





During consultation on the draft strategy, stakeholders strongly supported alignment of health infrastructure to the Sustainable Health Review (SHR), and the need for greater focus on prevention and community-based care to improve health and wellbeing and reduce hospital demand. The recommendations to clarify the future of ageing health infrastructure, such as Royal Perth Hospital, Sir Charles Gairdner Hospital and Graylands Hospital, were also strongly supported.

However, the need for greater recognition of the current pressures on the health system, which are likely to be exacerbated by the COVID-19 pandemic, was a strong theme. Amendments have been made to reflect this. The important role that not-for-profit organisations and local governments play in supporting public health and the health system also required greater acknowledgement, which has been reflected in the content.

A new sub-recommendation has been added in response to feedback that better approaches to managing health asset maintenance and upgrades are required. Electronic medical records have also been identified as the highest digital health priority.

The quality of the state's health, and its healthcare system, help position WA as a global location of choice. The state's long-term health infrastructure needs are being reshaped by rising demand, community expectations and major health system reforms. Accelerating these reforms will be critical to improving the community's health and resilience, easing demand on hospitals and delivering a more sustainable health budget.

The SHR is a major 10-year plan to transform WA's health system.³ Following billions of dollars in investment in new major hospitals over the 10 years to 2021, the SHR drives the next phase of reform – aiming to transition to a more effective and sustainable health system.⁴

The state's response to the COVID-19 pandemic has highlighted the vital role the health system plays in protecting and promoting the health and wellbeing of Western Australians.

The need for systemic change across the health sector has been building for some time. WA's population is growing and ageing. The prevalence of chronic disease, obesity and mental illness is increasing. Healthcare spending has more than doubled in the last decade to cater for rising demand, but improvements in public health and acute care outcomes have not kept pace.⁵

The pressure hospital emergency departments are under from rising presentations is well publicised. Numerous systemic challenges are impacting the ability of hospitals and their emergency departments to manage patient flow and are causing congestion. Frequent presenters, an increase in complex

and acute mental health presentations and delays in access to home care packages and the National Disability Insurance Scheme are some of the main factors. These underlying challenges also increase the impacts of stresses and shock events such as heatwaves and pandemics that bring additional patients into the healthcare system.

The WA Government invested significantly to increase the capacity of the health system to meet demand and address the impacts of COVID-19. While this investment is critical to respond to the pandemic and address short-term pressures, more work is needed over the medium to long term in addressing the underlying drivers of demand and stresses on the system.

Simply expanding hospitals to meet rising demand and improve health outcomes is not the solution, as this often does not address the underlying factors that are driving the demand. Hospitals are expensive to build and operate, with almost 75% of the health budget already directed at hospital services. WA is at the point where additional approaches are required to manage demand on hospitals.



Over the past 20 years to 2021, 2 major reviews have shaped WA's health system. In 2004, A healthy future for Western Australians: report of the Health Reform Committee recommended significant reorganisation of the system and almost \$7 billion investment in major health infrastructure, including Fiona Stanley Hospital and Perth Children's Hospital. In 2017, the WA Government initiated the SHR to drive the next phase of reform, adopting final recommendations in 2019.

Finding new ways to improve health services and outcomes, ease demand on hospitals and minimise preventable rising costs to improve health budget sustainability should be high priorities for government to pursue.

Without bold health system reform, the SHR notes that State Budget health spending is projected to increase from 30% of the total State Budget in 2017–18 to 38% by 2026–27.8 This may limit funding available for other priority areas across government.

Across Australia, health systems are facing similar challenges and, like the SHR, are embracing new models of care and advances in technology to reform the way services are provided. The SHR moves away from a model centred on hospitals and acute care to one with a stronger focus on prevention, equity, early child health, end-of-life care and seamless access to services at home and the community through the use of technology and innovation.

The SHR defines preventative health both in terms of prevention of illness and injury and prevention of hospital admissions. Preventative interventions are provided through early disease management, usually in primary care and community-based settings, or through health promotion more broadly to improve population health, to reduce health conditions and the need to treat acute illness. Community-based care refers to health services provided outside hospital settings.

Providing more integrated and accessible health services focused on prevention and early intervention can improve the quality of health care and assist in preventing people from going into hospitals. The SHR notes that in 2017–18, 51,000 (7%) of the 707,000 hospitalisations, at a cost of \$368 million each year, could have been prevented if timely and appropriate health care and management had occurred in community settings.⁹

The approach to planning and delivering health care is also shifting towards collaboration and co-design of services and infrastructure with stakeholders such as health organisations, patients and local communities to support more integrated services tailored to local needs. This is particularly important given the size of WA and the diversity of its communities.

Digital technology is transforming the health sector and is central to system reform.

Digital connectivity and interoperability provide the foundation for integrated, person-centric care. They give people and their healthcare providers access to medical information and advice wherever they are and whenever they need it. They also support health data linking and analytics and improve clinical decision-making and patient safety.

Mental health is a major focus of the SHR, as it is a part of the health system that requires sustained, holistic and transformational reform.¹⁰



There is significant unmet demand for mental health services, which is impacting the capacity of other areas of the health system. Additional community and hospital-based mental health services and facilities are required as a priority across WA.

