Discussion Document

Clinical Excellence:

Developing Strategic Directions to Build Allied Health Research and Translation Capacity

2019 - 2029

March 2019



Acknowledgements

We wish to ackowledge and thank all of the people who took part in the consultation process and offered their insights, experience and ideas to the devleopment of the discussion paper on building research capacity and culture for the Allied Health Professions. Particular thanks are due to Chief Allied Health Officers and their respective staff from the Queensland, Victorian and Western Australian Health departments.

Contents

Executive Summary
Introduction2
Vision2
Purpose2
Benefits
Background5
Literature scan
National environment9
Local environment9
Achieving the Vision
Scope10
Implementation10
Evaluation11
Reporting11
Goals and Outcomes
Strategies for Achieving Goals and Outcomes13
Phase 1
Local Consultation13
Proposed timeline14
Phase 214
Proposed Timeline17
Future phases17
References
Appendices19
Appendix 1: Abbreviations19
Appendix 2: Definitions19
Appendix 3: National Environmental Scan of Research Capacity20

Executive Summary

The Clinical Excellence: Developing Strategic Directions to Build Allied Health Research and *Translation Capacity* discussion document outlines the commencement of a process to build allied health research capacity and enable Allied Health Professionals to ensure best health care outcomes for current and future South Australians.

The development and integration of excellence in allied health research is integral to SA Health's mission of delivering high quality health care to all South Australians. This strategy proposes to;

- Promote clinical allied health research as a driver of better health and better health care for all South Australians
- > Support the provision of high impact, innovative allied health care
- Ensure that research led by or involving Allied Health Professionals is embedded and sustained in all health services
- Ensure that allied health research is valued for excellence, improving patient outcomes, innovations and service efficiencies.

This discussion document outlines the initial phase of work undertaken, and a phased and iterative approach to building allied health research capacity over the coming decade, to meet the needs of the SA population, working in collaboration with the community and other partners across sectors and agencies.

Key outcomes to date include the local and national environmental scans, the May 2019 Allied Health Research Forum and the development of the SA Health Reference Group: Developing Strategic Directions to Build Allied Health Research and Translation Capacity. With membership from Local Health Networks, Universities, and peer and profession networks, this Reference Group will provide a state-wide professional leadership forum for communication and advice to the Chief Allied and Scientific Health Officer, Department for Health and Wellbeing, and the Executive Directors of Allied Health (or equivalent) in the Local Health Networks, on developing strategic directions to guide development of allied health research and translation capacity in the South Australian public health system.

Introduction

Vision

By 2029 every Allied Health Professional (AHP) will be finding, translating or generating evidence for practice to ensure best health care outcomes for current and future South Australians.

AHPs will be able to:

- > Access and appraise evidence, and decide whether to adopt, adapt or reject the evidence for current practice and models of care
- > Provide safe, effective and efficient services to consumers and health services by applying evidence-based or evidence-informed care
- > Support the services provided in relation to evidence
- > Translate available evidence into practice for improved care and services
- > Provide the evidence to policy and guideline developers within SA Health
- > Generate evidence where it is not available.

Purpose

This strategy proposes to ensure that research led by or involving AHP is embedded and sustained in all health services and is aligned with the *Research Focus 2020* (2017) and *SA Health Strategic Plan 2017 to 2020* (2017). The strategy aims to:

- Strengthen the South Australian Department for Health and Wellbeing and Local Health Network (LHN) executives' commitment for allied health involvement in research and research translation to ensure best practice care of South Australians
- Influence and guide allied health directors, line managers, heads of departments and staff in the clinical application of research and evidence-informed practice
- > Co-ordinate and integrate research structures and systems and promote continued steps to build the application of allied health research in clinical practice
- Promote clinical research excellence as a driver of better health and better health care for all South Australians.

The development and integration of excellence in allied health research is integral to SA Health's mission of delivering high quality health care to all South Australians - best care, first time, every time.

Clinical research is considered to include;

- > The development of research knowledge in relation to clinical allied health practice, both at an individual level and as part of models of care
- > The sharing of research evidence and skills with AHPs, other clinical colleagues and consumers
- > The translation of evidence to practice for AHPs inclusive of evaluation of impact and patient outcomes.

