

# HEALTH RESEARCH FRAMEWORK

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### A message from the Surgeon General Australian Defence Force

This *Australian Defence Force (ADF) Health Research Framework 2021*-2025 (the Framework) marks a new chapter in setting a strategic approach in shaping Defence health research that will have the greatest potential to contribute to ADF capability.

Members of the ADF perform a unique role, often in dangerous circumstances, and represent the foundation of Defence's capability. The ADF takes its duty of care to Defence members very seriously and their health and wellbeing is a key Defence priority.

As Defence moves to shape, deter and respond to the rapid global changes affecting Australia's interests, the Defence Health System must also display agility and adapt to the future strategic environment and respond to Government priorities.

This Framework is critical to ensure that health research meets the strategic priorities of Defence and has been developed in close consultation with stakeholders across the Defence enterprise as well as key external stakeholders. A purpose, objectives and implementation plan have been developed to anchor the Framework.

Our customers and stakeholders have been clear about what they expect from Defence health research today and into the future. Defence needs to optimise Australia's relative advantages in health research expertise and infrastructure. Our stakeholders also expect more streamlined and systematic engagement with research partners to ensure high quality, relevant and timely research is delivered to optimise ADF capability.

Defence is committed to the continuous improvement of Defence Health System service delivery, policy and programs through translation and dissemination of research outcomes.

I would like to thank all who contributed to this important initiative and I am pleased to present the *ADF Health Research Framework 2021-2025*.

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### Introduction

Defence protects and advances Australia's strategic interests through the provision of military capabilities, to promote security and stability and to provide support for the Australian community and civilian authorities, as directed by the Government. Australia's Defence policy must be agile and adaptive to be responsive to changing geopolitical and geo-economic circumstances and the evolving strategic environment.<sup>1</sup>

Members of the Australian Defence Force (ADF) perform a unique role that ranges from the requirement, when called upon, to fight and win in high-end warfighting, through the full spectrum of peacekeeping, regional stabilisation, military diplomacy and domestic response operations<sup>2</sup>. Health and wellbeing of members of the ADF is a key Defence priority to ensure members are fit to fight and fit for life.<sup>3</sup>

The purpose of the Health Research Framework (herein referred to as the Framework) is:

To shape a pathway by which health research will transition from knowledge to action, to maximise Defence capability.

The objectives are to:

- adopt a unified, consistent approach to health research that meets the strategic priorities of Defence;
- optimise Australia's relative advantages in health research expertise and infrastructure;
- develop more streamlined processes and systematic engagement with partners;
- deliver high-quality, relevant and timely research; and
- support the continuous improvement of health service systems delivery, policy and programs through translation and dissemination of research outcomes.

The Framework provides the boundaries and parameters for Defence to successfully embark, continually evolve and maintain momentum for Defence fit-for-purpose health research.

<sup>1</sup>2020-24 Defence <u>Corporate Plan</u>

<sup>&</sup>lt;sup>2</sup> Lead the Way Defence Transformation Strategy

<sup>&</sup>lt;sup>3</sup> Joint Health Command 2019-2020 Business Plan:

## Why is health research important?

Health research is of key importance to support the optimisation of ADF capability through enabling a Defence Health System that is ready, responsive and resilient.

Health research will enable the assessment and evaluation of new and emerging technologies and threats to health and performance as well as enhance insights of the unique occupational and environmental factors impacting the ADF workforce.

Health research offers an opportunity to focus on preventive health measures to mitigate against rising healthcare costs and also to provide strategies to support a whole-of-life approach to caring for ADF members throughout their career and beyond as they transition, strengthening links between the Department of Veterans' Affairs (DVA) and Defence.

A key outcome of health research will be implementing findings and feedback into force planning processes to improve the health and wellbeing of all ADF members.

## **Principles**

Three guiding principles have been established to help achieve the purpose of the Framework.

### Collaboration

- Foster engagement and collaboration across disciplines, institutions, sectors and countries to capitalise on different perspectives, specialist skills and new knowledge and technologies.
- Harness partnerships between professional practice, research and education.
- Involve Defence personnel and the ADF community in the research process.