There is also a focus in the SHR on children and young people, who represent 23% of the state's population. Building foundations for future health from the start of an individual's life has a major impact on long-term health outcomes. Addressing health risks as early as possible, through prevention and early intervention, provides greater return on investment than responding to health issues later in life.¹¹

Aboriginal health is also a focus of the SHR, with recommendation 3a of the SHR calling to 'reduce inequity in health outcomes and access to care with a focus on Aboriginal people and families in line with the WA Aboriginal Health and Wellbeing Framework 2015–2030'.12 The Aboriginal Empowerment Strategy also identifies health as a focus and reinforces the need to support healthy lifestyles and invest in prevention and early intervention to improve Aboriginal health outcomes. In WA, Aboriginal people experience unequal health outcomes compared to non-Aboriginal people. Their life expectancy is lower (by 13.4 years for men and 12 years for women) and childhood mortality rates are 3 times higher. 13 Health outcomes are a core component of Closing the Gap targets; however, recent progress has been limited.14



Digitising Western Australia's health system

Embracing digital technology is a priority to enable health system reforms, realise greater value and transform statewide service delivery.

As recommended in the SHR, in 2019 the Department of Health released the *WA Health Digital Strategy 2020–2030* (Digital Strategy).¹⁵ It envisages a 'digitally enabled public health system' with technology facilitating integrated and interactive services, and empowering consumers to self-manage their health.

The Digital Strategy identifies a range of initiatives such as electronic medical records, data analytics, artificial intelligence and remote patient monitoring. Technology to increase telehealth and virtual services to complement in-person consultations is also proposed. Technology that enables system-wide integration should be given precedence, with electronic medical records the highest priority, to overcome fragmented information management systems that hinder the ability of medical information to accompany a patient in their journey through the health system.

It will be important for the SHR and Digital Strategy to roll out together and system-wide to support a coordinated transition towards more community-based services, which will rely on being able to share information across the health system. Establishing a digital governance framework, building capability and capacity to implement major technology projects, and reviewing processes before implementing digital solutions will be critical to success.

Health and wellbeing determinants for Aboriginal people include cultural identity, family, access to traditional lands and community functioning.

To work towards achieving Closing the Gap targets, it is critically important that healthcare models for Aboriginal people are also rebalanced towards person-centric and community-based services focused on prevention and early intervention. Health care for Aboriginal people should take a holistic approach, and it is important for facilities to support delivery of services in a culturally safe and sensitive environment. Service planning and delivery should be community-led and delivered through partnerships where possible, for example, through Aboriginal Community Controlled Health Organisations.



Increasing the focus on community-based care will have a significant influence on long-term health infrastructure planning and investment. Increasing the level of services provided outside hospitals will result in more services being delivered in people's homes or closer to where they live, such as via general practitioner clinics, primary and allied health hubs, child health hubs and supported mental health accommodation. Health care will be more convenient and accessible and help maintain people's ability to live as independently as possible. Combined with other innovations, it will also help to reduce demand on hospitals and their emergency departments and improve the cost-effectiveness of the health system by providing people other ways of accessing health care.

As identified in the SHR, the Australian Government through the WA Primary Health Alliance will need to work in partnership with the Department of Health to undertake the system-wide planning required to move services out of hospital settings and provide more care in the community. However, the SHR also notes that WA has a lower number of general practitioners per person, with 79 general practitioners per 100,000 population compared to the national average of 96 general practitioners per 100,000. The Australian Government is responsible for funding access to primary health services such as general practitioners and will need to improve access to general practitioners in WA to support implementation of the SHR.

Even with a greater focus on community-based care, hospitals will continue to be a vital part of the health system and will require sustained investment. Following a decade of major health infrastructure investment in new major hospitals such as Fiona Stanley Hospital (2014) and Perth Children's Hospital (2018), the SHR notes the health system will need to manage its asset base wisely. Even still, further planning and investment in hospitals are required. The health system is supported by several ageing facilities and clear roadmaps are needed for the future of Royal Perth Hospital, Sir Charles Gairdner Hospital, Graylands Hospital and Selby Lodge.



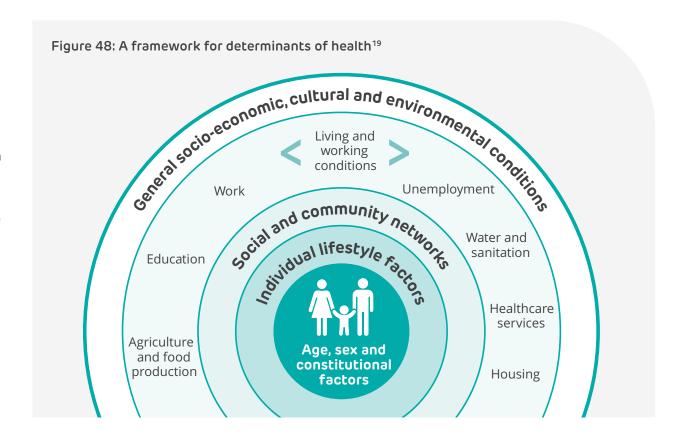
Long-term health services and infrastructure planning and investment is needed to translate the SHR into practice. It will be required to reconfigure health services and identify the infrastructure in line with new models of care. This planning should be informed by scenarios that account for long-term population growth and change, and modelling of how demand for hospitals and community-based services will change as a result of implementing the SHR. The future of Royal Perth Hospital, in particular, will need to be carefully considered given the role it plays in serving Perth's CBD, eastern metropolitan region and regional WA. System-wide planning will be necessary to clarify Royal Perth Hospital's long-term role.