The purpose of this discussion document is to commence an iterative process to develop allied health research and translation capacity in SA Health by;

- > Seeking feedback on a proposed allied health research development framework
- > To inform development of subsequent key strategic priorities to develop allied health research and translation capacity.

Benefits

In an environment where health services are being challenged to provide optimum efficiency and cost-effectiveness, the application of research to clinical practice is vital to optimise outcomes (SA Health, 2015; Lizarondo, et al, 2016). Health services with developed research and translation capacity are better able to provide cost-effective health care which is safe, and of high quality. Research can assist by answering questions such as;

- > What is safest care e.g. least likely to result in poor outcomes?
- > What is evidence-informed, and value for spend?
- > What can reduce demand on services e.g. where can allied health add value by increased flow, faster discharge, prevention of re- admission?
- > What divestment strategies might be possible e.g. what might AHPs do that does not need to be continued in its present form?
- > What sort of treatment and services result in the best patient reported outcome measures?
- > How can AHPs work to full scope, and be authorised to work at extended scope levels for identified clinical areas where care is improved through better utilisation of AHP led clinics and services?

Highly developed research capacity in isolation will not necessarily lead to improved clinical outcomes, so the translation of research knowledge to clinical practice by AHPs is integral to the uptake of research knowledge into practice, and to ensure optimum use of knowledge and health care resources. AHPs are part of multi-professional teams and work together with medical and nursing colleagues to continuously improve care and outcomes for patients. Research–informed allied health policy and practice is vital to the provision of better health systems and health outcomes, as outlined in Figure 1.

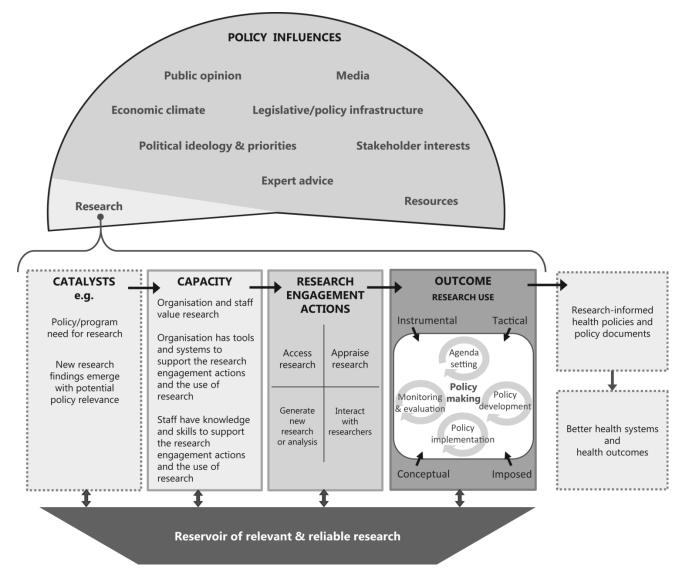


Figure 1: The SPIRIT Action Framework from Redman et al, 2015

Background

Literature scan

Based on a brief literature scan, a broad framework for building and evaluating research capacity has been described and recently updated, which outlines six principles of building research capacity;

- 1. Developing research skills and confidence in health services workforce
- 2. Developing research close to practice
- 3. Supporting linkages and collaborations
- 4. Promoting actionable dissemination
- 5. Planning sustainability
- 6. Developing a support infrastructure

and four structural levels of developmental activity which are important and interdependent;

- 1. Individual
- 2. Team
- 3. Organisation
- 4. Networks.

This is shown in Figure 2 and outlined in more detail in Table 1 (Cooke, 2005; Gee and Cooke, 2018).

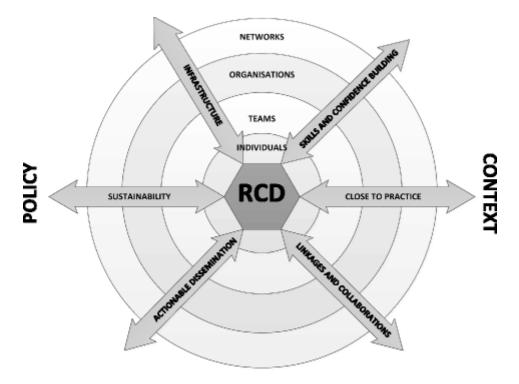


Figure 2: Adapted Cooke Framework for Research Capacity Development (RCD) (Gee and Cooke, 2018)

