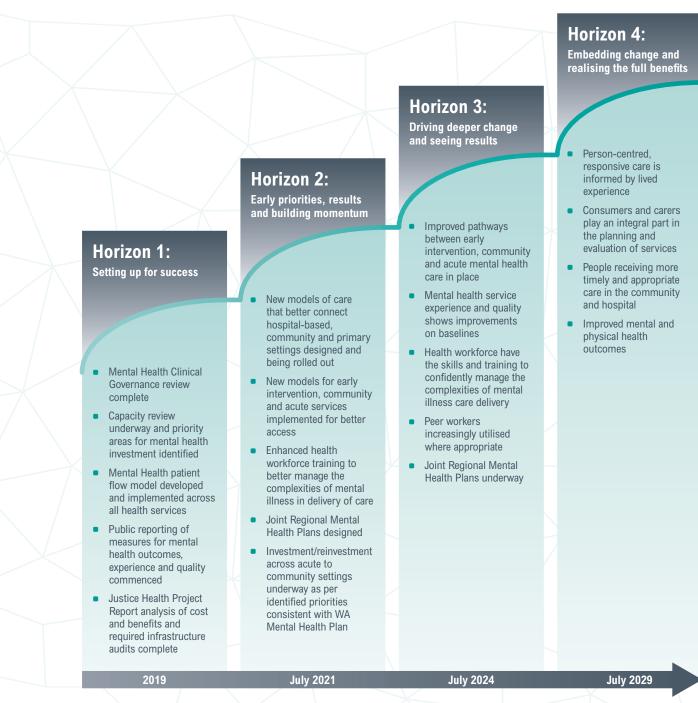
A recent report by the Inspector of Custodial Services highlighted the shortfalls and critical need to meet the mental health needs of people in the corrections system. The report reiterated that prisoners are more likely to have experienced risk factors which cause mental illness when compared to the rest of the community, such as being socially excluded or isolated; poverty, neglect, abuse or trauma; misusing drugs or alcohol; having poor physical health; or having a physical or intellectual disability.¹²⁶

The report found that half of the 7,000 people in the corrections system have some level of mental health disorder, and of those: about 10 per cent needed "close mental health support"; more than 200 needed or may need treatment in clinical conditions; and at least 25 were so unwell they needed intensive or immediate care in a secure mental health bed. 126

The Panel supports the transfer of custodial health services from the Department of Justice to the WA health system following Government consideration of the Justice Health Project including analysis of costs and benefits, specifically considering health outcomes for high-risk populations.

This aligns with international principles and recommendations on clinical independence and autonomy, and will facilitate more integrated mental and physical healthcare, transition and care planning, will create efficiencies through economies of scale for prioritised service re-investment, and enable greater access to the skills, knowledge and expertise in the WA health system.

The change journey



System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.



Strategy 3 – Great beginnings and a dignified end of life

It is vital that people have the best start and end to life. Many people we spoke to were in the 'sandwich generation' caring for young children and older relatives at the same time.7 Although the types of care people need at these points in life are very different they are time periods of significant opportunity to positively influence a person's health and wellbeing, meet changing expectations and support sustainability objectives.

Start of Life

Biologically, the first 1,000 days of life, from conception until the end of the second year of life, are critical to developing the foundations of a person's future health, growth, and neurodevelopment.127 Both positive and negative experiences during these critical first 1,000 days of life have a significant influence on a child's future.

For this reason, it has been shown that investment during the first 1,000 days of life provides a greater return when compared with investments made later in life; through pre-school, school and job training stages. 128

Investing during the first 1,000 days of life is a unique opportunity to both support the health and wellbeing outcomes of children and the sustainability of the health system. This was echoed by feedback and evidence provided throughout our consultation.

End of life

Experiences shared with the Panel and evidence also support the need for action in end of life care.

About 15,000 Western Australians die each year. With an ageing population, this is expected to more than double over the next 25 years. 129 Most Western Australians prefer to die in their home environment, but current statistics show more than 60 per cent of people are in hospital on their last day of life.131 We need enhanced palliative care services and greater choice about how we die.

The Grattan Institute has highlighted that 'there is clear evidence that shows the potential to improve sustainability as well as meeting people's wishes when it comes to end of life care, through targeted and appropriate investment into supporting people at this stage of their lives'. 131

It is vital that investment matches community expectations and supports a dignified experience at the end of life. Clinical leaders and people receiving care shared the common concern that the health system continues to devote significant resources in providing treatment to people at end of life that neither extends life or improves quality of life, or reflects people's wishes. The cost of care typically increases during the last year of life and in particular, during the last three months. 131

Recommendation 8

Health actively partner in a whole-ofgovernment approach to supporting children and families in getting the best start in life to become physically and mentally healthy adults.

Priorities in implementation:

- WA health system actively partners in the Early Years Initiative, Supporting Communities Forum, and Early Years Network.
- Introduction and evaluation of new approaches to delivering and co-locating services in partnership with the Department of Education, Department of Communities and other relevant agencies.
- Investment in whole-of-government data and analysis to identify and target at-risk children and families, including through the Purple Book (child health record), Community Health Information System and others guided by the approach used in the Target 120 initiative.
- System level targets set for healthy women and babies for example healthy pre-natal booking weight and breastfeeding.
- A statewide program to ensure that all Aboriginal families have access to culturally secure antenatal, birth and postnatal care including child health checks and immunisations.
- Introduction and evaluation of further targeted, cross-agency approaches to reducing the incidence of alcohol consumption during pregnancy, and for screening and management of the effects of Fetal Alcohol Spectrum Disorder.
- Targeted expansion of the School Dental Service to include at-risk 0–4 year olds and continue to work with the Commonwealth to achieve fair, long-term public dental funding arrangements.

Delivering services during the first 1,000 days of life must begin with better coordination and integration of health and other services that contribute to a child's wellbeing. Health must actively partner with the many other stakeholders working in areas such as housing, child protection, disability services and education.

The Panel also supports sustained investment in immunisation programs. Immunisation remains a critical component of early intervention in childhood and WA has been making great progress over a number of years. Focused investment will need to continue.

Efforts during the first 1,000 days of life provide the best opportunity to address risks related to chronic disease, including obesity, passive smoking, alcohol consumption and mental health.

Coordinating services in this way is especially important for vulnerable and at-risk children and their families, who may be frequent users of a range of Government and community health and social services.

Coordination should involve organisations, sectors and people working in partnership, which may include locating different services in the same place (co-location) to support and encourage integration and consumers' ease of access to services. This may include services provided by the WA health system, the Department of Communities and the Department of Education. The Early Years Initiative and The Early Years Network, along with the Supporting Communities Forum are underway in WA and will support greater partnership and collaboration by a range of stakeholders in Government and the community services sector. 132,133

It also means linking up the various data collected about child health and development. For instance, we have recommended a pilot that links information and data collected at regular child health appointments and recorded in the Purple Book (a parent-held child health record provided to every child in the State), with information contained in the Community Health Information System, which collects data about country children's health and development including vaccinations, public health, chronic disease management and pharmacy information. We also strongly support the role of the Department of Communities and other agencies in consolidating data to improve care.

Target 120

Target 120 is a cross-government collaboration that provides early intervention services for young offenders and their families to prevent vulnerable young people reaching the point of detention. The program will commence in Bunbury by the end of 2018, and will be rolled-out to multiple locations across Western Australia over the next four years. It will use data to inform and improve decision making with regard to youth offending. By sharing, linking and analysing data gathered across a number of agencies, vulnerable individuals and groups can be identified earlier, and their current and future needs better understood. Service workers will work with each identified individual and their family to tackle the factors that increase their likelihood of offending, and will facilitate targeted, coordinated and timely access to government and non-government services and support. 134

Through this pilot, it will be possible to better identify those most in need, as well as the types of services that a child and their family would most benefit from, depending on their needs. This project may also provide the system with the ability to identify opportunities to collaborate and deliver integrated services for children and their families.

As the window to influence the first 1,000 days of life begins with conception, maternity services cannot be overlooked. The Panel has heard that giving children the best start to life also means ensuring mothers are cared for and feel safe and supported when using the health system.

The Panel has recommended setting targets for women and babies as a way of refocusing attention and action to support good beginnings. These targets should be measured at key points during pregnancy and after birth, at times when women have contact with health and social sectors.

The Panel has recommended a suite of other opportunities and priorities to ensure children have the best start to a healthy life.

The impact of alcohol on children and families through alcohol-related violence was a key factor which prompted our calls to reduce harmful alcohol consumption in Strategy One. Similarly, the direct relationship between alcohol and Fetal Alcohol Spectrum Disorder (FASD) is another strong reason for action. FASD is entirely preventable during the first 1,000 days of life. Evidence shows FASD results in significant impairment over the course of a person's life. 135

It has been shown that positive outcomes for children and their families can be achieved with early diagnosis and management. 136 People with FASD are likely to have contact with systems outside of WA Health, including justice, education and child protection. The Panel is of the view that the WA health system must address the prevalence and management of FASD, and other related areas such as alcohol-related violence, in collaboration with other Government agencies and community services through a statewide approach. WA Health must begin this process by reviewing its own 2010 Model of Care that outlines approaches to addressing FASD.

Some dental diseases are similarly preventable and manageable, though it is too often left untreated. In WA, only one in five children is seen by a dental practitioner by the recommended age of two.¹³⁶ Between 2006 and 2016, Department of Health data has shown a 40 per cent increase in dental emergency presentations and a rise in preventable hospitalisations for dental issues.¹ Dental care is the second most common reason for hospitalisation for young children that could otherwise have been prevented. In 2016, more than 1,500 children aged 0–4 were admitted to hospital for potentially preventable dental care.¹¹

Recent initiatives in the United States to introduce telehealth technologies and teams to facilitate and enhance oral health provide examples of new ways in which service models can be enhanced through digital technologies to significantly increase access to services.¹³⁸

Another key priority identified by the Panel through consultation is looking after the health of Aboriginal mothers and babies, who experience significantly poorer outcomes than other Western Australians. There is compelling evidence that culturally appropriate maternity services provided to Aboriginal mothers and their babies have a strong positive outcome on their health and wellbeing. Health and wellbeing.

The Panel is of the view that the WA health system must draw upon the strength of partnerships between Aboriginal workers and other healthcare workers such as midwives, to make available culturally appropriate antenatal, birthing and postnatal care to all Aboriginal women. This should include greater integration and roles for Aboriginal Health Care Workers in partnership with other healthcare workers.

Metropolitan Aboriginal Family Birthing Program, South Australia

One of the key elements of this Program is the unique role of Aboriginal Maternal and Infant Care workers (AMIC). The AMIC worker is trained to care for a woman throughout pregnancy, birth and post birth. The AMIC worker works in collaboration with midwives and other mainstream care providers to deliver antenatal and postnatal care that accounts for clinical, cultural and social needs.¹⁴¹

In WA, St John of God Midland Public Hospital has seen the benefits of midwives working with Aboriginal staff to deliver antenatal and postnatal services at the hospital through the Moort Boodjari Mia program. The WA health system's Aboriginal Maternity Group Practice also operates under a similar partnership model, employing Aboriginal Grandmothers, Aboriginal Health Officers, and midwives to provide care in partnership with antenatal services in various areas in WA.

Recommendation 9

Achieve respectful and appropriate end of life care and choices.

Priorities in implementation:

- Directions of My Life, My Choice: Report of the WA Parliament Joint Select Committee on End of Life Choices progressed for greater use of Advance Health Directives, expansion of successful palliative care models, and patient choices.
- Use of 'realistic medicine' and 'compassionate communities' models with individuals, local communities, patients, carers and health professionals to promote and integrate social approaches to dying, death and bereavement in everyday lives.
- Introduction, evaluation and spread of a model for community-based wrap-around services for supporting older people with complex chronic illness and cognitive impairment dementia involving GPs and multidisciplinary services.
- Introduction, evaluation and spread of outreach models to improve linkages between hospital and residential aged care facilities in partnership with primary care based on models such as CARE-PACT in Queensland, building on the current Residential Care Line.

Recent dialogues at a National and State level have made it abundantly clear that there is a willingness in WA to discuss end of life care and choices. The breadth and depth of public feedback received through the SHR and the End of Life Choices Inquiry has highlighted that there is a mismatch between people's expectations and experiences of care. It has also shown that the WA community is already deeply invested in end of life issues and concerned about the quality of care.

End of Life Choices inquiry

The Parliamentary Joint Select Committee Report, My Life, My Choice, on End of Life Choices was released in August 2018.¹⁴³

This wide ranging report made significant recommendations in relation to:

- Advance Health Directives
- end of life legal instruments
- palliative care
- the ability of patients to refuse treatment
- choices regarding care
- voluntary assisted dying.

The Panel has heard that empowering and supporting people and their families to make informed decisions about care at the end of life improves patient experience and prioritises a person's dignity in death.

The My Life, My Choice report makes a number of recommendations for greater use of Advance Health Directives (AHDs), the expansion of successful palliative care models, and a focus on patient choices. The Inquiry has also highlighted the importance of support for carers who are making decisions for loved ones who are cognitively impaired.

The Panel supports these recommendations.

Greater use of AHDs supports people to proactively plan and make decisions regarding their own future care, and ensures people can receive what they want at the end of their lives through documented decisions.

Similarly, informed and honest conversations with patients about the effectiveness of treatment and futile care will ensure the WA health system puts patient choices first. Goals of Care are currently used in WA to assist health professionals and patients to engage in honest conversations about the future care of an older person, including the possibility of declining treatment. This is intended to improve the interface between primary, community and residential care and the hospital setting. WA must keep working to achieve these outcomes.

The Panel has also identified other models to assist individuals, local communities, patients, carers and health professionals to promote and integrate social approaches to dying, death and bereavement in everyday lives and to empower members of the community to make choices that best meet their wishes.

Scottish Realistic Medicine Program

This program encourages shared decision making between medical practitioners and patients about care, moving away from a 'doctor knows best' culture towards shared decision making.¹⁴⁴

This means that what matters personally to patients is the key to decision making about the care that is delivered to them. The program aims to reduce harm and waste and simplify care.

It supports management of risks and innovation, which is essential to a well-functioning and sustainable health system. The Panel is of the view that the health system must draw on this type of model to promote and integrate social approaches to dying, death and bereavement in the everyday lives of individuals and communities. Realistic medicine also has much broader potential across the full spectrum of healthcare.

The Compassionate Communities Network is an informal group that also seeks to raise awareness and foster community support for end of life choices and palliative care. 145 A compassionate community is one in which the needs of its aged, those living with life-threatening illness and those living with loss are met; for example, through easy access to grief and palliative care services. The principle requires that local health policies recognise compassion as an ethical imperative. The Compassionate Frome Project in the UK, which we described in Strategy 1, is based on the Compassionate Communities principles, and demonstrates that meeting people's social and other non-health needs can have a considerable impact on health and the demand for health services.

Integrating health and social goals at home

Silver Chain has been trialling a patient-centred primary care model, Integrum, which is specifically aimed at supporting people in their last few years of life to stay at home for as long as they choose. The program centres on a dedicated primary care practice, based in the community, delivered by GPs, other specialists, allied health providers, and aged care providers. Hospital admission and discharge coordination, remote monitoring and other digital tools such as the 'holographic doctor', home nursing, rapid response nursing and medical care, and family support are other key elements of the program.¹⁴⁶

The Panel also recognises that community-based services for supporting older people, particularly those experiencing complex chronic illness or cognitive impairment dementia are vital. It was reported last year that one in four Western Australians will be aged over 65 years by 2060, making this increasingly important for future WA health system planning.¹⁴⁷

Providing care in the community, particularly through residential aged care, reduces unnecessary hospital admissions amongst older people. When the health or independence of an older person rapidly deteriorates, this person should have access to care through alternatives to hospital. This is more than a means of supporting the health system's sustainability through avoiding unnecessary hospitalisation; it is an opportunity to respond to the needs of older people by providing high quality and safe healthcare 'in-place'.

Data from the Australian Institute of Health and Welfare shows that older people who are admitted to hospital remain there for longer. In 2014–15, the average length of stay for overnight admission to hospital for patients aged 85 and over was 8.4 days. This is approximately three days longer than the average for all overnight admissions (5.5 days).¹⁴⁸

It also is widely recognised that older people are at the greatest risk of further complications resulting from hospitalisation. Historically, the response has been to make hospitals safer, and in creating more supportive environments to reduce complications and improve outcomes.

However, the Panel recommends that instead there must also be greater emphasis given to weighing the risks and benefits of admission - being admitted to hospital should be the last resort. The strength of these types of models is based in partnerships, particularly between Primary Health Networks and emergency services, seen in both Queensland and New South Wales models. Exploration of telehealth could also provide alternatives to hospital admission, which would also better support care 'in-place'. Programs such as WA's Residential Care Line is a Nurse Practitioner-led outreach service that is well established and its expansion would be an opportunity to continue providing better care to some of WA's most vulnerable citizens in more comfortable environments outside of hospitals.

There is also opportunity to improve the safety and quality of care for people with complex needs, particularly older people, and better respect people's wishes through electronic health records (EHR). EHRs can be used to record care preferences and documents such as AHDs which can be used in emergency care situations.

Queensland model supports aged care residents

CARE-PACT is an example of a model of care implemented in Queensland that uses a hospital substitution service as a means to better meet the needs of residential aged care patients.¹⁴⁹ The initiative has three key elements:

- inpatient resource and early discharge service
- urgent assessment, care and treatment service provided by mobile teams
- consultation with a GP to ensure health concerns are resolved.

It was estimated that 1,522 ED presentations of residential aged care patients were avoided over the project duration, in addition to 2,329 hospital admissions.

The change journey Horizon 4: Embedding change and realising the full benefits **Horizon 3: Driving deeper change** and seeing results Children and families supported to get the Horizon 2: best start in life to become physically and Early priorities, results mentally healthy adults and building momentum At-risk children and Successful early years families given the initiatives being rolled support they need to **Horizon 1:** improve their health Early years outcomes Setting up for success Older people with improving for vulnerable complex chronic groups Government-wide data conditions cared for in analytics in place to Adoption of new the community or in identify and target at-risk integrated models of more appropriate children and provide care for older people settings system level reporting increasing Priority initiatives from People experience a Health system engaged early years partnerships dignified end of life in a in early years commenced, targeting setting they choose partnerships to support vulnerable groups children and families Whole-of-government (including Aboriginal implementation plans Directions of the 'My families) Life, My Choice' report are progressing More people complete explored to identify Advance Care Directives implementation priorities and are aware of end of life choices Coverage of evidence-based palliative care models expanded Training for staff to support realistic end of life conversations started 2019 July 2021 July 2024 July 2029

System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.



Strategy 4 – Person-centred, equitable, seamless access

Putting people at the centre of care and ensuring people have access to care when they need it is at the heart of the SHR. Western Australians want a more integrated system, which supports people to stay well in their community with their family and friends.

We know that it is often the most vulnerable people in our community, with complex health needs, who fall between the gaps and fail to get the care they need. This is even more common for people living in rural and remote areas of WA. We also know that older people admitted to hospital tend to remain there longer and experience significant challenges and delays in finding the right supportive care outside of the hospital setting.

Consumers, carers and their families have also told us that they consistently feel frustrated with the difficulty in accessing services and coordinating care between hospitals, primary care, aged care and the disability sectors. These systems are complex with significant changes underway and we heard that vulnerable members of the community were struggling to understand how the health, aged care and disability systems interact. It is vital to ensure people continue to have access to the services they need — regardless of provider or funding body.

As previously outlined, we know that many ED presentations could be avoided and many hospital admissions potentially prevented if timely and appropriate alternatives were available outside of hospitals, in primary care and other settings. There are also growing waitlists for public surgical outpatient clinics.

Helping people in the community will lead to significant gains in consumer experience and health outcomes. It will also be possible to reduce demands on the acute system, enhance access and avoid unnecessary costs.

Underpinning this change is a fundamental shift from a mindset of providing care to people, to providing care with people. Primary Health Networks play a significant role in coordinating and strengthening care across these multiple systems. This shift will also require investment in a contemporary workforce, including an increased use of interdisciplinary professionals and advanced scope of practice. There is also opportunity to use technology through 'virtual care' options to a much greater degree to help people stay at home and in their communities longer, be more independent, and improve safety and quality.

Recommendation 10

Develop a partnership between the WA Primary Health Alliance and the Department of Health, and partnerships between Primary Health Networks and Health Service Providers to facilitate joint planning, priority setting and commissioning of integrated care.

Priorities in implementation:

- Introduction, evaluation and spread of models to improve care into the community for people with a range of chronic conditions, guided by the collaborative Western Sydney Diabetes model as an example targeting chronic health conditions such as chronic heart failure, diabetes, and chronic obstructive pulmonary disease based on the principle of having care delivered in the most appropriate setting.
- Improved communication, relationships and coordination between primary care and hospital specialists to ensure appropriate access to advice and guidance models such as HealthOne NSW and multidisciplinary case conferencing as used in Queensland.
- Hospital-based staff and junior doctors receive training to increase understanding and to build relationships and trust with the primary care sector.

A major step that the WA health system must take is establishing formal and ongoing partnership with the primary care sector. This should involve formal agreements at the system and local level to jointly plan, set priorities and commission services to improve care for those with complex health needs.

We also know it is vital that there is better communication, relationships and coordination between the primary care and hospital specialists to ensure appropriate access and guidance.

The Western Sydney Diabetes Initiative has built an alliance of more than 70 partners within government, business and the community to help understand the problems of diabetes and develop solutions to address the epidemic of diabetes in Western Sydney. Coaching and lifestyle changes, technology and better connected services are some of the ways the initiative has taken the heat out of their diabetes 'hotspot' and improved people's health within five years. A whole-of-district approach supports coordinated health care between GPs, hospitals, allied health and specialists.¹⁵⁰

HealthOne Mt Druitt (HOMD) uses a model based on 'virtual care' planning to improve the coordination of care for people with complex health needs, provide relevant referrals and reduce unnecessary hospitalisations. Under the model, two general practice liaison nurses organise multidisciplinary case conferences, coordinate care between care providers, and ensure information about the patient is provided to their GP or case manager. In examples we have considered, such as HOMD, it has been shown that over time the referral base shifts, keeping people totally out of hospital, and not just simply diverting them from hospital. This is particularly important for people with complex health needs, who would prefer to spend more time at home with family or friends than in hospital.

Evaluation of HOMD has shown that 30 per cent of people enrolled in the program had no hospital admissions after enrolment, and enjoyed a significantly improved quality of life.

Among those who did present to hospital, the number of emergency department presentations and length of stay was significantly less than in the 12 months prior to enrolment.¹⁵¹

Work on the State's first Medihotel at Fiona Stanley Hospital has already begun, and plans are in place for a Medihotel at Royal Perth Hospital in conjunction with WA Country Health Service. The Panel notes that this provides an opportunity to introduce new methods of remote monitoring and virtual care to reduce the demand on hospitals.

