



Government of Western Australia  
Department of Health

# WA Health and Medical Research Strategy 2023–2033

## Acknowledgement of country

The Department of Health acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal and Torres Strait Islander communities and their culture.

### **Department of Health WA**

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East Perth WA 6004

The Department would like to thank all of the organisations and individuals that participated in developing this strategy. Your time and expertise has been greatly appreciated.

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# Minister's foreword

The future is bright for Western Australia's health and medical research industry.

Health and medical research is the key that unlocks new perspectives on health care and can significantly change our lives for the better. From the first development of the smallpox vaccine through to mapping the human genome, these medical milestones have redefined how we deliver care.

In Western Australia we have a vibrant and dynamic health and medical research sector that continues to push the boundaries and explore new frontiers through research, discovery and innovation.

Demand for health care services continues to grow around the world. It's clear that we need new ways of thinking. Health and medical research is the catalyst to help us live healthier, more satisfying and productive lives.

To improve health outcomes for Western Australians we must champion local health and medical research and continue to foster a thriving culture of innovation in WA. We need to harness the skills of our researchers and attract new talent to our state's growing medical and health research precinct.

The Health and Medical Research strategy will implement the State's vision to become internationally recognised for our research and translate it to improve health outcomes for all communities. It will ensure the WA health and medical research sector can focus its efforts across strategic areas and open opportunities for engagement with consumers, future investments and new ways to leverage the State's research infrastructure.

The commercialisation of health and medical research sends ripples throughout different sectors, generating new employment opportunities and industry development. Disease prevention through research can reduce the financial burden on the primary care system and our hospitals – and makes for healthier Western Australians.

By investing in new and emerging medical research and innovation we ensure WA is well placed to meet demand for future health care services. We have an incredible opportunity to leverage our state's internationally recognised health and medical research ecosystem.

This strategy will help build partnerships, support innovation and collaboration and ensure a bright future for Western Australia's health and medical research industry. Tomorrow's health milestone will be the result of a well-connected and supported research sector and I look forward to exploring these new frontiers together.



**Hon Stephen Dawson MLC**  
Minister for Medical Research; Innovation and ICT

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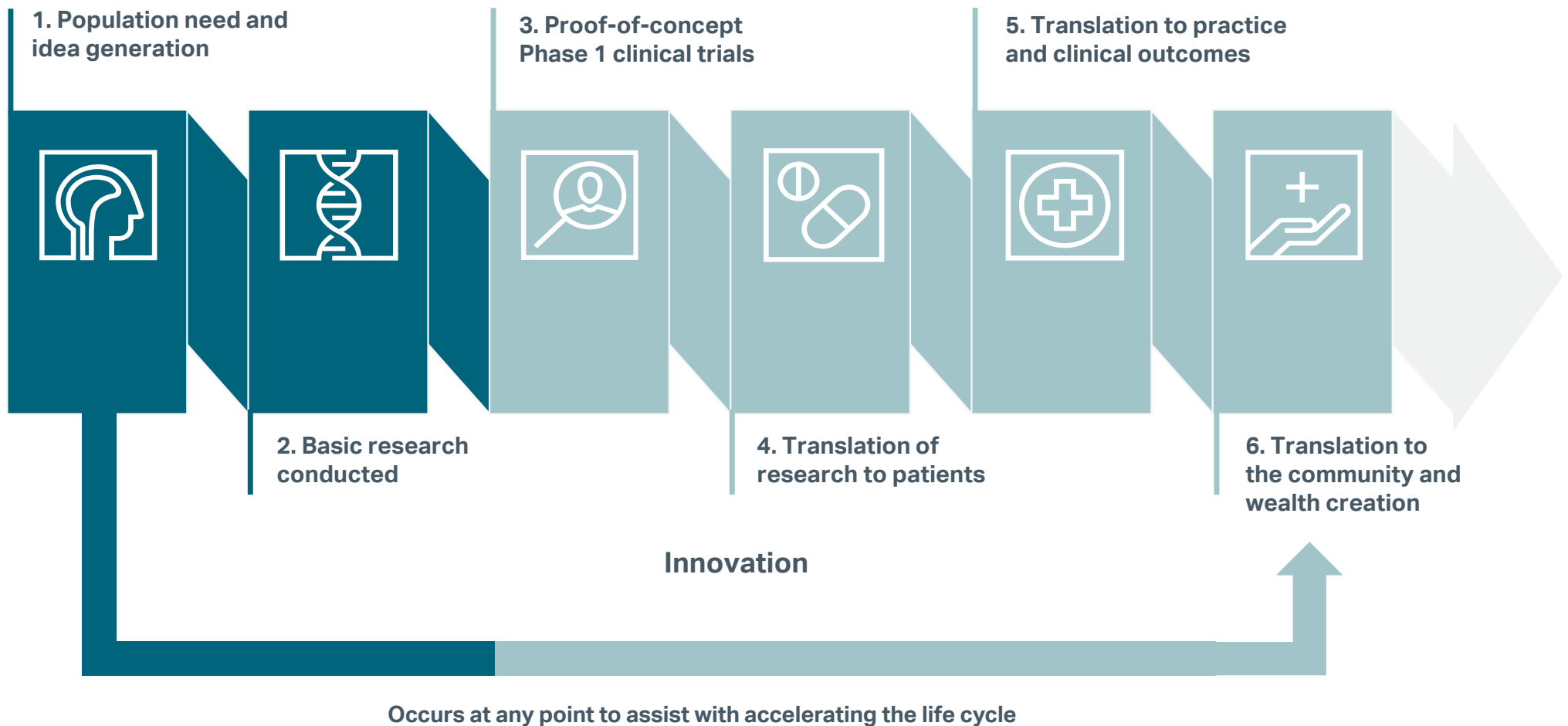


# 1. Strategic context

# Research, translation and innovation lifecycle

Traditional research in medicine and health disciplines uses scientific methods to acquire new knowledge about health and disease then translates this into improved community outcomes and commercialisation. Innovative practices in methods, enablers and infrastructure can assist research at any point. This strategy focuses on health and medical research and acknowledges the important intersection with innovation throughout the research journey.

