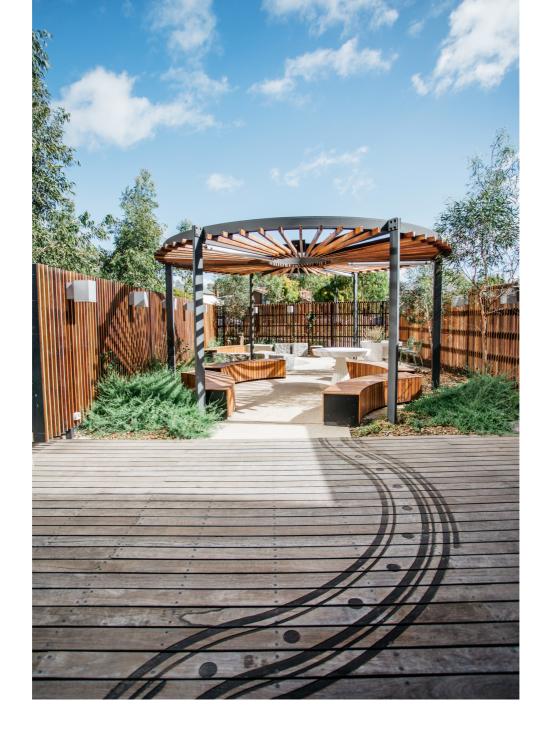
Research Plan 2022–2025







Acknowledgement of Traditional Owners

Bendigo Health would like to acknowledge and extend our appreciation to the traditional owners of the lands represented in the Loddon Mallee Region. We pay our respects to leaders and Elders past, present and emerging for they hold the memories, the traditions, the culture and the hopes of all Indigenous Peoples. We express our gratitude in sharing of this land, our sorrow for the personal, spiritual and cultural costs of that sharing and our hope that we may walk forward together in harmony and in the spirit of healing.

Table of Contents

Research Plan Overview	1
Introduction	2
Context	3
Consultation	4
What Research Should We Do?	6
Research & innovation for evidence based health care	8
Research & Innovation and our Strategic Plan	9
Research Plan Focus Areas	10
Operational Model	14

Research Plan Overview

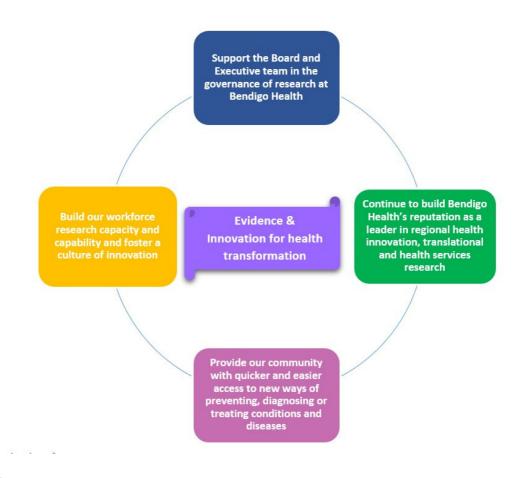
Research Plan Aim:

To establish a best practice model for health and medical research in rural and regional populations.

Research Plan Objectives:

- Build an operational plan to support rural/regional health and medical research
- Ensure good practice in research governance and compliance at all levels
- Improve health and wellbeing by extending new and emerging treatments to our regional populations
- Build workforce research capacity and capability across the region
- Attract funding to support rural and regional health and medical research
- Generate and translate research evidence into safe and effective care and services

Research Plan Focus Areas:



Introduction

Research and innovation can improve health care through advancements in medical knowledge, policy and practice, the development of innovative models of care, service delivery and technology, and contributing to the attraction and retention of a high calibre health and medical workforce. Many reports have argued that spending on research and innovation can be considered as an investment, not a cost with an estimated economic dividend of \$3.20 for every \$1.00 invested in the research workforce[1]. In health services, a robust research culture, high-quality research outputs and research translation into clinical practice are critical enablers of a high-performing health service, i.e. one that is capable of reliably delivering safe, high-quality care and great patient experiences[2].