While not addressed in this Strategy, it is noted that recommendation 20 of the SHR calls for short-term to medium-term capacity pressure points in the health system to be addressed, such as those in Armadale, Bunbury and Peel–Murray.

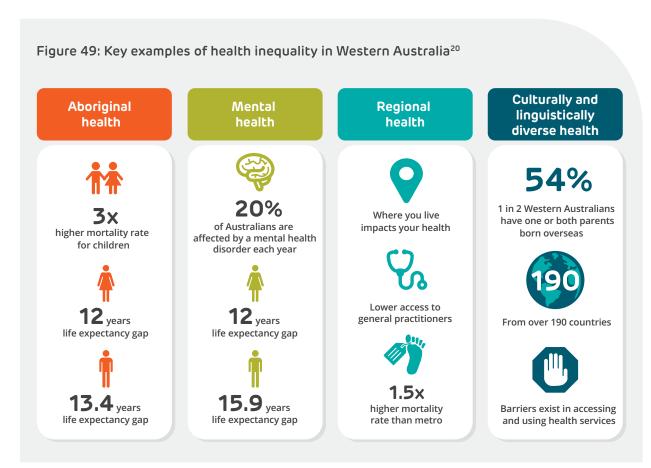
The delivery of Fiona Stanley and Perth Children's hospitals experienced several challenges, and the lessons learned should be applied to the delivery of major health projects in the future, such as the proposed Women and Babies Hospital. The public sector will need to build internal capability and capacity to manage complex major projects. This matter is addressed in detail in Recommendation 37 of the Infrastructure delivery chapter.

The health system also has a large and ageing asset base, which potentially poses a risk to the quality of health services unless properly managed. As highlighted in the Asset management chapter, the public sector, including the Department of Health, Mental Health Commission and health services providers, also need to build asset management maturity.

The built environment underpins community liveability and influences the wider determinants of health in many ways (Figure 48). ¹⁶ There are strong linkages between the quality of housing, safety of water and roads, accessibility of public transport and public open space and a range of health inequalities and chronic conditions, such as obesity, cancer and mental health, which cause the greatest disease burden in WA. ¹⁷ Figure 49 provides key examples of health inequality in WA. ¹⁸ Infrastructure should form part of a stronger preventative approach to protecting and promoting public health and reducing disease, illness and injuries, and demand on the health system.



More must be done to ensure the places where people live, work and play (whether in the Perth metropolitan area, regional or remote communities) enable them to lead healthier lives and protect communities from harm. Acting now on a range of issues that address wider determinants of health will help to address health inequalities and improve public health overall. For example, designing neighbourhoods that are well-serviced by public transport and within a walkable catchment of community facilities and public open space (for example, 20-minute neighbourhoods), and banning advertising of junk food on public infrastructure, will promote active living and help people keep physically and mentally fit. Increasing shade and the urban tree canopy to protect people from the sun and reduce the heat island effect will help to reduce cancer and manage the impacts of climate change.



Some Aboriginal people experience illnesses and diseases due to the poor environmental health conditions in which they live, particularly in remote areas, which is also reflected in higher rates of chronic disease. For example, in 2016, \$17 million of the cost of hospitalisations in the Kimberley region was attributable to environmental factors. Much-needed upgrades to infrastructure and services in Aboriginal communities can support improved environmental health outcomes. This matter is addressed in detail in the Aboriginal cultural heritage, wellbeing and enterprise chapter.

To achieve better health outcomes, the state's public health framework, including the State Public Health Plan for Western Australia and public health assessments, should play a more prominent role in facilitating whole of government action to protect and promote public health.²² Aligning of government strategic plans and programs to the State Public Health Plan for Western Australia and applying public health assessments to infrastructure proposals would provide mechanisms to address health priorities and improve outcomes. Future infrastructure projects and programs, particularly those that are required to be referred to IWA for assessment, should also be required to consider public health impacts and outcomes.

WA also has the potential to drive world-class health innovation by capitalising on its comparative advantage in the fields of health and medical life sciences. In addition to WA's



universities, major institutes such as the Telethon Kids Institute, Harry Perkins Institute of Medical Research, Lions Eye Institute, Ear Sciences Institute Australia, Perron Institute, Australian National Phenome Centre and Institute for Respiratory Health are undertaking globally significant medical research. WA also has highly valuable data banks that are internationally significant, such as the Busselton Health Study (established 1966), the ORIGINS Project (established 2017) and The Raine Study (established 1989).²³

WA's strong standing, both nationally and internationally, in health research is attracting world-leading researchers and their support teams to Perth, and the industry collaborates with international partners to pioneer new treatments and interventions. These are important foundations in developing world-class capability to supply growing markets for innovative health solutions. To date. WA researchers have had limited success in translating research into commercial ventures within WA, due partly to the state's lack of international-standard common-use facilities for the small-scale production required as the next step to commercialisation. Consequently, the intellectual property developed from research must be exported to progress to the manufacture and commercialisation phase. Establishing these facilities would leverage WA's strengths in innovation and help unlock the development of a health and medical sciences industry.