We know there are also opportunities to broaden the understanding of hospital-based staff to support working together with the primary care sector. Hospital Liaison General Practitioners (HLGPs) currently work within many hospitals within WA. A 2013 report shared with the SHR highlighted a range of improvements that could be made to strengthen these roles. This included addressing gaps in specific locations or service areas, such as Aboriginal and mental health, and bringing more consistency to the way HLGPs are employed and utilised within health services.

Building new levels of trust and respect between the hospital and primary care sectors will be essential to support better care options and increase capacity outside of the hospital setting. This could be achieved by involving HLGPs more in local clinical services planning and education activities to strengthen the understanding and coordination of care between hospital and general practice.

Recommendation 11a

Improve timely access to outpatient services through:

a) Moving routine, non-urgent and less complex specialist outpatient services out of hospital settings in partnership with primary care.

Priorities in implementation:

- Transparent public reporting of outpatient wait times to inform GPs and patients of the time they will be waiting when booking.
- Increased number of new attendances compared to follow-up attendances, aligned with best practice (new to follow-up ratio).

- Introduction and evaluation of a 'choose and book' approach for more choice and transparency of wait times for urgent appointments.
- Development of mandatory pathways and capacity building with primary care commencing with urology; plastic surgery; ophthalmology; neurology; ear, nose and throat (ENT).

More than 2.7 million outpatient appointments were attended in WA's hospitals in 2017–18. People needing surgery typically waited on average nine months for their first appointment for an initial surgical assessment. Only 35 per cent of referrals were from GPs into hospitals highlighting that many appointments are generated from within the hospital environment rather than through primary care.

The Panel is recommending progressively moving clinically-appropriate routine, non-urgent and less complex outpatient services out of hospital settings. These are the types of appointments that people typically attend in outpatient clinics only occasionally – once or twice a year. This will help reduce unnecessary patient travel and cause less disruption to people's lives.

Moving care, where clinically-appropriate, out of the hospital setting will also provide financial benefits to the WA health system through improved efficiency and better utilisation of resources. Managing the transition of these types of appointments into primary care will need to be appropriately planned and sequenced with GPs and the primary care sector.

We recognise this will need to be handled progressively and in close partnership with primary care. Developing mandatory pathways by building on the existing Health Pathways will be important to support this partnership. The SHR Clinical Reference Group identified urology; plastic surgery; ophthalmology; neurology; and and ENT, as specialities having high volumes of non-urgent and less complex referrals that could commence with these pathways. The WA health system will also need to refine its referral processes and criteria.

Consumers, carers and their primary care providers expect greater transparency about the services available. Better information about what appointments are available, locations and wait times would assist in more effective planning.

Exploring new models for outpatient service provision should be pursued, including workforce reform and greater use of different professions such as allied health or nursing workforce, in an interdisciplinary approach. This would reduce an over-reliance on the current medically-led approach. These models have been shown to improve referral pathways, as well as make better use of nurse-led care which also allows specialist consultants to focus on the most complex patients. Communication between GPs and specialists can also be improved, through the use of HLGPs, with more comprehensive discharge summaries, results and care plans forwarded back to referring GPs.

The doctor will Skype you now

The UK's National Health Service (NHS) has adopted a number of 'virtual clinic' models to provide people with more flexible care for the type of appointments they would normally attend in an outpatient clinic. A virtual clinic uses email, phone and Skype to manage a patient's needs at home.

Virtual clinics improve access, reduce unnecessary visits, make better use of time (less time off work, less travel time), and resolve issues quickly – without compromising patient safety.

The Trafford NHS Trust has used virtual clinics to reduce the number of unnecessary follow-up appointments for patients after surgery by tracking improvement and progress.

People who report improved outcomes are able to continue their at-home rehabilitation programs, while people who do not show improvement are referred back to the clinic for a face-to-face appointment. Using Patient Reported Outcome Measures gives health workers better understanding of whether treatments and procedures are effective.

More than 90 per cent of patients who achieved good improvement at home with support through the virtual clinic were able to avoid unnecessary appointments. 152

Recommendation 11b

Improve timely access to outpatient services through:

b) Requiring all metropolitan Health Service Providers to progressively provide telehealth consultations for 65 per cent of outpatient services for country patients by July 2022.

Priorities in implementation:

- Partnerships with consumers, carers, health professionals and providers to identify opportunities to expand the take-up and development of telehealth and virtual care services across disciplines.
- Risk-benefit analysis completed of telehealth and other virtual care opportunities including an assessment of the impacts on Patient Assisted Travel Scheme.
- Telehealth becomes the regular mode of outpatient service delivery for most appointments in both country and metropolitan areas across all disciplines by July 2029.

Telehealth has proven to be an efficient and effective way to support country health service delivery across all disciplines. Telehealth was a major feature of the Preliminary Directions outlined in our Interim Report, where it was being used effectively by the WA Country Health Service to support emergency care. The WA Country Health Service Emergency Telehealth Service uses high definition video conferencing equipment installed in participating regional and remote hospital emergency departments and nursing posts. Video conferencing is used to link rural and remote clinicians to experienced, specialist staff in Perth hospitals to support diagnosis, treatment and transfer of critically ill and injured emergency patients.

We recommended that the WA health system should further explore telehealth as a mode of service delivery in other specialities. Since our Interim Report, telehealth is being used to provide an increasing range of specialist appointments, such as stoke, rehabilitation and oncology services.

In small regional communities, there are already established Community Resource Centres (CRCs) connected to video conferencing technology. It would be beneficial to explore all options available to make use of these services for outpatient appointments. It may be feasible to co-locate some outpatient clinics in CRCs with other health providers to make best use of existing facilities.

The Panel considers that telehealth should become the regular mode of delivery for outpatient services in both country and metropolitan areas over time, and has set ambitious targets to progress this. Services provided through telehealth should form part of service agreements with Health Service Providers to ensure transparency and accountability of requirements.

- The WA Country Health Service provided 18,224 country outpatient appointments via Telehealth in 2017, an increase of 30 per cent from 2016.
- There were 17,014 Emergency Telehealth Service consultations in 2017.
- In 2016–17 more than 38,000 country residents accessed the Patients Assisted Travel Scheme (PATS), at a cost of approximately \$32 million.
- This represented more than 94,000 return trips, most of which were outpatient appointments.
- Approximately 78 per cent of all PATS trips are to the metropolitan area.¹⁵³

Progressing telehealth in both country and metropolitan areas will reduce occasions that patients have to travel unnecessarily to receive care or services. In our consultations many people highlighted travel costs (public transport, petrol and parking), accommodation and time away from work and family as issues that were affecting their experience. Exploring all the options to provide more appointments through telehealth would significantly improve many of these issues for patients, carers and their families.

Beyond outpatients, it is also clear that a range of innovative digital technologies, such as telehealth or virtual care, could be introduced and evaluated to improve access to a wider range of services in all areas of WA and boost both patient and staff satisfaction.

These include technologies that assist with selfmanagement, informed consent and scheduling of procedures, virtual clinics and access to specialists and platforms for chronic disease management between primary and hospital carers; and assisted independent living solutions to support more care in the community and Hospital In The Home (HITH).

Supporting independence through digital technology

Voice activated 'smart homes' and digital home 'hubs' are just two of the digital technologies helping people with mobility issues stay independent, connected and supported at home. These digital technologies help people communicate with providers, family and carers and use computers independently. Computer interfaces help people with essential tasks such as controlling lighting, heating, cooling and access to their front door.

Independent living solutions were just a few of the inspiring examples of digital innovation and disruption we saw at our event the Art of the Possible. This one-day event highlighted the potential of digitisation in primary care navigation, and smart phone apps through to care in the home. The progress being made by WA innovators in this sector was encouraging.

A virtual care example we considered is improving the health of patients recovering from a heart attack. Cardiac rehabilitation programs (CRPs) are crucial for recovery and also provide secondary cardiovascular prevention. An Australian CRP delivered through a smartphone resulted in higher attendance (80 per cent compared with 62 per cent) and higher levels of completion (80 per cent compared with 47 per cent) than a face-to-face, centre-based CRP.¹⁵⁴

Recent initiatives in the United States have introduced telehealth technologies and teams to support care for people with chronic pain to manage opiate use. 155,156

Medication-prescribing errors are a serious patient safety issue and costly to public health budgets. An international review found that a change from paper-based ordering to electronic ordering in intensive care units resulted in an 85 per cent reduction in error rates for prescription of medications.¹⁵⁷

It will be important for the WA Government to collaborate with the Commonwealth on improving consultation items and rebates available under the Medicare Benefits Schedule. This is an essential step in supporting the growth of innovative virtual care options across a range of health professionals and is highlighted in Recommendation 19.

Recommendation 12

Improve coordination and access for country patients by establishing formal links between regions and metropolitan health service providers for elective services including outpatients and telehealth, patient transfers, clinical support and education and training.

Priorities in implementation:

- Planned and unplanned patient flow pathways for all new referrals from country to metropolitan hospitals aligned by July 2021.
- Introduction and evaluation of a 24-hour WA Health Operations/Command Centre, commencing for country patients to improve safety and quality, access to emergency and specialist services and patient transport and retrieval.
- Consideration of a systemwide approach utilising digital technology and data analytics to improve patient flow and use of capacity, patient outcomes and sustainability.
- Continued roll-out of the online mapping service platform, 'Mapping Health Services Closer to Home' (MAPPA) to assist country people to find and access health services close to family, home and country.

We have heard that many trips to Perth by people living in country areas could be avoided through better use of existing services and technology. Finding ways to better coordinate the journeys of country patients to metropolitan hospitals will be a key step in improving patient experience and support sustainability objectives.

There are already established links between country and metropolitan hospitals, for emergency or unplanned transfers. The Panel supports these being expanded to cover all planned transfers, and to support staff between locations for clinical support, education and training.

This will improve access, experience, safety and quality for patients as well as support staff to deliver better care. It is also more sustainable.

We acknowledge this change may involve shortterm disruption for longer-term stability and significantly enhance outcomes. To make this transition easier, the Panel has recommended a phased introduction, starting with new referrals.

Consideration should also be given to augmenting and supporting the country/metropolitan linkages through a WA Health Operations/Command Centre, which would improve the efficiency of patient flows within and between hospitals.

The WA Country Health Service is heavily reliant on effective patient transport systems to move patients across the State to appropriate levels of care.

We have heard that country staff can feel isolated, particularly when a patient's care needs escalate, and would benefit from support when transfer of care to another hospital is required.

It is apparent that the system also has inefficiencies when transferring patients, involving many phone calls to secure a bed, organise transport and actually make the transfer.

A WA Health Operations/Command Centre would improve coordination and integration across the WA health system by providing active monitoring of deteriorating patients out of hours, and support clinical escalation and transfer through shared real-time view of transport assets and bed availability at metropolitan sites. This model is being used in other health systems around Australia and internationally to improve patient flow, and reduce clinical incidents.

The Panel believes this service should start with country services, but could roll out to metropolitan patients in the medium- to long-term, taking advantage of digital technology and data analytics to improve service delivery and sustainability on a larger scale.

The US-based Johns Hopkins Hospital has successfully partnered to introduce a Capacity Command Center. The Centre combines systems engineering and principles from industries such as aerospace, aviation and power, with predictive analytics and innovative problem-solving approaches. Early results demonstrate improved patient experience and operational outcomes in the following areas:

- Patient transfers from other hospitals: There has been a 60 per cent improvement in the ability to accept patients with complex medical conditions from other hospitals around the region and country.
- Ambulance pickup: Johns Hopkins' critical care team is now dispatched 63 minutes sooner to pick up patients from outside hospitals.
- Emergency department: A patient is assigned a bed 30 per cent faster after a decision is made to admit him or her from the Emergency Department. Patients are also transferred 26 per cent faster after they are assigned a bed.
- Operating room: Transfer delays from the operating room after a procedure have been reduced by 70 per cent.
- Patient discharges: 21 per cent more patients are now discharged before noon, compared to last year.¹⁵⁸

In WA, other local solutions are helping connect and improve the patient journey. The MAPPA platform is an online health service mapping platform that provides clarity to consumers about what services are available and when they are available in regional and remote areas. MAPPA was developed by the Aboriginal Health Council of Western Australia in conjunction with Aboriginal Community Controlled Health Services. Although MAPPA is still relatively new, the platform has potential to reduce costs associated with patient travel, regional and remote emergency responses and publicly-funded specialist visits. This platform brings together key information about visiting specialists, health services and community-based organisations, information about road and other access and most importantly, relevant cultural information about Aboriginal communities. This tool supports health service providers to refer, and consumers to find and access, health services as close to family, home and country as possible.

Recommendation 13

Implement models of care in the community for groups of people with complex conditions who are frequent presenters to hospital.

Priorities for implementation:

- A systemwide approach to identifying and supporting people who are frequent users of health services including emergency and outpatient services to improve pathways of care and reduce presentations.
- Introduction and evaluation of a medical respite centre model for homeless people in Perth.
- Expansion of the range of hospital substitution programs including Hospital In The Home and technology-assisted independent living solutions to increase the number of people who receive acute care at home, commencing with respiratory patients.
- In partnership with primary care, introduction, evaluation and spread of a coordinated multi-disciplinary team approach to care for people with the most chronic and complex needs, supporting their transition between healthcare settings guided by models such as the Victorian HealthLinks and HealthOne NSW initiatives.

We know that when people have complex health needs they are more at-risk, often ending up in EDs because they cannot get the care and other social support they need in the community.

The State Government has committed to introducing a number of Urgent Care Clinics as a step to improve the availability of alternative types of services for people other than EDs.

Each year over half a million people in WA go to the ED for care, usually only once or twice, but a small proportion of people attend far more frequently. Around five per cent of patients who went to an ED in 2016 averaged almost nine visits, with some people going more than 100 times.¹

These patients could be grouped as 'high risk' patients, and often have more complex care needs than the general population. In WA, the characteristics of frequent attenders to EDs were significantly different to the rest of people attending ED, with 85 per cent of patients aged 69 years or less, often presenting with a mental health, or drug or alcohol reason.¹

This aligns with international analysis which indicates that grouping people together with similar characteristics can provide their care team with the right information to better support, assist and treat each group, including those who may become 'high risk' if their health and social care needs are not met.¹⁵⁹

We have seen examples where WA has introduced successful programs to support the needs of people with complex conditions who are at risk of going to EDs more frequently. The Complex Needs Coordination Team (CoNeCT) was introduced in 2010 as part of a Government commitment to reduce avoidable ED presentations and hospital admissions among people with complex health needs. This included people with physical, cognitive, medical or other impairments. In 2015–16, CoNeCT helped people with complex health conditions avoid hospital in more than 13.500 service events.

CoNeCT uses an outreach model, led by coordinators who work directly with the client in a case management style. People are linked with a variety of health and other services such as housing, social security, and social support services, and are supported to become more confident in managing their health needs as well as navigating other supporting services.

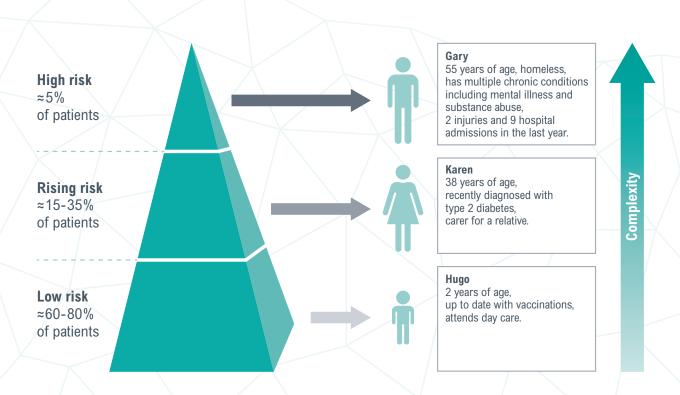


Figure 12: Approaches from WA such as CoNeCT and Montefiore from New York use data to better serve the most at-risk people in a community such as those with the most complex health conditions

Many other health systems are using approaches to target high risk health groups. Montefiore Health System in New York serves one of the poorest and most densely populated areas in the United States. 160

To effectively provide care to the local population (the majority of whom rely on Government welfare programs), while also remaining financially viable, Montefiore introduced an integrated care program bringing together community providers and empowering clinicians to manage the health of its local population.

Initiatives within this program ensure that acute patients received care efficiently, while also keeping non-acute patients from getting worse. They also integrate mental health and physical healthcare. These integrated initiatives have seen a decline in acute demand and reduced hospital stays within the Montefiore catchment over a three-year period.

Similarly, in WA, there are significant challenges in improving the health and wellbeing outcomes for people experiencing homelessness. Homeless people experience a disproportionately high rate of chronic health conditions, which can often be left undiagnosed and untreated for long periods of time. This often results in a reliance on acute health services, supporting the need for increased focus on partnership with other government agencies and community organisations.

Partnership for homeless pathways

Medical respite centres provide an opportunity to better support the health and wellbeing of people experiencing homelessness and create long-term change. The centres provide pre- and post-hospital clinical care for people experiencing homelessness, while also establishing support systems to deal with the long-term issues of homelessness, with housing pathways as a primary focus.

Evidence collected on similar models in the United States, Canada and United Kingdom indicate that people's length of inpatient stay and emergency department presentations can be reduced between 29–50 per cent and 24–36 per cent respectively as a result of this type of support. 161

The Homeless Healthcare program at Royal Perth was developed in partnership with the University of Western Australia and Homeless Healthcare. The program is an innovative and successful partnership between acute, primary and community-based services to assist people into housing and support them to remain housed.

WA already provides limited community-based sub-acute and post-acute (early discharge) service through its Hospital In The Home (HITH)/ Rehabilitation in the Home (RITH) programs and the increasing use of telehealth as a mode of service delivery. There is scope to move further in this direction so that people can receive all of their care in their home where appropriate.

There are an increasing number of hospital avoidance or substitution programs across Australia that have been introduced to provide safe, value-based alternatives to treating people in hospital. These programs seek to link in with general practice, and community-based primary care services such as allied health in order to support care closer to home.

Experience in Victoria demonstrates that HITH can safely provide a range of inpatient, sub-acute and recovery care in the home setting, and improve the quality of experience for both consumers and staff.

Currently Victoria provides HITH services that act as a 'virtual hospital ward', providing care for conditions including cancer and chemotherapy, post-surgical care, and chronic health conditions.

HITH has been used to substitute approximately 6.4 per cent of total hospital admissions across Victoria, with some hospitals substituting as much as 10 per cent of their admissions through HITH.¹⁴⁶

Recommendation 14

Transform the approach to caring for older people by implementing models of care to support independence at home and other appropriate settings, in partnership with consumers, providers, primary care and the Commonwealth.

Priorities in implementation:

- Introduction, evaluation and spread of a 'Home First' model to reduce delays to/ from home and enhance support for early assessment and access to health and support services for people in their own home.
- Negotiate with the Commonwealth to address the significant shortfall in residential aged care places in WA by adopting a flexible approach to ensuring there are enough places to meet population needs.
- Development of modelling in partnership with the Department of Treasury,
 Department of the Premier and Cabinet and Commonwealth to better understand the implications of the ageing population and to develop proactive and collective responses.
- Introduction, evaluation and spread of approaches to reduce social isolation and unplanned admissions to hospital guided by the successful Compassionate Frome Project, UK.
- Partnership with primary care for the introduction, evaluation and spread of secondary prevention models of care to maintain physical and cognitive function.

Improving the care of the older person is a priority in WA and across the world. New Zealand is one jurisdiction that has set out actions to improve the health outcomes and independence of older people in a sustainable way, through positive, healthy ageing. Its strategy emphasises the need for a multi-faceted and coordinated approach particularly for people with long-term conditions, high and complex needs or in population groups that are experiencing poorer outcomes.¹⁶²

As with end of life care, there is clear momentum across Australia and in WA to enhance the quality of life for people as they age, particularly in the community.

The strong desire to support people to age with dignity has been reinforced in the findings of the recent final report of the Select Committee into Elder Abuse, which noted that a relationship exists between ageism and elder abuse. 99 The Panel also welcomes the Commonwealth Government's recently announced Royal Commission into Aged Care Quality and Safety, and strongly supports submissions and responses from WA into the process.

We know that people who are admitted to hospitals are disproportionately older people, particularly older people who may be frail and/or have more than two chronic conditions, and those nearing end of life, regardless of age.

This trend is likely to increase with our ageing population.

The Panel recommends that WA progresses initiatives that enable people to age with dignity in the community. It should therefore be a priority to reduce the demand on acute public hospitals by supporting our older population to stay at home, and receive care in the community and thereby reducing the demand on acute public hospitals.

My Aged Care

The Commonwealth currently provides onestop phone and web-based support for people seeking information about appropriate aged care for either themselves or a family member.

Information available includes eligibility and likely costs.

It helps consumers, carers and health workers navigate options available at home and in an aged care homes.

My Aged Care is a single entry point for aged care services. It improves service awareness to enable better choices and supports access to timely assessment.

The successful 'Discharge to Assess' or 'Home First' model used across the UK has been shown to improve outcomes, reduce delays and transfer, and help provide access to health and support services for people at home. 163

Positive Ageing

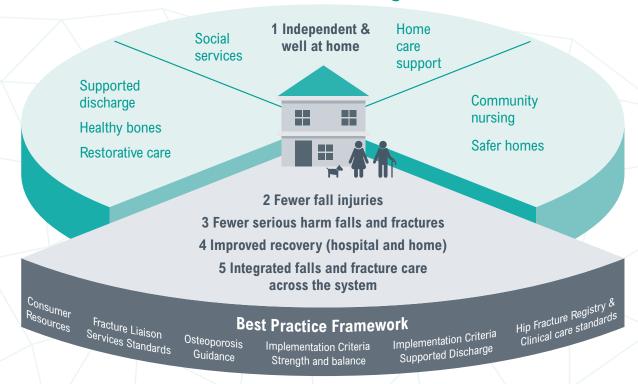


Figure 13: Outcomes and Best Practice Framework for Positive Ageing

Source: Derived from draft release, New Zealand Ministry of Health

The 'Discharge to Assess' or 'Home First' model supports people presenting to a health service who do not require an acute hospital bed by allowing them to return home for assessment at the right time by the right type of clinician.

Better connecting older people with a broader range of services is prioritised successfully around the world and the Panel has suggested exploration of these secondary prevention models. Positive ageing strategies to build confidence and independence have been successfully used in WA through programs such as Stay on Your Feet®.

Implementation and evaluation of programs must take place locally between HSPs, Primary Health Networks, and the community. The Panel also endorses finding new ways of supporting people to remain independent through partnerships with paramedic and ambulance services, and through increased use of telehealth.

We note that models such as 'Home First' will require partnership with the Commonwealth to get early access to Home Care Packages for success. The Department of Health must work with Commonwealth agencies to find new ways to address WA's ongoing difficulties in providing adequate primary care and aged care services across the State. This includes improving access to aged care packages to enable timely and appropriate support in the community and residential aged care places in Western Australia. Bilateral arrangements should be progressed with the Commonwealth to trial and evaluate different models and funding arrangements to allow patients to be supported in the community.

Another key step should be to invest in data analytics and modelling, and work with the Department of Treasury and the Department of the Premier and Cabinet to understand the emerging implications of demographic changes.