Principles of Research Capacity Development (RCD)				
Developing research skills and confidence in the health services workforce	Relates to training and development opportunities to create a workforce with the skills and confidence they need to conduct research, apply for funding, lead on research projects, and for career progression opportunities			
Developing research close to practice	Relates to research being delivered or developed within health services, thus co- producing research with high level of relevance to practice or policy concerns It can relate to; research questions and priorities being set by or with practitioners and services, policy makers, and/or service users, using practice or experiential knowledge, and to relevant research being 'impactful' and becoming embedded into practitioners' day-to-day activities			
Supporting linkages and collaborations	Forming links, both internal and external, and on an organisational and individual level, to enhance RCD through knowledge exchange and collaboration Benefiting from resources and services beyond the organisation			
Promoting actionable dissemination	Relates to dissemination of research findings through a range of methods It can include traditional scholarly methods (publications, conference presentations) or other means including websites, multi-media or tools and techniques to support decision making in practice Dissemination can be internal to the organisation or external and 'actionable' implies some sort of impact – scholarly impact, and/or impact on practice (e.g. in policies, instruments, programs of care, or fact sheets)			
Planning sustainability	Relates to ensuring that the existing level of research capacity can be sustained, and grown; overlaps with infrastructure, linkages and skills, as many of the activities associated with these other principles will also contribute to sustainability			
Developing a support infrastructure	Building additional resources, and/or processes into the organisational system to enable the smooth and effective running of research projects and for research capacity building			

Table 1: Principles of research capacity development (Gee and Cooke, 2018)

The updated Cooke framework has synergies with a rapid review of frameworks for embedding research in allied health practice, where the main over-arching theme was that provision of researchinformed healthcare, that is consistent with best available evidence, requires over-arching high level policies to enable leadership, organisations and individuals to embed a research culture into everyday allied health practice (Slade et al, 2018).

Other inter-related and interdependent themes important to building allied health research capacity are described in Table 2 and include the crucial role of leadership and management, research infrastructure and support, dedicated research positions, partnerships with universities, as well as the attributes of individual clinicians.

Overarching theme:

The provision of research-informed healthcare that is consistent with best available evidence requires over-arching policies that enable the organisation and individuals to be research active

Key themes	Description of key themes
Regulatory environment, governance and organisational structures	Sustainable change requires allied health research policies, regulation, governance and organisational structures that support and value evidence-based practice
Leadership and management buy-in	Research capability, receptivity and literacy of healthcare leaders and managers are key to successful research implementation
Systems, tools, resources and time	The provision of research infrastructure, research systems, tools, databases, resources, time allocation, dedicated research staff positions, mentoring, professional education and mechanisms for recognition and reward are key organisational factors that enable research capacity-building Partnerships between healthcare agencies and universities with co-located research leaders optimises research quality and productivity
Attributes of individual clinicians	Attributes and capabilities of individual clinicians such as research qualifications, skills, research literacy, communication skills, partnerships, confidence and motivation help strengthen and develop research interactions and increase research receptivity

Table 2: Key research frameworks themes, identified by Slade et al, 2018

At an individual level, the attributes of individual clinicians are crucial, and there is likely to be a range of AHP research ability and interest (Whitworth et al, 2012), as outlined in Table 3, where differing training and support is required for clinicians who are described as being research conscious, participative or active. Research conscious AHPs who are able to utilise research in practice will be best placed to provide safe, effective and efficient care to consumers, and services to LHN's.

	Research Conscious	Research Participative	Research Active
People involved	All Allied Health Professionals	Members of a research team, those interested in research, past researchers	Lead researchers, doctoral and master's students
Education needed	Evidence based practice training, critical appraisal skills, basic statistics, using research in practice, research mindedness, clinical guidelines	Research methodology, research governance, ethics, writing skills, research seminars, questionnaire design, research facilitation	Post-graduate enrolment in PhD or Masters, mentoring, research support networks, writing skills

Table 3: Range of research and education needed, modified from Whitworth et al, 2012

The level of research engagement of AHPs will occur across a spectrum, as outlined in Figure 3. AHPs who are consumers of evidence and research literate are considered to be research conscious, and those who are actively involved in research as a participant, leader, generator or translator of research are considered research active.