## Traditional research and translation



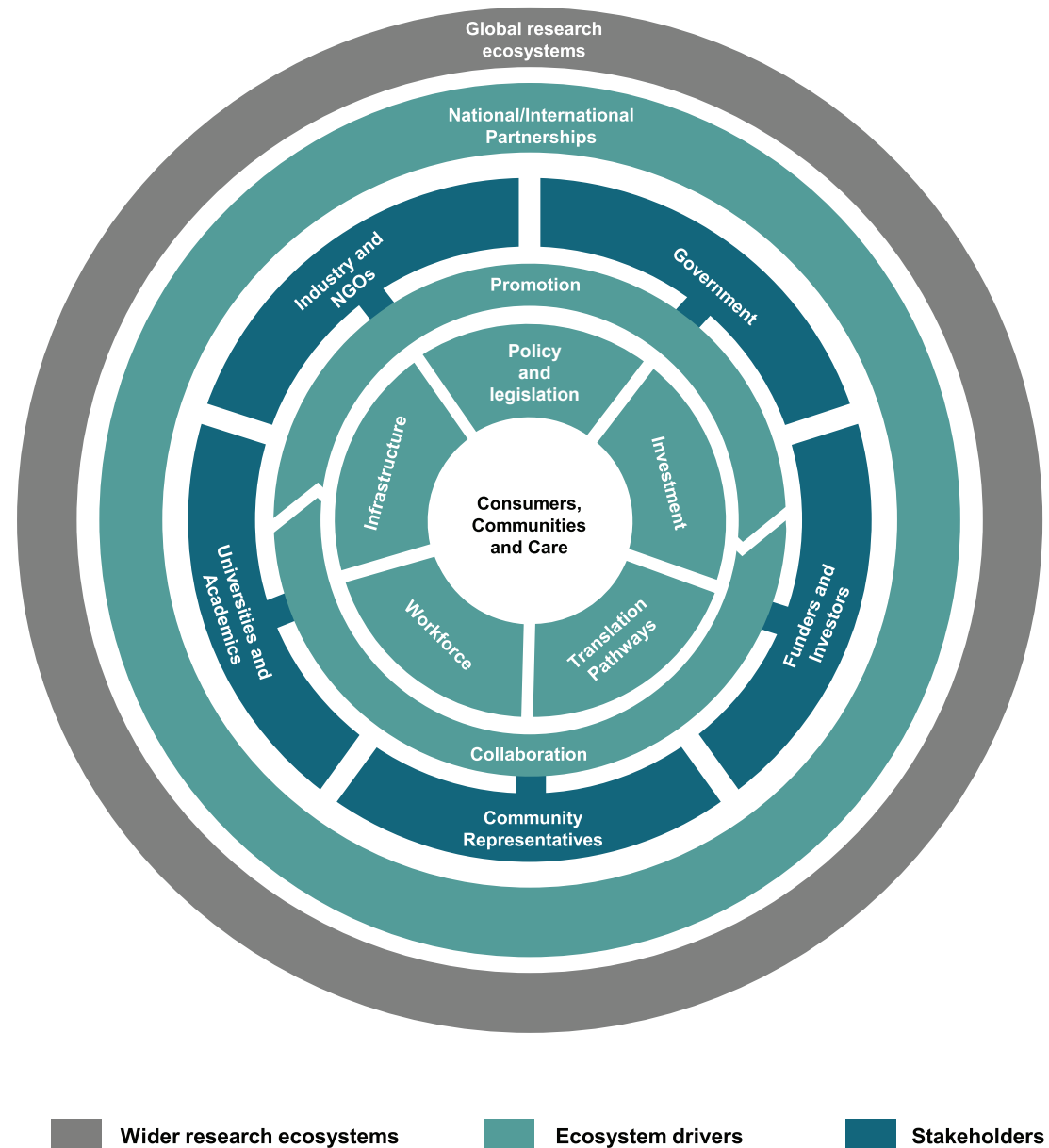
# The WA health and medical research ecosystem

The current WA health and medical research landscape is diverse.

Consumers, communities and their care is at the very centre of WA's complex health and medical research ecosystem. The ecosystem's key stakeholder groups include:

- **Community Representatives** act for those consumers impacted by research:
  - **Industry and NGOs** make up those private professionals and institutes conducting work across the research spectrum
  - **Universities and Academics** are those involved in research supported by the tertiary education sector
  - **Funders and Investors** are those looking to provide financial assistance to the ecosystem
  - **Government** consisting of both Federal and State and including government run Health Service Providers.

The State Government has established a strategy which will build on existing health and medical research strategies within the ecosystem to drive strategic growth, build meaningful relationships, invest in focus areas and monitor progress towards its vision and the larger global research ecosystems.



# WA's unique advantages in health and medical research

WA has internationally recognised health and medical research capabilities and environmental advantages. As the ecosystem grows to meet the state's wealth creation agenda, these advantages will be leveraged to unify stakeholders, consumers and government to achieve this strategy's vision for health and medical research and health care.

1

## Internationally recognised research base and significant entrepreneurial talent in health and medical sciences

- WA achieves both scientific excellence and commercial success
- There are universities, associated medical schools, multiple research institutes and the largest medical precinct in the southern hemisphere
- It hosts strong data science infrastructure and globally recognised high-performance computing.

2

## Vibrant health and medical innovation ecosystem

- There are 40+ biotech and pharmaceutical companies, and 50+ medtech and digital health companies based in WA
- There are numerous research institutes and services and support organisation across the ecosystem. The system is supported by large MRIs and other organisations.

3

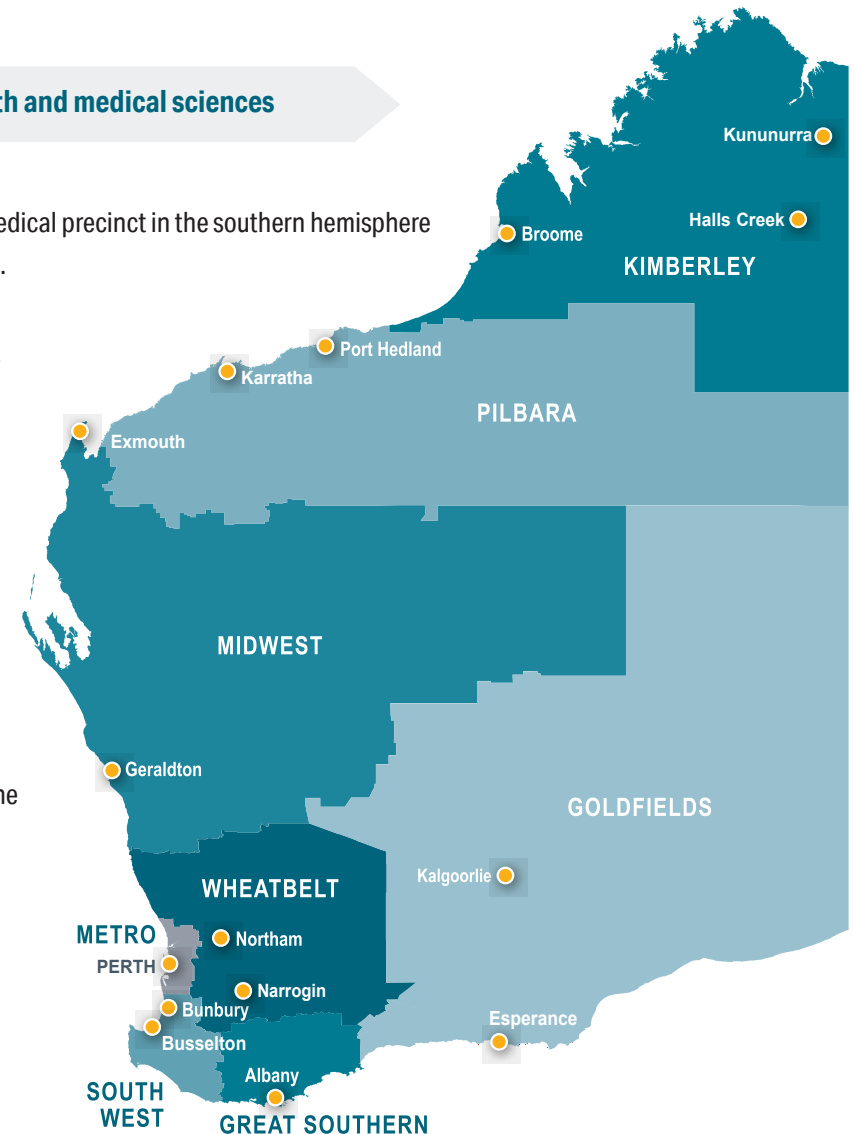
## Unique natural environment and stable population

- WA's environment has shaped local expertise and knowledge in developing niche health and medical life science products
- Geographical remoteness has spurred advances and innovation in telehealth and remote medicine
- The diverse but stable population makes it an attractive and sustainable location for research.

4

## An attractive place to live and do business

- WA provides an outstanding setting for research work, including quality infrastructure, and is aligned to the timezones of over 60% of the global population.
- It can provide ideal living conditions, including a comfortable climate, and attractive lifestyle factors for both national and international talent.