Recommendation 15

Improve the interface between health, aged care and disability services to enable care in the most appropriate setting and to ensure people do not fall between the gaps.

Priorities in implementation:

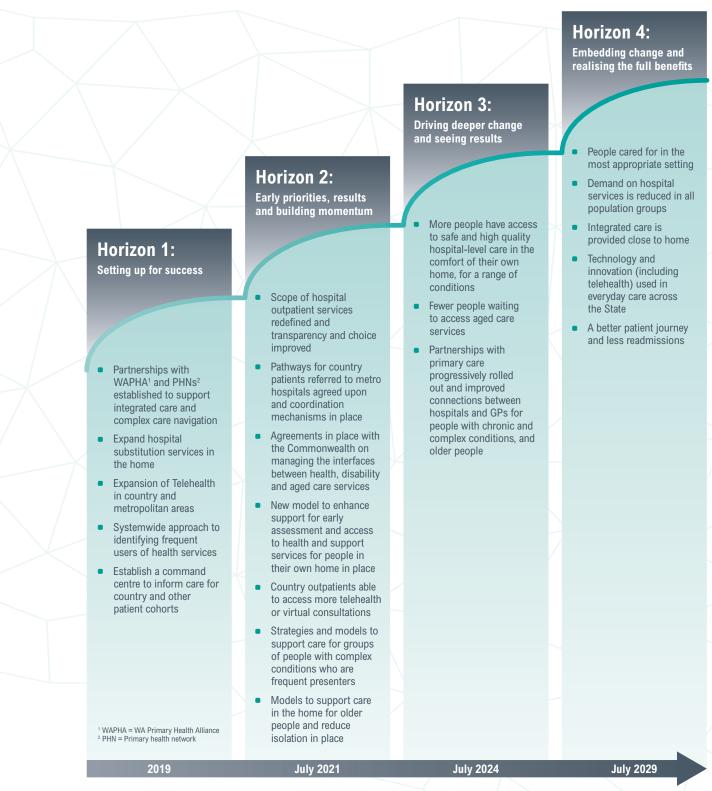
- Partnership with the National Disability Insurance Agency (NDIA) and Aged Care sector to adopt a person-centred approach rather than a provider-centred approach to manage complex care including navigation and joint case planning.
- Agreements between the NDIA and mainstream services in WA coordinated by the Department of the Premier and Cabinet to facilitate effective patient and carer linkages, similar to recent agreements in NSW.

Supporting those with complex needs to access and use aged care, health and disability services is particularly critical in light of recent changes to the way these services are delivered. Services have shifted significantly with the roll out of the National Disability Insurance Scheme and the associated transition of WA Home and Community Care services (HACC) to the Commonwealth Government. It will therefore be critical to ensure care is properly coordinated and continues to be provided for those who require services across the shifting spectrum of health, disability and aged care, or those transitioning between these services.

The Panel's public engagement has echoed the sentiment that people just want to be able to access the care they need, regardless of whether it is provided by WA's health system or through a Commonwealth program.

Coordinated leadership by the Department of the Premier and Cabinet (DPC) is critical to achieving this, and the Panel has recommended that DPC facilitate strong and effective partnerships between the National Disability Insurance Agency and WA Government agencies delivering mainstream services, such as the Department of Health. This will ensure no one 'falls between the cracks' as disability and aged care service models change.

The change journey



System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.



Strategy 5 – Drive safety, quality and value through transparency, funding and planning

In the Panel's first four Enduring Strategies we outlined steps focused on service delivery in public health, mental health, early intervention and end of life, and person-centred services across settings. For the WA health system and its partners to make the shifts required in these areas it needs the right settings and enabling forces to facilitate change.

Pursuing value and outcome-based care that delivers the best possible outcomes to patients for the lowest possible cost is essential to long-term system sustainability, as outlined in Chapter 1. There are opportunities to reduce low value care, waste and inefficiency and to focus on high value care with greater transparency in areas such as clinical variation.

Improving the health system's ability to act with greater flexibility in the way it funds services is essential to promote collaboration and effective partnerships and innovation in models of care and use of technology – to increase access, improve safety and quality, and focus on population health needs. The Panel heard this message loud and clear through a number of submissions, especially from HSPs.

The WA health system also requires a sustainable funding footprint to support the necessary change and reinvestment required, with greater levels of support and collaboration with the Commonwealth.

A steadfast focus on long-term and collaborative system planning to best meet community needs must bring together previously siloed areas of planning and ensure that pressure points in the system are addressed in a timely and cost-effective manner.

Recommendation 16

Establish a systemwide high value health care partnership with consumers, clinicians and researchers to reduce clinical variation and ensure only treatments with a strong evidence base and value are funded.

Priorities in implementation:

- Transparent public reporting of clinical variation commenced by December 2019 using sources such as Australian Atlas of Healthcare Variation and Choosing Wisely to reduce the number of treatments with low benefit to generate efficiencies for reinvestment.
- Development of a coordinated approach to identifying and actioning existing and new excluded/restricted procedures through a systemwide clinical review committee with public reporting of excluded/restricted procedures.
- Ensure the approach to high value health care uses contemporary data analytics to support systemwide benchmarking and transparent public reporting (Recommendation 21) and drive implementation of standardised care pathways to maximise value to patients and communities, and reduce clinical variation and waste; aligning with a systemwide approach to improvement and innovation (Recommendation 28).
- Develop a coordinated approach to assessing and implementing new and existing equipment, procedures, medications and technologies, initially through partnerships with other health jurisdictions.

Consumers, clinicians and researchers in WA have a strong will and desire to reduce low value care and drive evidence-based high value care. Emerging initiatives need to be brought together and supported in a systemwide approach.

Initiatives such as Choosing Wisely and the Australian Atlas of Healthcare Variation share similar objectives to promote transparency, public reporting and benchmarking as methods to allow for greater oversight of system performance and resources, with a focus on patient safety, outcomes and costs.

Western Australia lags behind other health systems around Australia and internationally in adequately publishing safety and quality information, costs and other performance measures. Maximising patient experience and outcomes through public reporting and standardising care pathways will also drive long-term improvement and clinical engagement. The Panel has recommended commencement of public reporting of clinical variation by December 2019. This also relates to Recommendation 4 which calls for transparent public reporting of Patient Reported Experience and Outcome Measures by 2021.

The Panel notes that the WA health system has recently developed its 'Our Performance' webpage allowing access to information in one place commencing with performance reports. We acknowledge there are plans to enhance public reporting — this is needed to improve user experience and support better understanding of information among more health system staff and the public.

WA also needs a coordinated approach to identifying and actioning existing and new excluded/restricted procedures and making this transparent to staff and the public. This needs to be done in partnership with consumers, clinicians and researchers. WA currently has a High Value Health Care Collaborative established in 2017. The primary role of the Collaborative is to work with Health Service Providers, the Department of Health and other key stakeholders to improve patient safety and clinical quality by identifying areas where high value health care initiatives can be shared and low value activities can be recognised and improved.

Health Technology Assessments (HTAs) are also a process of evaluating health services, technologies and treatments for cost effectiveness and safety. HTAs are undertaken to ensure publicly-funded healthcare is safe and that the health system is able to sustainably fund listed items. 164 These processes can be resource intensive and lengthy and we have recommended that WA partners initially with other health jurisdictions to maximise potential early benefits.

The WA health system should also look to models successfully adopted by other jurisdictions such as NSW to develop a systemwide approach to clinical innovation and improvement. This needs to be driven statewide, and supported locally. Promoting systemwide strategies such as clinical care standards, honest conversations with people about care options and sharing of information such as excluded procedures are actions that would improve care and reduce unwarranted variation.

SHR Strategies 5, 6 and 8 highlight the need for investment in contemporary systemwide data analytics, benchmarking, improving data sharing and transparent, real-time reporting to support continuous improvement and sustainability. Recommendations 16, 21, 28 are each intended to complement each other and drive a systemwide approach to maximising value for consumers and reduce clinical variation and waste through data and clinical innovation.

Innovation Units as recommended in Strategy 8, and the NSW Agency for Clinical Innovation discussed in Strategy 6 take different, yet complementary approaches to deliver innovation and improving patient care.

Implementation of these recommendations must consider existing resources and determine how these can be utilised to deliver a multifunctional approach to improvement and innovation across the WA health system.

Recommendation 17

Implement a new funding and commissioning model for the WA health system from July 2021 focused on quality and value for the patient and community, supporting new models of care and joint commissioning.

Priorities in implementation:

- Continued commitment to emerging national and other Council of Australian Governments (COAG) reforms, including Activity Based Funding, to drive system level efficiency, innovation and improve health outcomes.
- Introduction of methods which shift away from health services being funded on a historical basis on the volume of services they provide to progressively adopt a flexible approach based on population health needs and outcomes.
- New funding mechanisms trialled and embedded to facilitate implementation of SHR recommendations, providing Health Service Providers with the flexibility to be innovative in responding to the health needs of their populations. This should include minimising contacts with the hospital system including benefit/risk sharing approaches with State and Commonwealth governments, non-government partners to deliver person-centred care.
- Funding agreements incorporate incentives and penalties in relation to patient and population outcomes and other aspects of performance e.g. rewarding the achievement of high service standards; not rewarding unplanned readmissions or admissions involving sentinel events; and reviewing funding provisions for services significantly beyond or below agreed targets.
- Pursuit of strategies to increase the uptake of telehealth and other digital solutions including with the Commonwealth.
- Investment in the development of skills and capacity to adhere to the spirit and requirements of the Delivering Community Services in Partnership Policy through the procurement of not-for-profit community services.
- Consideration of a resource distribution method and formula to drive equity in health outcomes across the State.

In our Interim Report we acknowledged that Activity Based Funding (ABF) offers opportunities to drive performance, but also carries with it perverse incentives that reward activity over value. WA can benefit from the experience of other jurisdictions in utilising ABF and other COAG policy initiatives to drive financial sustainability and improved health outcomes.

The Panel strongly believes the WA health system must build upon the current ABF model. It should look to develop its funding approach to allow health service providers the flexibility to act differently – beyond hospital service provision – and deliver services that matter to the community, improve health outcomes and efficiency. A goal of this should be to minimise the number of times people need to access hospital services.

A key step in this approach will be to enhance the current historically driven ABF settings to shift towards an approach based on population health needs and outcomes. While a funding approach based on population health needs has proven difficult to implement in other Australian jurisdictions, the Panel believes that the population health challenges and size of the WA population means this approach offers significant potential benefit for WA. Achieving this shift will require persistence and dedicated leadership.

Throughout this report, the Panel has detailed a range of strategies and recommendations that will lead to new models of care in health service delivery. Funding mechanisms must be flexible to support the implementation of models proposed in the SHR. Funding approaches will need to embed partnerships with primary care, Commonwealth and non-government providers. These approaches are being used effectively by other jurisdictions.

Victoria's *Better Care Victoria Innovation Fund* is an example which uses a different funding approach to support population health needs. Under this initiative, health service providers are able to apply for funding to support innovation projects to improve timely and appropriate access to high quality care. 165

Victoria is also trialling a program titled *HealthLinks: Chronic Care (HLCC)*, which seeks to 'create a more suitable funding approach that promotes alternative service models for (people with chronic and complex health needs)' so that they may receive person-centred and integrated care. Health services have the flexibility to design packages of care around the patient's needs, with funds able to be used flexibly for both in-hospital care and community-based services. The amount of funding available for flexible use in respect to a patient is based on the projected activity and expenditure for people within that patient cohort.

Achieving improved population health outcomes and keeping people out of hospital will require partnership with non-government organisations which understand the needs of their local communities intimately. The WA health system should look to share both risks and benefits with these partners. There is also a need for greater skills and capacity in how services are contracted with the community sector.

New funding models should reward HSPs for achieving high standards of safety and quality, and conversely, penalise them for unplanned readmissions or adverse events resulting in death or harm in accordance with relevant COAG agreements. Similarly, HSPs should be held accountable for delivering unnecessary services that do not provide clinical value or are not evidence-based. The Independent Hospital Pricing Authority is currently looking to remove funding for these types of services as a means of better patient care, safety and quality.

Recommendation 18

Establish an agreement between the Departments of Treasury and Health for a sustainable funding footprint to support the necessary change and reinvestment required in the health system in particular over the next three to five years.

Priorities in implementation:

 Agreed operating base and parameters guided by i) age-weighted population growth, ii) specific adjustments for national and state policy and funding changes such as private to public shifts and iii)
 Government Wages Policy.

- Agreement of reinvestment principles and priorities allowing continuous and flexible reinvestment of efficiencies within Health Service Providers.
- Working with the Departments of Treasury and Finance, identify and realise short and medium term savings in the procurement of goods and services and facilities management (ensuring appropriate benchmarking is undertaken).
- Joint research of future investment options to better understand social and economic benefits, risks and costs of health expenditure through a social investment approach, including use of Social Impact Bonds.

Improving the system's ability to undertake long-term population-based initiatives must be supported by reliable and predictable funding and the ability reinvest. An agreement between the Departments of Treasury and Health that outlines the basis for determining the funding footprint of the WA health system can provide certainty. The Panel's recommendation is that a realistic, stable, recurrent funding footprint consists of an agreed operating base and parameters guided by three factors:

- 1. age-weighted population growth
- specific adjustments for national and state policy and funding changes such as private to public shifts
- Government Wages Policy.

Any significant increases in wages, operating costs or budget over-runs in the short to medium term will make it challenging for the WA health system to stay within its existing budget forecast. It will be important for Government to have visibility on the implications of wage increases over the coming years, as these increases present a significant risk to the WA health system's ability to limit excess expenditure growth.

The Departments of Treasury and Health should also allow HSPs to retain and reinvest efficiencies in order to promote a culture that fosters innovation and the adoption of value-based services in the future.

Agreement of reinvestment principles and priorities will be important to support this process. There will be opportunity to identify and capture some short and medium term efficiencies from the procurement of goods and services, in accordance with a procurement and management policy framework.

Long-term, the WA health system, alongside key government agencies, must progress a research agenda to better understand the social and economic benefits of health expenditure to support policy makers and future strategic planning.

This should include looking at investment approaches to maximise health outcomes and value. Social investment is an approach to improve social outcomes by applying rigorous data-driven techniques for identifying vulnerable populations and assessing the effectiveness of different policy interventions. Social impact bonds are instruments used to link investments with social outcomes with clear data and evaluation. Victoria for example currently employs social impact bonds through its Partnerships Addressing Disadvantage program. 165

Recommendation 19

Continue to seek a fair allocation of resources from the Commonwealth while partnering on common areas of reform.

Priorities in implementation:

- Shortcomings in Commonwealth programs that are adversely impacting on health outcomes and costs for State services, including inadequate effort on primary care and aged care, are strongly pursued together by the WA health system and central agencies.
- Regular review and updates of Independent Hospital Pricing Authority settings are used to seek appropriate recognition of WA's higher cost in delivering public hospital and other services in rural and remote WA.
- Introduction, evaluation and spread of joint State/Commonwealth commissioning and pooling of funding for health services, based on shared data, commencing with a regional commissioning trial in the Kimberley.

- Opportunities pursued to maximise the use of Medicare Benefits Schedule (MBS) funding for specialist outpatients services; services delivered via telehealth and other digital solutions; expansion of MBS coverage for prevention of chronic conditions; and the use of Pharmaceutical Benefits Scheme funding for subsidised prescription medications.
- Strategies pursued with the Commonwealth to ensure private health insurance arrangements do not disadvantage Western Australians.

Through the course of the SHR, the Panel has seen the impact of inadequacies in Commonwealth administered programs, such as primary care and aged care. These shortcomings result in worse health outcomes for Western Australians and shift additional burden of demand on to the State health system. A key issue for Western Australia is the adequacy of Commonwealth funding for health care given the State's unique geographic and demographic features.

To improve health outcomes for Western Australians through better access to the right services, the Department of Health, in collaboration with the Department of Treasury and Department of the Premier and Cabinet, must work in a disciplined and focused manner to address shortcomings in Commonwealth administered programs.

Key opportunities in this include the pursuit of Medicare Benefits Schedule (MBS) funding for GPs to deliver services via telehealth for people who would not otherwise be able to access GP services, and working with the Independent Hospital Pricing Authority to appropriately update pricing settings in recognition of WA's higher costs associated with delivering services in rural and remote areas.

WA must also pursue support through MBS for a broader range of health professions such as nurse practitioners and a range of allied health providers, for example, dietitians, physiotherapists and exercise physiologists as this would better support care for chronic health conditions and prevention in the community setting. Additionally Pharmaceutical Benefits Scheme (PBS) funding for subsidised prescription medications should also be pursued.

The WA Primary Health Alliance and WA health system have jointly developed 'Lessons of Location' to explore opportunities to improve the health of vulnerable people in specific areas of need in the State. Further work could be done to explore options in a number of regional areas identified through this project, where locally tailored 'place-based' solutions could more effectively address inequity where location has a direct link to poor health outcomes.

To achieve better outcomes in areas where there are historically poor health outcomes, the State Government must trial innovative ways to jointly commission health services with the Commonwealth, drawing on pooled funding and shared data.

It will also be important for WA to explore strategies with the Commonwealth to ensure private health insurance arrangements do not disadvantage Western Australians.

Recommendation 20

Address key short to medium term capacity pressure points and develop system planning to ensure a comprehensive long-term plan for the health system to best meet community needs.

Priorities in implementation:

- Commitment to progress planning, and then implementation of the co-location and integration of Women and Newborn Health Services including King Edward Memorial Hospital at the Queen Elizabeth II Medical Centre site.
- Development of a 10-year State Health Plan, based on the Enduring Strategies of the Sustainable Health Review, to establish contemporary systemwide planning across the health system which should:
 - Focus on population health needs, contemporary models of care and robust modelling in partnership with consumers, carers and the community, Health Service Providers, primary care and mental health sectors.
 - Include integrated clinical, infrastructure, public health, digital and workforce planning.

- Ensure sufficient capacity in the system
 with a focus on repurposing and adequate
 maintenance of existing facilities, using
 current unused capacity and collaborating
 with providers to deliver services with
 greater use of contemporary models of care
 and digital technology including:
 - Joint planning approach undertaken for health needs in the Peel-Murray region with citizens, local communities, primary care, aged care and other providers.
 - Consideration of any infrastructure requirements to address specific pressure points including in Peel-Murray, Armadale and Bunbury; and long-term options for the development of Royal Perth Hospital.
 - Proactive community and health planning approach undertaken for anticipated growth in the Yanchep area, working with local communities and multiple partners to design and integrate transport, education, early childhood and other services to actively promote community health and wellbeing.

In the Interim Report we noted that health care extends beyond hospital beds. The WA health system has invested more than \$7 billion in infrastructure and should now ensure it uses its existing infrastructure more wisely. It needs to be more strategic in its use of existing infrastructure and future capital expenditure. It should also look at capacity more broadly including innovative models of care using technology in partnership with primary care and community-based providers.

To address sustainability, a long-term view will be needed about how to meet the needs of the community with limited resources. There must be integrated and transparent service and capacity planning based on population health needs and contemporary models of care. The right planning needs to be done to ensure the right investments are made when capital is available. Alongside this, older facilities will need to be appropriately maintained to ensure that they remain fit for purpose. This will require investment.

The WA health system requires a 10-year State Health Plan to establish contemporary systemwide planning. The Panel believes the Enduring Strategies put forward in this Report should form the basis of this Plan, which should include integrated clinical, infrastructure, public health, digital, and workforce planning. The Department of Health, in partnership with HSPs, primary care providers and the mental health sector, must collaborate and share data to jointly plan for population health needs and contemporary models of care.

To ensure sufficient capacity there should be a focus on repurposing or updating existing facilities, using current unused capacity or collaborating with providers to deliver services with greater use of contemporary models of care and digital technology. A carefully planned and methodical approach, based on up-to-date data and scenario modelling will be needed. Repurposing existing facilities will require ongoing investment in maintenance and refurbishment.

We noted in the Interim Report that preliminary modelling by the Department of Health indicated that across WA there is predicted to be enough hospital bed capacity to serve the community for the next decade, excluding some specific pressure points requiring attention.

Commitments by the Government for the redevelopment of Joondalup and Geraldton Health Campuses, and expansion of rehabilitation and obstetrics at Osborne Park are anticipated to provide additional capacity in these areas, as will 60 planned additional public beds in Midland.

The Panel has given priority to the progression of planning and transition of women's health services currently located at King Edward Memorial Hospital to be co-located at the Queen Elizabeth II Medical Centre, ensuring integration with Sir Charles Gairdner Hospital and Perth Children's Hospital. This is a priority to ensure access to services and will improve the safety and quality of maternity services.

The co-location of King Edward Memorial Hospital with Sir Charles Gairdner Hospital presents an opportunity to introduce more contemporary, integrated models of care for women and neonates, and enhance safety and quality for these patients.

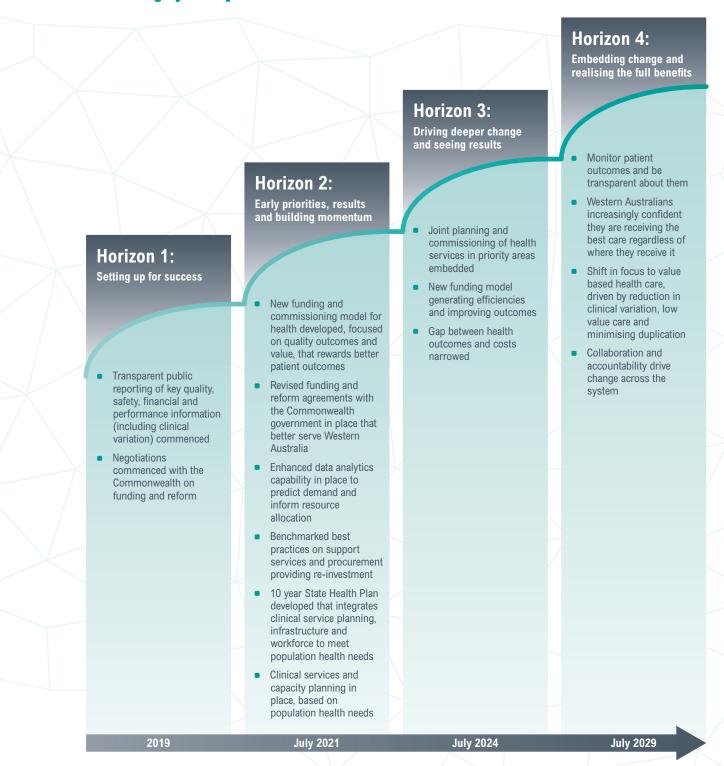
Pressure points in the Peel-Murray region, Armadale and Bunbury will need to be addressed through consideration of any infrastructure requirements. Changing health needs in the Peel-Murray region warrant deeper and collaborative planning with local communities, primary and aged care providers.

Modelling also suggests that detailed planning and analysis of future rehabilitation needs will be required, and making the best use of available capacity will be important to meet the needs of WA's growing over 65 age group in the coming years.

Planning should consider whether existing capacity and the mix of services can be optimised in some locations, such as Fremantle, Royal Perth and Kalamunda Hospitals. Possibilities for the long-term development of Royal Perth Hospital should also be considered at the same time. To ensure ongoing safety and quality, WA should continue to limit the number of sites that perform specialised low volume highly complex procedures.