The interconnectedness of health research and innovation and the vital role they play together in improving health and wellbeing are reflected in National and State government priorities and policy directions. The Australian Government Department of Health's Australian Medical Research and Innovation Priorities 2020–2022 and the appointment of a Minister for Innovation and Medical Research by the Victorian Government are two examples of this recognition.

Bendigo Health acknowledged the intertwined nature of research and innovation in 2018, realigning the Research and Development unit into the Innovation and Digital Services division and including the Innovation and Improvement unit functions as part of the Research and Innovation department. The Research and Innovation department has embraced this more centralised role and leveraged both the concept and resources to achieve successful outcomes for the organisation.

We have come a long way in the last four years and have established a strong reputation with government (e.g. invited to lead regional research initiatives such as CTRSS-ATP, COVID Research Funding, BHx) and with health services across the LMR (e.g. IoMT regional aged care model, Regional Telehealth Strategy, LMHCW COVID Study, COVID Visitor Restrictions Study). We have built a strong research platform and our challenge now is to take this to the next level, through generating and translating research evidence, data and metrics to benchmark, monitor and improve the safety and quality of our care.

[1] Deloitte Access Economics 2016 Australia's health and medical research workforce: Expert people providing exceptional returns. Prepared for the Australian Society for Medical Research. https://www2.deloitte.com/au/en/pages/economics/articles/australias-health-and-medical-research-workforce.html
[2] Eastern Health Research Plan 2019-2023

Context

Development of the Bendigo Health Research Plan 2022-2025 included careful consideration of the external research environment to ensure it reflects and progresses both federal and state strategic research directions. A high level summary of the most relevant government strategies for health and medical research is provided below in Table 1.

Government Research Directions	Focus Areas
Australian Medical Research and Innovation Strategy 2021-2026	 Equitable health outcomes through researchinformed preventive health and health care across the spectrum from primary to tertiary care Health and economic benefits from transformative and innovative research through translation of outcomes into policy and practice, and commercialisation of new diagnostics, therapeutics, and preventive health interventions A skilled and sustainable health and medical research workforce with expertise in research translation, innovation, and commercialisation A health and medical research sector and health system positioned to respond to emerging and future challenges.
Victorian Health and Medical Research Strategy: 2022-2032	 Talent - A supported and skilled workforce is the backbone of health and medical research Collaborate - Rural and regional Victorians have an important role to play as collaborators in Victorian health and medical research Big ideas - Big ideas flourish when interdisciplinary and collaborative approaches can be used to take them from idea to reality Generating outcomes - Encouraging entrepreneurship and innovation in medical research and attracting industry investment through partnerships will lead to greater public health and economic outcomes.
DJPR Strategic Plan 2021-2025	 Fostering innovation, research and the digital economy, and creating jobs by leveraging and securing our natural assets and regional

strengths.

Consultation

An extensive internal consultation process was also undertaken to inform the Plan including a SWOT session with the Interdisciplinary Research Steering Committee (IRSC), meetings with the Executive team and discussions with key individual researchers and stakeholders. Results from the Clinician Research Capacity and Culture (RCC) survey undertaken in 2018 were also reviewed to identify previous barriers and motivators to conducting research at Bendigo Health. An overview of our main **research strengths and opportunities** is provided below in Table 2.

Strengths	Opportunities
Support from departments – Research & Innovation (R&I), Research Office, Library	Greater support from the organisation for funding and resourcing research activity and associated research ethics and governance functions
Skills and experience in units such as Cancer, ICU, CTRSS, R&I	Leverage from existing skills within the organisation and build research culture, capacity and commitment across other units
Inclusion of a research focus in the new BH Strategic Plan with Board and CEO interest in increasing our research	Leverage inclusion of a research focus in the new BH Strategic Plan and identify resources to implement the strategy Embed research and innovation as core business at BH
Strong networks with clinicians and academic partners	Leverage emphasis in new BH strategic plan to increase internal clinically driven research and enhance partnerships/linkages between clinical units, regional health services, Public Health Unit and universities
Interdisciplinary approach	Leverage recommendations from Royal Commissions Establish a network of mentors, particularly in research methods
Regional approach	Leverage and expand regional approach to attract funding

Consultation

Our **research weaknesses and threats** share common themes which are summarised below:



- Under investment in research governance to keep pace with increasing research activity
- Minimal resourcing in research governance office, pharmacy, HREC and R&I
- Minimal funding, equipment and administration to support research activities
- Struggle to meet the criteria of the National Clinical Trials Governance Framework (NCTGF) without dedicated resources
- Staff with many competing demands, clinical priorities taking precedence and no quarantined time allocation for research
- Undefined career pathways for researchers
- Staff not knowing where to start or what resources and supports are available
- Difficulty navigating the ethics and governance requirements for new or junior researchers





- Research grants are increasingly competitive and there is a trend to larger and more centralised programs of research with fewer grant opportunities for local research
- Having to balance externally funded research with supporting internally driven research and innovation
- Difficult ePR interrogation leading to poor quality research

What research should we do?

The Bendigo Health Research Plan 2022-2025 reflects government strategic directions, builds on our current strengths and responds to emerging opportunities. The Plan also outlines an operational model to help address our weaknesses and threats.

Bendigo Health is a leading regional health service, with around 4500 staff and a catchment area covering a quarter of the size of Victoria.

We provide services across the health care continuum and across the lifespan. There is universal agreement that clinical care should be informed by the best available evidence, however the busy clinical environment can be a barrier for clinicians in keeping up to date with new evidence. We know that translating research evidence into clinical practice is essential to safe, effective and efficient health care provision. A positive and proactive research culture is associated with improved organisational performance including improved patient outcomes and satisfaction, reduced staff turnover and improved staff satisfaction, and improved organisational efficiency. With one in five people considering moving from a major capital to the regions[1], the opportunity to conduct research and innovation is a significant lever to attract that much-needed, highly-skilled future workforce.

Bendigo Health's level of research maturity has grown over the years, however we do not strive to become a laboratory-based research institute. We have a responsibility to our community to conduct applied research; "Applied research is original work undertaken primarily to acquire new knowledge with a specific application in view. It is undertaken either to determine possible uses for the findings of basic research or to determine new ways of achieving some specific and predetermined objectives"[2].

This Research Plan is designed to leverage our existing expertise in applied research and defines what research we undertake and why. Fundamentally, our research provides the evidence base for best practice and innovative service delivery, and transforms data into meaningful information to achieve improved health outcomes for our community. We will continue to build strong professional networks with our academic partners and will formalise collaborative relationships with universities to leverage research opportunities. Stronger links and research collaborations with the Loddon Mallee Public Health Unit will assist in addressing health inequities and providing evidence based solutions to public health issues for our regional communities.

Research and innovation are key drivers of value-based healthcare, integrating evidence to transform clinical and operational processes resulting in healthier patients, better patient care, lower care costs, more visibility into organisational processes and performance, increased staff morale and productivity, and higher consumer satisfaction rates[3].

[1] Regional Institute of Australia 2022

[2] Australian Standard Research Classification 2008

[3] American Hospital Association 2022 Leveraging Data for Health Care Innovation https://www.aha.org/system/files/media/file/2021/01/MI_Leveraging_Data_Report.pdf

What research should we do?

Table 3 outlines the research we do at Bendigo Health and why we do it.

Health Service Research (HSR)

Clinical Trials/Teletrials

Innovation and Improvement Translational Research

Underpinned by big data and clinical analytics



Examines how people get access to health care, how much care costs, and what happens to patients as a result of this care. The main goals of health service research are to identify the most effective ways to organize, manage, finance, and deliver care; and improve patient safety. (Agency for Healthcare Research and Quality, 2002) In addition to biomedical factors, HSR typically includes other factors that impact health—such as social determinants, the environment, personal behaviors, economics, human resources, and technologies. (Sandford Schwartz 2017; Pomeroy &



Clinical trials are research investigations in which people volunteer to test new treatments, interventions or tests as a means to prevent, detect, treat or manage various diseases or medical conditions. (Australian Government. **Australian Clinical** Trials, 2022) A teletrial allows a clinician at a larger centre (primary site) to enrol, consent and treat patients on clinical trials in partnership with smaller regional and rural centres (satellite sites), allowing patients to participate closer to home. (VCCC Alliance,

Teletrials, 2022)



Focus is on creation of something fundamentally new and different from before. Health innovation is to develop new or improved health policies, systems, products and technologies, and services and delivery methods that improve people's health, with a special focus on the needs of the community. (WHO Health **Innovation Group Includes Datathons** and Accelerator programs.