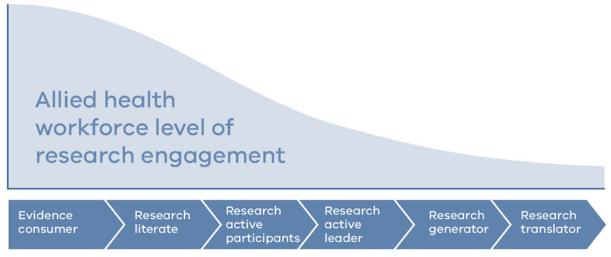


Figure 3: Range of research engagement

Sourced from the Victorian Allied Health Research Framework, 2018 and used with permission

A whole systems approach will be important to build research capacity and culture in allied health, as the frameworks for research capacity building recognise the importance of commitment and support from all levels of leadership and management (Cooke, 2005; Gee and Cooke, 2018), and the valuing of research for excellence (Matus et al, 2018).

National environment

The range of capacity in allied health research across Australia was initially scanned in 2017, and updated in 2018 by the National Allied Health Research Network (NAHRN). Findings are summated below, with the detailed analysis information contained in Appendix 3.

Across all jurisdictions surveyed, there is a common recognition of the benefits of translating research and knowledge into evidence-based practice to achieve better patient outcomes and health system efficiencies. The most progressive jurisdictions have a range of funded positions, including Research Fellows (RF), and co-funded Professorial Chairs, which are considered to be crucial to successful allied health research capacity. For example, in Queensland there are 15 fulltime equivalent Research Fellow positions across the state, spread across metropolitan and country regions, and a strong focus on evaluation of models of care, and translation of research to clinical practice. In other jurisdictions, there are a number of formal Allied Health Research Networks, Allied Health Research Forums, and significant work is in progress to develop and coordinate allied health research strategies to support and direct improvements for better patient outcomes and clinical efficiencies. In those jurisdictions with the most advanced allied health research capacity, an initial drive reportedly came from crises in quality and safety issues in health services, even though the examples of issues

Local environment

As recognised by *Research Focus 2020*, South Australia has an ageing, predominantly urban population. Increased allied health research capacity locally is a crucial pillar of health service delivery, particularly with the high burden of chronic illness and high co-morbidities of diseases within our population.

cited were not specific to allied health. In some jurisdictions, a desire to promote staff retention and staff satisfaction appears to have been an additional driver to develop allied health research capacity.

SA Health has invested in various allied health research initiatives over the past ten years resulting in a strong relationship with South Australian universities. These initiatives have included seminars, forums, workshops, online training modules, online journal clubs, an outcomes calculator and an online clearing house for healthcare guidelines focused on models of care with high allied health involvement. Funding has been provided by the Allied and Scientific Health Office with many staff also accessing training through their AHP+ Professional Development Reimbursement Program allocation.

The Chief Allied and Scientific Health Officer has remained involved in numerous research projects as either a partner investigator or industry partner to model the importance of both remaining current in questioning practice and also involved in finding or developing the research to translate into practice.

At present, it is recognised that the current state of local allied health research capacity is ad hoc, with some formal translation of evidence into clinical practice, which is not always embedded and sustained. Support for allied health clinicians to spend time to undertake research is inconsistent and LHNs prioritise other pressures over a continuing commitment to maintaining research capacity. The lack of a state-wide agreed framework for developing allied health research and translation activity has not assisted LHNs in remaining focused on the importance of ensuring staff have allocated time or roles to undertake this critical keystone of a learning organisation.

Opportunity exists for LHN's to better understand the specific factors impacting upon the capacity of their own health services and staff to provide more effective and efficient service provision to meet the future demands of individuals and health services. Likewise, there is the opportunity for the Allied and Scientific Health Office to provide a framework or strategic directions for all LHNs to endorse to build upon the current investment in allied health research initiatives.

Achieving the Vision

Clinical Excellence: Developing Strategic Directions to Build Allied Health Research and Translation Capacity will ensure that SA Health is well positioned to achieve its vision of being actively engaged in improving the health and well-being of all South Australians, including the delivery of evidence informed, high quality services by allied health clinicians across our communities, from the beginning to the end of life.