There is opportunity now for the WA health system to undertake a proactive community and health planning approach for the future needs of growing metropolitan areas such as Yanchep. This should involve working with local communities and multiple partners to design and integrate future transport, education, early childhood and other services to actively promote community health and wellbeing.

The change journey



System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.



Strategy 6 – Invest in digital healthcare and use data wisely

Digital healthcare has the potential to improve experiences and convenience for patients, and to change the face of how healthcare is delivered over the long-term for a more effective and efficient WA health system.

Digital healthcare that will support sustainability is patient-centred, and supports health literacy and the whole of a person's health journey, both in the community and hospital. This is a significant evolution from previous views of Information and Communication Technology (ICT) focused on internal computing systems.

Capitalising on predictive analytics, big data, and moving towards the real-time use of data will be essential to unlock the potential benefits of the WA health system's rich information and transform healthcare.

The Art of the Possible

Leading edge digital technology is helping people lead independent lives at home and manage their health needs more effectively.

These innovations were featured in the Sustainable Health Review's Ministerial event, the Art of the Possible.

The expo showcased technologies shaping the future of health care, such as eICUs, telehealth, health robotics and virtual reality; as well as an app to help delay the symptoms of Huntington's, and an unobtrusive and easy-to-wear monitor to measure heart rhythm and detect potentially deadly cardiac problems.

Smart sensors controlled by home 'hubs' are just one of the supports available for people with disabilities and mobility issues to lead independent lives. Machine learning will help anticipate user needs, monitor falls and provide roaming alerts for carers.

Technological advancements, some of which were highlighted in our event 'the Art of the Possible', demonstrated the opportunities available to reap significant rewards for better facilitation and coordination of care. These advances also support improved clinical decision making, safety and quality, better patient outcomes and enhanced staff satisfaction.

The Panel is aware that the current WA health system investment in ICT is lower than the State Government baseline and global benchmarks. At the same time, the previous shortcomings of the health system's investment into ICT programs and projects have been well documented.

These issues will have to be addressed for WA to move into a new era of digital health. It will require careful consideration and sequencing of what, where and when investment should be made, to create the foundations of a connected digital system.

Recommendation 21

Invest in analytical capability and transparent, real-time reporting across the system to ensure timely and targeted information to drive safety and quality, to support decision making for high value healthcare and innovation, and to support patient choice.

Priorities in implementation:

- Investment in systemwide Business
 Intelligence systems, health informatics
 and predictive analytics using modern
 technology including block chain and
 artificial intelligence to streamline and
 leverage data collections, and to support
 systemwide data sharing and benchmarking.
- Investment in the development of analytical capability and supporting clinical and corporate users including consideration of partnerships with universities.
- Introduction of data sharing and privacy legislation for WA. Development of key policy frameworks in health for informed consent for use, sharing and release of data.
- Implementation of modern governance for more timely and comprehensive whole-ofgovernment and research access to data linkage services for more effective research, service planning and investment to meet community needs.

Across the public and private health sectors, data analytics is being used to digest multiple data sources and display data using visualisation tools for use in service innovations, operational business decisions and business reporting. Clinical variation and benchmarking tools assist health workers and policy makers to identify clinical variation and cost (including unwarranted cost) and evaluate performance.

Building systems and supporting all clinicians and policy makers to have better access to the right information in a useable, real-time format will significantly enhance the capacity to evaluate policies, programs and health interventions. It will also assist in targeted planning and effective policy and clinical decision making.

Enhanced transparency and more accessible information will support the WA health system's capacity to measure progress against outcomes, support continuous improvement and build an even stronger, more accountable system.

To support these outcomes, some of the areas that the WA health system can facilitate include:

- a framework to provide consent to use and share data, including the provision of general health information to the community
- business intelligence systems to streamline data collection and support data sharing both internally and publicly
- an appropriate solution to safely storing data, which should commence with storing clinical data for clinical use
- standard definitions to ensure consistency and equity of access to information.

We know there are concerns about the privacy of information and sharing of data that must be addressed. The Panel considers the introduction of data sharing and privacy legislation for WA, already in place in all other States and Territories, as a key step to be progressed urgently. The Department of Health needs to make further progress to develop key policy frameworks to safeguard information.

Best practice examples in analytics

Health systems are finding ways to be more transparent and provide accurate, accessible information – helping shape policies and projects that focus on better health outcomes.

Many jurisdictions have achieved this through a focus on:

- supporting transparent public reporting
- informing policy decisions
- leading stakeholder engagement
- seeking best practice advice
- building capability and governance.

Exemplars we considered include Victoria (Agency for Health Information), New South Wales (Bureau of Health Information) and Canada (Canadian Institute for Health Information).

In our Interim Report we recommended the development and implementation of innovative approaches to sharing of patient-level data across public and private providers.

A new partnership between the Department of Health and WA Primary Health Alliance (WAPHA) is unlocking the potential of data to help primary care planning and systemwide commissioning decisions. By linking hospital and primary care data, WAPHA and the Department are able to understand how resourcing decisions can improve both cost effectiveness and the effectiveness of primary health services, reduce preventable hospital admissions and improve the interface between primary health care and hospitals.

WA has been the envy of many States in terms of its data linkage capacity. However, there is a growing need for Government to modernise and lead development of a model that provides greater access to data linkage services for research, service planning and investment to better meet community needs.

The Panel believes this access will support the WA public sector in becoming a leader in data linkage, access and transparency. It will provide better support for service planning, social investment approaches and research.

Recommendation 22

Invest in a phased 10-year digitisation of the WA health system to empower citizens with greater health information, to enable access to innovative, safe and efficient services; and to improve, promote and protect the health of Western Australians.

Priorities in implementation:

- Standard of digital infrastructure and network capability achieved across the health system; prioritisation of improved access to rural and remote communities that could benefit the most from receiving telehealth and other virtual care services.
- Development and commitment to a longterm Digital Strategy for the health system including identification of the priority health outcomes to be supported through digital transformation, technology and investment requirements, and benefits capture of ICT investments.

- Preparation for a phased and prioritised rollout of an electronic medical record across the WA health system, with a goal of all health services having a functional electronic medical record or equivalent by July 2029.
- Increased take-up of My Health Record for people and communities with complex health needs to support a shared approach to care in partnership with the National Digital Health Agency and community groups to support complex patients.
- Introduction and evaluation of digital health technologies to improve patient outcomes, and patient and staff satisfaction, commencing with priority areas identified in this review such as:
 - A patient self-management solution helping patients take greater responsibility and enjoy healthier, happier lives through the use of new and emerging technologies to support behaviour change where required, and day-to-day management of chronic conditions.
 - A customer relationship management platform to support informed consent delivering procedure-specific information, appointment reminders and peer support links for patients prior to scheduled procedures.
 - A virtual clinic that provides improved access to specialist outpatient services and reduces unnecessary visits where in-person consultations are not required.
 - A shared care platform for integrated, chronic disease management between WA health and community-based clinicians.
 - Assisted independent living solutions to support more care in the community and Hospital In The Home.

We acknowledge that Western Australia needs to invest in a phased approach to digitisation of the WA health system to support improved patient access, experience and outcomes.

As part of this phased digitisation, the WA health system must achieve a standard of network infrastructure and capability, in line with national and international best practices including scalability, security and reliability.

Following the release of our Interim Report, the Department of Health, in collaboration with Health Service Providers, has commenced work to develop a Digital Strategy for the entire WA health system.

Increasingly the digital maturity of an organisation has become a primary factor in determining its ability to innovate well, to respond to change quickly, and to operate efficiently. The WA health system is no different in this regard.

Development and commitment to a long-term Digital Strategy for the WA health system is required to ensure a purposeful approach to change. The Strategy will identify the priority health outcomes to be supported through digital transformation, technology and investment. This must include a better understanding of the benefits achieved through ICT investments.

The case for an electronic medical record (EMR) was also established in our Interim Report. The Panel supports the phased and prioritised implementation of an EMR across the WA heath system with the goal of all health services having a functional EMR or equivalent by July 2029. The Panel notes the benefits that EMRs can bring to improve the health outcomes and experience for people with complex health needs, through the provision of a single platform that enables key clinical systems across health providers and services to be connected and share information to support patient care.

Similarly, expansion of the My Health Record Program is currently underway. By the end of 2018, every Australian will have a My Health Record, unless they opt out.

My Health Record will provide a mobile, secure, online summary of key health information, allowing individuals and clinicians to access information about themselves or their patients such as shared health summaries, discharge summaries, prescription and dispense records, pathology reports and diagnostic imaging reports across many different health providers. Appropriate consumer privacy controls and safeguards will be critical to ensuring My Health Record's long-term success.

The Panel has recommended initiatives targeted at communities and individuals with the most complex health conditions, to better support the goals of person-centred and integrated care. This would need to be done in partnership with the WA Primary Health Alliance who is leading engagement efforts across the primary care and hospital spaces.

We have also recommended the introduction of a range of digital technologies that can begin to demonstrate benefits to people and staff working within the WA health system – some of these, such as virtual clinics, have been outlined earlier in this report.

The change journey Horizon 4: Embedding change and realising the full benefits **Horizon 3:** Driving deeper change and seeing results Staff have the appropriate tools to **Horizon 2:** enable them to do their jobs in an increasingly Early priorities, results technological and building momentum environment Enhanced data sharing, People use their access to data linkage **Horizon 1:** Electronic Medical and analytics capability Records, allowing for is in place to enable Setting up for success seamless access to research. health information whole-of-government Increased investment in across care settings planning and social digital infrastructure and investments Introduction of a range telehealth in line with the of digital technologies Required standard of Digital Strategy to improve patient digital infrastructure and outcomes, and patient Digital health care to network capability improve patient outcomes and staff satisfaction Systemwide Digital achieved across the across settings piloted Strategy endorsed by health system Government to provide a Digital health pilots Small rural and remote roadmap for the future; including telehealth communities benefitting planning underway for demonstrating better from telehealth and key priorities patient outcomes other virtual care services Privacy and data sharing Privacy and data legislation drafted legislation enacted Uptake and usage of Targeted investment in Electronic Medical Phased introduction of Records reached critical data, analytics and Electronic Medical Record reporting capability mass commences underway Privacy remains a focus, strengthened through Policy frameworks for consent for use of data legislative mechanisms developed Patient access to health Electronic Medical information and literacy Record planning improved through digital health technologies commences **July 2021** 2019 July 2024 July 2029

System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.



Strategy 7 – Culture and workforce to support new models of care

A major theme of discussion throughout the course of the SHR has been the importance of culture and respect in driving key elements of sustainability, including staff experience, improved patient safety and outcomes, and organisational performance. We have seen the pride and professionalism across the WA health system, and within the broader health and social sector in WA.

Health care is built on trust, and global research also shows that trust plays a key role in motivating the health workforce. ¹⁶⁹ A passionate and engaged workforce is critical to supporting the sustainability journey. WA must continue to build a culture that invests in and values people, unleashes staff talent and empowers people to innovate.

The right leadership, skills and capability must be built to develop a strong systemwide approach to sustainability. The WA health system must continue to focus on integrity, building a culture with values that support patient safety and outcomes, and a high performing system. For example New South Wales' health system has adopted 'CORE values' of Collaboration, Openness, Respect and Empowerment to inspire positive interactions in the workplace. The Health entities report publicly on their achievement of these core values thereby stimulating ongoing commitment to the core values.

It will be essential for the WA health system to build its capability and behaviour to look outwards and work in partnership across and beyond the health sector. We know that the needs and expectations of people using health services are constantly changing. With it, the types of services being delivered will change. Developing a digitally ready workforce will be essential to support this change.

Getting the workforce models and mix right will support the WA health system to provide the right services, at the right time, by the right people. WA should forge ahead in supporting different professional groups working to full scope and advanced scope where strong evidence exists, particularly in relation to dealing with key

population health issues and complex conditions.

Workforce reform in WA will need a continual focus on the needs of the population and contemporary models of care that will best serve them, rather than a profession-based approach. This can only be done in partnership with universities, vocational training institutes and professional colleges to shape the health and social care workforce of the future.

Recommendation 23

Build a systemwide culture of courage, innovation and accountability that builds on the existing pride, compassion, and professionalism of staff to support collaboration for change.

Priorities in implementation:

- Measurement of culture included in leadership performance agreements, system measures and governance documents by July 2021.
- Implementation of a mechanism for staff to voice ideas supporting systemwide sustainability.
- Facilitation of ongoing conversations between all staff and recognition of the representative role of unions and professional associations in staff engagement and as part of the future landscape of health to drive sustainability.
- Systemwide framework and program developed and implemented for corporate and clinical leadership to support systems change, including supporting current leaders and identification and development of emerging leaders.
- Consistent systemwide implementation of mental health first aid models to support workforce mental health.
- Ongoing commitment to a 'zero tolerance' approach to workplace bullying, violence and harassment consistent with best practice.

Building upon the Recommendation in our Interim Report regarding a regular systemwide staff survey, leaders should be accountable for supporting and building a strong culture with an engaged workforce. This should be supported by the inclusion and reporting of culture metrics as part of performance agreements and governance documents.

Introduction of systemwide mechanisms through which staff can use to voice their ideas about systemwide improvements and sustainability should be considered. When these ideas are shared they should be met with appropriate consideration and acknowledgement.

The Department of Health and Health Service Providers should promote ongoing conversation among all levels of staff, and recognise the representative role of unions, professional associations and colleges as part of a future sustainability agenda.

The importance of courage, compassion, innovation and accountability has been highlighted to us on numerous occasions. A systemwide framework to support corporate and clinical leadership will build resilience, responsiveness and build capacity for change. This should include a focus on supporting current leaders and identifying and developing emerging leaders across the WA health system, including a focus on mental health.

Lessons from best practice in leadership

Health systems are finding ways to develop robust, evidence-based systemwide leadership development frameworks.

Many jurisdictions have achieved this through the establishment of leadership capability frameworks designed to intentionally develop the clinical and corporate workforce. The frameworks also promote new forms of organisational leadership committed to improving patient outcomes, leading staff to gain pride and joy from their work and achieve high organisational performance.

Exemplars we considered include Better Care Victoria, QPS Capability and Leadership Framework 2009 and Queensland public sector leadership talent management strategy 2016 (Queensland), the NHS Developing People; Improving Care 2016 (UK), and the Health Leadership Framework (New South Wales).

WA's Service Priority Review also recommended leadership capability for senior executives.

Mental health support and training for staff is vital when considering the demands on staff and the prevalence of mental health issues in the community. A consistent systemwide implementation of mental health first aid can be a first step in a greater collective understanding of ways to best support the mental health of the workforce.

Mental Health First Aid

This year, Rockingham Peel Group became the first and only health service in Australia to have more than 260 staff qualified in mental health first aid (MHFA).¹⁷¹

With approximately one in five Australians experiencing mental health issues, MHFA has empowered all staff to recognise when a patient or colleague's mental wellbeing needs follow-up. Staff can then provide support and connect people to assistance. It has also improved outcomes by reducing stigma and increasing empathy.

Rockingham Peel Group staff from all disciplines have completed the training, from allied health and nursing to security, volunteers and patient support services. This recognises that mental health issues are not just confined to people who are already accessing mental health services.

The Medical Journal of Australia recently noted that efforts to create a sustainable health system will have limited impact on optimising safety and quality of care without addressing behaviour, teamwork and culture in parallel.¹⁷²

Cultural change requires long-term commitment. Tackling unprofessional behaviour requires sustained, systemwide organisational culture development and engagement with all staff. This kind of approach:

- starts with education and training institutions
- must involve colleges and professional bodies
- should include professional accountability programs implemented across the system including identifying and managing bad behaviour.

Supporting staff to feel safe and well at work must be a priority. This includes both mental and physical health.

There are more than 30 Code Blacks (instances of personal or verbal threats against staff) reported at major WA metropolitan hospitals per day. ¹⁷³ Both the New South Wales and Victorian governments have introduced 'zero tolerance' strategies to reduce violence and aggression in hospitals which can inform directions in WA.

Recommendation 24

Drive capability and behaviour to act as a cohesive, outward-looking system that works in partnership across sectors, with a strong focus on system integrity, transparency and public accountability.

Priorities in implementation:

- Continued implementation of mechanisms for Health Service Providers' Executive, Boards and the Department of Health Executives to collectively discuss key systemwide issues, monitor enterprise risk and drive health systemwide reforms.
- Independent capability/skills review completed to ensure that the Department of Health and Health Service Providers are ready and able to deliver on Government priorities, and identify opportunities for improvement.
- Investment in the development of skills and capability in systems thinking and change, cross-sector collaboration and facilitation, research and policy, as part of the systemwide framework for corporate and clinical leadership development.
- Active participation and leadership in cross-government groups including the Supporting Communities Forum and Director General Implementation Group to progress key areas for sustainability including obesity, early childhood, family safety and homelessness.
- Continued maturation of governance arrangements across the WA health system including accountabilities of the System Manager and Health Service Providers in planning, strategy, safety and quality, workforce, digital and commissioning.
- Establishment of boards of governance for Health Support Services and PathWest by July 2020.

The introduction of the *Health Services Act 2016* provides the foundations for stronger governance across the system. While this has strengthened local accountability and decision making, there is a greater need than ever for a strong systemwide approach to key issues affecting sustainability.

The Panel has observed that there needs to be structured opportunities for WA health system leaders to come together collectively, and with partners, to discuss systemwide risk, strategic priorities, and drive change. Similarly, there needs to be an investment in the skills and capability in the Department and across the Health Service Providers in systems thinking, cross-sector collaboration and change.

Leadership development should not only focus on executive levels – consistent and meaningful support and training for emerging leaders and middle tiers of managers is important to grow the skills, capacities and culture needed to progress sustainability objectives.

Future leaders must be outward looking and be connected across the primary care, community, hospital sectors and beyond. The WA health system should identify key cross-government issues such as obesity, early childhood, family safety and homelessness as initial opportunities for working more collaboratively.

The WA health system must maximise the opportunity for professional leadership roles to inform, influence and champion system change with a focus on supporting and leading progress towards high value health care.

The Government's Service Priority Review (SPR) also noted the importance of the capability of the workforce to adapt, evolve and respond to challenges. The SPR recommended agency capability reviews and it is the Panel's view that completing this in the WA health system earlier rather than later will assist the sustainability journey.

The system also needs to take the next steps to mature its own governance and integrity arrangements across entities, including establishment of boards of governance for Health Support Services and Pathwest.

Recommendation 25

Implement contemporary workforce roles and scope of practice where there is a proven record of supporting better health outcomes and sustainability.

Priorities in implementation:

- Evaluation of workforce roles and scope based on community health needs and interdisciplinary models of care, rather than only profession-based approaches.
- Progressive introduction, evaluation, or expansion of workforce models that support working to full scope of practice including Nurse Practitioners (including primary care and residential aged care), Enrolled Nurses (including sub-acute and community care sectors – aged care, rehabilitation and geriatric evaluation and management), and GP Proceduralists/Rural Generalists (country).
- Progressive introduction, evaluation, or expansion of workforce models that support advanced skills including Advanced Scope Physiotherapists (including outpatients and emergency departments/fast track); Advanced Scope Community Pharmacists (including community interdisciplinary team models and immunisations); Advanced Scope Registered Nurse Endoscopists; Aboriginal Health Workers/Practitioners (including advanced scope immunisations); and Peer Support Workforce (including community recovery; acute interventions; employment pathways).
- Progressive expansion of Midwifery Group Practice models to provide a single point of care through a woman's pregnancy.

In our Interim Report we noted that many health professionals in WA did not consider they were being used to their full potential. We have heard consistently in our consultations that workforce models based on the health needs of the community should be prioritised rather than profession-based approaches.

The WA health system can support health outcomes and sustainability objectives by introducing, evaluating or expanding contemporary workforce roles, scope of practice and advanced skills where there is a proven record, including successful use in other jurisdictions. The focus should be on complex care and areas experiencing difficulty in providing access to care.

The WA health system currently utilises Nurse Practitioners however there is an opportunity for expanded use, particularly in areas of community health need. Nurse Practitioners can work across the full spectrum of health service delivery, including acute and community care, and bridge gaps between tertiary and community healthcare in cost-effective ways. 174 Nurse Practitioners can contribute to improved access to care, support primary care providers, reduce emergency department presentations and hospital admissions, and decrease length of stay. 175

There is also opportunity to increase the utilisation of the Enrolled Nurse (EN) workforce in WA. ENs can support the provision of contemporary, patient-centred, holistic care including in specialist areas such as sub-acute and community in multidisciplinary teams where there are challenges to people access services.

GP Proceduralists/Rural Generalists currently work in WA. They provide access to much needed services such as obstetrics, anaesthesia and surgery for rural and regional populations. There is an opportunity to expand this workforce to better meet the changing rural and regional community health needs; this will need ongoing commitment in education and training from metropolitan HSPs.

Benefits of an evidence-based approach to advanced scope professions include ensuring better access to services, improved service delivery, increasing workforce productivity, enhancing patient experience, and addressing compliance with national priorities.¹⁷⁶

Advanced Scope Physiotherapists are currently in limited use across the WA health system but can provide valuable patient care in the right environment. The primary focus has been on seeing patients with less urgent musculoskeletal-type presentations, providing expert assessment, treatment and advice, and referring patients to appropriate outpatient or community services. This has reduced ED wait times for patients and enabled people to be referred to appropriate services more efficiently. Evaluation has shown a positive impact on patient flow, and patient experience. There is opportunity for WA to expand on these models of care.

There are also opportunities for Advanced Scope Community Pharmacists to work collaboratively with primary care to provide coordinated and integrated approaches to the use of medicines to the population. Studies have shown the benefits of such a model of care across Australia, and it would be beneficial to investigate models within WA.¹⁷⁷

Advanced Scope Nurse Endoscopist programs and services have been rolled out in Victoria, Queensland and South Australia based on a multidisciplinary approach to training and service delivery. The Advanced Scope Nurse Endoscopist improves access and productivity of specialist gastroenterology and colorectal surgical services by freeing up medical staff to focus on more complex clinical tasks. Nurse endoscopists are currently not in place in WA, and there is an opportunity to introduce and evaluate such a program.¹⁷⁸

The role of Aboriginal health professionals including Aboriginal Health Practitioners and Aboriginal Health Workers can be expanded in the WA health system including as members of multidisciplinary health care teams. In Recommendation 8 we proposed a statewide program ensure that all Aboriginal families have access to culturally secure antenatal, birth and postnatal care including child health checks and immunisations. This will build on existing programs and promote the use of Aboriginal Health Workers. We are also aware that a pilot program to introduce and develop Aboriginal Health Practitioners in the Kimberley is focusing on service gaps identified through primary health care settings.