# This strategy's guiding principles and vision

The guiding principles represent the core ideals of this unified research strategy and are embedded in the formulation of the strategic vision for the future of the WA health and medical research sector.

This strategy has been designed to be owned, aligned to and driven by WA health and medical research stakeholders and the larger research ecosystem, and will be governed and supported by the WA Department of Health. This strategy is an opportunity to align the sector and leverage its core capabilities to attract talent, investment and grow the state's research infrastructure so that it becomes a global centre of excellence. Four guiding principles have been established to ensure the unified strategy encompasses key areas to drive change and collaboration across the health and medical research sector. As the strategy is implemented and revised over the next 10 years, these guiding principles can be used to ensure any changes align to the intended purpose of the strategy and its overarching vision.



## Guiding principles

- 1 Identify key areas of strategic opportunity that can provide focus to the WA Health and Medical Research Strategy.
- 2 Leverage WA's unique points of difference into competitive advantages for the research sector.
- 3 Consider inclusion of emerging and common themes across the health and medical research sector to support a collaborative and aligned research ecosystem.
- 4 Align the strategic objectives of the WA Health and Medical Research Strategy to ensure they complement each other and the achievement of the strategic vision.

The strategy's vision has been developed through widespread consultation with stakeholder groups with its intent to put consumers at the heart of the strategy and unify, elevate, and enable translation across the ecosystem.

## Vision

A collaborative consumer-driven ecosystem conducting world-leading impactful research that is translated into practice for healthier communities












## 2. WA health and medical research strategy



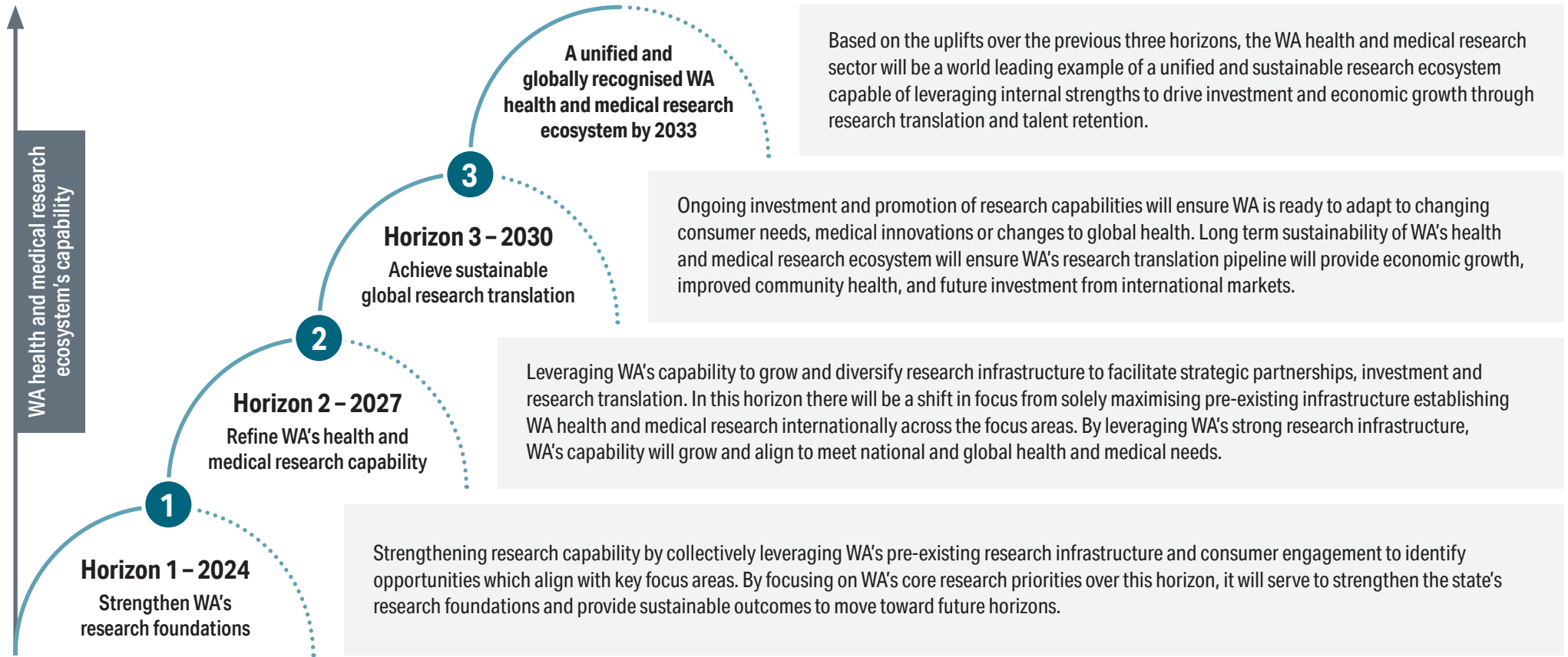
# WA health and medical research strategy 2023–2033

The *WA Health and Medical Research Strategy 2023–2033* is designed to leverage the distinct advantages and opportunities that the current ecosystem presents, inclusive of WA's unique geography and population. The strategy will operate on a 10 year timeline across 3 developmental horizons, with a 3 and 5 year review check point to ensure strategic alignment across the objectives and transition to the next horizon.

**Vision – A collaborative consumer-driven ecosystem conducting world-leading impactful research that is translated into practice for healthier communities**

Strategic goals	 <b>Build and empower workforce</b>	 <b>Grow partnerships</b>	 <b>Leverage the ecosystem</b>	 <b>Promote research</b>	 <b>Sustainable and diversified funding</b>	
Strategic objectives	<ul style="list-style-type: none"> <li><b>1.1</b> Identify and attract research talent who align with WA's strategic focus areas</li> <li><b>1.2</b> Support the ecosystem to integrate and retain health and medical research talent within research hubs</li> <li><b>1.3</b> Build workforce capacity to support research translation</li> <li><b>1.4</b> Integrate research and innovation as part of health care delivery and improvement</li> <li><b>1.5</b> Empower researchers by providing clear career pathways in research and translation</li> </ul>	<ul style="list-style-type: none"> <li><b>2.1</b> Partner with consumers in all elements of research and translation</li> <li><b>2.2</b> Drive and improve collaboration between researchers and across disciplines</li> <li><b>2.3</b> Foster partnerships between industry, universities, business and government to build research excellence and translation</li> </ul>	<ul style="list-style-type: none"> <li><b>3.1</b> Maximise and enhance existing research infrastructure to drive research excellence</li> <li><b>3.2</b> Improve access to and use of data in research and translation</li> <li><b>3.3</b> Build upon WA's digital technology infrastructure to create long-term capability across the strategic focus areas</li> </ul>	<ul style="list-style-type: none"> <li><b>4.1</b> Track and monitor WA's health and medical research and translation activities to facilitate promotion</li> <li><b>4.2</b> Promote WA's health and medical research achievements via WA's research networks both nationally and internationally</li> <li><b>4.3</b> Actively facilitate the timely translation of research findings into practice through innovation, commercialisation and policy change</li> </ul>	<ul style="list-style-type: none"> <li><b>5.1</b> Fund research and translation that aligns to strategic focus areas</li> <li><b>5.2</b> Encourage co-investment of health and medical research and translation.</li> <li><b>5.3</b> Diversify funding and investment pathways</li> <li><b>5.4</b> Align funding processes including funding rounds, acquittals and reporting</li> <li><b>5.5</b> Secure an equitable share in Commonwealth health and medical research funding</li> </ul>	
Strategic focus areas	 <b>Aboriginal health</b>	 <b>Consumer Engagement</b>	 <b>Precision health</b>	 <b>Regional and remote</b>	 <b>Digital health</b>	 <b>Prevention</b>

# Growing the WA medical research ecosystem across 5 strategic goals and over 3 horizons to meet WA's vision









The strategic goals were developed based on the key themes identified from the strategy development consultation process and insights from industry experts

# Strategic focus areas

In implementing a unified Health and Medical Research Strategy, strategic focus areas were selected to align with current health and medical research strategies within the ecosystem, and emerging priorities for Western Australia.