Aged care and disability sectors

There is a strong relationship between the health, aged care and disability sectors. Integrated planning and delivery of services and infrastructure should be carefully managed.

The aged care sector provides support to people aged over 65 in their own home, aged care or retirement villages. The Australian Government regulates, funds and subsidises the aged care sector and residential aged care places.

The Royal Commission into Aged Care Quality and Safety presented its *Final report: care, dignity and respect* in February 2021.²⁴ Its recommendations support increased ageing in place and in-home care, so housing design and service delivery will need to respond. Other recommendations include workforce improvements, introducing a star rating system, implementing a new Aged Care Act and accelerating in-home care packages and funding changes. Increasing the availability of home care packages will be important to reduce the number of people that have to stay in hospital while they wait

for the support they need to return home. This will help relieve some of the pressure on WA's hospitals.

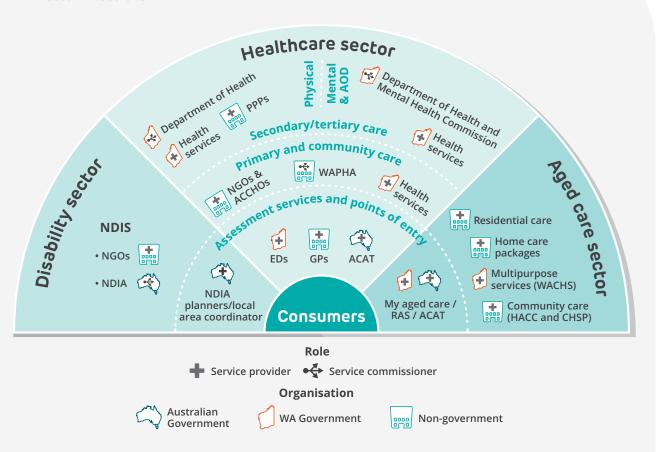
There is an undersupply of operational residential aged care beds in WA and there are major challenges in meeting demand in regional areas. IWA will monitor how the funding reforms recommended by the Royal Commission into Aged Care Quality and Safety are implemented by the Australian Government and if they result in the sustainable supply of residential aged care places.

The Australian Government also funds the National Disability Insurance Scheme, which provides people aged under 65 with support to enable them to live as independently as possible.²⁵ People accessing aged care and disability services are often also accessing health services. Integrating services and providing supported accommodation in community settings will continue to be important to improve care, support independence and reduce pressure on hospitals.

Governance

WA's health system incorporates a mix of services provided by government, private and not-for-profit organisations across the healthcare, aged care and disability sectors (Figure 50). The system is highly interdependent and providing services is challenging, given the state's size and highly dispersed communities.

Figure 50: High-level mapping of the healthcare, aged care and disability sectors in Western Australia²⁷



Within the healthcare sector:

- The Australian Government regulates and funds primary care provided through general practitioners and is guided by the WA Primary Health Alliance.
- The WA Government, through the Department of Health, provides leadership and management of the public health system. The system treats ill-health through provision of clinical services in hospitals and community-based settings. It also prevents ill-health through public health services that promote the health and wellbeing of the community and is responsible for preparing a state public health plan.
- The Department of Health and the Mental Health Commission are responsible for planning and commissioning health services from Health Services Providers (for example, North Metropolitan Health Service) that have jurisdiction over specific services or geographic areas of WA. The public health system has a large asset base with almost 90 hospitals ranging from large tertiary hospitals to smaller regional hospitals, including 3 hospitals that are managed under private-public partnerships.
- Local governments provide a range of environmental and public health services and community-based health services and are responsible for preparing local public health plans.
- The private and not-for-profit sectors play a variety of roles that support the public health system, ranging from managing hospitals and residential mental health services to providing public health programs.



Recommendations

Sustainable Health Review

IWA supports the SHR and seeks to align health infrastructure priorities with its recommendations. With almost 75% of the WA Government's health budget directed at hospital services, the system is heavily weighted in favour of hospitals and acute care.28 The benefits from implementing the SHR's recommendations are well documented. Initiatives including redesigning the health system towards integrated, community-based care and investment in primary and mental health care and digital infrastructure are needed to transform the system. It is recognised that this refocusing will need to be carefully managed to maintain services while reconfiguring a system that is already under pressure. Modelling of the health system reforms will need to be undertaken to provide clarity on the cost-benefit position of implementing the SHR and be able to monitor whether reforms are transforming the system and improving outcomes. A number of critical SHR recommendations identified below require priority action to enable other system-wide reforms to be delivered.

The Department of Health commenced implementation of the SHR in 2019, following the WA Government's adoption of the final recommendations. However, shortly after, the department had to shift focus and resources

to manage the COVID-19 pandemic, resulting in implementation falling behind schedule. While it is understood that implementation of some recommendations is occurring, limited information is publicly available on the reform implementation program and its progress.