Peer Support Workers can make significant contributions to the health workforce, including improved lives for people, reduction in service use and support within community settings. Peer Support Workers are limited in use across the WA health system and there is an opportunity to expand in areas of community treatment, recovery and employment pathways as part of contemporary community-based models of care of vulnerable populations. For example Aboriginal peer workers can also be embedded within a multi-disciplinary alcohol and other drugs team to reduce stigma, provide culturally appropriate support within mainstream services and increase options for continuing care and recovery coordination after treatment services. 179

We also support steps to improve the impact of midwives to support pregnant women. The progressive expansion of Midwifery Group Practice models in WA for low risk births can assist in providing a single point of care through a woman's pregnancy.

For patients, these contemporary workforce models mean quality and timely care in the appropriate setting – and for the WA health system, a more sustainable approach to the changing needs of the community.

This does not diminish the continued focus on the areas of immediate need. For example, the GP shortage in WA is expected to worsen with pending retirements, changing workforce gender balance and an increasing part-time workforce. This is more of a concern in the country, which relies heavily on international medical graduates to deliver GP services. 180 To address these concerns, we are aware that the WA health system is pursuing integrated medical education and training partnerships with WA Country Health Service, Western Australian General Practice Education and Training, Rural Health West, Rural Clinical School of WA and WA Primary Health Alliance. The WA health system is also seeking to explore GP workforce models to allow GPs to work their full scope of practice.

Recommendation 26

Build capability in workforce planning and formally partner with universities, vocational training institutes and professional colleges to shape the skills and curriculum to develop the health and social care workforce of the future.

Priorities in implementation:

- Investment in a systemwide integrated workforce information system to support workforce planning and support through linked information including payroll, Human Resources, learning management, rostering, training, credentialing and performance development.
- Investment in improved workforce analytics and modelling capability.
- A 10-year health and social care workforce strategy developed by July 2021 with key stakeholders including joint planning of training needs and placements; ensure an interdisciplinary approach to care with training exposure in both acute and community settings, and equitable and adequate placements across professional groups with a focus on regional areas.
- Encourage and advance health and social care educational curriculum to include a sound understanding of how health, mental health and social care systems are organised and operate, including training in the skills needed for a digitally literate workforce.

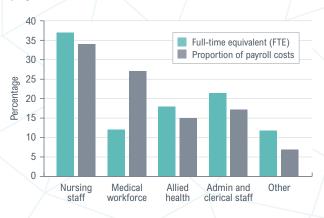
The health and social care sectors in WA are growing. Recent research published by the Bankwest Curtin Economics Centre¹⁸¹ noted that:

- the health and social assistance industry in WA accounts for nearly 171,000 of all jobs in Western Australia as at August 2018 – more than any other sector of the State's economy;
- health and social assistance sector employment in WA grew by around 16,000 in the year to August 2018 – a rise of nearly 10.4 per cent; and
- the share of employment in health and social assistance sector has risen by 2.9 percentage points over the five years to August 2018, to 13.1 per cent as a share of all jobs.

It is clear there is both a need and will for the WA health system to partner with universities and vocational training providers to better shape the workforce of the future.

To do this, changing community needs and growing demand should lead planning processes. The training of current and future health professionals and support staff should follow, and be strongly aligned to these changes.

Figure 14: Current levels of health system staff shown by number of full-time equivalent (FTE) across categories and proportion of payroll costs



It will take investment and time to build integrated planning capacity, capability and coordination to ensure WA has the right workforce, supported by the right information systems, analytics and modelling. The rapid impact of digitisation on care delivery will demand a workforce that is digitally ready. It will require investment in retraining of the current workforce, attraction of new skills and ongoing professional development in areas such as technology, data science and analytics. This comes at a time of a global shortage of healthcare workers, looming worker retirements and a need for more graduates across science, technology, engineering and mining.

An example of responsive planning has been developed by Alberta Health Service in Canada. This organisation has developed a workforce planning model to identify future demands based on a range of inputs, which can be used to predict the downstream effects based on various policy decisions. At the centre of this modelling approach is an understanding that workforce planning requires consideration of future care needs rather than simply extrapolating current trends. 182

In order to achieve a more responsive planning model focused on community needs, it will be necessary to improve workforce data through a single integrated system. As noted in our Interim Report, this will have flow on benefits across areas including recruitment.

The Panel is recommending the development of a 10-year workforce strategy as a way of building the capacity and capability critical to deliver health and social care services to meet community needs now and into the future. The approach should include ensuring an interdisciplinary approach to care, with a balance of training exposure in acute and community settings, and placements across professional groups with a focus on regional areas.

Queensland Health has developed its workforce Strategy, *Queensland Health: advancing health service delivery through workforce*, which recognises future challenges and opportunities that lay ahead for the health workforce. This strategy is driven by a changing healthcare sector through growing demand for services, changing consumer expectations and the need to work within resource constraints.¹⁸³

Longer-term, there may also need to be consideration of a consolidated model in WA, for instance guided by the experience of the Health Education and Training Institute (HETI) approach used in New South Wales. 184

The HETI addresses community health needs by aligning and consolidating all State and Commonwealth health, aged care and social care education and training providers. This creates a focus on all parts of the health, aged care and social care system, ensuring the right workforce is available and capable of supporting public, private and not-for-profit care providers.

As the roles of health professionals adapt to changes in community need and growing demand, how current and future health professionals are trained will need to align with these changes.

The number of staff, their location, diversity and cultural competency, digital capability and training in areas such as mental health, alcohol and other drugs, are a range of areas that need to be continuously built upon and improved.

In our engagement with universities and training providers throughout the SHR, there was a strong appetite from all sides to work in greater partnership to support this goal.

Recommendation 27

Remove barriers to equity, flexibility and transparency in workforce arrangements.

Priorities in implementation:

- Continued review of attraction and retention agreements systemwide to ensure they are contemporary and relevant for achieving patient outcomes and supporting sustainability. Publish key findings.
- Standard approach to recognising completed mandatory competencies across the WA health system to reduce the need for repeated assessments and to support staff mobility across the WA health system.
- More flexibility provided to Health Service Providers to manage workforce within budget rather than an FTE cap.
- Consistent support for employment and organisational arrangements that enable a culture and workforce to support new models of care.

Consistent support is needed for employment and organisational arrangements that support and enable a culture and workforce to develop, support and welcome new models of care where services and outcomes for patients and the broader community provide benefit.

In our Interim Report, we noted existing conditions such as special allowances were an issue in the WA health system. Attraction and retention agreements should continue to be reviewed as part of an emphasis on equity and transparency in workforce arrangements.

We have recommended a systemwide approach already used for health professional credentialing needs to broaden to better track and manage competencies. This will provide better support for staff, improving their experience and also increasing efficiency and reducing waste.

The change journey Horizon 4: Embedding change and realising the full benefits **Horizon 3:** Driving deeper change and seeing results Culture of support and encouragement **Horizon 2:** amongst staff with a focus on continuous Early priorities, results development and and building momentum capacity building Systemwide workforce Health and social care planning is embedded to **Horizon 1:** workforce is flexible, meet the future capable and adaptive to workforce and training Setting up for success deliver new models of needs Investment in improved Leadership programs to workforce data and drive systems change analytics based on designed, tested and community needs introduced underway Education and training Barriers to equity, partnerships for joint Systemwide staff survey flexibility and development of a fit for process and benchmark transparency in purpose digitally ready findings completed workforce arrangements workforce in progress Systemwide leadership reduced Contemporary attraction development framework Contemporary workforce and retention agreements under development roles and scope of reviewed and in place Systemwide culture and practice embedded where required values agreed upon Roles, responsibilities and including zero tolerance accountabilities of for bullying System Manager and Mechanisms to foster **HSPs** confirmed collaboration within and Regular public reporting beyond the health of staff survey system in place Mental Health First Aid Introduction and rolled out across WA evaluation of health system contemporary workforce roles and scope of 10 year health and social practice commenced care workforce strategy developed 2019 **July 2021** July 2024 July 2029

System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.

Strategy 8 – Innovate for sustainability

Innovation and research are vital to achieving a more sustainable WA health system. A substantial evidence base exists for the economic benefits of innovation and continuous learning in healthcare organisations. 185

Exploring new ideas and research must be supported by an open approach to experimentation and a culture that supports innovation. This is at all levels, from a whole-ofsystem policy and program design, to the most basic aspects of on-the-ground service delivery.

In our Interim Report we observed that the uptake of innovation, research and new technology often occurs well at a local level. However, the health system does not have a visible, shared approach to spreading new ideas, innovation and changes in practice across the system.

The Government has committed to a \$1 billion Future Health Research and Innovation Fund which has the potential to provide a long-term, secure source of funding for WA researchers. This fund represents a significant step to underpin the development of a culture of innovation and research.

Embedding research and innovation into core business will help nurture a vibrant research and translation culture in WA. The WA health system must identify priorities, support experimentation and spreading ideas, and be ready to partner with clinicians, consumers, industry and academia. This collaborative effort will be essential to translating research and supporting innovations that bring quality and value for patients. 187

Recommendation 28

Establish a systemwide network of innovation units in partnership with clinicians, consumers and a wide range of partners to quickly develop, test and spread initiatives delivering better patient care and value.

Priorities in implementation:

- The Future Health Research and Innovation Fund aligned to provide a secure source of funding and foster a culture of innovation.
- Establishment of local innovation units that support a local culture of improvement, experimentation and entrepreneurism where staff are empowered and encouraged to co-create new and innovative solutions with consumers.
- Establish a WA health system central unit to provide advice and guidance on innovation such as intellectual property, legal, marketing, protocols commercialisation; and facilitates sharing and connecting of innovative work across the health system.
- Exploration of the merits of introducing a clinical innovation and improvement support approach along the lines of the NSW Agency of Clinical Innovation ensuring use of contemporary data analytics, benchmarking and transparent public reporting (Recommendation 21); the approach to high value health care (Recommendation 16); supported by local innovation units collaborating across clinical specialties, regional and service boundaries.
- Enhanced reputation as a world leader in the emerging field of precision medicine and public health that includes new data/digital, informatics, genomics, phenomics and geo-spatial technologies, and their application to health.
- Focus on developing WA's presence as a thought leader in Asia, linked to commercial potential for WA in the region.

In the Interim Report we recognised the State Government's commitment to the development of the WA Health Innovation Hub located at Royal Perth Hospital to support industry partnerships, innovation and research translation.

We have recommended the expansion of an innovation network to spread within the WA health system, through the establishment of a number of local innovation units that may specialise in priority areas where all staff possess particularly high levels of interest and expertise. Local innovation units should encourage staff from all areas of the workforce, not just clinicians, to share ideas for improvement.

Innovation for sustainability is not something that can be done in isolation: it requires collaboration between consumers and staff, Health Service Providers and a wide range of partners.

In addition, establishing a central hub within the WA health system to provide leadership and oversight is an important step towards supporting innovation. The goal of this approach will be to support local innovation with advice and guidance in areas such as commercialisation, legal advice, data sharing and marketing.

Building a culture of innovation supports staff and consumer engagement and satisfaction, which supports safety and quality, experience and outcomes.¹⁸⁸ The Institute for Healthcare Innovation has highlighted the importance of shifting to a systemwide 'mental model' or approach to innovation (Table 3).

Table 3: Old versus new mental models of innovation¹⁸⁹

Old mental model	New mental model
Inventers invent	Innovation is a disciplined process grounded in an understanding of need, and based on close observation
Innovation is everyone's job	Innovation requires dedicated resources
Leadership commissions innovation and then awaits its products	Leadership conscientiously links innovation and operations together to ensure implementation and adoption of proven new ideas
There is a specific way to innovate and create value	Organisations use multiple innovation methods, matched to customer needs
Innovations are found and developed within an organisation	The organisation is open to new ideas from anywhere

The Panel considered examples from other jurisdictions that seemed to better support an innovation culture and the spread of new ideas into models care.

We focused on models that were committed to encouraging continuous improvement, particularly in better staff and consumer engagement – both pillars to a more sustainable health system.

The New South Wales Agency for Clinical Innovation is a model that should be considered in WA. It fosters strong collaboration between clinicians, consumers and managers to design and promote better health care and was highlighted in Chapter 1.63 Better Care Victoria is another example of this model, which supports Victoria's health sector to identify innovations, and promote their widespread adoption as new ways of working.64

in the emerging field of precision medicine and public health, which focus on the use of new precision technologies to improve public health policy and practice. The Panel believes that WA is well placed to continue to become a world leader in this area of research.

Genomic technology unlocking answers for undiagnosed diseases

Western Australia's Undiagnosed Diseases
Program supports children and youth living
with rare and undiagnosed diseases. For many
children with rare or undiagnosed diseases, the
journey to diagnosis can be exceptionally long.
This has a personal cost on children and their
families – but we also know that the estimated
cost of treating the two per cent of people
with rare disease in WA equates to about
10 per cent of all admissions and
hospitalisation expenditure of \$395 million.¹⁹⁰

The Program is an exciting step in translating genomics technology and new knowledge into the WA health system, putting Western Australians closer to an era of precision public health. It uses techniques such as comparing deep phenotype 3D facial analysis, exome sequencing, matchmaking and molecular confirmation to assist with diagnosis.

Approximately 25 per cent of the children seen through the Program have been Aboriginal. Through the Program's efforts, a global taskforce for rare and undiagnosed diseases is being developed for Indigenous and underrepresented populations.

Recommendation 29

Ensure that future research activities and investments are linked to the priorities of the WA health system and are actively translated into practice.

Priorities in implementation:

 The Future Health Research and Innovation Fund aligned to provide a secure source of funding and foster a vibrant research and translation culture in WA.

- Establish an enduring and ongoing sustainability research and development function in order to gather evidence-based research to guide health service economic, environmental and social sustainability.
- Hardwire research and translation metrics into leadership performance agreements and system governance documents.
- Development of a systemwide research strategy, with public reporting on health research and research translation activities.

One of the most obvious ways in which the value of research is realised, is when the knowledge gained begins to improve healthcare and outcomes.

As noted in the Interim Report, the Panel was concerned that the WA health system has often been too slow in translating research into practice by applying new knowledge and technologies.

Beyond the Sustainable Health Review, the Panel believes more needs to be done to support sustainability as an area of health research and innovation. The WA health system should gather evidence-based research to guide health service economic and social sustainability goals.

We also heard throughout the SHR of the need to ensure a greater focus on public health research, continued focus on mental health research, and application of evidence-based models of care and research into service delivery in this area.

The WA health system has the opportunity to make research and translation part of everyone's business by embedding system priorities into performance agreements through the current governance arrangements.

To do this, developing a systemwide research strategy, with public reporting on health research, and research translation activities would set systemwide priorities. This would enable Health Service Providers to realise the benefits of research. Developing implementation pathways will support a more proactive way to use evidence.

The change journey Horizon 4: Embedding change and realising the full benefits Horizon 3: Driving deeper change and seeing results Improved partnerships between sectors to **Horizon 2:** promote research and innovate Early priorities, results World class research and building momentum and translation culture Local innovation units exists across the health throughout the system **Horizon 1:** system supporting change WA recognised as a A coordinated approach Setting up for success national and Asia Pacific to health innovation and leader research is embedded in Innovation units the system underway WA is known as a leader Future Health Research in the field of precision and Innovation Fund is medicine and public fully operational health including new Local and Central Systemwide clinical digital/data, genomics Innovation units scoped innovation and and geospatial and progressing improvement models for technologies Western Australia Future Health Research Research, translation explored and Innovation Fund is and innovation is established to advise Ongoing sustainability focused on key health and accelerate research and issues, and benefits the innovation across the development harnessed health outcomes of the sector to guide health service community economic and social sustainability 2019 **July 2021 July 2024**

System measures for sustainability tracking progress of change

The change journey and timelines we describe are challenging, and we have recommended a staged approach to implementing recommendations. We have selected four time horizons to depict the possible progression for each Strategy, and these are intended to support robust implementation planning. The horizons show how the system must set up for success with foundational elements; focus on early priorities and building momentum; and drive deeper change to embed benefits over the long-term. System level measures should be used to develop appropriate indicators and metrics to track the progress of change.

Implementation

The Panel has been firm in its desire to establish a clear approach to execution of each of the recommendations made in its Final Report.

The Service Priority Review Panel made the observation that 'implementation capacity is lacking in the WA public sector with respect to policy implementation and implementation of previous reform'. 49

Feedback received from individuals, community members, and staff on the Interim Report has consistently expressed a desire to see talk turn into action, and a clear approach to implementation.

Implementation is the next important step on the health sustainability journey. It is a complex and challenging task that requires not only clear role delineation, transparency and accountability, but also courage and an unwavering commitment to staying the course.

Western Australians rightly expect that the endorsed recommendations of the SHR will be implemented and associated benefits realised. It is therefore critical that the SHR recommendations are implemented in a disciplined and meticulous manner to ensure the long-term sustainability of the WA health system.

Embedding a sustainability agenda going forward will require commitment to Enduring Strategies and a principled approach for long-term success.

The implementation planning to support the rollout of the Sustainable Health Review needs to acknowledge that the WA health system must continue to manage demand and provide high quality care, while progressively transforming the way it operates.

Recommendations must be appropriately prioritised and supported as part of a well-executed implementation strategy which provides regular and ongoing feedback to Government and the community on changes being made.

We have looked at the journey of the WA health system over the past 20 years and reflected on examples of best practice. Lessons from past reforms have emphasised the importance of balancing the scope and breadth of the reform agenda with a pragmatic approach to implementation. These lessons are detailed in **Appendix 4**.

Through our consultation and from looking at other successful system reforms, we have identified a set of Critical Success Factors for implementation which echo major themes across our Enduring Strategies and Recommendations. These are key foundations to support lasting, sustainable change but are by no means exhaustive.

Table 4: Critical success factors

Critical success factor for implementation	Examples of key considerations
Culture and leadership	Foster and embed a culture that is open to change and supports innovation.
	 Ensure sustained commitment and persistence from all levels, with ongoing political support.
	 Build a system approach – this must include the Department of Health and Health Service Providers working together with common vision and mission.
	Commit to engagement across all levels of the system.

Critical success factor for implementation	Examples of key considerations
Engagement and Partnership	 Prioritise stronger engagement and true partnerships with consumers. 191 Drive person-centred outcomes collaboratively with primary care, non-government organisations and more through new levels of trust and respect, and greater capacity and skills to partner. Collaborate on whole-of-government goals and targets to share opportunities, risks and benefits with other public sector agencies and Commonwealth.
Funding and investment	 Identify investment and reinvestment priorities. Focus investment on maximising value and outcomes that support consumer and WA health system priorities. Disinvest in services that do not provide value to the community or improve health outcomes. Explore new ways of funding to provide flexibility, focused on outcomes and supporting long-term sustainability.
Governance	 Leverage system governance to hardwire change, respecting the existing roles and responsibilities that exist in the system under the Health Services Act 2016. Make best use of key features of the governance architecture, such as funding and performance mechanisms to create tangible reform. Align the implementation agenda to broader legislation, governance frameworks, and Government priorities such as the: Public Health Act 2016 Financial Management Act 2006 Treasurer's Instructions Public Sector Reform Program Establishment of board governance for Pathwest and Health Support Services. Establish the appropriate governance framework to enable implementation projects and prioritisation. Support central coordination, led by a dedicated unit with implementation driven and supported locally throughout the State. Establish clear accountability for the delivery of each of the recommendations. The central unit must work in close collaboration with and support Health Service Providers, the broader health system, people and carers, staff, non-government organisations and other government agencies involved in implementation. Ensure program and project management with appropriate planning (business cases), rigour (program and project management) and evaluation (benefits realisation, gateway reviews and lessons learned processes). Assure the progress and impact of implementation using deliberate and systematic reporting provided at regular intervals. 192

Critical success factor for implementation	Examples of key considerations
Metrics and transparency to drive change	 Introduce key metrics to existing reporting frameworks to promote collaboration and positive behavioural change. Provide regular and transparent reports on the status of major projects and progress of implementation. Regularly measure and evaluate implementation outcomes. Ensure measurement is responsive and adaptable to counter the effect of unintended consequences or perverse incentives that may arise over time. Prioritise shared responsibility, accountability and actions led through community development.
Invest in analytic / diagnostic capability	 Build current analytic and diagnostic capability and capacity. Systemwide prioritisation of analytic and business intelligence capability will be required alongside investment in whole-of-system business intelligence systems. Improve data sharing and access to data. Make better use of data and
	 information already available. Leverage data to identify priority action areas, support evidence-based decision making and develop of detailed policy interventions. Use open and transparent reporting to drive efficiency, stimulate quality improvement, improve patient clinical outcomes and enhance
	 Use feedback and insight to understand the effectiveness of change processes and measure the impacts and outcomes of change. Explore possibilities of contemporary analytics in areas such as predictive analytics, informatics using spatial data, genomic, phenomic and other 'omics' data, and cohort analysis of 'big data'.

Figure 15: Critical Success Factors for implementation



We are aware that proactive development of an implementation framework is already underway. Effective, evidence-based change balanced with flexibility to adapt to circumstances will only lead to sustainability and better services for the WA community if Critical Success Factors are a part of every step of implementation.

Recommendation 30

Ensure a robust, disciplined and integrated approach to the implementation of endorsed Sustainable Health Review Recommendations.

Priorities in implementation:

- Establishment of governance arrangements including an Oversight Committee independently chaired, appointed by and reporting to the Minister, with membership ensuring an outward focus, to monitor progress across the sustainability agenda and alignment with accountability frameworks under the *Health Services Act* 2016 and public sector reform program.
- Establishment of a systemwide, multi-skilled, Sustainable Health Implementation Support Unit with core functions including support and facilitation; capacity building, problem solving, benefits realisation management; engagement; communications, and program assurance, and driving innovative approaches to change.
- Initial and ongoing prioritisation and sequencing of the implementation of the recommendations based on data, evidence and key stakeholder input, with staging designed to build momentum and develop capacity for long-term system transformation.
- Development and publication of a WA health system dashboard that incorporates key system level measures for sustainability and key existing performance, safety and quality measures to drive and report progress on change.
- Development of comprehensive implementation plans in partnership with consumers, staff and external community stakeholders, which clearly define measures for success aligned to key system level measures for sustainability.
- Establishment of regular transparent public reporting on outcomes, ongoing monitoring, review and evaluation, coupled with lessons learnt on the overall progress and impact of implementation. Gateway review initially at 18 months and beyond.

Appendices

Appendix 1: Terms of Reference

Background

In March 2004, the Health Reform Committee report (the Reid Report) set the strategic directions for the WA health system including a range of recommendations to reprioritise and reconfigure the WA health system which was endorsed by the State Government.

While a number of major infrastructure projects and other changes have been initiated since 2004, WA's health system continues to experience unsustainable budget growth and faces challenges associated with an ageing population, chronic disease and health inequity. Health expenditure has grown faster than inflation and the economy as a whole, accounting for 52 per cent of overall government expenditure growth between 2013–14 and 2016–17. The WA health system is the largest single expenditure in the WA State budget representing 30 per cent of expenditure in 2016–17 compared to 24.9 per cent in 2008–09.

The growth in the cost of health care has not been accompanied by an equivalent increase in services to the community. This growth is unsustainable, especially in a constrained budgetary environment. There is significant disruption to health services, including through advances in technology and research. There are increased opportunities to partner across sectors to deliver integrated care.