## Focus areas

## Why is this a focus area and how will the strategy support it?

 <p><b>Aboriginal health</b></p>	<p><b>Why is this a focus?</b> This focus area supports the National Agreement on Closing the Gap to overcome the health inequalities experienced by Aboriginal people.</p> <p><b>How will the strategy focus on this?</b> It will focus on improving the health and wellbeing of Aboriginal people by working in partnership to support research and translation that addresses health issues impacting indigenous communities.</p>
 <p><b>Consumer engagement</b></p>	<p><b>Why is this a focus?</b> Engaging consumers and communities in research drives informed activity across all research focus areas and improves translation of outcomes into meaningful practice.</p> <p><b>How will the strategy focus on this?</b> Highlighting consumer engagement as a key focus area will ensure ongoing consumer and community involvement in all aspects of health and medical research to focus research in the areas of greatest need of our community.</p>
 <p><b>Precision health</b></p>	<p><b>Why is this a focus?</b> WA's precision health workforce and infrastructure are well established across universities, hospitals and medical research institutes, producing world-standard therapeutically-relevant health and medical research and therapeutics.</p> <p><b>How will the strategy focus on this?</b> The strategy will support ongoing investment and building of the workforce capacity of this important emerging sector.</p>
 <p><b>Regional and remote</b></p>	<p><b>Why is this a focus?</b> WA's expansive geographical area creates challenges in providing responsive and focused health care to all communities across the state.</p> <p><b>How will the strategy focus on this?</b> This strategy will encourage ongoing investment in WA's research workforce and infrastructure to ensure research continues to focus on this area and ensure regional and remote communities receive high quality health care.</p>
 <p><b>Digital health</b></p>	<p><b>Why is this a focus?</b> Improved connectivity, digital solutions and data management capabilities are needed to ensure WA can unify its health and medical research efforts and provide seamless clinical care.</p> <p><b>How will the strategy focus on this?</b> It will focus on how the ecosystem maximises and evolves the current WA digital health infrastructure in areas such as telehealth, remote monitoring and other digital health solutions across the state.</p>
 <p><b>Prevention</b></p>	<p><b>Why is this a focus?</b> A strategically coordinated effort is needed to reduce the community impact of large scale preventable disease and poor social determinants of health across a geographically-diverse state.</p> <p><b>How will the strategy focus on this?</b> Utilising the pre-existing data infrastructure and community demographics the strategy will focus on continuing to position WA to establish strong epidemiological research which supports preventative health and medical research.</p>

# Strategic goal 1 – Build and empower workforce

Growth and development of WA's research workforce is critical to the overall success of the WA health and medical research industry.

Focusing on attracting and retaining new research talent aligned with the strategic focus areas will create targeted growth and expertise in WA's established fields of excellence and position WA to move through this strategy's horizons.

Strategic objectives	Why is this an objective?
1.1 Identify and attract research talent who align with WA's strategic focus areas	Focusing on supporting activities that attract talent in either research or translation for the strategic focus areas of Aboriginal health, consumer engagement, prevention, precision health, regional and remote, and digital health will enhance the ecosystem's capacity to produce and be known as global leaders in these areas.
1.2 Support the ecosystem to integrate and retain health and medical research talent within research hubs	Enhancing research hub infrastructure will improve WA's value proposition and brand globally and assist with retaining and supporting key research talent.
1.3 Build workforce capacity to support research translation	Building capability and expertise in research translation will ensure the sustainability of the research pipeline and support timely outcome-driven research.
1.4 Integrate research and innovation as part of health care delivery and improvement	Improving the process and support structure for clinicians to undertake health and medical research and increasing knowledge sharing and collaboration amongst that cohort will result in translation into solving the key health issues facing the people of WA as well as drive health service improvement.
1.5 Empower researchers by providing clear career pathways in research and translation	Increased retention of key research talent through job security and defined research career pathways to progress throughout the ecosystem will result in talent viewing research and translation as a sustainable pathway, and further enhance how the ecosystem is viewed and performs.

# Strategic goal 2 – Grow partnerships

Health and medical research needs a robust and flexible support network to facilitate scientific discoveries to address clinical need. The WA health and medical research ecosystem requires numerous enablers to support the research development lifecycle, and by establishing and growing strategic partnerships internally and externally the opportunities for the sector will also grow.

Strategic objectives	Why is this an objective?
2.1 Partner with consumers in all elements of research and translation	Improving consumer engagement in research and translation activities will result in strong outcome-driven research that is tailored to the community's needs.
2.2 Drive and improve collaboration between researchers and across disciplines	Supporting established medical research networks will further drive collaboration and knowledge sharing and increase innovation and translation.
2.3 Foster partnerships between industry, universities, business and government to build research excellence and translation	Establishing long term cross-sector partnerships across the full ecosystem will improve the research translation pipeline, ensure long term sustainability of the sector, improve economic growth and contribute to the state's international reputation.

## Strategic goal 3 – Leverage the ecosystem

WA's diverse health and medical research sector has excellent core infrastructure to facilitate world-leading research. Continuing to leverage and engage the existing infrastructure available in Western Australia will drive awareness of parallel research interests, collaboration opportunities, and pre existing solutions, to unlock the untapped potential of the current infrastructure.

Strategic objectives	Why is this an objective?
3.1 Maximise and enhance existing research infrastructure to drive research excellence	WA has excellent research infrastructure that will benefit from a focus on maximising its use, minimising duplication and identifying opportunities for further funding for infrastructure to improve our reputation for delivering research excellence.
3.2 Improve access to and use of data in research and translation	Effective data sharing will break down information silos and support data-driven research and translation activities.
3.3 Build upon WA's digital technology infrastructure to create long-term capability across the strategic focus areas	Assisting the WA ecosystem to leverage its existing and emerging digital capability including data science, high performance computing, telemedicine and digital health will further enhance health and medical research in WA.



## Strategic goal 4 – Promote research

WA is home to world-leading research and translation capabilities across a range of established and emerging research focus areas. This strategic goal seeks to improve WA's international reputation by promoting these achievements widely and clearly articulating our competitive advantages. Growing WA's reputation for producing cutting edge health and medical research or medical products is pivotal in attracting global investment and international talent.

Strategic objectives	Why is this an objective?
4.1 Track and monitor WA's health and medical research and translation activities to facilitate promotion	Developing a consolidated approach to tracking the ecosystem's achievements and activities will facilitate greater opportunities to promote these successes on the world stage.
4.2 Promote WA's health and medical research achievements via WA's research and partner networks both nationally and internationally	Coordinating and promoting the State's internationally-recognised health and medical research achievements will drive attraction of both workforce and investment, sustaining the ecosystem.
4.3 Actively facilitate the timely translation of research findings into practice through innovation, commercialisation and policy change	Creating pathways for rapid translation of research findings into practice will improve the lives of the Western Australian community, and communities around the world resulting in better health care and improved quality of life.

# Strategic goal 5 – Sustainable and diversified funding

Diversification of WA's health and medical research funding is a central enabler in driving research translation, improved investment attraction and economic growth for the state. Ensuring a balanced mix of government funding and external investment, will establish stability and long-term sustainability across the the ecosystem, supporting staff retention, infrastructure growth and international collaboration.