### **Research excellence and efficiency**

- Embrace innovation and a range of research approaches underpinned by well-designed methodologies and scientific rigour.
- Avoid duplication of research programs and optimise leveraging existing accessible data.
- Pursue opportunities that make the best use of investments in research and expertise to ensure cost effectiveness and efficiency.
- Create a research funding model to ensure investment in health research has the greatest impact for Defence capability.
- Conduct ethical research that keeps research participants safe, protects the privacy of individuals, and respects Defence personnel and their families.

### Transparency

- Select the most appropriate research projects without bias and fit for purpose through rigorous assessment.
- Share ideas and information freely and openly.
- Consistently monitor research activities.
- Evaluate what works on a regular basis and make required improvements.
- Make findings from research, quality assurance and evaluation activities easy to discover and access, as appropriate<sup>4</sup>.

### **Development of the Framework**

The process to develop the Framework is presented in Figure 1 below.



#### Figure 1: Steps to develop the Framework

### Snapshot of key findings

As highlighted in Figure 1, the early stages of developing the Framework included a desktop scan of health research (scanning process) conducted across JHC within the last two years and consultation with key internal and external stakeholders.

Key findings from the scanning process found that JHC is involved in a significant volume of health research, both internally and externally. The majority of research and partnerships is associated with infectious diseases, mental health, and military medicine.

The majority of research projects and the sources of funding are externally based. This highlights significant interest from the research sector in the Defence environment as well as opportunities for Defence to leverage external research capacity to meet its strategic needs.

It should also be noted that the impact of COVID-19 on research funding and capacity may have also influenced health research conducted across JHC during the past two years.

However, there were some limitations with the scanning process mainly due to the absence of a consistent monitoring mechanism for health research. Further work is also required to understand the broader breadth and depth of research activities that have been conducted in recent years across the Defence enterprise.

Key findings from the consultation phase reflected seven key themes, summarised in the following table.

Table 1: Summary of consultation findin
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Theme	Key findings
Governance	<ul> <li>There is confusion for internal and external stakeholders relating to processes to: obtain Defence organisational support; access data; seek approval for publication of research findings; and monitor progress of research proposals through the existing health research governance system.</li> <li>A lack of clear guidance and processes to enable Defence to conduct thorough assessments of health research proposals and their value to Defence strategic priorities.</li> </ul>
Dissemination and translation	<ul> <li>Delays in research proposal assessment and approval processes result in further setbacks in timely production and translation of research findings.</li> <li>Support for high quality research and surveillance to improve decision making and produce outcomes for rapid translation to maximise impact.</li> </ul>
Data	<ul> <li>There is support for better utilising existing health data of ADF members and surveillance to identify critical and urgent health priorities.</li> <li>There is support for data linkage, interoperability, predictive analysis, prospective cohort trials and longitudinal research using appropriate administrative and research data.</li> </ul>
Partnerships	• Improve partnerships both internally, to avoid silos, and externally - in Australia and overseas, and leverage external stakeholders to broaden research base and pursue innovation.
Research focus	<ul> <li>There is support to investigate alternative health service delivery models for continuous improvement.</li> <li>Build on recommendations from previous research, where possible.</li> <li>Conduct research with ADF members that has a whole-of-life focus from recruitment through to post separation and working with agencies pre- and post-service.</li> <li>Strengthen research on prevention, education and awareness.</li> </ul>
Workforce	<ul> <li>There is support to strengthen research capability in the Defence research workforce to ensure the conduct of high quality health research.</li> <li>There is also support to promote awareness of the value of health research to broader Defence personnel.</li> </ul>
Strategic priorities	<ul> <li>Identify synergies and leverage other Defence and DVA strategies and frameworks (refer to Appendix A).</li> <li>There is support to establish a priority setting process to identify JHC and Defence strategic health research priorities both in the current climate and forward looking.</li> </ul>

### The Framework at a glance

Figure 2 presents the overarching purpose, principles, objectives and strategies for the implementation of the Framework. The strategies present the types of activities to be conducted. A separate Implementation Plan (IP) document will include detailed information to ensure timely and effective implementation.





## Strategies

### 1. Develop a process to identify health research that meets the strategic priorities of Defence.

An important consideration for this Framework is to pursue health research that maximises Defence capability. One of the priorities is also for JHC to respond to the current and future health needs of the population it serves – ADF members.