With the background of these ongoing challenges, the WA State Government has committed to a Sustainable Health Review to put the WA health system on a sustainable footing. This review will do that through putting patients first, whilst driving efficiencies and change through enhancing quality, clinical and financial performance, using innovation and new technologies.

Sustainable Health Review Panel Membership

- Independent Reviewer (Chair)
- Minister for Health Nominee
- Director General, Department of Health
- Under Treasurer, Department of Treasury
- Consumer Nominee
- Clinical Nominee
- Employee Nominee.

Purpose

Provide advice to Cabinet through the Minister for Health to guide the strategic direction of the WA health system to deliver patient-centred, integrated, high quality, and financially sustainable health care across the State.

Role and functions

The role and functions of the Panel are to make recommendations regarding:

- leveraging existing investment in primary, secondary and tertiary health care, as well as new initiatives to improve patient-centred service delivery, pathways and transition
- the mix of services provided across the system, including gaps in service provision, sub-acute, step-down, community and other out-of-hospital services across WA to deliver care in the most appropriate setting and to maximise health outcomes and value to the public
- ways to encourage and drive digital innovation, the use of new technology, research and data to support patient-centred care and improved performance
- opportunities to drive partnerships across sectors and all levels of government to reduce duplication and to deliver integrated and coordinated care
- ways to drive improvements in safety and quality for patients, value and financial sustainability, including cost drivers, allocative and technical efficiencies

- the key enablers of new efficiencies and change, including, research, productivity, teaching and training, culture, leadership development, procurement and improved performance monitoring
- how to best implement any Governmentendorsed recommendations arising from the Service Priority Review and Commission of Inquiry into Government Programs and Projects that are relevant to the Sustainable Health Review
- the scope and sequencing of implementation of its recommendations in the short, medium and long-term, including development of a new 10-year State Health Plan
- any further opportunities concerning patientcentred service delivery and the sustainability of the WA health system.

The Panel is to consider the following areas in its Review:

- population health and socio-demographics, including chronic disease, mental health, Aboriginal health, and rural and remote health outcomes and access
- patient experience, pathways and continuum of care
- value, safety and quality of services
- national and international policy directions, initiatives and best practice
- innovation and technological advances in healthcare
- opportunities to reduce environmental impacts.

The above issues are to be considered in the context of relevant previous reviews and experiences, particularly within Western Australia but also in other states and territories, nationally and internationally where appropriate. Wherever possible, the recommendations should be clear and specific.

The Panel is to engage with the Panel undertaking the Service Priority Review and the Special Inquirer undertaking the Commission of Inquiry into Government Programs and Projects to ensure these parallel reviews and inquiries are informed by each other.

Engagement

The Panel will be supported through use of two reference groups:

- Clinical Reference Group
- Consumer Reference Group.

The Panel will undertake consultation and dialogue with Health Service Provider Boards, the Mental Health Commissioner, consumer advocates, front-line staff and health leaders, including through Patient First Dialogues. The Panel will invite submissions from the wider community through a public advertisement. The Panel will also engage with key agencies across Government to promote a whole-of-government approach in the articulation of recommendations.

Term

Unless otherwise agreed in writing by Cabinet, the Panel is required to submit an Interim Report to Cabinet, through the Minister for Health, by December 2017 and a Final Report and recommendations by March 2018.

Note: The timeframes for these reports were subsequently extended to January 2018 and November 2018 respectively to provide the opportunity for the Panel to continue its extensive engagement with stakeholders on its preliminary directions and to support development of its Final Report and Recommendations.

Secretariat

The Department of Health will provide secretariat support for the Panel including project management, data collection and analysis, the development of working documents, records keeping, facilitation of stakeholder engagement and other functions as required. The secretariat will work under the direction of the Panel.

Appendix 2: The Panel

The Sustainable Health Review was conducted by an experienced Panel of experts appointed by the Government of Western Australia and chaired by Ms Robyn Kruk AO.

The Sustainable Health Review Panel members are:

Ms Robyn Kruk AO (Independent Chair)

Ms Kruk has more than 30 years' experience in public sector service reform at state and Commonwealth level, including as Director General of NSW Health and inaugural CEO of the National Mental Health Commission.

Ms Pip Brennan, Consumer and Carer Nominee

Ms Pip Brennan is the Executive Director of the Health Consumers' Council and brings extensive knowledge of the community sector and health advocacy, including experience in community midwifery and the not-for-profit sector.

Dr Hannah Seymour, Clinical Nominee

Dr Hannah Seymour is a Consultant Geriatrician, Medical Director and Clinical Lead for Information Technology at the Fiona Stanley Fremantle Hospitals Group. She is the Co-director of the Surgical and Women's, Children and Newborn Services, and works clinically in Orthogeriatrics where she has a passion for falls prevention and improved outcomes in aged care.

Mr Warren Harding, Minister for Health Nominee

Adjunct Professor Warren Harding has more than 25 years' senior management and board experience in the energy, sports, utilities, resources and government sectors and brings a unique knowledge of government, private sector, information technology, culture and leadership.

Ms Meredith Hammat, Employee Nominee

Ms Hammat is Secretary of Unions WA, representing more than 150,000 employees in industries across WA. She has more than 20 years of broad experience representing working people, in the government, utilities, community services and private sectors.

Mr Michael Barnes, Under Treasurer, Department of Treasury

Mr Barnes was appointed as Under Treasurer in 2015 having started his career in the Commonwealth Treasury before joining WA Treasury. He has worked primarily in the areas of revenue policy, economic and revenue forecasting, fiscal strategy, and whole-of-government financial management and reporting.

Dr D J Russell-Weisz, Director General, Department of Health

Since his appointment in 2015, Dr Russell-Weisz has steered the WA health system through its most significant reform program since Federation. Prior to his appointment as Director General, Dr Russell-Weisz directed the commissioning of Fiona Stanley Hospital and was Chief Executive of the North Metropolitan Health Service through the redevelopment of the QEII Medical Centre.

Appendix 3: Engagement and consultation

Over the course of the SHR the Panel has engaged with hundreds of individuals and organisations who have passionately and articulately shared their experiences. Every conversation, submission, question and comment has helped shape the Final Report.

The Panel expresses its sincere optimism that the WA Government's commitment to the SHR can be the start of enduring conversation and action for a more sustainable WA health system.

Following the release of the SHR Interim Report in February 2018, the Panel received a wealth of feedback from individuals, staff and organisations.

The Panel shifted its focus to targeted consultation and engagement leading up to the Final Report, and held a series of roundtables and workshops with a focus on primary health, digital innovation, workforce and training, social services, mental health, climate and environmental health, and health leadership.

Consumer and carer engagement was a key focus, and a partnership with the Health Consumers Council (HCC) was formed to reach and engage with Aboriginal people; culturally and linguistically diverse (CALD) people; older people; consumers with disabilities and their carers; people with lived experience of mental health conditions and their carers; alcohol and other drug consumers; and youth.

The Clinical Reference Group and Consumer and Carer Reference Group continued to provide expert advice on key topics and have played a significant part in informing the development of strategies and recommendations.

Summaries of engagement activities have been published on the Sustainable Health Review website:

www.health.wa.gov.au/sustainablehealthreview

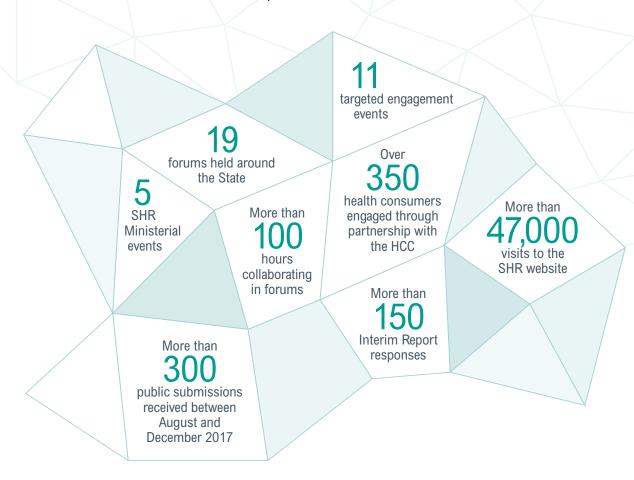
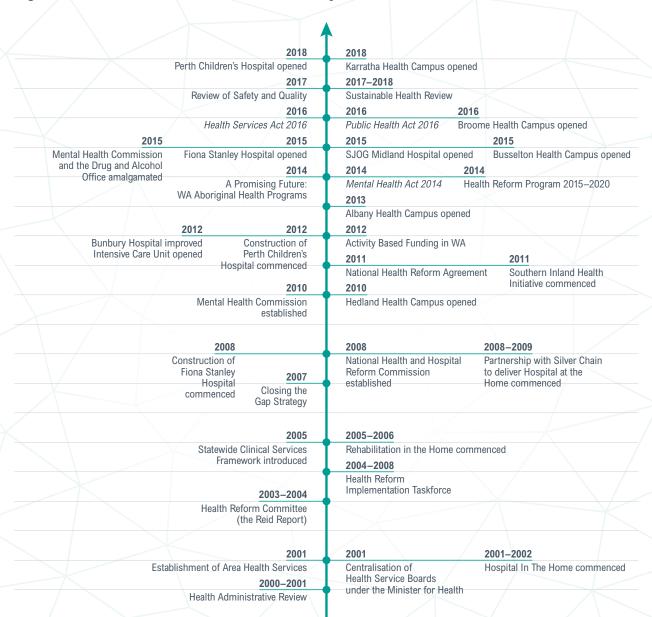


Figure 16: The Panel has engaged and consulted with a wide range of stakeholders during the SHR, through a variety of formats

Appendix 4: Journey of the WA health system

Figure 17: Timeline of events in the WA health system since 2000



The WA health system has undergone a progressive journey positioning it for sustainability over the past 20 years. Change has been a near constant feature and important milestones along the way provide valuable lessons for the Sustainable Health Review to learn from and apply to implementation.

The Reid Report

A natural theme throughout the SHR has been a comparison to the 2004 Report of the Health Reform Committee (the Reid Report). Considered a seminal moment in the WA health system's journey, the Reid Report has had a lasting impact on the WA health system. We have sought to identify the relevant lessons from the Reid Report and its implementation program to inform the SHR.

Led by Professor Michael Reid, the Health Reform Committee delivered an extensive report to Government including 86 recommendations, designed to provide a framework for the system over the following 10 years. Recommendations were intended to improve the quality of health services and manage the costs of the WA health system.

The defining legacy of the Reid Report was an unparalleled investment of more than \$7 billion in new capital infrastructure. The investment program has seen major upgrades to 30 sites across the State, including five key metropolitan hospitals and 25 regional facilities, as well as the establishment of three new institutions for medical research. There have also been notable improvements in WA's length of stay in hospital performance and in other areas of WA health system performance.

Implementing the endorsed recommendations was a large and complex undertaking. In August 2004 a Health Reform Implementation Taskforce (HRIT) was established to take carriage of 91 health reform projects mapped against the 86 recommendations. Observations on the legacy of the Reid Report suggest the implementation program was characterised by significant success relating to infrastructure investment. This occupied significant attention in the WA health system for the past decade. However, there was a lack of attention given to recommendations focused on community services and their role in long-term sustainability.¹

Two of the most prominent projects undertaken by the State were completed in the decade following the Reid Report, Fiona Stanley Hospital and Perth Children's Hospital. These projects provide a number of lessons regarding the importance of governance, program and project management, contract management and relationship management.^{2,3,4}

Aside from its impact on WA's hospital infrastructure, the Reid Report was intended to provide a plan to help manage the costs of the system and ensure sustainable growth of the budget. The Reid Report made several recommendations aimed at reducing overall budget expenditure growth, including a specific recommendation to reduce recurrent growth by two percentage points per annum.

However, the decade following the Report saw marked recurrent budget growth from \$4.8 billion in 2008–09 to \$8.9 billion in 2017–18, representing an 85 per cent increase over nine years. The WA Health Reform Program 2015–2020 (the 'Health Reform Program') has seen significant improvements in processes surrounding financial management, ICT services and procurement, but there is still considerable opportunity for further improvement.

Health Services Act 2016

A central feature of the recent Health Reform Program has been the introduction of the *Health Services Act 2016* (the Act), representing the most significant governance reforms for the WA health system in the past 90 years. The Act was written with the intention of improving the coordination of the WA health system by providing clearer definition of roles and responsibilities.

Through the Act, the Department of Health, led by the Director General, was established as the 'System Manager' responsible for the overall management, performance and strategic direction of the system. Health Services have been established as Health Service Providers that are separate, board-governed statutory authorities, legally responsible and accountable for the delivery of health services for their local areas and communities.

¹ Office of the Auditor General WA. Auditor General's Report- Performance Examination. Early Diagnosis: Management of the Health Reform Program. Perth; 2006.

² Office of the Auditor General WA. Audit Reports. Non-Clinical services at Fiona Stanley Hospital. Perth; 2017.

Education and Health Standing Committee. More than Bricks and Mortar: The Report of the inquiry into the organisational response within the Department of Health to the challenges associated with commissioning the Fiona Stanley Hospital. Legislative Assembly of the Parliament of Western Australia. Perth; 2014.

⁴ Public Accounts Committee. PCH – A long waiting period: A critique of the States' management and oversight of the Perth Children's Hospital Project. Perth; 2018.

⁵ WA Health Funding and Purchasing guidelines 2017-18.

A consistent message heard by the Panel in its consultation with WA health system leaders has been the need to allow for the natural maturation of the WA health system under the new governance arrangements when considering how recommendations are made. Likewise the Panel recognises that the health system has undergone tremendous change over the past twenty years. Often this change has outpaced the cultural and behavioural identity of the system. In its Interim Report the Panel noted the WA health system has fallen short of good change management while trying to achieve long-term beneficial change, characterised by a historical underappreciation by leadership of the importance of engaging with staff throughout the process and co-designing solutions.6

Experience from recent reform programs and major projects undertaken by the health system demonstrates the essential role of leveraging system governance to hardwire change. Findings from the recent Special Inquiry into Government Programs and Projects also point to the ramifications of inadequate governance arrangements.⁷

Public Health Act 2016

Another key legislative milestone reached in 2016 was the introduction of a new *Public Health Act in 2016* (PHA) to replace the outdated *Health Act 1911*, which would provide a flexible, comprehensive, and contemporary risk-based approach to protecting the health and wellbeing of Western Australians. At the centre of the PHA is the introduction of a legal responsibility on people and businesses to conduct activities in a way that does not harm or affect the health of others. Under the PHA, local governments are responsible for enforcing public health matters within their local government districts.

In mid-2017 the WA Chief Health Officer released an Interim State Public Health Plan to guide and support partners in public health, including local governments, non-government organisations, State Government departments, industry and the general public.

Review of Safety and Quality in the WA Health System 2017

Constantly striving to provide the safest and highest quality care to patients and the community is the core business of the WA health system – now and into the future. Maintaining and growing this focus is even more critical in times of system change.

In 2017 the Director General commissioned an independent review of the WA health system as a proactive measure focused on the effectiveness of current systemwide arrangements, strategic priorities for safety and quality, and on areas for improvement and future development. The key principles of clinical governance that the report and its observations and recommendations are based on are particularly critical for the sustainability journey moving forward. This includes:

- clear roles, responsibilities, accountabilities
- consistency of standards across the system at all levels
- a culture of openness and transparency; good performance management
- a willingness to benchmark and learn from both innovation and errors locally, nationally and internationally
- a lack of complacency
- fostering intellectual curiosity
- a clear patient and community focus and from bedside to boardroom.

Having the courage to act on sustainability is a major imperative for WA. It will require a clear vision, enduring strategies, and a steadfast dedication to implementation and change over a long period of time.

⁶ Department of Health WA. Sustainable Health Review Interim Report to the Western Australian Government. Perth; 2018.

Public Sector Commission, Special Inquiry into Government Programs and Projects: Final Report. PSC. 2018: Perth, Western Australia. Accessed at: https://publicsector.wa.gov.au/sites/default/files/documents/special_inquiry_into_government_programs_and_projects_volume_1.pdf

Appendix 5: Health inequality in WA

Health inequity inherently manifests in different ways for different populations, depending on factors such as education, occupation, income, race/ethnicity, gender, Aboriginality, disability and sexuality.⁸ As a result, there are a number of population groups in WA that experience unequal health outcomes. In developing the Final Report the Panel looked at the health status of a number of groups.

Key group	Key facts and health outcomes
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Aboriginal people	 Aboriginal people represent 3.64 per cent of the WA population, or 94,000 people, yet have the greatest health needs of any population group in the State.
	 62 per cent of Aboriginal people live outside metropolitan Perth.
	Aboriginal Western Australians experience a significant gap in life expectancy (66.9 years for males and 71.8 years for females – a gap of 13.4 years and 12 years respectively compared to non-Aboriginal people. Approximately 70 per cent of the disease burden gap between Aboriginal and non-Aboriginal people is due to chronic diseases. ⁹
	 Between 2013 and 2015, potentially preventable hospitalisation rates for Aboriginal people in WA were 4.9 times greater than for non-Aboriginal people.
	 In 2012–13, 67 per cent of Aboriginal people aged 15 and over were overweight (28 per cent) or obese (39 per cent).
Culturally and Linguistically Diverse People	 Cultural and Linguistic Diversity (CALD) refers to the range of different cultures and language groups (other than English) represented in a population.
	 17 per cent of Western Australians were born in non-English speaking countries.
	 32 per cent of Western Australians were born outside Australia.
	 More than half (53.8 per cent) of Australians have a parent who was born overseas.
Socioeconomic groups	 18 per cent of Western Australians live in socioeconomically disadvantaged areas.
	 People living in the lowest socioeconomic areas tend to experience worse health outcomes than people living in the highest socio-economic areas.
	 The prevalence of some chronic diseases is substantially higher among adults in the lowest socioeconomic group. Diabetes, for example, was 2.6 times higher and coronary heart disease and stroke 2.2 times higher, compared to those in the highest socio-economic group.¹⁰

⁸ VicHealth, Fair Foundations: The VicHealth framework for health equity, 2015. https://www.vichealth.vic.gov.au/media-and-resources/publications/the-vichealth-framework-for-health-equity

⁹ Australian Bureau of Statistics (ABS) 2013. Life Tables for Aboriginal and Torres Strait Islander Australians, 2015-2017, ABS, cat. no. 3302.0. Canberra: ABS.

¹⁰ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW.

Key group	Key facts and health outcomes
Mental health	 One in five people in WA experience mental health problems each year and nearly half the population will experience a mental health problem at least once in their lifetime.
	 People with mental health issues and/or mental illness have poorer outcomes and a gap in life expectancy.¹¹
	 Hospitalisations for people needing mental health, alcohol and other drug care is increasing. In 2017–18, there were more than 14,000 hospitalisations for conditions due to mental health problems, amounting to 258,000 bed days at an approximate cost of \$381 million for hospital-based services.¹² 13
	 In addition there were 22,627 alcohol and drug related separations from WA public hospitals and private hospitals with publicly funded patients. About 76 per cent of those occurred in a metropolitan public hospital.
	 In Western Australia, self-harm deaths/suicide has continued to increase. In 2017, the rate of intentional self-harm deaths increased to 15.8 deaths per 100,000 persons.¹⁴
Disability	 Almost one in five people (18.3 per cent) in Australia reported living with disability.¹⁵
	 Many people with disability report difficulty in accessing services and rate their health poorer than other Australians.¹⁶
	 In 2015, almost 2.7 million Australians were carers (11.6 per cent), with 3.7 per cent aged 15 years and over identifying as primary carers.¹⁷

¹¹ Western Australian Mental Health Commission (2015). Better Choices. Better Lives. Western Australian Mental Health, Alcohol and Other Drug Services Plan 2015–2025. Perth, Western Australian Mental Health Commission

¹² Department of Health WA. Mental Health Data Collections (MHDC). Perth; 2018.

¹³ Mental Health Commission WA. 2017-18 Annual Report. Perth; 2018.

¹⁴ Australian Bureau of Statistics (ABS) 2017. 3303.0 Causes of Death, Australia 2017.

¹⁵ Australian Bureau of Statistics (ABS) 2015. Survey of Disability, Ageing and Carers (SDAC). 430.0 - Disability, Ageing and Carers, Australia: Summary of Findings, 2015. http://www.abs.gov.au/ausstats/abs@.nsf/mf/4430.0

¹⁶ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW

¹⁷ Australian Bureau of Statistics (ABS) 2015. Survey of Disability, Ageing and Carers (SDAC) 430.0 - Disability, Ageing and Carers, Australia: Summary of Findings, 2015 http://www.abs.gov.au/ausstats/abs@.nsf/mf/4430.0

Key group	Key facts and health outcomes
People living in rural and remote areas	 Around seven million people live in rural and remote areas across Australia. They face unique challenges due to geographical isolation, and often have poorer health and welfare outcomes compared to people living in major cities.¹⁸
	 There are health inequalities between rural and remote communities and major cities.¹⁹
	 People living in regional WA experience significant difference in health outcomes, with mortality rates for some conditions, such as coronary heart disease, 1.5 times higher than for people living in metropolitan areas.²⁰
	 People living in very remote areas have a mortality rate 1.4 times as high and a death rate over 2.5 times as high as people living in major cities.²¹
	 Country residents are more likely than metropolitan residents to have potentially preventable hospitalisations for conditions such as diabetes, some cancers, respiratory diseases, circulatory diseases, cellulitis and ear, nose and throat conditions.²²
The LGBTI community	 Australians of diverse sexual orientation, sex or gender identity may account for up to 11 per cent of the Australian population.²³
	 LGBTI young people report experiencing verbal homophobic abuse (61 per cent), physical homophobic abuse (18 per cent) and other types of homophobia (nine per cent), including cyberbullying, social exclusion and humiliation.²⁴
	 LGBTI people are at a higher risk of suicidal behaviours and have the highest rates of suicidality compared with any population in Australia.²⁵
	 Rates of illicit drug use reportedly higher among homosexual or bisexual people and among people who reported high or very high psychological distress.²⁶

¹⁸ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW

¹⁹ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW Ibid

²⁰ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW Ibid

²¹ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW Ibid

²² Epidemiology Branch, Public Health Division, Department of Health WA in collaboration with the Cooperative Research Centre for Spatial Information (CRC-SI). Generated using data from the Hospital Morbidity Data System, Purchasing and System Performance Division, Western Australian Department of Health.

²³ Department of Health, Australian Government, National Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) Ageing and Aged Care Strategy (2012).

²⁴ Australian Research Centre in Sex, Health and Society, La Trobe University, Writing Themselves in 3: The third national study on the sexual health and wellbeing of same sex attracted and gender questioning young people (2010).

²⁵ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW

²⁶ Australian Institute of Health and Welfare 2018. Australia's health 2018. Australia's health series no. 16. AUS 221. Canberra: AIHW.