Strategic objectives	Why is this an objective?
5.1 Fund research and translation that aligns to strategic focus areas	Encouraging funding bodies to invest in the strategic research focus areas will provide greater opportunities to enhance WA's health and medical research and translation reputation.
5.2 Encourage co-investment of health and medical research and translation	Enhancing investor collaboration and strengthening co-investment partnerships will improve efficiency for investors, attract more investors and potentially accelerate the scale of the research outcomes and timeframes.
5.3 Diversify funding and investment pathways	Increasing access to new and unexplored funding channels will help create multi-year funding for researchers and improve investment in research infrastructure.
5.4 Align funding processes including funding rounds, acquittals and reporting	Establishing streamlined funding processes between Western Australian-based funders will reduce the administrative burden on researchers.
5.5 Secure an equitable share in Commonwealth health and medical research funding	Securing large national funding and grant opportunities will ensure the size of investment available for the WA ecosystem is considerably increased.

### 3. Appendices



# Appendix A

## Approach to developing the strategy

There were 3 phases in the approach to developing the WA Health and Medical Research Strategy which included identifying the State's initial position, and then refining and linking these to other WA strategies through research and consultation.

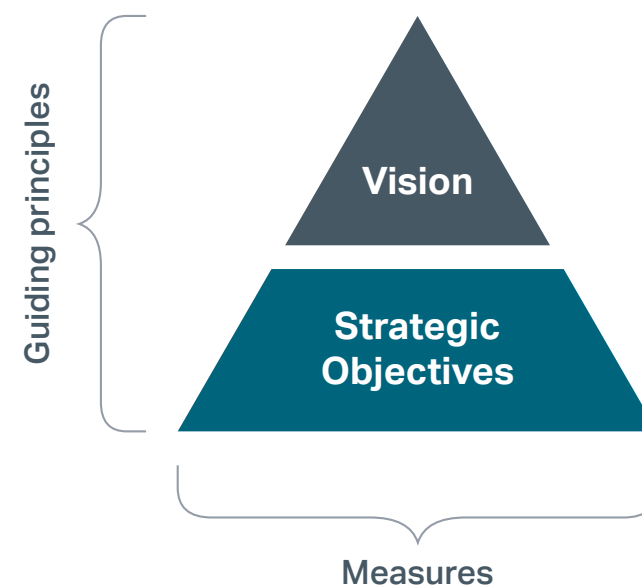
# Appendix A – Approach to developing the strategy

There were 3 phases in the approach to developing the WA Health and Medical Research Strategy which included identifying the State's initial position, and then refining and linking these to other WA strategies through research and consultations.

<b>Phase 1: Mobilise and environmental desktop scan</b>	This phase focused on establishing a plan, scheduling consultations and developing an initial position on the purpose, vision and goals for the strategy based on an environmental desktop scan <sup>1</sup>
<b>Phase 2: Consultation and refinement</b>	This phase included conducting consultations, analysis, validation and refining the strategy <sup>2</sup>
<b>Phase 3: Finalisation</b>	This phase was where the draft strategy was reviewed and finalised

In developing the Health and Medical Research Strategy, the State has developed an overall vision that is supported by a cascading approach, with strategic goals being broken down into priorities. This approach serves to take a high level concept and break it down into component parts to allow the State to link to WA players within the ecosystem and monitor progress:

- **Vision** – the desired future state that the State wants to arrive at
- **Strategic Objectives** – major areas of focus in the medium to long term
- **Guiding Principles** – fundamental guidelines that drive the strategy
- **Measures** – measures used to track progress in achieving the objectives and priorities<sup>3</sup>



1. For a summary of the environmental scan, documents reviewed and how they link to this strategy please see Appendix B
2. For a full list of organisations consulted with in the development of this strategy please see Appendix D
3. Note that measures (including KPIs) have not been included as part of this version of the strategy and will be developed in 2023

# Appendix B

## Environmental scan

To support the development of a high-level WA Health and Medical Research Strategy, an environmental scan was completed. The purpose of this scan is to understand how health, medical and research organisations have responded to the leading and emerging strategic opportunities across the medical research ecosystem. Understanding the key themes and inclusions across research strategies and plans in response to strategic opportunities was pivotal in defining the strategic vision and goals for this health and medical research strategy.

The environmental scan included local, national and international health and medical research strategies and plans, including research strategies and plans from:

- WA Government organisations
- WA Industries
- WA Universities and Academic institutes
- WA Research Funders and Investors
- Interstate and International regions

Outcomes of the environmental desktop scan were synthesised and cross-referenced to identify focal points of inclusion in developing the draft strategic vision and goals for WA's Health and Medical and Research Strategy – these were then refined and evolved through the stakeholder consultations.



# Appendix B – Environmental scan: Vision

While the strategic vision across local, national and international health and medical research strategies and plans can vary, **a number of common and emerging themes related to strategic visions** were identified through the environmental scan.



	<b>Excellence and innovation</b> Organisations both locally and nationally are striving for excellence and innovation in research
	<b>Local community focus</b> Strategies are looking at supporting the health and prosperity of their local communities and people
	<b>Global recognition and reputation</b> There is a push towards global trajectories, being world leaders, global centres, and providing world-class services
	<b>Commercialisation of research</b> Strategies are increasingly looking to facilitate meaningful commercialisation of local research
	<b>Improving how we provide healthcare</b> Improving the safety, quality and responsiveness of the health care through research
	<b>Workforce and Culture</b> Strategies are focusing on attracting talent, develop a highly skilled workforce, and enhancing the medical research culture
	<b>Collaboration and partnership</b> Organisations are looking to collaborate and position themselves as partners within the research ecosystem
	<b>Economy</b> Some strategies are beginning to bridge the link between research and sustainable economic benefits

These **common themes** were used to develop an initial vision for this strategy that was then **tested and refined through stakeholder consultations**.

# Appendix B – Environmental scan: Strategic objectives

The **common strategic objectives for health and medical research identified through the environmental scan** were categorised into 4 main themes. These themes were repeated throughout the majority of the strategies and plans reviewed.

## 1. Workforce and partnerships

- Develop skills and build capability
- Attract and retain talent
- Nurture local talent
- Provide long and diverse research career opportunities
- Promote knowledge development and transfer
- Conduct research that supports healthy people and communities
- Involve consumers in strategic research direction and decisions
- Support the clinical workforce to undertake research by advocating for quarantined research time
- Leverage global and connected workforces
- Establish a diverse, inclusive and collaborative research ecosystem culture
- Continue to ensure safety and wellbeing of research participants
- Build partnerships

## 3. Policy and legislation

- Reform policy and legislation to remove barriers to research
- Reform intellectual property, procurement and bio-prospecting frameworks to support translation and commercialisation
- Streamline research governance and ethical review and reporting

These common themes were used to develop the strategic objectives that was then tested and refined through stakeholder consultations.