In the context of Defence health research on an international level, Defence participates in The Technical Cooperation Program (TTCP) Human Resources and Performance Group, a collaborative information sharing forum comprising the five nations of United States, United Kingdom, Australia, Canada and New Zealand. JHC representatives support three of the six working groups relating to mental health resilience, military medicine and human resources. The role of representatives is to identify current and emerging priorities for Defence and explore information sharing to progress research.

The priority setting process will recognise there are multiple influences that will shape Defence health research priorities. This includes, but is not limited to, collaborative research which takes into consideration the goals of partners<sup>5</sup>.

Activities that could be considered to develop a process to identify health research to meet the strategic priorities of Defence include:

- investigating ways to develop a health profile of ADF members based on evidence through, for example, previous research, surveillance data, health and medical records, real time incident reporting;
- further investigating the breadth and depth of health research that has been conducted recently across the Defence enterprise (to build on the scan of health research within JHC only);
- leveraging synergies with other Defence and DVA strategies (refer to Appendix A);
- identifying JHC and single Service priorities;
- leveraging expert advice;
- leveraging existing internal and external funding for Defence health research where possible, and identify gaps in funding;
- identifying health research commissioned by other government agencies (both Federal and state);
- identifying Australian Government health priorities and advantages in health research expertise and infrastructure;
- responding to new and emerging threats to health.

The priorities identified through the process will form the basis of the Framework's five year investment plan.

#### 2. Identify key partners and develop model/s for streamlined and systematic engagement.

• The scanning process identified the important role that partnerships play in the Defence health research space.

<sup>5</sup> For example, universities place emphasis on the number and dollar amount of grants obtained, and the number of students engaged in research and publications and papers delivered.

• Partnerships and collaboration are essential to capitalise on different perspectives, specialist skills and new knowledge and technologies as well as to broaden Defence's research base and capability.

Partnerships and collaboration in health research are also considered to help bridge the gap between research and practice.<sup>6</sup>

One challenge for collaborative and partnership research concerns the variation of views on the production and use of knowledge and on the relationship between researchers and practitioners.<sup>7</sup> Therefore, this particular challenge will need to be addressed in developing the model/s for systematic engagement.

Initial discussions with key internal stakeholders on partnership approaches found there are opportunities to further explore ways to support meeting this strategy. For example:

- TTCP forum comprising the five nations of United States, United Kingdom, Australia, Canada and New Zealand (noted under Strategy 1).
- Defence Science and Technology Group has Defence Science Partnership agreements with 37 universities across Australia.
- The Next Generation Technologies Fund (NGTF) (\$730 million over ten years) will be delivered via collaborative programs with academia, publicly funded research agencies and industry. One of the NGTF priorities relates to medical countermeasure products to provide effective protection of Defence personnel from a range of chemical, biological and radiological threats, pandemics and emerging infectious diseases.
- Defence Innovation Hub (the Hub) draws together research institutions, academia, industry and innovative technologies. The Hub is investing around \$640 million over ten years to support the maturation and further development of early-stage technologies. One of the priorities identified for funding relates to exploring opportunities to provide enhancements to the physical and cognitive capability and capacity of ADF personnel and ongoing health management.

In addition, there are science, research and innovation organisations and government agencies in Australia that present opportunities for collaboration and co-investment. These organisations often bring partners together to respond to particular questions or areas of research. Examples include Cooperative Research Centres, Australian Research Council (ARC) Linkage Grants, the National Health and Medical Research Council (NHMRC)<sup>8</sup> and the Medical Research Future Fund<sup>9</sup>. There are also potential opportunities to further bilateral and multilateral relationships with international Government agencies via existing partnerships and research working groups.

The focus on data analytics and linkage in recent years presents potential for Defence to partner with other Government agencies to create new insights into important and complex policy questions. These opportunities are being explored by Defence through the Data Integration Partnership for Australia, led by the Department of the Prime Minister and Cabinet.<sup>10</sup>

<sup>&</sup>lt;sup>6</sup> Nyström, M.E., Karltun, J., Keller, C. et al. (2018) <u>Collaborative and partnership research for improvement of health and social services: researcher's</u> <u>experiences from 20 projects</u>. *Health Research Policy and Systems* 16:48 <sup>7</sup> Ibid

<sup>&</sup>lt;sup>8</sup> Partnering with Australia on innovation, science and research. Department of Industry, Science, Energy and Resources, published May 2020 <sup>9</sup> A \$20 billion Australian Government research fund over 10 years from 2020 comprising 20 initiatives under four themes: Patients, Researchers, Research missions, and Research translation.