Key group	Key facts and health outcomes
Family and Domestic Violence	 Nationally, one in three women have experienced physical violence since the age of 15, and are almost four times more likely than men to experience violence from an intimate partner.²⁷
	 One in five woman has experienced sexual violence, and one in six has experienced physical or sexual violence by a current or former partner.²⁸
	 Both women and men are more likely to experience violence at the hands of men, with around 95 per cent of all victims of violence in Australia reporting a male perpetrator.²⁹
	 The most vulnerable subgroups are Aboriginal women, young women, pregnant women, disabled women, women who are financially unstable and women and men who grew up in abusive homes.
	 Intimate partner violence has been found to contribute more to the total burden of disease for Australian women aged 18–44 years than alcohol and tobacco use, illicit drug use, and being overweight or obese.³⁰
	 WA has the second highest rate of intimate partner violence nationally, at 792 victims of assault per 100,000 people (approximately 34,000 offences each year).³¹
	 In Australia, 2,800 women and 560 men were hospitalised as a result of intimate partner violence in 2014–15.
	 For Indigenous women the rate of hospitalisation for non-fatal family violence related assaults during 2014–15 was 32 times higher than non-Indigenous woman.³² For Indigenous men the rate of hospitalisation was 23 times higher than non-Indigenous men.³³
	 Violence against women and their children costs Australia \$21.7 billion each year.³⁴

²⁷ Australian Bureau of Statistics (ABS) 2017. Personal Safety, Australia, 2016, ABS cat. no. 4906.0. Canberra: ABS.

²⁸ Ibid.

²⁹ United Nations 2017. Sustainable Development Goals. The elimination of violence against women is a specific target (Target 5.2) of the United Nations Sustainable Development Goals.

³⁰ Webster, K. A preventable burden: measuring and addressing the prevalence and health impacts of intimate partner violence in Australian women. Sydney (NSW), Australia's National Research Organisation for Women's Safety (ANROWS), 2016.

³¹ Australian Bureau of Statistics (ABS) 2017. Recorded Crime - Victims, Australia, 2016, ABS cat. No 4510.0. Canberra: ABS.

³² Steering Committee for the Review of Government Service Provision (SCRGSP) 2016. Overcoming Indigenous Disadvantage: Key Indicators 2016. Productivity Commission: Canberra.

³³ Ibid.

³⁴ A high price to pay: the economic case for preventing violence against women. PwC, OurWatch, Vic Health, 2015.

Key group	Key facts and health outcomes
Homeless people	 Between 2011 and 2016, it was estimated that over 9,000 people experienced homelessness on any one night.³⁵
	 Young people, Aboriginal people, people with long-term health conditions or disability, people living in low-income housing, or people who are unemployed or underemployed are at greatest risk of living in poor-quality housing.³⁶
	 The health of homeless people especially those sleeping on the streets, is characterised by chronic complex multi-morbidity. For a variety of reasons homeless people do not access assistance with their health problems early in the course of disease.³⁷
Corrections population	 There were 6,814 people in the WA corrections system in the first quarter of 2017.³⁸
	 The corrections population is predominantly male (90 per cent).³⁹
	 Aboriginal people are significantly overrepresented, accounting for 27 per cent of the corrections population.⁴⁰
	 The health of people in the corrections system is significantly worse than that of the general population. People have higher levels of mental health problems, self-harm, addiction, chronic and communicable diseases.⁴¹

³⁵ Australian Bureau of Statistics (ABS) 2018. Census of Population and Housing: Estimated homelessness, Australia, 2016, ABS cat. No. 2049.0. Canberra: ABS.

³⁶ Ibid.

³⁷ Kaleveld, L., Seivwright, A., Box, E., Callis, Z. and Flatau, P. (2018). Homelessness in Western Australia: A review of the research and statistical evidence. Perth: Government of Western Australia, Department of Communities.

³⁸ Department of Corrective Services, Western Australia 2017. Adult Prisoners in Custody Quarterly Statistics, March 2017. Government of Western Australia.

³⁹ Ibid.

⁴⁰ Australian Bureau of Statistics (ABS) 2017. Prisoners in Australia, Australia, 2017, ABS cat. no. 4517.0. Canberra: ABS.

⁴¹ AIHW: Belcher J and Al-Yaman F 2007. Prisoner health in Australia: contemporary information collection and a way forward. Cat. no. PHE 94.Canberra: AIHW.

Appendix 6: New Zealand Ministry of Health — System Level Measures

The New Zealand Ministry of Health has established six System Level Measures which focus on children, youth and reducing equity gaps for Maori and other population groups that consistently experience poor health outcomes. System Level Measures recognise that good health outcomes require health system partners to work together and aim to improve health outcomes for all people. The System Level Measures:

- are outcomes focused
- are nationally defined
- require all parts of the health system to work together
- focus on children, youth and vulnerable populations
- connect to local clinically led quality improvement activities and contributory measures.

The Ministry of Health worked closely with the health sector to co-develop the System Level Measures, which are:

- Ambulatory Sensitive Hospitalisation (ASH) rates for 0–4 year olds (keeping children out of hospital)
- acute hospital bed days per capita (using health resources effectively)
- patient experience of care (person-centred care) – this is made up of adult inpatient and primary care patient experience surveys
- amenable mortality rates (prevention and early detection)
- babies living in smoke-free homes (a healthy start)
- youth access to and utilisation of youth appropriate health services (youth are healthy, safe and supported). This SLM is made up of five domains with corresponding outcomes and national health indicators.

Full resources available at:

- https://www.health.govt.nz/new-zealandhealth-system/system level-measuresframework
- https://www.health.govt.nz/new-zealandhealth-system/health-targets

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Glossary of commonly used terms

Activity: Activity refers to everything that WA health does for, with and to patients, residents, clients and their families and carers and the community. This is not just hospital casemix as activity can include community care grants, chronic disease programs, preventative health programs, shared maternity care, subacute care, step down care, living well when older and education, training and supervision.

Activity Based Funding (ABF): Activity Based Funding is a way of funding and managing public health care in WA. Through ABF, health services are paid for every patient they see or treat, taking into account the complexity of the patient's healthcare needs.

Avoidable Emergency Department

Presentations: People who are triaged as Category 4 or 5, did not arrive by ambulance or helicopter rescue, self-referred or unknown referral, presenting between 8am and midnight, and were discharged in under 60 minutes of being seen.

Carers: People who provide unpaid care and support to family members and friends who have a disability, mental illness, chronic condition, terminal illness or general frailty. Carers include parents and guardians caring for children.

Clinician: A health care provider trained as a health professional. Clinicians include registered and non-registered practitioners, or a team of health professionals providing health care who spend the majority of their time providing direct clinical care.

Council of Australian Governments (COAG):

The Council of Australian Governments is the peak intergovernmental forum in Australia. The members of COAG are the Prime Minister, state and territory First Ministers and the President of the Australian Local Government Association (ALGA). The Prime Minister Chairs the COAG.

COAG Health Council (CHC): The COAG
Health Council consists of the respective
Commonwealth, State, Territory and New
Zealand Ministers with responsibility for health
matters, and the Commonwealth Minister for
Veterans' Affairs. CHC provides a mechanism
for the Australian Government, the New Zealand
Government and state and territory governments
to discuss matters of mutual interest concerning
health policy, services and programs.

Consumer (health): Patients and potential patients, carers and organisations representing consumers' interests.

Electronic Medical Record (EMR): An EMR contains information that is created and held within a single healthcare organisation, such as a clinic, medical centre or hospital. These are digital versions of the paper charts used by clinicians in clinics and hospitals. EMRs enable providers to track data over time, identify patients for preventive visits and screenings, monitor patients, and improve the quality of care provided.

Electronic Health Record (EHR): An EHR contains information that can be managed, added to and accessed across multiple healthcare organisations. An EHR, such as My Health Record, contains information from all the clinicians involved in a patient's care and all authorised clinicians involved in a patient's care can access the information to provide care to that patient. It can include information such as a patient's health summary, medication prescribing and dispensing history, pathology reports, diagnostic imaging reports and discharge summaries.

Full Time Equivalent (FTE): FTE is used in budgeting and planning to measure the total level of staff resources used.

General Practitioner (GP): A medically qualified doctor who practices general medicine as a family practitioner. Some GPs are also qualified in specialised medicine.

Healthcare: Health care or healthcare is a general term referring to the delivery of medical services by specialist providers, such as midwives, doctors, nurses, pharmacists, allied health (such as occupational therapists, physiotherapists, speech therapists, dieticians) and health sciences (such as medical imaging, medical radiation).

Health equity: is the notion that everyone should have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential.

Health inequities: are differences in health status between population groups that are socially produced, systematic in their unequal distribution across the population, avoidable and unfair.

Health inequality: is when individuals and groups of people have differences in health status. Some inequalities are attributed to biological variations or free choice, while others are attributed to the external environment and conditions outside the control of the individual.

Health system: The broad collection of people, institutions and resources, arranged together in accordance with established policies, to improve the health of the population they serve, while responding to people's legitimate expectations and protecting them against the cost of ill-health through a variety of activities whose primary intent is to improve health.

Health Service Providers (HSPs): Under the Health Services Act 2016 Health Service Providers are responsible and accountable for providing safe, high quality health services to the Western Australia Community. The following entities are established as board governed Health Service Providers, as at December 2018:

- North Metropolitan Health Service;
- South Metropolitan Health Service;
- East Metropolitan Health Service;
- Child and Adolescent Health Service;
- WA Country Health Service; and
- Quadriplegic Centre.

Health Support Services and PathWest are Chief Executive governed Health Service Providers.

High value care: is the use of an intervention which evidence suggests 'confers benefit on patients, or probability of benefit exceeds probable harm, or, more broadly, the added costs of the intervention provide proportional added benefits relative to alternatives.'

Independent Hospital Pricing Authority

(IHPA): The Independent Hospital Pricing Authority is an independent agency established by the Commonwealth as part of the *National Health Reform Act 2011*. IHPA is responsible for determining the annual National Efficient Price and National Efficient Cost each year for healthcare services provided by public hospital services.

Low value care: is the use of an intervention where evidence suggests it confers no or very little benefit on patients, or risk of harm exceeds likely benefit, or, more broadly, the added costs of the intervention do not provide proportional added benefits.

National Efficient Price (NEP): The NEP determines the amount of Commonwealth Government funding for public hospital services and provides a price signal or benchmark for the efficient cost of providing public hospital services.

Patient Reported Experience Measures

(PREMS): PREMs gather information on the impact of care processes on patient's experience to inform quality improvement, audit, and evaluation.

Patient Reported Outcomes Measures (PROMS):

PROMs are questionnaires which patients complete. They ask for the patient's assessment of how health services and interventions have, over time, affected their quality of life, daily functioning, symptom severity, and other dimensions of health which only patients can know. PROMs can be used to identify whether healthcare interventions actually make a difference to people's lives.

Potentially preventable hospitalisations:

A potentially preventable hospitalisation (PPH) is an admission to hospital which may be prevented through the provision of appropriate individualised preventative health interventions and early disease management usually delivered in primary care and community settings by general practitioners (GPs), medical specialists, dentists, nurses or allied health professionals.

Social determinants of health: The social conditions in which people are born, grow, live, work, play and age – that influence their health.

System Thinking: Systems thinking is a discipline or approach that involves identifying and examining the links, interactions and dynamics between internal and external parts of a defined system or systems. It can help individuals and organisations develop a deeper understanding of a given system or systems to identify opportunities for targeted interventions particularly where there are longstanding and complex issues and stakeholders.

WA health system: The WA health system is defined through the *Health Services Act 2016* as (a) the Department of Health; (b) health service providers; and (c) contracted health entities providing health services to the State.



References

- Department of Health WA. Emergency Department Data Collections (EDDC). Perth; 2018
- 2. Hood C, Gennuso K, Swain G, and Catlin B. County Health Rankings: Relationships Between Determinant Factors and Health Outcomes. American Journal of Preventative Medicine. 2016;50(2):129-33
- Department of Treasury WA. Sustainable Health Review - Issues Paper. Perth; 2018
- 4. Berwick D, Nolan T, Whittington J. The Triple Aim: Care, Health, and Cost. Health Affairs. 2008;27(3):759-69
- 5. Bodenheimer T, Sinsky C. From Triple to Quadruple Aim: Care of the Patient Requires Care of the Provider. The Annals of Family Medicine. 2014;12(6): 573-6
- Organisation for Economic Co-Operation and Development. OECD Health Statistics 2018. 2018. Available from https://www.oecd.org/health/health-systems/health-data.htm
- Carers Australia. Carers caught in the 'sandwich generation'. 2012
 [28 September 2012]. Available from http://www.carersaustralia.com.au/media-centre/article/?id=carers-caught-in-the-sandwich-generation
- Australian Bureau of Statistics. Estimated Residential Population. Australian Demographic Statistics. cat. no. 3101.0. Canberra: 2018
- Australian College of Emergency Medicine.
 The Long Wait: An Analysis of Mental Health
 Presentations to Australian Emergency
 Departments. Mlebourne; 2018
- Australian Institute of Health and Welfare.
 Mental health services in Australia 2018.
 2018 [updated 05 December 2018]. Available from: https://www.aihw.gov.au/reports/mental-health-services/mental-health-services-in-australia/report-contents/hospital-emergency-services/patient-characteristics
- 11. Department of Health WA. Hospital Morbidity Data Collection (HMDC). Perth; 2016

- Department of Health WA. Referrals to Public Outpatient Surgical Clinics December 2017. Perth; 2018
- Australian Institute of Health and Welfare. General Record of Incidence of Mortality (GRIM) books. cat. no: PHE 217. Canberra; 2018
- 14. Epidemiology Branch. Costs and cost projections for injury and chronic disease hospitalisations, HMDS. Department of Health WA. Perth; 2016.
- Marema M, and Radomiljac A. Health and Wellbeing of Adults in Western Australia 2017, Overview and Trends. Department of Health WA. Perth; 2018.
- Marema M, and Radomiljac A. Health and Wellbeing of Children in Western Australia 2017, Overview and Trends. Department of Health WA. Perth; 2018.
- 17. Department of Planning WA. WA Tomorrow. Perth; 2015
- Alzheimer's Australia. Economic Cost of Dementia in Australia 2016-2056. National Centre for Social and Economic Modelling: Institute for Governance and Policy Analysis, University of Canberra. Canberra; 2017
- Productivity Commission. Introducing Competition and Informed User Choice into Human Services: Reforms to Human Services. Productivity Inquiry Report: No. 85. Canberra; 2017
- 20. Department of Health WA. WA End-of-Life and Palliative Care Strategy 2018-2028. Perth; 2018
- 21. Lawrence D, Hancock K, Kisely S. The gap in life expectancy from preventable physical illness in psychiatric patients in Western Australia: retrospective analysis of population based registers. The BMJ. 2013;346(f2539)
- 22. Australian Bureau of Statistics. Causes of Death, Australia, 2016. cat. no. 3303.0. Canberra; 2016

- 23. Australian Bureau of Statistics. Life
 Tables for Aboriginal and Torres Strait
 Islander Australians 2015-2017. cat. no.
 3302.0.55.003. Canberra; 2018
- Australian Institute of Health and Welfare.
 Australia's health 2016. Australia's health series no. 15. Canberra; 2016
- 25. Scalley B, Spicer T, Jian L, Xiao J, Nairn J, Robertson A, et al. Responding to heatwave intensity: Excess Heat Factor is a superior predictor of health service utilisation and a trigger for heatwave plans. Australian and New Zealand journal of public health. 2015;39(6):582-7
- Department of Health WA. Internal Analysis by Budget Strategy Directorate. Perth; 2018
- Australian Institute of Health and Welfare.
 Health expenditure Australia 2016-17.
 Health and welfare expenditure series no.64.
 Canberra; 2018.
- 28. Department of Health WA. Internal Analysis for the Sustainable Health Review. Perth; 2018
- 29. Department of Health WA. A fair share for WA health care. Perth; 2017
- Health Reform Committee. A Healthy Future for Western Australians: Report of the Health Reform Committee. Department of Health WA. Perth; 2004.
- 31. United Nations. Sustainable Development Goals: 17 Goals to Transform Our World. 2018 Available from https://www.un.org/sustainabledevelopment/sustainabledevelopment-goals/
- 32. Department of Health WA and WA Primary Health Alliance. Lessons of Location: Potentially Preventable Hospitalisation Hotspots in Western Australia. Perth; 2017
- 33. Daley J, Duckett S, et. al. State Orange Book 2018: Policy priorities for states and territories. Grattan Institute. Melbourne; 2018
- 34. Department of Health Australia. GP Workforce Statistics 2001-02 to 2016-17. Canberra; 2018
- 35. Australian Institute of Health and Welfare. Australian Burden of Disease Study: Impact and causes of illness and death in Australia 2011. Canberra; 2016

- 36. Department of Health WA in collaboration with the Cooperative Research Centre for Spatial Information (CRC-SI). Specific disease burden in Western Australia, 2011. Perth; 2017
- 37. Australian Institute of Health and Welfare. Australia's health 2018. Australia's health series no. 16. Canberra; 2018
- 38. VicHealth. Fair Foundations: The VicHealth framework for health equity. Victorian Health Promotion Foundation. Melbourne. 2015
- Ford-Gilboe M, Wathen C. et. al. How Equity-Oriented Health Care Affects Health: Key Mechanisms and Implications for Primary Health Care Practice and Policy. The Millbank Quarterly. 2018;96(4):635-71
- 40. Commission on Social Determinants of Health. Closing the gap in a generation: Health equity through action on the social determinants of health. World Health Organization. Geneva; 2008
- 41. Freidman N, Banegas M. Toward Addressing Social Determinants of Health: A Health Care System Strategy. The Permanente Journal. 2018;22:18-095
- 42. McKinsey & Company. Smart Cities: Digital Solutions for a more Livable Future. McKinsey & Company; 2018
- Productivity Commission. Shifting the Dial:
 Year Productivity Review. Report No.84.
 Canberra; 2017
- 44. Australian Institute of Health and Welfare.
 Social Determinants Canberra; 2018. [Last updated 1 January 2018]. Available from https://www.aihw.gov.au/reports-data/behaviours-risk-factors/social-determinants/overview
- 45. WA Council of Social Services. State Budget Submission 2019-20. Perth; 2018.
- 46. Bankwest and Curtin Economic Centre. To Health and Happiness: WA's Health Industry Future. Focus on Industry Series, No. 3. Perth; 2018
- 47. Galea S. Will Disruptive Innovation in Health Care Improve the Health of Populations?. The Milbank Quarterly. 2018;96(4)

- 48. Service Priority Review Secretariat. Service Priority Review Background Paper: Service Design and Delivery. Perth; 2017
- 49. Government of Western Australia. Working
 Together: One Public Sector Delivering for WA:
 Service Priority Review Final Report to the
 Western Australian Government. Perth; 2017
- 50. Nous Group. Person-centred services in Western Australia: Directions for health, aged care and disability services in a changing policy environment. Perth; 2017
- 51. World Health Organization. Framework on integrated person-centred health services. Geneva; 2016
- Council of Australian Governments. COAG meeting communique, 9 February 2018. Canberra. 2018
- 53. ICHOM. Our Work. 2018. Available from https://www.ichom.org/our-work/
- 54. Scott I, Duckett S. In search of professional consensus in defining and reducing low-value care. Medical Journal of Australia. 2015;203(4):179-81
- 55. Elshaug A, Rosenthal M, Lavis J, Brownlee S, Schmidt H, Nagpal S, et al. Levers for addressing medical underuse and overuse: achieving high-value health care. The Lancet. 390(10090):191-202.
- 56. Choosing Wisely Australia. What is Choosing Wisely Australia?. 2018. [Last updated 01 March 2018] Available from http://www.choosingwisely.org.au/about-choosing-wisely-australia
- 57. Duckett S, Jorm C, Moran G, and Parsonage H. Safer care saves money: How to improve patient care and save public money at the same time: Grattan Institute. Melbourne; 2018
- 58. Australian Commission on Safety and Quality in Health. The Second Australian Atlas of Healthcare Variation. Sydney; 2017
- Elshaug A, Hiller J, Tunis S, Moss J.
 Challenges in Australian policy processes for disinvestment from existing, ineffective health care practices. Australian New Zealand Health Policy. 2007;4:23

- 60. Queensland Health. Value-based healthcare shifting from volume to value. Queensland Clinical Senate. Brisbane; 2016.
- Mascie-Taylor H. Review of Safety and Quality in the WA health system – a strategy for continuous improvement. Department of Health WA. Perth; 2017
- 62. Bureau of Health Information. Public Reporting Improves Healthcare. Sydney; 2010.
- 63. NSW Agency for Clinical Innovation.
 About ACI. 2018. Available from
 https://www.aci.health.nsw.gov.au/about-aci
- 64. Better Care Victoria. Capability for innovation and improvement strategy 2017-20. Victorian Government. Melbourne; 2017
- 65. New Zealand Government, Ministry of Health. System Level Measures Framework. Wellington. 2017
- 66. Australian Institute of Health and Welfare. Risk factors contributing to chronic disease. Canberra; 2012
- 67. Australian Council on Smoking and Health.
 WA tobacco control legislation. 'Tobacco
 legislation and policy timeline'. [Last updated
 21 November 2018]. Available from
 https://www.acosh.org/law-policy/wa-tobacco-control-legislation/tobacco-legislation-and-policy-timeline/
- 68. Vos T, Carter R, Barendregt J, Mihalopiulos C, Veerman J, Magnus A, et al. Assessing Cost-Effectiveness in Prevention (ACE–Prevention): Final Report. Brisbane, University of Queensland & Melbourne, Deakin University; 2010
- 69. Department of Health WA. WA Preventative Health Summit: What Needs to Change? Action on Obesity and Alcohol. Perth; March 2018
- 70. Organisation for Economic Co-operation and Development. Expenditure on prevention activities under SHA 2011: Supplementary guidance. Division H. Paris; 2017
- 71. Lotterywest. Community Investment Framework. Perth; 2018. Available at https://www.lotterywest.wa.gov.au/grants/community-investment-framework

- 72. Centre for Workforce Design. Impact of fifo work arrangement on the mental health and wellbeing of fifo workers. Perth; 2018
- 73. Joyce S, Tomlin S, Somerford P,
 Weeramanthri T. Health behaviours and
 outcomes associated with fly-in fly-out and
 shift workers in Western Australia. Internal
 Medicine Journal. 2013;43(4):440-3
- 74. House of Representatives Standing Committee on Health and Ageing. Weighing it up: Obesity in Australia. Parliament of the Commonwealth of Australia. Canberra; 2009
- 75. Australian Institute of Health and Welfare. Impact of overweight and obesity as a risk factor for chronic disease. Australian Burden of Disease Study Series. Canberra; 2017
- 76. Morley B, Niven P et. al. Controlled cohort evaluation of the LiveLighter mass media campaign's impact on adults' reported consumption of sugar-sweetened beverages. BMJ Open. 2018;8(4):e019574
- 77. Bleich, S. Better Clinical Care for Obesity and Diet-Related Diseases Requires a Focus on Social Determinants of Health. NEJM Catalyst. 2018. Available from https://catalyst.nejm.org/obesity-and-diet-related-disease-sdoh/
- Black J. Health eating program to fight country town's 'tsunami' of chronic disease.
 ABC; 2018. [Last updated 15 September 2018) Available from https://www.abc.net.au/news/2018-09-15/yarriambiack-unhealthy-town-turned-around/10249064
- 79. Obesity Policy Coalition. Policies for tackling obesity and creating healthier food environments: Scorecard and priority recommendations for the Western Australian government. Melbourne; 2017
- 80. Lal A, Mantilla-Herrera A, et. al. Modelled health benefits of a sugar-sweetened beverage tax across different socioeconomic groups in Australia: A cost-effectiveness and equity analysis. PLOS Medicine. 2017;14(6):e1002326
- 81. Australian Institute of Health and Welfare. National Drug Strategy Household Survey: detailed findings. Canberra; 2017

- 82. Royal Australian College of General Practitioners. NT putting a minimum floor price on alcohol: Evidence shows it works to reduce harm. 2018 [Last updated 26 September 2018] Available from https://www1.racgp.org.au/newsGP/Professional/The-NT-is-putting-a-minimum-floor-price-on-alcohol
- 83. World Health Organization. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and nonpartner sexual violence. Geneva: 2013
- 84. ANROWS. Rates of violence against women and men since the age of 15. 2014. Available from: https://dh2wpaq0gtxwe.cloudfront.net/s3fs-public/Key per cent20statistics per cent20- per cent20all.pdf
- 85. Senate Finance and Public Administration References Committee. Domestic Violence in Australia. Senate of Australia. Canberra; 2015
- 86. World Health Organization. Intimate Partner Violence and Alcohol Fact Sheet. Available from https://www.who.int/violence_injury_prevention/violence/world_report/factsheets/ft_intimate.pdf
- 87. Mouzos J, Makkai T. Women's experiences of male violence: findings from the Australian component of the International Violence Against Women Survey (IVAWS). Australian Institute of Criminology. Research and Public Policy Series. No. 56. Canberra; 2004
- 88. Laslett A, Jiang H, Manton S, MacLean S, Room R. The Hidden Harm: Alcohol's impact on children and families. Foundation for Alcohol Research & Education. Canberra; 2015
- 89. Department of Health WA. WA Health costs associated with family and domestic violence

 a snapshot. Women's Health Strategy and Programs. Women's and Newborn Health Service. Perth; 2017
- Aboriginal Health Policy Directorate.
 Understanding Institutionalised Racism.
 Department of Health WA. Perth; 2017
- 91. Aboriginal Health Council of Western Australia. Material provided to the Sustainable Health Review. Perth; 2017.