## 2. Funding and investment

- Invest in people, process and systems
- Development of a coordinated investment attraction approach
- Develop relations with prospective local and international investors
- Leverage government funding to attract private sector investments
- Attract international investment
- Ensure diverse and growing funding bases, with an approach to grants management, contracts, philanthropy and business development
- Translate research into effective commercialisation and innovation
- Develop a framework to support translation of research outcomes into the health system
- Expand social venture investment
- Align research investment with strategic objectives to create competitive advantage

## 4. Infrastructure

- Establish critical common-user infrastructure and platforms to expedite advances in research
- Promote digital enablement and data linkage capabilities
- Support and enhance local manufacturing capabilities to unblock research pipelines
- Develop mixed-use research hubs and precincts
- Leverage big data and analytics





# Appendix B – Environmental scan: Interstate and international

The following **interstate and international** documents were reviewed. **Key themes were identified from this scan** which helped to shape the **initial thinking of this strategy** which was then **revised through stakeholder consultations to become the strategy presented in this document.**

	Workforce and partnerships				Funding and investment		Policy and legislation		Infrastructure	
	Attraction & retention	Education & training	Cross-sector partnerships	University partnerships	Government funding	Private investment	Regulation & reform	Commercialisation & translation	Manufacturing & facilities	Digital & data
Tasmanian Government – Research Strategy: A Three Year Plan	✓	✓	✓	✓			✓	✓		✓
Victorian Government – Health and Medical Research (HMR) Strategy	✓	✓	✓	✓				✓		✓
Gold Coast Health – Research Strategy 2022–2024	✓	✓		✓			✓	✓		
Queensland Health – Advancing Health Research 2026	✓	✓	✓	✓	✓			✓		
NSW Government – Health and Medical Research Hub Strategy	✓	✓	✓	✓	✓	✓		✓	✓	✓
Randwick Health and Innovation Precinct – Research Strategy				✓	✓			✓		✓
NSW Government – Response to HMR Strategic Review	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Medical Research Future Fund (MRFF) – Strategy 2021–2026	✓							✓		
The Australian Academy of Health and Medical Sciences	✓		✓	✓	✓					
South Australia Government – Inquiry into HMR in SA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Northern Territory Government – Health System Strategy (2020–25)	✓	✓					✓			✓
Department of Health UK – National Health Research Strategy	✓	✓	✓	✓				✓	✓	✓
Canadian Institutes of Health Research – Strategic Plan	✓	✓	✓	✓				✓	✓	✓

# Appendix B – Environmental scan: WA government

The following **WA government** documents were reviewed. **Key themes were identified from this scan** which helped to shape the **initial thinking of this strategy** which was then **revised through stakeholder consultations to become the strategy presented in this document**.

	Workforce and partnerships				Funding and investment		Policy and legislation		Infrastructure	
	Attraction & retention	Education & training	Cross-sector partnerships	University partnerships	Government funding	Private investment	Regulation & reform	Commercialisation & translation	Manufacturing & facilities	Digital & data
AAMRI Western Australia Chapter – Proposed WA Health and Medical Research Strategy 2023–2028	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
FHRIF – Strategy	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Health and Medical Life Science Industry Strategy	✓	✓	✓	✓	✓	✓		✓	✓	✓
Child and Adolescent Health Service (CAHS) – Strategic Plan	✓	✓		✓						
East Metropolitan Health Service (EMHS) – Strategic Plan	✓	✓		✓						✓
North Metropolitan Health Service (NMHS) – Strategic Plan	✓		✓	✓						
South Metropolitan Health Service (SMHS) – Strategic Plan		✓					✓			
WA Country Health – Strategic Plan			✓	✓						✓
Health Support Service – Strategic Plan	✓		✓						✓	✓
Department of Health – WA Health Promotion Strategic Framework				✓						
Department of Jobs, Tourism, Science and Innovation – Strategic Plan	✓		✓	✓					✓	

# Appendix B – Environmental scan: Industry and NGO

The following **WA industry and NGOI** documents were reviewed. **Key themes were identified from this scan** which helped to shape the **initial thinking of this strategy** which was then **revised through stakeholder consultations to become the strategy presented in this document.**

	Workforce and partnerships				Funding and investment		Policy and legislation		Infrastructure	
	Attraction & retention	Education & training	Cross-sector partnerships	University partnerships	Government funding	Private investment	Regulation & reform	Commercialisation & translation	Manufacturing & facilities	Digital & data
AAMRI Western Australia Chapter – Strategic Plan				✓			✓			
WA Health Translation Network (WAHTN) – Strategic Plan		✓	✓	✓			✓		✓	✓
Telethon Kids Institute – Telethon Annual Report	✓		✓	✓	✓			✓		
Harry Perkins Institute – Perkins Strategic Plan				✓	✓			✓	✓	
Perron Institute – Strategic Plan	✓		✓	✓	✓			✓	✓	
Lions Eye Institute – Lions Eye Institute Strategic Plan	✓							✓		
St John of God – St John Strategic Plan		✓		✓				✓		
Busselton Health Study – City of Busselton Strategic Plan				✓					✓	
Aboriginal Health Council of WA – Strategic Plan		✓		✓						
WA Primary Health Alliance – Strategic Plan				✓						✓
Australian Clinical Trials Alliance – Strategic Plan		✓	✓		✓	✓	✓			

## Appendix B – Environmental scan: University and academic

The following **university and academic** documents were reviewed. **Key themes were identified from this scan** which helped to shape the **initial thinking of this strategy** which was then **revised through stakeholder consultations to become the strategy presented in this document.**

	Workforce and partnerships				Funding and investment		Policy and legislation		Infrastructure	
	Attraction & retention	Education & training	Cross-sector partnerships	University partnerships	Government funding	Private investment	Regulation & reform	Commercialisation & translation	Manufacturing & facilities	Digital & data
Curtin University – Strategic Plan	✓	✓	✓	✓				✓	✓	
Edith Cowan University – Strategic Plan	✓	✓	✓	✓				✓		
Notre Dame – Strategic Plan	✓		✓	✓				✓		
Murdoch University – Strategic Plan			✓	✓				✓		
University of Western Australia – Strategic Plan		✓	✓	✓	✓				✓	✓

# Appendix B – Environmental scan: Funder and investor

The following **funder and investor** documents were reviewed. **Key themes were identified from this scan** which helped to shape the **initial thinking of this strategy** which was then **revised through stakeholder consultations to become the strategy presented in this document**.

	Workforce and partnerships				Funding and investment		Policy and legislation		Infrastructure	
	Attraction & retention	Education & training	Cross-sector partnerships	University partnerships	Government funding	Private investment	Regulation & reform	Commercialisation & translation	Manufacturing & facilities	Digital & data
Philanthropy Australia – Strategic Plan				✓			✓			
National Health and Medical Research Council – Strategic Plan	✓	✓	✓		✓		✓	✓	✓	✓

# Appendix C

## Strategy case studies

As part of the environmental desktop scan, key strategic documents were selected to be case studies and analysed due to their relevance to the WA Health and medical research ecosystem.

Each case study undertook a deep dive into the strategic context, objectives and goals of each reviewed strategy to identify how different regions and stakeholder groups define and prioritise their strategic objectives and what lessons could be learned in developing the WA Health and Medical research Strategy.

These are presented in the following Appendix.

# Case studies



## Strategy

A targeted 5-year strategy to address the State's decline in performance over the past decade by building on specific areas of competitive advantage, and making WA known for its research and innovation ecosystem.

In 5 years, WA will have re-established itself as a national leader in health and medical research, placing it on a trajectory to become a genuine world leader within 10 years.



## Key objectives

1. Workforce – Build and retain a world-class health and medical research and innovation workforce with the skills and capacity to sustain the research pipeline from discovery to translation and/or commercialisation.
2. National competitiveness – Return Western Australia's competitiveness for national funding programs for health and medical research to more than the national average (for success rates and dollars awarded) on a per-capita basis.
3. State funding – Increase, diversify and leverage state medical research funding to significantly lift overall investment in WA medical research.
4. Policy and legislation – Reform relevant Western Australian policies and legislation to remove barriers to health and medical research and its translation and commercialisation.
5. Infrastructure – Establish critical common-user infrastructure to expedite advances in Western Australian health and medical research.