<sup>&</sup>lt;sup>10</sup> Data Integration Partnership for Australia, Department of the Prime Minister and Cabinet, accessed online Apr 2021

Internally, Defence's Enterprise Information Management Office coordinates a team representing a variety of specialised skills to guide the standardisation of information management practices across Defence. The purpose of the group is to reduce data fragmentation, duplication and inconsistency to enable data to be leveraged as an enterprise information asset.

### 3. Develop a health research governance policy and an oversight committee

Currently in Defence, research governance is the responsibility of the research sponsor/s, in collaboration with the Defence Human Research Governance Board (DHRGB). The DHRGB provides strategic advice, facilitates information sharing and identifies research priorities within Defence.<sup>11</sup>

All research conducted with Defence must comply with the Human and Animal Research Manual (HUMRESMAN). Defence also partners with DVA in the functioning of the Departments of Defence and Veterans' Affairs (DDVA) Human Research Ethics Committee (HREC) as the joint institutional HREC.

It is important to note that the concept of research governance has grown from being considered a supplementary responsibility of a HREC to the responsibility of the institution where the research is conducted. There are also growing global concerns about poor research quality across all scientific disciplines including biology, chemistry, environmental science, medicine and physics. Reported causes are wide ranging, with evidence to suggest that common causes relate to poor research culture and questionable research practices, rather than misconduct such as the deliberate fabrication or falsification of data.<sup>12</sup>

Under the *Australian Code for the Responsible Conduct of Research (2018),* jointly issued by NHMRC, ARC and Universities Australia, it is mandatory for all Australian institutions that participate in health and medical research to adopt policies and procedures to support effective governance of health and medical research.

In the case of the governance of health research for JHC and more broadly across the Defence enterprise, the initial consultation highlights confusion around matters concerning various processes and the associated roles and responsibilities of both internal and external stakeholders, for example:

- entry points for researchers to obtain organisational support for health research, which may be required from multiple business areas in Defence;
- obtaining access to data, which is held by various data custodians across Defence;
- the extent to which approval from the sponsor is required for publication; and
- the absence of a centralised register and monitoring process of health research conducted, which can potentially lead to duplication of effort and unnecessary participant burden.

It is clear that the development of the Framework is charting new waters in the health research governance space in JHC and across Defence. As such, a cohesive health research governance policy is essential to underpin successful implementation. However, in developing such an approach, the first activity will require a comprehensive assessment of current research governance activities in JHC and Defence to avoid duplication and ensure an effective and efficient approach.

Other components of a health research governance policy (a policy) can also include<sup>13 14</sup>:

- in addition to research which has a significant profile and associated funding, recognition of the value of lower-profile clinician, practitioner and student research contributions to Defence strategic health research objectives;
- promoting high quality research as a valued activity in the institution, for example, training and education of staff on what constitutes high quality research practice;
- responsibilities and accountabilities for individuals and groups are understood, enacted and maintained;
- determining and managing the resourcing of research;
- managing intellectual property, authorship and the publication of research findings;
- guidance on reporting to internal and external bodies on the management, outputs and outcomes of the research;
- processes associated with research misconduct and handling of complaints;
- auditing of research;
- management of research data, access to data and privacy considerations<sup>5</sup>;
- establishing and monitoring Human Research Ethics Committees; and
- monitoring and evaluation of the health research governance policy.

In the existence of such a policy, a group of key internal stakeholders will need to ensure the policy is implemented, monitored and reviewed appropriately.

### 4. Build and strengthen pathways for translating research findings to the Defence health system and into policy and practice.

While there are some processes already in place in JHC on knowledge transformation, the dominant view to arise from the consultations reflects that strengthening and improvements are needed to translate research findings to the Defence health system and to policy and practice.

The lack of health research translation to health systems, policy and practice across JHC/Defence is consistent with the international literature on health research, which confirms there is a lack implementation of existing knowledge. This has, in turn, led to missed opportunities for improving health outcomes as well as reducing costs on the health system.