Health outcomes, the design of clinical services and health facilities and the cost of operating the health system are intricately linked. Integrated, system-wide health services and infrastructure planning are essential to guide reconfiguration of health services in line with the SHR, and to identify the infrastructure required to support it. Planning needs to consider long-term scenarios that address factors such as population and demographic change projections and the impact of implementing the SHR. It should address resilience to climate change and preparedness for public health risks such as pandemics and involve stakeholders, medical practitioners and patients. It is anticipated that new service and infrastructure models will be trialled in many cases before they are mainstreamed across the health system, which will require new approaches to plan, manage and fund pilot projects.

However, there are significant gaps in the system-wide planning, making it difficult to assess health infrastructure priorities, particularly over the medium to long term, which must be addressed. Recommendation 20 of the SHR identifies the need to develop a 10-year state health plan to establish contemporary system-wide planning that is focused on population health needs,

contemporary models of care and robust modelling in partnership with healthcare providers across the sector. This will be important to translate the SHR into operational health planning. It is unclear whether the Department of Health and WA Primary Health Alliance have made progress on the joint planning required to reconfigure and move services out of hospitals and into primary care settings. The WA Health Clinical Services Framework 2014–2024 also needs to be refreshed as a priority to inform infrastructure planning and priorities, including options for the future of Royal Perth Hospital.

The infrastructure planning and asset management capacity of the Department of Health, Mental Health Commission and Health Service Providers must also be strengthened. Specialised expertise and experience are required to translate health services planning into infrastructure planning and the management of health assets.

In line with recommendation 18 of the SHR, establishing a sustainable funding footprint will be important to manage the health budget. It should include recurrent and capital expenditure, and targets for increasing the proportion of the health budget spent on preventative and community-based services. Preparing a system-wide strategic asset plan will also be essential to improve portfolio planning and management. This will provide a context for the Department of Health to consider priorities for the development, upgrading and maintenance of health infrastructure and how these will be managed within the sustainable funding footprint.

Case study



Reducing hospital demand in Denmark

In 2007, the European country of Denmark initiated major reforms to improve the sustainability and effectiveness of its health system by focusing on moving treatment out of hospitals and into the community.²⁹

Denmark was facing a range of challenges, such as an ageing population, increasing chronic disease, technological change and rising hospital costs. To respond, Denmark reorganised its health system by providing fewer but more specialised hospitals, increasing the supply and access to primary and community care, and investing in enabling technology, such as electronic medical records and telehealth.

Between 2007 and 2017, the number of hospitals in Denmark fell from 40 to 21, and hospital beds fell from just under 4 to almost 3 per 1,000 population. However, the quality of care did not appear to decline and life expectancy continued to rise over the time frame. In 2017, the largest category of health spending was on outpatient care (mostly including general practitioner appointments and ambulatory care in and outside of hospitals), which accounted for over one-third of all health spending.

Building on this success, Denmark is targeting a 50% increase in outpatient treatment, which is expected to result in a 20% decrease in the number of days that people spend in a hospital bed. New digital technologies will continue to underpin transformation of the health system, such as the adoption of software to optimise patient flows and manage hospital capacity.

For further information, refer to www.healthcaredenmark.dk.



To manage infrastructure investment, decision-making should be supported by a prioritisation framework that considers risk throughout the lifecycle of health assets.

The Department of Health, Department of Treasury and Health Service Providers will need to work together to develop a more effective approach to managing and funding maintenance and upgrades across the health system's large and ageing asset base, including built infrastructure, plant and equipment. This will need to be underpinned by better information on the condition and future needs of built assets. The Asset management chapter provides further details on initiatives to improve the maturity and capability of asset management practices, which are applicable to the health sector.

Recommendation 76

Alleviate demand on hospitals and support budget sustainability by:

- a. fast-tracking the implementation of the Sustainable Health Review to transition the health system to a person-centric, preventative and community-based public health system and ensuring there is adequate capacity within responsible agencies to support this
- b. providing publicly available progress reporting at least annually on Sustainable Health Review reform outcomes to support accountability and transparency.

Recommendation 77

Address gaps in the health system service and infrastructure planning by:

- a. prioritising finalisation of the review of the *WA Health Clinical Services Framework* 2014–2024 to provide a basis for system-wide service and infrastructure planning
- b. finalising development of the 10-year state health plan, including integrated clinical, infrastructure, public health, digital and workforce planning, to inform health service and infrastructure priorities
- c. establishing an agreement for a sustainable funding footprint to support change and investment required in the health system in line with the 10-year state health plan
- d. preparing an annually updated system-wide strategic asset plan that meets the requirements of the Strategic Asset Management Framework
- e. completing a full review of the *Western Australian Mental Health, Alcohol and Other Drug Services Plan 2015–2025* to ensure it continues to drive long-term system reform
- f. assessing options for private and/or not-for-profit healthcare providers to augment the public health system, such as public-private partnerships (where appropriate) and medi-hotels, when planning for health services infrastructure
- g. strengthening lifecycle asset management maturity within the health system, including:
 - i. enhancing the capacity of the Department of Health, Mental Health Commission and Health Service Providers to undertake system-wide infrastructure planning and prioritisation
 - ii. consistent with Recommendation 42a in the Asset management chapter, allocating budget to enable the Department of Health, Mental Health Commission and Health Service Providers to implement fit for purpose asset management planning and systems to ensure health infrastructure, plant and equipment is functionally fit for purpose.