## The Association of Australian Medical Research Institutes (AAMRI) – Western Australia Chapter

Proposed WA Health and Medical Research Strategy 2023–2028

### Strategic context

- Western Australia's low success rate for competitive grants is particularly acute at the Early-to-Mid Career Level (less than 10 years post PhD). These researchers are grappling with a fragmented funding system, which fosters chronic job insecurity. At the same time, WA is losing talented researchers to opportunities interstate and overseas.
- Western Australia has experienced a steady decline in competitive grant success rates over the past 2 decades. In 2021, WA only attracted 3.9% of NHMRC competitive funding, and had the lowest proportion of successful applications of any state or territory.
- The Future Health Research and Innovation Fund (FHRI Fund) is a critical resource for WA's health and medical research sector, but at a projected maximum distribution of \$40m p/a, it cannot provide all the funds needed to lift the state's performance.
- Some Western Australian laws and policies, including IP legislation, are stifling advancements in medical research and commercialisation.

### Aims/goals

- Build and retain a health and medical research and innovation workforce with the skills and capacity to sustain the research pipeline from discovery to translation.
- Improve Western Australia's competitiveness for national funding programs for health and medical research, including NHMRC and MRFF.
- Increase, diversify and leverage state medical research funding to lift overall investment in WA medical research.
- Reform relevant Western Australian policy and legislation to remove barriers to health and medical research.
- Establish common-user infrastructure to expedite advances in Western Australian health and medical research.

# Case studies

## Strategy

To transform research and innovation in WA and support the long-term development of the WA research and innovation ecosystem through the FHRI Fund, the Department of Health and the Advisory Council.

This will be achieved by investing in people, partnerships and platforms and creating a supportive policy environment.

## Key objectives

1. Build capability through education and training that will enable WA researchers and innovators to perform at the highest level.
2. Advance a culture of collaboration to enable multidisciplinary and cross-sectoral research and innovation partnerships.
3. Build capacity in data analytics and big data and develop systems and processes that enable data accessibility and best practice in using such data for innovation and research purposes.
4. Streamline governance and ethical review and reporting; elevate research and innovation in the public health system.

## Government of Western Australia, Department of Health WA Future Health Research and Innovation Fund Strategy 2020–2022

### Strategic context

- Whilst development is already underway on innovative 'Health and Knowledge Precincts' there is an appetite for more mixed-use hubs or precincts that would offer the ability to bring life science organisations together with other health and medical, accommodation and commercial entities.
- There are inherent barriers and enablers to a productive health and medical research and innovation environment that cannot be addressed locally and in isolation.
- A lack of opportunities and defined pathways, and the absence of a successful collaborative culture have been identified as barriers to establishing relationships with consumer and community groups, private and commercial entities and WA Health Service Providers (HSPs).
- Access to patients to run clinical trials or test products is prohibitive in WA, with companies forced to look to Queensland and other Australian states to get patient access.

### Aims/goals

- Incentivise WA researchers and innovators to hone their skills in leading international institutions and bring these skills back to the State.
- Increase pathways for researchers and innovators to forge careers in private industry, the non-government sector and the public service.
- Identify systems or processes that facilitate exchange among sectors in a way that is sustainable in the long term.
- Advance a culture of collaboration to enable multidisciplinary and cross-sectoral research and innovation partnerships.
- Identify the most appropriate standards and models for data and digital-based projects in WA and how existing WA innovation hubs can assist to design and implement these.
- Support new or existing infrastructure to elevate WA as an international leader in a research or innovation field.

Link: <https://fhrifund.health.wa.gov.au/~media/FHRI/Documents/WA-Future-Health-Research-and-Innovation-Fund-Strategy.pdf>



# Case studies



## Strategy

The government's strategy builds on industry feedback to drive the growth of the health and medical life sciences ecosystem and the commercialisation of local innovations.

The strategy focuses on supporting the growth of an ecosystem that will support innovators, taking their ideas and research through to prototyping, scale-up and commercialisation. It considers opportunities across the breadth of the health and medical life sciences industry subsectors.



## Key objectives

1. Build capability through education and training that Enhance collaboration and coordination across the health and medical life sciences ecosystem.
2. Facilitating commercialisation – Support market readiness and provide accelerated pathways for the commercialisation of health and medical life sciences products and services.
3. Developing skills and attracting talent – Build a critical mass of skills and expertise to develop and commercialise health and medical life sciences products and services.
4. Attracting investment – Facilitate access to investment necessary to progress health and medical life sciences innovations through to commercialisation.
5. Supporting infrastructure for advanced manufacturing – Support and enhance local medtech and pharmaceutical manufacturing infrastructure and capabilities.

## Department of Jobs, Tourism, Science and Innovation, Department of Health Health and Medical Life Sciences Industry Strategy 2021

### Strategic context

The strategy focus areas respond to industry's concerns regarding challenges to:

- Collaborate and scale-up operations in the current ecosystem.
- Navigate regulations to commercialise innovations, particularly regarding intellectual property, procurement and bioprospecting.
- Attract and retain relevant capabilities and skills.
- Attract large pharmaceutical companies and other investment to support progressing local innovations along the path to commercialisation.
- Access infrastructure to develop and test prototypes, and manufacture products.

### Aims/goals

- Supporting and promoting the MTPConnect WA Life Sciences Innovation Hub as a central point of facilitation and advice.
- Improving the effectiveness of government policy and processes that affect commercialisation, including procurement and intellectual property.
- Improving sector-wide capacity and capability to commercialise ideas and build successful businesses.
- Improving the attraction and retention of new talent, including entrepreneurs and business executives.
- Leveraging Western Australian and Australian government funding to attract private sector investments.
- Supporting and enhancing local manufacturing to unblock the pipeline for research, development and testing of innovative products.

Link: <https://www.wa.gov.au/system/files/2021-10/Health%20and%20Medical%20Life%20Sciences%20Industry%20Strategy.pdf>

# Case studies



## Strategy

Health and Medical Research (HMR) is a key priority for the South Australian Government. HMR not only fosters innovation and improvements in health outcomes and the wellbeing of our community, but also makes a significant contribution to our economy through attracting investment, funding and expertise to South Australia.

In early February 2020 the Premier of South Australia, the Hon Steven Marshall MP, requested the South Australian Productivity Commission (Commission) undertake an Inquiry into Health and Medical Research, to evaluate the HMR landscape in South Australia in terms of its effectiveness and competitiveness in relation to other jurisdictions.



## Key objectives

1. Increase the state's share of Australian Government funding for HMR.
2. Increase the scale and productivity of HMR across the public and private sector.
3. Increase the overall impact on HMR activity on the state's economic growth.
4. Identify and assess where improvements can be made to the structure, governance and operation of publicly funded HMR to better support sustained growth in this sector.

Link: [https://www.dpc.sa.gov.au/resources-and-publications/Health-Medical-Research\\_Response\\_F-004.pdf](https://www.dpc.sa.gov.au/resources-and-publications/Health-Medical-Research_Response_F-004.pdf)

## Government of South Australia

SA Productivity Commission – Final Report of the Inquiry into Health and Medical Research in SA 2021

## Recommendations

### Regulatory reform

- **Ethics and Governance** – further simplifying, streamlining and connecting the current ethics approval and site specific approval processes, including by proportionate processes having regard to risk and complexity, to create a 'single point of entry' for researchers, and using the new Governance and ethics management system to facilitate process reforms.

### Workforce

- Training and development to address identified skill requirements.
- Incentives to encourage a research career by health and medical professionals and promote take-up of joint hospital-university appointments and affiliations.

### Access to data

- Work with the NT Government and SA Government agencies that are users or beneficiaries of SA NT DataLink to secure appropriate ongoing core funding from the SA and NT governments together with a simplified joint venture partner funding model and governance process in line with other successful Australian data linkage programs.

### Commercialisation and translation

- Improvements to capability and commercial skills by sharing best practice and expertise and improving the understanding of relevant government policies including the IP policy.