Translational research looks at how best to translate research into practice and/or policy e.g. research that addresses particular gaps in translation. (Davidson, 2011) Translational research takes the evidence from Health Services Research, Clinical Trials/Teletrials and Innovation & Improvement and translates it into evidence-based practice.

Sanfilippo 2015)

Research & Innovation for evidence-based health care

Research, innovation, quality improvement and clinical transformation all play an integral role in ensuring we provide safe, quality care based on the best available evidence. They each help Bendigo Health to achieve our strategic goals and rely on effective change management for implementation of outcomes. Whilst not all improvements are innovations, most innovations are improvements. Quality improvement and clinical transformation activities may lead to innovation and research. Figure 1 below provides a summary of how quality improvement, clinical transformation, innovation and research contribute to the evidence-based health care continuum.

Quality Improvement

Focus is on optimising existing systems/processes and eliminating defects. Ensures standards are met and maintained as part of everyday healthcare delivery. Includes structured QI activities to analyse and improve performance. Includes clinical audits to assess clinical effectiveness and to understand and address unwanted variations in care.

Clinical Transformation

Focus is on maintaining and improving the clinical, business and technology interface to drive quality improvement in patient centred clinical care. Includes people, products, processes and practice with the common goal of improving patient safety, clinical outcomes and quality care. Embeds effective, realistic change in clinical areas by building interdepartmental relationships and trust in new systems. It facilitates the resolution of issues by supporting business analysis, design and implementation of solutions.









Evidence based health care

Research & Innovation

Innovation & Improvement

Focus is on creation of something fundamentally new and different from before.

Supports our capacity and capability understanding. to implement improvements and innovations delivered as dedicated efforts and/or initiatives. Includes application of improvement science methodology research, clinical trials, with coaching & support across key teletrials and translating initiatives at Bendigo Health. Includes BHx and innovation activities such as Datathons and using data to drive safer care.

Focus is on investigation undertaken to gain knowledge and Includes generation and translation of evidence into practice. Includes health service research outcomes into health innovation for safer care.

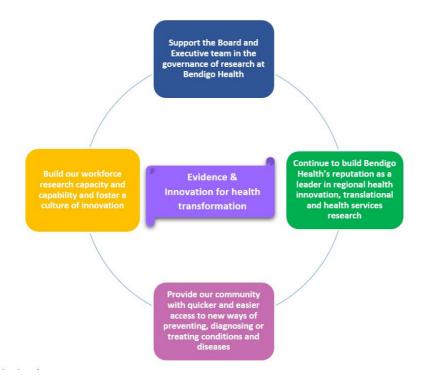
How does our research progress our Strategic Plan?

Achievement of our vision of Excellent Care. Every Person. Every Time. is underpinned by four strategic goals: Health; Access; Care; People. Our Research Plan is a key contributor to these goals, providing reassurance to our community that actions to progress these strategic goals are based on contemporary evidence. Figure 2 provides an overview of how our research contributes to our Strategic Plan.



Research Plan Focus Areas

The Research Plan focus areas will build Bendigo Health's capacity and capability for high quality research that reflects our organisational strategy and provides evidence and innovation for health transformation. Implementation of the Research Plan will achieve our aim of establishing a best practice model for health and medical research in rural and regional populations.



Focus Area One

Support the Board and Executive team in the governance of research at Bendigo Health



What we will do

Review and embed revised governance approach to simplify reporting and increase transparency and accountability for regional health and medical research

Expand research ethics and governance capacity and capability to keep up with the increase in research activity

Appoint a dedicated role to grow Bendigo Health's clinical trials maturity to meet all requirements of the National Clinical Trials Governance Framework (NCTGF)

What success looks like

Streamlined processes and templates for reporting research

Established Peer Review process to ensure that relevant and scientifically sound research is undertaken

Strategies are developed, implemented and maintained for the ethical conduct and effective communication of research

Additional resources are invested into research ethics and governance management and administration

Achieve an "Established" rating at the next accreditation assessment in three years' time