- 92. Holman D, Joyce S. A Promising Future: WA Aboriginal Health Programs. Review of performance with recommendations for consolidation and advance. Department of Health WA. Perth; 2014
- 93. Australian Bureau of Statistics. Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA). cat. no. 2033.055.001. Canberra; 2016
- 94. Connect Groups. Community Link Booth:
 Helping you connect the dots. 2018. Available
 from http://www.connectgroups.org.au/community-link-booth/
- 95. Kimberlee R. Developing a Social Prescribing approach for Bristol. United Kingdom: University of the West of England; 2013.
- 96. Brown M. Compassionate Community Project. Resurgence & Ecologist. 2018;307. Available from: https://www.resurgence.org/magazine/article5039-compassionate-community-project.html
- 97. Deloitte Access Economics and Carers Australia. The Economic Value of Informal Care in Australia in 2015, 2015.
- 98. Diminic S, Hielscher E, Lee Y, Harris M, et. al. The economic value of informal mental health caring in Australia. The University of Queensland School of Public Health. Brisbane; 2017.
- 99. Select Committee into Elder Abuse. 'I Never Thought it Would Happen to Me': When Trust is Broken: Final Report of the Select Committee into Elder Abuse. Legislative Council Western Australia. Perth; 2018.
- 100. Australian Commission on Safety and Quality in Health Care. Shared Decision Making. Canberra; 2018. Available from https://www.safetyandquality.gov.au/our-work/shared-decision-making/
- 101. Department of the Prime Minister and Cabinet. Royal Commission into Aged Care Quality and Saftey. Canberra; 2018. Available from https://www.pm.gov.au/media/royal-commission-aged-care-quality-and-safety
- 102. Malik A, Lenzen M, McAlister S, McGain F. The Carbon Footprint of Australia Healthcare. The Lancet Planetary Health. 2018;2(1):PE27-E35

- 103. Intergovernmental Panel on Climate Change. Global Warming of 1.5C. Geneva; 2018.
- 104. Australian Medical Association. Government must heed latest IPCC Report Warnings on Climate Change and Human Health. 2018. Available from https://ama.com.au/media/government-must-heed-latest-ipcc-report-warnings-climate-change-and-human-health
- 105. Department of the Premier and Cabinet WA. McGowan Government to develop new climate change policy. Perth; 2018. Available from https://www.mediastatements.wa.gov.au/Pages/McGowan/2018/12/McGowan-Government-to-develop-new-climate-change-policy.aspx
- 106. We Are Still In. Do No Harm: America's Leading Health Systems Commit to Reducing Emissions 2017. Available from https://www.wearestillin.com/news/do-noharm-americas-leading-health-systemscommit-reducing-emissions
- 107. Public Health England Sustainable Development Unit. Sustainable development in the health and care Report – Health Check 2016. London; 2016.
- 108. Department of Primary Industries and Regional Planning WA. Climate projections for Western Australia. Perth; 2018. Available from https://www.agric.wa.gov.au/climate-change/climate-projections-western-australia
- 109. Mental Health Commission WA. Better Choices. Better Lives. Western Australian Mental Health, Alcohol and Other Drug Services Plan 2015–2025. Perth; 2015.
- 110. Australian Bureau of Statistics. National Survey of Mental Health and Wellbeing: Summary of Results, 2007. Canberra; 2008.
- 111. Mental Health Commission WA. Annual Report 2017-18. Perth; 2018.
- 112. Patient Safety Surveillance Unit. Your Safety in Our Hands in Hospital. An Integrated Approach to Patient Safety Surveillance by WA Health Service Providers, Hospitals and the Community: 2018. Delivering Safer Care Series Report No.7. Department of Health WA. Perth; 2018

- 113. Stokes B, Review of the admission or referral and the discharge and transfer practices of public mental health/facilities/ services in Western Australia. Department of Health WA and Mental Health Commission WA. Perth; 2012.
- 114. National Mental Health Commission. Monitoring mental health and suicide prevention reform: National Report 2018. Canberra; 2018.
- 115. Mental Health Australia. Investing to Save: the Economic Benefits for Australia of Investment in Mental Health Reform. Sydney; 2018
- 116. Mental Health Commission WA. WA Mental Health Promotion, Mental Illness, Alcohol and Other Drug Prevention Plan 2018-2025. Perth; 2018
- Mental Health Council Australia. Home Truths: Mental Health, Housing and Homelessness in Australia. Sydney; 2009.
- 118. Mental Health Commission WA. Draft Western Australian Mental Health, Alcohol and Other Drug Accomodation and Support Strategy 2018-2025. Perth; 2018
- 119. WA Primary Health Alliance. Integrated Atlas of Mental Health and Alcohol and Other Drugs of Western Australia. Perth; 2017. Available from https://www.wapha.org.au/primary-health-networks/mental-health/mental-health-atlas/
- 120. Council of Australian Governments. Fifth National Mental Health and Suicide Prevention Plan. Canberra; 2017
- Mental Health Commission of New South Wales. Strategic Framework for Suicide Prevention in NSW 2018-2023. Sydney; 2018
- 122. NSW Government. NSW Begins Journey Towards Zero Suicides. Sydney 2018. Available from https://www.health.nsw.gov.au/news/Pages/20181017_00.aspx
- 123. Neami National. What we do now. Annual Report 2017-18. Melbourne; 2018.
- 124. Butler T, Callander D, Simpson M. National Prison Entrants Bloodborne Virus and Risk Behaviour Survey Report 2004, 2007, 2010 and 2013. Sydney: The Kirby Institute for Infection and Immunity in Society (UNSW Australia); 2015.

- 125. Kirby Institute. HIV, viral hepatitus and sexually transmissible infections in Australia: annual surveillance report 2017. Sydney: The Kirby Institute for Infection and Immunity in Society (UNSW Australia); 2017
- 126. Office of the Inspector of Custodial Services. Prisoners access to mental health treatment. Government of Western Australia. Perth; 2018
- 127. Moore T, Arefadib N, Deery A, West S.
 The First Thousand Days: An Evidence
 Paper. Centre for Community Child Health,
 Murdoch Children's Research Institute.
 Melbourne: 2017
- 128. Belli P, Bustreo F, Preker A. Investing in Children's Health: What are the Economic Benefits? Bulletin of the World Health Organization. 2005;83:777-84
- 129. Department of Health WA. WA End-of-Life and Palliative Care Strategy 2018–2028. Perth; 2018
- 130. Rosenwax L, McNamara B, Murray K, McCabe R, Aoun S, Currow D. Hospital and emergency department use in the last year of life: a baseline for future modifications to end-of-life care. Medical Journal of Australia. 2011;194(11):570-3
- 131. Swerissen H, Duckett S. Dying Well. The Grattan Institute. Melbourne; 2014.
- 132. Department of Communities WA.
 Early Years Initiative. Available from:
 https://www.communities.wa.gov.au/about/projects-and-programs/early-years-initiative/
- 133. WA Council of Social Services. Connecting Early Years Network. 2018 Available from: https://eyn.dropin.org.au/display/EYN/EYN+Home
- 134. Department of the Premier and Cabinet. \$49.3 million investment into early childhood initiative. Perth; Available from https://www.mediastatements.wa.gov.au/Pages/McGowan/2018/03/49-point-3-million-dollar-investment-into-early-childhood-initiative.aspx
- 135. FASD Hub Australia. Brain impairment in FASD. 2018 Available from:

 https://www.fasdhub.org.au/fasd-information/understanding-fasd/what-is-fasd/brain-impairment-in-fasd/

- 136. Telethon Kids Institute. Serving communities: FASD in the Fitzroy Valley. Perth; 2018. Available from https://www.telethonkids.org.au/contact-us/our-people/f/james-fitzpatrick/fasd-in-the-fitzroy/
- Do L, Spencer A. Oral health of Australian children: National Child Oral Health Study 2012-2014. Adelaide: Univeristy of Adelaide; 2014
- 138. Glassman P. Teledentistry: Improving Oral Health using Telehealth-Connected Teams. San Francisco, California: University of the Pacific Aurthur A. Dugoni School of Dentistry; 2016
- 139. Department of Health WA. Western Australia's Mothers and Babies, 2014. Annual report of the Western Australia Midwives' Notification System. Statistical Series no. 15. Perth; 2018
- 140. Bertilone C, McEvoy S. Success in Closing the Gap: favourable neonatal outcomes in a metropolitan Aboriginal Maternity Group Practice Program. Medical Journal of Australia. 2015;203(6):262 e1-7
- 141. Middleton P, Bubner T, Glover K, Rumbold A, Weetra D, Scheil W, et al. 'Partnerships are crucial': an evaluation of the Aboriginal Family Birthing Program in South Australia. Australian and New Zealand journal of public health. 2017;41(1):21-6
- 142. St John of God. Moort Boondjari Mia Program. 2018. Available from https://www.sjog.org.au/our-locations/st-john-of-god-midland-public-hospital/our-services/maternity/moort-boodjari-mia
- 143. Joint Select Committee on End of Life. My Life, My Choice, The Report of the Joint Select Committe on End of Life Choices. Western Australia: Parliament of Western Australia. Perth; 2018
- 144. Scottish Government. Chief Medical Officer's Annual Report 2014-15 Realistic Medicine. Edinburgh; 2016
- 145. Compassionate Care Network. Available at http://www.compassionatecommunities.net.au/#compassionate-communities
- 146. Material Provided to the Sustainable Health Review. 2018

- 147. Davis G. Sizing Ageing in Western Australia. Perth: The University of Western Australia & the Committee for Perth; 2017
- 148. Australian Institute of Health and Welfare. Hospital care for patients aged 85 and over, 2014–15. Canberra; 2017
- 149. Queensland Government Clinical Excellence Division. Comprehensive Aged Residents Emergency and Partners in Assessment Care and Treatment (CARE-PACT). Brisbane; 2018 Available from: http://clinicalexcellence.gld.gov.au/improvement-exchange/care-pact
- 150. Western Sydney Diabetes. Western Sydney Diabetes Plan 2018. Sydney; 2018
- 151. McNab J, Mallitt K-A, Gillespie J. Report of the Evaluation of HealthOne Mount Druitt. Sydney: Menzies Centre for Health Policy, The University of Sydney & The Australian National University; 2013
- 152. Wilson J and Roy B. Virtual orthopaedic clinic can we replace face-to-face appointments?. News, Orthopaedic Products. Leeds; 2014. Available from http://www.opnews.com/2014/08/virtual-orthopaedic-clinic-can-we-replace-face-to-face-appointments/7243
- 153. WA Country Health Service. Telehealth facts and figures. Perth; 2018 Available from: http://www.wacountry.health.wa.gov.au/telehealth
- 154. Varnfield M, Karunanithi M, Lee C, et al. Smartphone-based home care model improved use of cardiac rehabilitation in postmycardial infarction patients: results from a randomised controlled trial. Heart. 2014;(100):1770-9
- 155. Cheatle M, Barker C. Improving opioid prescription practices and reducing patient risk in the primary care setting. Journal of Pain Research. 2014;7:301-11.
- 156. University of New Mexico. Chronic Pain and Opioid Management (ECHO-Pain).
 Albuquergue; 2018. Available from https://echo.unm.edu/nm-teleecho-clinics/chronic-pain-and-opioid-management/

- 157. Fortescue E, Kaushal, R., Landrigan, C, et al. Prioritizing strategies for preventing medication errors and adverse drug events in pediatric inpatients. Pediatrics. 2003;111:722-9
- 158. Johns Hopkins Medical. The Johns Hopkins Hospital Launches Capacity Command Center to Enhance Hospital Operations. 2016. Available from https://www.hopkinsmedicine.org/news/media/releases/the_johns_hopkins_hospital_launches_capacity_command_center_to_enhance_hospital_operations
- 159. Advisory Board. Presentation to Sustainable Health Review Secretariat: Health System Sustainability From Silos to Systems. Perth; 2018
- 160. Ben C. The Montefiore Health System in New York: integrated care and the fight for social justice: The King's Fund; 2018. Available from: https://www.kingsfund.org.uk/publications/montefiore-health-system-summary
- St Bartholomew's House. Material provided to Sustainable Health Review. Perth; 2018
- 162. New Zealand Ministry of Health. Healthy Ageing Strategy. Wellington; 2016.
- 163. Institute for Healthcare Improvement. How "Flipped" Discharge Can Help Your Largest Patient Population. 2018 [updated 23 October 2018]. Available from: http://www.ihi.org/communities/blogs/howflipped-discharge-can-help-your-largestpatient-population
- 164. Health Technology Australia. What is a Health Technology Assessment. Canberra; 2017 Available from: http://www.health.gov.au/internet/hta/publishing.nsf/Content/about-1
- 165. Better Care Victoria. About the Better Care Victoria. State Government of Victoria,
 18 May 2016. Innovation Fund Accessed at https://www.bettercare.vic.gov.au/our-work/innovation-fund/about-the-fund

- 166. Department of Health and Human Services. HealthLinks: Chronic Care. State Government of Victoria, 18 September 2017. Accessed at: https://www2.health.vic.gov.au/hospitals-and-health-services/patient-care/healthlinks
- 167. Department of Treasury WA. Submission to the Service Priority Review. Perth; 2017
- 168. Department of Health WA. Key Performance Indicator (KPI) Report, 2016-17. Perth; 2017
- 169. Govender V. Better health services rest on building trust among healthcare workers. The Conversation. 2018. Available from https://theconversation.com/better-healthservices-rest-on-building-trust-amonghealthcare-workers-93433
- 170. NSW Government. CORE Calues. New South Wales Health. Sydney; 2017. [Last updated 7 November 2017] . Available from https://www.health.nsw.gov.au/careers/ministry/Pages/CORE-values.aspx
- 171. Rockingham Peel Group. Rockingham Peel Group tops Australia for mental health first aid. South Metropolitan Health Service. Perth; 2018. [Last updated 4 October 2018]. Available from https://www.rkpg.health.wa.gov.au/About-us/News-and-Events/Rockingham-Peel-Group-tops-Australia-for-mental-health-first-aid
- 172. Westbrook J, Atkinson V, Jones C, Braithwaite J. Endemic unprofessional behaviour in health care: the mandate for a change in approach. Medical Journal of Australia. 2018;209:380-81
- 173. Department of Health WA. Internal analysis

 Office of the Director General. Perth; 2017
- 174. Department of Health WA. Nursing Workforce Sustainability: Improving Nurse Retention and Productivity. Perth; 2014
- 175. Woo B, Lee J, Tam W. The impact of the advanced practice nursing role on quality of care, clinical outcomes, patient satisfaction, and cost in the emergency and critical care settings: a systematic review. Human Resources for Health. 2017;15(1):63

- 176. Department of Health Queensland. Allied Health Advanced Clinical Practice Framework. Allied Health Professions Office of Queensland. Brisbane; 2013
- 177. Freeman C, Rigby D, Aloizos J, Williams I.
 The Practice Pharmacist: a natural fit in the
 general practice team. Australian Prescriber.
 2016;39(6):211-4
- 178. Department of Health Victoria. Victorian Nurse Endoscopy Program. Melbourne; 2012
- 179. Trachtenberg M, et al. Peer support in mental health care: is it good value for money?

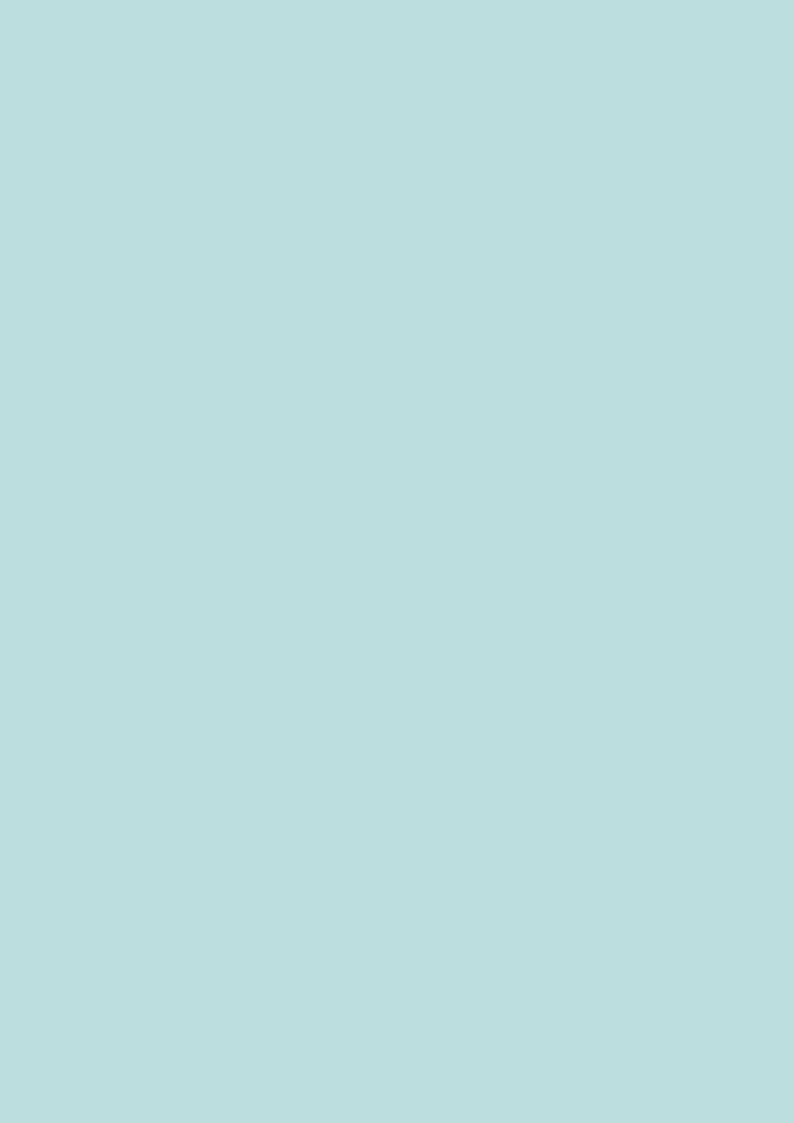
 Centre for Mental Health. London; 2013
- 180. Office of the Chief Medical Officer. General practice workforce supply and training in Western Australia: Optimising Western Australia's prevocational training to support general practice workforce development.

 Department of Health WA. Perth; 2018
- 181. Bond-Smith, S, Duncan A, Mavisakalyan A, Seymour R and Tarverdi Y (2018), 'To Health and Happiness: WA's Health Industry Future', Bankwest Curtin Economics Centre, Focus on Industry Series, Issue #3, December 2018.
- 182. Bloom J, Duckett S, Robertson A.

 Development of an interactive model for planning the care workforce for Alberta: case study. Human Resources for Health. 2012;10(1):22
- 183. Queensland Health. Advancing health service delivery through workforce: A strategy for Queensland 2017-2026. Brisbane; 2017
- 184. Government of New South Wales. Health Eductation and Training About HETI. Sydney; 2018. Available from https://www.heti.nsw.gov.au/about-heti
- 185. Bamford S, Franklin B, Hochlaf D, Holley-Moore G. Toward affordable healthcare: Why effective innovation is key. International Longevity Centre – UK. London; 2017.
- 186. Department of the Premier and Cabinet WA. \$18 million boost for WA cancer research. Perth; 2017. Available from https://www.mediastatements.wa.gov.au/Pages/McGowan/2017/07/18-million-dollar-boost-for-WA-cancer-research.aspx

- 187. Australia's National Digital Health Initiative. Digital Health: Creating a New Growth Industry for Australia. Melbourne, Victoria; 2018. Available from <a href="http://andhealth.com.au/wp-content/uploads/2018/12/Digital-Health Creating-a-New-Growth-Industry-in-Australia.pdf?bcsi_scan_c221d61a0ea4ff4c=Hb90IvojGJkDnOXibXkVvy6bhkMMAAAAMHIBKA==&bcsi_scan_filename=Digital-Health_Creating-a-New-Growth-Industry-in-Australia.pdf
- 188. Nolan T. Execution of Strategic Improvement Initiatives to Produce System-Level Results.Boston: Institute for Healthcare Improvement; 2007.
- 189. Martin L, Mate K. IHI Innovation System White Paper. Boston: Institute for Healthcare Improvement; 2018.
- 190. Walker C, Mahede T, Davis G, Miller L, Girschik J, Brameld K, et al. The collective impact of rare diseases in Western Australia: an estimate using a population-based cohort. Genetics In Medicine. 2016;19:546.
- 191. Department of the Premier and Cabinet WA. Service Priority Review Background Paper: Engaging with the Community. Perth; 2017.
- 192. Public Sector Commission, Special Inquiry into Government Programs and Projects:
 Final Report. PSC. 2018: Perth, Western Australia. Available from https://publicsector.wa.gov.au/sites/default/files/documents/special inquiry into government_programs and projects volume 1.pdf





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