Safe and stable accommodation reduces pressure on hospitals

The Mental Health Commission's *A safe place: a Western Australian strategy to provide safe and stable accommodation, and support to people experiencing mental health, alcohol and other drug issues 2020–2025* recognises that safe and stable accommodation is critical to the recovery and wellbeing of people with mental health and alcohol and other drug issues.³⁰ However, the strategy notes that 'finding and sustaining a stable home can be problematic for people with mental illness due to housing unaffordability, insecure tenancy, poor housing conditions, low income, behavioural and social issues, stigma, discrimination and a lack of appropriate support and treatment options'.

The strategy also notes that 'while there are a range of supported housing options currently available, there is still a significant shortfall in meeting the varied needs of people with mental health and alcohol and other drug issues'. It asserts that 'the lack of appropriate accommodation and support options leads to bed blockages in clinical settings, resulting in individuals remaining in acute settings far longer than needed'.

The 2021 Mental health inpatient snapshot survey found that, of the 647 mental health inpatients occupying a bed, 152 (23.5%) were deemed unable to be discharged because of a lack of suitable community-based accommodation and/or mental health support services.³¹ This highlights the flow-on effect that the lack of social housing and supported accommodation is having on other areas of the health system and the need to address it as a priority to relieve pressure on the system.

Community-based services

Mental health is a part of the health system that is under significant pressure and should be the priority for infrastructure investment. The WA Government needs to accelerate investment in mental health services and facilities, such as community-based supported accommodation, and integrate mental health services into hospitals to address capacity shortfalls across the system. Addressing gaps in regional mental health services and infrastructure will be important to improve the quality and effectiveness of care and reduce the need for regional people to travel to Perth. New facilities should also consider the needs of Aboriginal people and support the delivery of services in a culturally safe and sensitive way.

The lack of appropriate accommodation for people with mental health, alcohol and other drug issues is resulting in patients occupying hospital beds for much longer than necessary.³² The accommodation shortfall must be addressed as a priority, as recommended in the Housing chapter, to reduce reliance on costly acute services and release hospital capacity. There is also a growing shortfall in forensic mental health capacity to cater for people involved in the criminal justice system who are charged with offences but are mentally impaired or who are in prison and in need of specialist inpatient mental health care.33 Recommendations 79c and 79d should be informed by outcomes of the Graylands Reconfiguration and Forensic Taskforce.



Primary and community-based care must play a stronger role in improving health care and reducing demand on hospitals. As pointed out in the SHR, many emergency department presentations could be avoided, and many hospital admissions potentially prevented, if suitable alternatives were provided in primary care and other settings. Primary care offers significant potential to manage patient health outside hospitals and support early intervention. Partnerships between health services will be essential to facilitate planning and delivery of more integrated and effective services. The development of infrastructure, enabling increased delivery of community-based health services and the collocation of primary and allied health care to improve accessibility should be a priority.

Approximately 25% of the state's population live in regional WA and can experience poorer health outcomes and mortality rates than the balance of the population. Travelling long distances to deliver or access health services is a major challenge for many people living in regional and remote communities. Digital technology services such as telehealth and remote monitoring offer significant potential to complement face-to-face consultations and improve the accessibility and effectiveness of regional health services.

Quality regional housing is important for attracting and retaining permanent healthcare staff, as well as accommodating transient staff travelling across regional health centres. The WA Country Health Service currently leases or owns over 1,000 properties, some of which are leased through the Government Regional Officer Housing program, and many require upgrades to bring them up to an appropriate standard. Recommendation 74b of the Housing chapter recommends an independent review of regional officer housing assets and programs across the public sector, including the Government Regional Officer Housing program, to identify opportunities to improve the provision of regional officer housing.

Recommendation 78

Reduce demand on hospitals by increasing investment in community-based services, including:

- a. rebalancing and accelerating investment towards community-based mental health services and facilities, such as supported accommodation, and integrating mental health services into hospitals to address inpatient capacity shortfalls
- b. working with the Australian Government to prioritise and expand the role of primary health care in providing more integrated, community-based health services that leverage capacity and support early intervention
- c. working with the Australian Government to investigate and invest in innovative models of community-based primary health services and facilities, such as urgent-care clinics and co-located primary and allied healthcare hubs
- d. expanding application of digital technologies, such as telehealth and remote inpatient monitoring, to improve health services' quality and accessibility across WA.

Targeted investment

Royal Perth Hospital

The Royal Perth Hospital dominates the East Perth precinct of the Perth CBD and comprises many buildings spread across multiple street blocks. It plays a key role in providing health services to the Perth CBD and the eastern metropolitan area and is a well-known landmark for many Western Australians. In 2004, *A healthy future for Western Australians: report of the Health Reform Committee* recommended that tertiary services located at Royal Perth Hospital be considered for relocation to another site as part of significant reorganisation of the health system.³⁴ However, the hospital has remained open, and despite the construction of new hospitals such as Fiona Stanley and Midland hospitals, the ageing facility continues to operate as an integral part of the health system. Strategic decisions should be made on the future of Royal Perth Hospital, especially given the increasing challenges and costs





Royal Perth Hospital and Sir Charles Gairdner Hospital are ageing assets, and improved health infrastructure portfolio planning is needed to determine priority and time frames for their future. associated with maintaining and upgrading the ageing facility to support contemporary, technology enabled clinical services.