The NCTGF embeds
clinical trials into routine
health service provision
and strengthens clinical
and corporate
governance
arrangements

Focus Area Two

Continue to build Bendigo Health's reputation as a leader in regional health innovation, translational and health services research

What we will do

Expand our capacity to attract funding for research and health innovation

Build and embed the key leadership and regional coordination role of Bendigo Health in conducting and supporting regional research activities

Leverage research evidence and data to drive innovation in models of care, facilitate service planning and enhance patient outcomes

Embed human-centric innovation activity that delivers excellent patient experience and creates value by helping us work smarter, faster and safer

Research provides the evidence base for best practice and innovative service delivery

What success looks like

Increased Collaborative Research Agreements with key academic and health service partners

Establishment of a Regional Research Advisory Committee and operational model for research activity, ethics and governance

Research evidence is translated into practice

Annual Datathons focused on regional health issues (e.g COVID Datathon) are conducted and findings utilised to inform priority areas for further research

Clinician entrepreneurs and external startups are supported to accelerate the development of solutions to priority issues impacting the health of our regional communities

The Innovation Hub space is established as a dedicated co-working space that enables startups to be co-located within the health ecosystem and supports clinician entrepreneurs with a creative space and a new ideas test lab



Focus Area Three

Provide our community with quicker and easier access to new ways of preventing, diagnosing or treating conditions and diseases

What we will do

Increase access to clinical trials and teletrials for people residing in the Loddon Mallee region

Work in partnership with consumers and community to increase engagement in clinical trials

Expand clinical trial capacity and capability across speciality areas and across the region

Capture and maintain visibility of current clinical trials

Build clinical trial workforce capacity and capability

> Clinical trials help find new treatments that may help people live longer, manage certain symptoms more easily, or reduce their pain or level of disability.

> > Clinical trials also help to improve health care services by raising standards of treatment. Doctors and hospital staff involved in clinical trials are continually trained to provide best practice patient care.



What success looks like

Established processes to identify potential clinical trials and teletrials that address priority health issues in our regional community

A region-wide teletrial program including Standard Operating Procedures, templates, tools, resources, ethics and governance processes and structures, and infrastructure that support both primary and satellite sites in meeting relevant regulatory and organisational requirements

Building on current clinical trial strengths in oncology, intensive care and emergency medicine and increasing clinical trials capacity in endocrinology, gerontology orthopaedics, renal, and urology

Building on existing partnerships with TrialHub, Regional Trials Network, ReViTALISE program and CTRSS-ATP to leverage access to trials and associated resources

A credentialing program for clinical trial coordinators and research nurses

Focus Area Four

Build our workforce research capacity and capability and foster a culture of innovation

What we will do

- Leverage resources and opportunities provided by our academic, business and health service partners
- Support and guide clinician researchers in developing grant applications and research protocols targeting innovative approaches to priority focus areas
- Invest resources to enable clinician-led research and innovation
- Facilitate research training opportunities and create research career pathways for research active clinicians
- Promote research achievements and further develop a positive research culture
- Foster intrapreneurship and provide opportunities for ideas development, testing and validation
- Invest in an Innovation Manager role to develop and drive the innovation framework and model
- Leverage the external innovation ecosystem and co-design solutions that improve the health and wellbeing of regional communities

What success looks like

An established Research Fellowship program

Joint academic and honorary appointments for clinician researchers

Increased number of clinicians undertaking research higher degrees

Clinician Research Culture and Capacity survey conducted at regular intervals (e.g. every 3 or 4 years) to measure current aspects of research capacity and culture at Bendigo Health: develop strategies to address identified issues and assess any changes in capacity and culture over time

Facilitating a Clinician Entrepreneur Program

Providing coaching and mentoring for innovation and improvement activities

With 1 in 5 people
considering moving from a
major capital to the regions,
the opportunity to conduct
research and innovation is a
significant lever to attract
that much-needed,
highly-skilled future
workforce.