Knowledge translation for health systems, healthcare professionals and consumers is more likely to be successful if the knowledge translation strategy is informed by an assessment of the likely barriers and facilitators for successful implementation. In addition, the efforts of the messenger of knowledge translation will vary according to the target audience and research knowledge being transferred<sup>6</sup>. An important point to note is that the most effective people to translate research findings are those who directly use those findings (Ministry of Business, Innovation and Employment and Ministry of Health, 2017).

Underpinning this strategy, is the need for high quality (refer Strategy 3) and timely research, which aligns with health research priorities (refer Strategy 1).

Other considerations to build and strengthen pathways for translating research findings into policy and practice include:

- establishing a broad and transparent evidence base to support decisions of changes to policy and practice
- adopting a disciplined and deliberate approach to how information is collected, stored, analysed and applied in decision making processes<sup>7</sup>
- policies that support open access to research findings;
- building a translation strategy into the research design phase; and
- researchers partnering with consumers, policy owners and practitioners from design through to implementation.

### **Roadmap for Implementation**

A Roadmap for Implementation of the Framework is presented in Table 2. The table reflects the four strategies in the previous section, high level activities and associated outcomes. The outcomes are consistent with program logic outcomes. The touch points for proposed evaluations are also highlighted.

A detailed Implementation Plan (IP), comprising a monitoring and reporting strategy and evaluation strategy, exists separately to the Framework and guides activities to be conducted.

- <sup>14</sup> NSW Health Northern NSW Local Health District, 'What is Research Governance?', accessed Apr 2021
- <sup>15</sup> SA Health Research Governance Policy, July 2020

<sup>&</sup>lt;sup>11</sup> Defence <u>Human and Animal Research Manual, Chapter 2, paragraph 2.5</u>

<sup>&</sup>lt;sup>12</sup> NHMRC's Research Quality Strategy 2019

<sup>&</sup>lt;sup>13</sup> NSW Health Central Coast Local Health District Research Governance Framework for the Responsible Conduct of Research

<sup>&</sup>lt;sup>16</sup> Grimshaw, J.M., Eccles, M.P., Lavis, J.N. et al. (2012) Knowledge translation of research findings, Implementation Science 7, 50.

<sup>&</sup>lt;sup>17</sup> Lead the Way Defence Transformation Strategy

### Glossary

Definitions of key terminology relating to the Framework is considered an important platform that requires a shared understanding by stakeholders. The following terms have been selected:

#### Health

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.<sup>18</sup>

#### Research

The creation of new or improved knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies, inventions and understandings. This could include synthesis and analysis of previous research to the extent that it is new and creative.<sup>19</sup>

#### **Health Research**

Health research spans five generic areas of activity:

- measuring the magnitude and distribution of the health problem;
- understanding the diverse causes or the determinants of the problem, whether they are due to biological, behavioural, social or environmental factors;
- developing solutions or interventions that will help to prevent or mitigate the problem;
- implementing or delivering solutions through policies and programmes; and
- evaluating the impact of these solutions on the level and distribution of the problem.<sup>20</sup>

#### **Defence Research**

Defence Research is research that is of value to Defence or supports ADF capability, and where one or more of the following apply:

- Involves Defence personnel as participants, either directly or indirectly;
- Is conducted by Defence personnel during the course of their duties;
- Is conducted on/in a Defence establishment; and/or
- Is supported in any way by Defence (including financially or otherwise).<sup>21</sup>

The types of Defence health research include:

*Intramural*: research that is initiated and conducted within Defence (with no external involvement).

*Partnered*: research that involves both Defence and an external party. This includes research where Defence seeks a partnership, and when Defence is approached for a partnership. Defence may fund the research in part or whole, or support-in-kind only (for example, staffing, organisational processes and participants).

*Endorsed*: research that is initiated and conducted by an external party with minimal Defence involvement (for example. organisational endorsement, command approval, data access).

<sup>&</sup>lt;sup>18</sup> World Health Organisation Constitution

<sup>&</sup>lt;sup>19</sup> Australian Research Council, Excellence in Research for Australia, Key Documents, accessed Apr 21

#### Translation

Knowledge translation is the synthesis, exchange, and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health.<sup>22</sup>