A roadmap is needed to guide the planning and investment in the Royal Perth Hospital site and should be progressed as a priority. It should consider:

- updated system-wide clinical services planning to clarify the hospital's long-term role within the health system
- potential redesign of hospital services to move services into primary care and community-based settings
- options to consolidate health, administration and support services on a portion of the site to maximise operational efficiency
- delivery staging and time frames that help to manage public cashflows and minimise competition for private and public infrastructure delivery capability and capacity
- investment required to extend the life of the hospital without adversely affecting health outcomes, with the goal of reducing lifecycle maintenance costs
- development of a vision and masterplan to revitalise the hospital precinct (aligned to the city opportunity plan proposed in Recommendation 27), which identifies opportunities to unlock land and reuse heritage buildings
- potential to create a health-focused research and innovation hub
- potential upgrading of McIver train station to improve accessibility to the hospital and wider precinct.

Sir Charles Gairdner Hospital

The Sir Charles Gairdner Hospital forms the key hub in the medical campus commonly known as Queen Elizabeth II Medical Centre, which is one of the largest medical centres in the Southern Hemisphere. The Perth Children's Hospital was recently completed, and a commitment has been made to develop the new Women and Babies Hospital adjacent to Sir Charles Gairdner Hospital to maximise synergies between facilities within the campus. The Sir Charles Gairdner Hospital is an ageing facility and integrating the buildings and information and communications technology systems will be necessary to support provision of seamless clinical services and maximise the benefit of co-locating these facilities. The siting of the new Women and Babies Hospital should also avoid unduly constraining the future development of Sir Charles Gairdner Hospital.

It is essential that the public sector applies lessons learned from the delivery of complex, major projects, such as Fiona Stanley Hospital and Perth Children's Hospital (including those reported in the Public Accounts Committee's PCH – a long waiting period and the Special inquiry into government programs and projects), to future projects such as the development of the new Women and Babies Hospital.³⁵ As identified in Recommendation 37 of the Infrastructure delivery chapter, the public sector also needs to build the skills and capacity to deliver projects of this nature as they are currently limited across the sector.



Recommendation 79

Support refocusing of the health system from hospitals and acute care to community-based services by undertaking targeted investment to modernise hospitals and address capacity gaps, including:

- a. subject to Recommendation 77a, developing a roadmap for the planning and redevelopment of Royal Perth Hospital, considering any investment required to extend its life without adversely impacting health outcomes
- subject to Recommendation 77a, developing a roadmap for the planning of and future investment in Sir Charles Gairdner Hospital
- c. informed by outcomes of the Graylands
 Reconfiguration and Forensic Taskforce,
 prioritising investment to continue
 the services provided at Graylands
 Hospital and Selby Lodge through a
 new or redeveloped facility or facilities
 or other appropriate models of care,
 and to transition patients to suitable
 accommodation, where necessary
- d. informed by outcomes of the Graylands
 Reconfiguration and Forensic Taskforce,
 prioritising investment in forensic mental
 health services to ensure appropriate,
 secured facilities for people with a mental
 illness involved in the state's criminal
 justice system.

Digital initiatives

WA will be unable to maximise health system reforms without implementing the vision of a digitally enabled public health system described in the Digital Strategy.³⁶ The Digital Strategy sets out a technology roadmap to implement several critical initiatives, such as telehealth, virtual care, remote patient monitoring and electronic medical records required to deliver benefits including person-centred care, increased community-based services and better clinical decision-making. Planning and investment in digital infrastructure to support the Digital Strategy and the electronic medical records program is a key enabler and requirement for reforming the digital platform, environment and operations of the WA health system.

Digital initiatives must be embedded within system-wide planning, and those that provide the foundations for system-wide reform, such as electronic medical records, should be prioritised.

The Department of Health should build capability and capacity to implement highly complex digital solutions. Robust planning and prioritisation of initiatives, based on a thorough audit of the health asset base, will be important to manage such a multifaceted and expensive modernisation program. The departments of Health and Treasury will need to come to early, in-principle agreement on priorities and benefits to provide clarity to proceed with developing business cases, particularly for larger initiatives.

It will also be important to progress smaller, more discrete initiatives, so that larger initiatives do not hold up ongoing implementation of the Digital Strategy.

Recommendation 80

Enable health system reforms and improve the quality and accessibility of health services in metropolitan and regional areas by prioritising and funding digital technology initiatives, identified in the WA Health Digital Strategy 2020–2030, subject to business cases, with the electronic medical records program the priority.

Preventative health

The state's public health framework, including the *State Public Health Plan for Western Australia* and public health assessment, should play a role in facilitating whole of government action to protect and promote public health and prevent chronic disease through strategic planning, regulatory processes and infrastructure proposals.

Part 7 of the *Public Health Act 2016* provides for the use of public health assessments to consider any public health risks or benefits that may result from implementing an assessable proposal, such as a project, program, plan or policy.³⁷

Public health assessments enable the Department of Health to provide advice and recommendations on public health-related matters during the planning stages of assessable proposals to decision-makers and proponents to add value or improve the public health outcomes of proposals. The Act is being implemented in a staged manner and it is anticipated that Part 7 will not commence until 2022. Regulations are to be developed to guide application of public health assessments and provide further detail on what constitutes an assessable proposal.