Operational Model

In order to advance our strong research platform further, the existing operational model has been revised to better reflect the key contribution of research to our organisational strategy and to enhance the governance of research activity. At the practical level, staff within the Research & Innovation department work across each area of research, innovation and improvement which enables access to a pool of experienced staff with skills and expertise in all of these areas, which in turn reduces costs as they can be re-allocated depending on research and innovation funding and priorities. Research is seen as a priority for the Bendigo Health Board and has a stronger focus in the new strategic plan, making it critical that Bendigo Health keeps abreast of, and aligns with, the government's strategic direction of driving investment in translational research and health innovation. Expanding rural and regional research and innovation is also a priority for both Bendigo Health and the government: the way to achieve this is by recognising the critical role the Research & Innovation department plays in progressing this priority.

Figure 4 below shows the research and innovation functional areas in blue. The Interdisciplinary Research Steering Committee provides leadership, governance and coordination to the conduct of research at Bendigo Health. The Clinical Trials Sub-group is responsible for operationalising the action plan to support compliance with the National Clinical Trials Governance Framework. The Sub-Group also provides a forum for information sharing about current and future clinical trial activity across the organisation and region.

Establishment of an Innovation Leaders Group is proposed to nurture an innovation culture and to operate as a test lab for new ideas. Cancer Services and ICU both have established clinical trials teams and are members of the Clinical Trials Sub-Group to enhance collaboration with the broader organisation-wide clinical trials initiatives. These relationships will be strengthened through the creation of streamlined processes and templates for reporting research across Bendigo Health. They will maintain existing departmental operational reporting lines. The Allied Health Knowledge Translation Research Lead reports to the Director of Allied Health and is located with, and is part of, the R&I team.

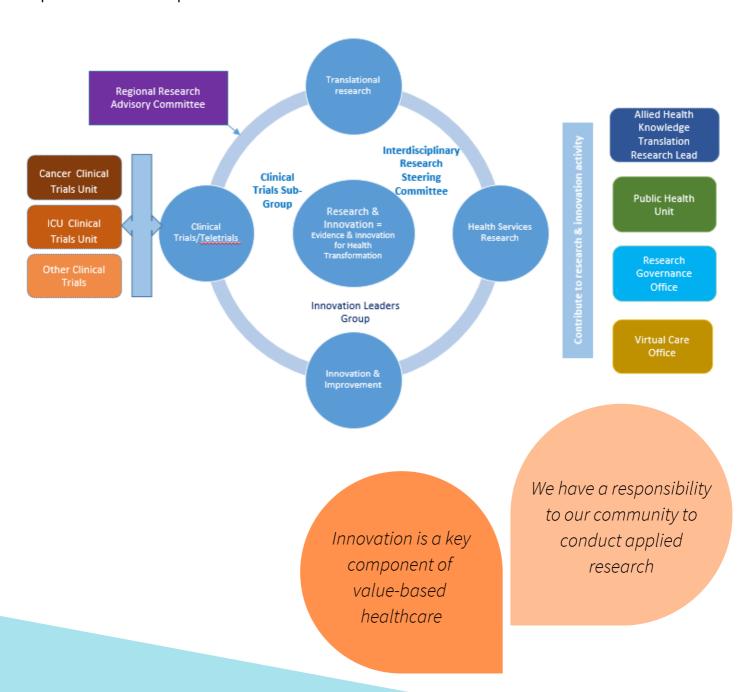
A priority activity in the Research Plan is to strengthen the research relationship between R&I and the Public Health Unit to support public health research into emerging challenges and targeted approaches to help promote better health outcomes for our regions most disadvantaged cohorts. The new Loddon Mallee Public Health Unit function should be integrated into the daily life of Bendigo Health and support the research, innovation and improvement activities of the organisation.

A strong working relationship between the Research Governance Office and the R&I department is vital to the conduct of research and innovation activity across the organisation and across the region. Increasing our research footprint will subsequently increase the RGO workload and a regional research model must address this impact.

Operational Model

As the Virtual Care Office evolves, it is also important to ensure collaboration between the activities of the VCO and R&I. The importance of virtual care models has been highlighted throughout the COVID pandemic and research into both the outcomes of existing models and future development of innovative models of virtual care are a high priority for Bendigo Health, our regional communities and the government.

A Regional Research Advisory Committee is also proposed to oversee the development of a regional research program and operational model. The Loddon Mallee Health Network is a key vehicle to drive forward regional research and the regional research advisory committee will consist of LMHN representatives and report to the LMHN Executive.







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