### Enabling system architecture

- **Measure, Monitor and Report** – the South Australian Government establishes long term statewide goals for increasing the volume, productivity and health and economic impacts of HMR; sets quantitative targets such as state share of national grant funding and numbers of HMR researchers, to guide progress towards those goals; and transparently and regularly reports performance against those targets.

# Case studies



## Strategy

To ensure that the benefits from research flow to all Australians, NHMRC aims to provide:

- Supporting knowledge creation through health and medical research
  - Working with other bodies (e.g. universities, medical research institutes etc.) to gain maximum benefit from diversity of support
- Building the health and medical research workforce.
  - Continue to develop and support the 100,000 Australians involved in research.
- Promoting translation and implementation.
- Developing health research capabilities.



## Key objectives

1. Advance research excellence in all its diversity by Raise the standard of individual and public health throughout Australia.
2. Foster the development of consistent health standards between the various States and Territories.
3. Foster medical research and training and public health research and training throughout Australia.
4. Foster consideration of ethical issues relating to health.
5. Build a better NHMRC.

## National Health and Medical Research Council (NHMRC)

Strategic Plan 2010–2012

### Strategic context

- Staying at the forefront of international research by maintaining quality, relevance and building capacity.
- Providing high quality and stimulating environments for fundamental basic research and applied research in clinical practice, public health and policy research.
- Reducing the time and knowledge gap of translational research from bench to bedside and to policy development.
- Developing strategies to support the increasing complexity of research, particularly the technical skills base, the need for multi-disciplinary approaches, and ethical processes of science including.
- Considering health research workforce issues such as demands on time, career path impediments, demographic changes and competing pressures on health care professionals.

### Aims/goals

- Funding outstanding research that benefits Australians and addresses Australia's health burden.
- The building of an outstanding health research workforce, with targeted schemes that support researchers at the beginning of their careers through to researchers who are international leaders in their fields.
- Significant diversification of our funding schemes to support all research that can improve health, and with appropriate and carefully thought out ways of selecting the best applications.
- Engaging the Australian research community for the benefit of health around the world, through partnerships with international health researchers and international bodies.
- Influencing public policy and public health through research, guidelines and leading public discussion.
- Development of highly respected guidelines to improve public health and clinical practice.

Link: <https://www.nhmrc.gov.au/sites/default/files/2018-02/NHMRC-Strategic-Plan-2010-2012.pdf>

# Case studies



## Strategy

CIHR's 2021–2031 Strategic Plan establishes the context that will allow Canadian health research to be internationally recognised as inclusive, collaborative, transparent, culturally safe, and focused on real world impact.

Further, the plan envisions a future where Canadian researchers are global leaders in the development of ground-breaking discoveries that improve lives, and where Indigenous communities will lead health research that focuses on resilience, wellness, and Indigenous Ways of Knowing, resulting in equitable health outcomes.



## Key objectives

1. Advance research excellence in all its diversity by championing a more inclusive concept of research excellence.
2. Strengthen Canadian health research capacity by strengthening investigator-initiated research.
3. Accelerate the self-determination of First Nations, Inuit and Metis Peoples in health research by removing barriers to Indigenous-led research.
4. Pursue health equity through research by championing research on inequitable health outcomes.
5. Integrate evidence in health decisions by advancing the science of knowledge mobilisation.

## Canadian Institutes of Health Research Strategic Plan 2021–2031

### Strategic context

- There is a growing recognition that rewarding traditional notions of research excellence can bias research assessment and the types of research projects that are funded, thereby acting as a barrier to maximal impact.
- The research community must be broader, more diverse, and better prepared to achieve career success.
- Unfortunately, as a result of systemic discrimination, including racism, and other determinants of adverse health outcomes, there remain too many serious disparities amongst population groups in Canada.
- Despite improvements in integrated knowledge translation many promising discoveries still do not lead to new policies, practices, or products.
- Canadians are often unaware of valuable health information that could improve their lives and research evidence still takes too long to move from the centres of discovery to our health systems.

### Aims/goals

- Working with research institutions, other funding organisations, and communities, CIHR will develop and promote a renewed concept of research excellence that values the three principles of equity (fairness), diversity (representation), and inclusion (valued participation).
- Strengthen Indigenous research capacity development through training and mentoring along the entire career continuum.
- CIHR will implement a framework for action on global health research that mobilises Canadian research excellence to accelerate health equity for all.
- CIHR will prioritise investments in research at all stages of discovery and mobilisation focused on innovation, evidence to support health system transformation, and commercialisation. This aims to deliver better outcomes, at lower costs, while improving the health care experience amongst patients, families, and health practitioners.

Link: <https://cihr-irsc.gc.ca/e/52331.html>

# Appendix D

## List of organisations consulted

Key stakeholders were invited to engage in workshop consultations to discuss and provide feedback on developing this WA Health and Medical Research Strategy based on their perspective and experience.

An online feedback form was also designed and made available in the event that some stakeholders were unable to attend the workshops either virtually or in person.

This Appendix outlines the organisations involved across the 4 stakeholder groups:

- Universities and academics
- Funders
- Industry professionals
- State-based representatives (including Health Service Providers).



# Appendix D – List of organisations consulted

The following WA organisations were consulted during the development of this health and medical research strategy within specific workshops, 1:1 consultations and submission via an online feedback form.

Funders and Investors	Industry Professionals	State Representatives	Universities
<ol style="list-style-type: none"> <li>1. Future Health Research and Innovation Fund (FHRI) Advisory Council</li> <li>2. Spinnaker Health Research Foundation</li> <li>3. Ramsay Hospital Research Foundation</li> <li>4. Lotterywest</li> <li>5. Charlies Foundation for Research</li> <li>6. Raine Medical Research Foundation</li> <li>7. Spinnaker Health Research Foundation</li> <li>8. Stan Perron Charitable Foundation</li> <li>9. Crown Resorts</li> <li>10. Child Cancer Research Foundation</li> <li>11. Cancer Research Trust</li> <li>12. The McCusker Foundation</li> <li>13. The Telethon Trust</li> <li>14. Perth Children’s Hospital Foundation</li> </ol>	<ol style="list-style-type: none"> <li>1. Perron Institute</li> <li>2. AAMRI</li> <li>3. WA Centre for Rural Health</li> <li>4. Pawsey Supercomputing Centre</li> <li>5. Busselton Health study</li> <li>6. Lions Eye Institute</li> <li>7. AHCWA</li> <li>8. St John of God</li> <li>9. Artrya</li> <li>10. Linear Clinical Research</li> <li>11. MTP Connect</li> <li>12. Harry Perkins Institute</li> <li>13. Ear Science Institute</li> <li>14. Perron Institute</li> <li>15. Good Sammy</li> <li>16. Raine Study</li> <li>17. Brandon Capital</li> <li>18. Heart Foundation</li> <li>19. The Telethon Kids Institute</li> <li>20. Western Australian Cardiovascular Research Alliance</li> <li>21. WA Data Science Innovation Hub</li> <li>22. Western Australian Health Translation Network</li> </ol>	<ol style="list-style-type: none"> <li>1. South Metropolitan Health Service</li> <li>2. WA Country Health Services</li> <li>3. Department of Health</li> <li>4. Department of Jobs, Tourism, Science and Innovation</li> <li>5. North Metropolitan Health Service</li> <li>6. East Metropolitan Health Service</li> <li>7. PathWest</li> </ol>	<ol style="list-style-type: none"> <li>1. Curtin University</li> <li>2. Edith Cowan University</li> <li>3. University of Western Australia</li> <li>4. University of Notre Dame</li> </ol>



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