To minimise regulatory burden, the regulations should allow for a preliminary assessment to be undertaken during the early planning stages of a proposal to determine if a public health assessment is warranted on the basis that the proposal presents a high risk to public health or has the potential for enhanced public health outcomes. The Department of Health should also establish capacity to support public health assessments and ensure they are completed in a timely manner and do not unduly delay proposals.

Recommendation 81

Improve public health and reduce chronic disease by enabling the built environment to play a stronger role in addressing the wider determinants of health, including:

- a. aligning strategic planning and infrastructure proposals to the *State Public Health Plan for Western Australia* and reporting progress against achieving its objectives through normal reporting mechanisms, such as annual reports
- b. finalising regulations required to implement public health assessments, which should be completed for significant strategic planning and infrastructure proposals that are assessed as presenting a high public health risk or have the significant potential for enhanced health outcomes.

Aboriginal health

As with other population cohorts, it is important that healthcare models rebalance from acute care to person-centric and community-based services focused on prevention and early intervention. For Aboriginal people, it is important that health care takes a holistic approach and that services are delivered in a culturally safe and sensitive environment.³⁸ Health facilities will need to be tailored to these new approaches. Planning and delivery of services should be led and delivered by the community where possible, for example, through Aboriginal Community Controlled Health Organisations.

Recommendation 82

Reduce Aboriginal health inequity and inequality by establishing health facilities tailored to Aboriginal needs, including:

- a. supporting and funding the development of community-based primary care and allied health facilities that are designed and operated in partnership with Aboriginal communities and provide well-integrated and culturally secure wraparound services for Aboriginal people
- b. providing health facilities in Aboriginal communities that are fit for purpose and have access to high-quality digital connectivity to support ongoing and improved delivery of telehealth services.



Health and medical life sciences facilities

The health and medical life sciences sector is one of the priority sectors to grow and diversify WA's economy, as identified in Diversify WA.39 WA universities, research institutes and health service providers within the health and medical life sciences sector are undertaking world-class research and the sector has the potential to lead in areas within the field. As previously noted, the state can leverage comparative advantages in the field, such as the wealth of multiple longitudinal health and population survey data sets, world-leading early-stage research, innovative proposals for medical devices and personalised medicine, and specialised treatment trials. Common-use infrastructure arrangements have supported medical science advances in WA, such as Linear Clinical Research, a medical trials facility located on the Queen Elizabeth II Medical Centre that enables local researchers to trial leading-edge cancer treatments in an accredited environment.

Currently, there are multiple research and commercialisation opportunities that would benefit from new infrastructure and related facilities. As an early step, proponents require additional seed funding to determine feasibility, and strategically seek funding from state and federal governments and other sources to unlock commercial opportunities and public health benefits. Investment in projects, including in research and innovation precincts, can build a critical mass to create a world-class

tertiary medical teaching and innovation sector and attract skilled global talent.

To realise WA's potential in the health and medical life sciences sector, in October 2021 the WA Government released the Health and Medical Life Sciences Industry Strategy, which sets a vision for a world-class health and medical life sciences industry and aims to build a vibrant innovation ecosystem to realise the vision.⁴⁰ The strategy encompasses 5 industry sub-sectors: digital health, medical technology, biotechnology, pharmaceuticals and health and wellness. One of the objectives to realise the vision is to 'support and enhance local medtech and pharmaceutical manufacturing infrastructure capabilities', with a focus on the 'development of testing and manufacturing facilities to enable the scale up and commercialisation of local health and medical life sciences innovations'. Government investment will be required to help implement the strategy and achieve its objectives.

Separately, the WA Government has established the Future Health Research and Innovation Fund to support a strategic long-term approach to investment into health and medical research, innovation and commercialisation.⁴¹ The WA Future Health Research and Innovation Fund Strategy 2020–2022 provides a vision and strategic themes to guide development of programs and initiatives that will receive investment through the fund and includes an objective to 'support new or existing infrastructure to elevate WA as an international leader in a research or innovation field'.⁴²

To support implementation of the *Health and Medical Life Sciences Industry Strategy*, the WA Government should collaborate with the Australian Government, academia and the private sector to investigate opportunities for common-use facilities and co-fund facilities with appropriate governance structures and operational models. In parallel, the *WA Future Health Research and Innovation Fund Strategy 2020–2022* will focus the fund's support for critical infrastructure and platforms that have the potential to support WA in securing a greater share of national and international competitive funding to establish the state as a leader in key research and innovation areas.

Recommendation 83

Support health and medical life sciences industry development, research, innovation and commercialisation by co-investing in health and medical life sciences facilities, subject to business cases, including:

- a. establishing local medtech and pharmaceutical manufacturing infrastructure and capabilities to support the implementation of the *Health and Medical Life Sciences Industry Strategy* to develop a world-class health and medical life sciences industry
- b. identifying opportunities for the Future
 Health Research and Innovation Fund to
 partner with the Australian Government,
 academia and the private sector to realise
 the infrastructure-related aims of the fund.