It will develop the allied health vision for research, evidence-informed practice and propose specific goals and outcomes to enable the achievement of the vision of SA Health to make decisions based on evidence, and to be actively engaged in improving the health and well-being of all South Australians (*SA Health Strategic Plan 2017 to 2020*).

Scope

The scope of *Clinical Excellence: Developing Strategic Directions to Build Allied Health Research and Translation Capacity* is inclusive of all Chief Executive Officers (CEO), Chief Operating Officers, Executive Directors of Allied Health, Executive Directors of Medical Services, Executive Directors of Nursing and Midwifery, Directors of Research Offices, allied health divisions, departments, and professionals at all levels in SA Health.

Implementation

All allied health department directors, departments and teams have a responsibility to work towards the goals by implementing one or more strategies as appropriate. The strategies provided are possible options that may already be implemented or may be considered for future implementation.

Implementation of *Clinical Excellence: Developing Strategic Directions to Build Allied Health Research and Translation Capacity* therefore requires:

- Organisation, Executive, Divisional and Departmental support for implementation and reporting
- Shared accountabilities amongst all AHPs, alongside medical and nursing colleagues, for research and evidence-informed practice.

Evaluation

Based on review of the literature regarding building research capacity (Cooke, 2005; Golenko et al, 2012; Alison et al, 2017; Gee and Cooke, 2018; Slade et al; 2018, Matus et al, 2018), it is proposed to use an initial framework for evaluation of research and translation capacity based on the updated Cooke principles of research capacity development (close to practice; developing health services workforce skills and confidence; supporting links and collaborations; promoting actionable dissemination; planning sustainability and developing a support infrastructure). The evaluation of other components necessary to build research capacity will be considered as the research capacity development strategies mature and develop further, e.g. leadership and management buy-in, and valuing research for excellence (Matus et al, 2018; Slade et al, 2018).

Reporting

It is proposed that the Executive Directors of Allied Health in LHN's will report against the goals annually to the respective LHN Chief Executive Officers, with reporting lines to the LHN Boards and Chief Executive of SA Health. The Executive Directors of Allied Health will provide a copy of the report to the Chief Allied and Scientific Health Officer. All allied health department heads will provide the information to the CEOs for the annual report.

Goals and Outcomes

Clinical Excellence: Developing Strategic Directions to Build Allied Health Research and Translation Capacity proposes the overarching goals and specific outcomes (Table 4) for SA Health and LHNs.

Translation Capacity				
Goal	Outcome			
Recognised as core business of LHN's and SA Health	Allied health research is valued for improving patient outcomes, innovations and service efficiencies			
Close to practice	Research is translated and generated in clinical settings and supported by policy, with the greatest potential to sustain and enhance research impact on clinical services Research knowledge generated is directly applicable to clinical practice			
In partnership	Linkages, partnerships and collaborations in place with doctors, nurses, universities and other organisations and individuals Strong research leadership for allied health is provided through LHN positions identified as research roles ranging from Professor of Allied Health to novice researcher			
Appropriate skills and confidence	Research skills and knowledge are applied to practice and AHPs develop from novice to experienced clinical researchers			
Maximum impact through dissemination	Sharing of research and translational activities occurs across all levels to achieve wide- spread impact upon service provision and policy AHP Research Forum Conference presentations and publication in peer-reviewed journals			
Sustainable and embedded	AHPs are confident to be involved in, undertake or lead allied health research and translation of evidence into practice Research foci, linkages and collaborations continue in areas of clinical practice, with continuous improvement of service provision			
Research infrastructure	Structures and processes which enable smooth and effective running or research projects exist (e.g. research included in job descriptions, annual appraisals, protected time and backfill for research activities) Access to funding and appropriate support e.g. relevant software and equipment			

Clinical Excellence – Developing Strategic Directions to Build Allied Health Research and Translation Capacity

Table 4: Proposed goals and outcomes to develop strategic directions to build allied health research and translation capacity

Strategies for Achieving Goals and Outcomes

To build allied health research and translation capacity in SA Health, an iterative approach will be employed, with two initial phases planned. In the initial phase, local consultation and an environmental scan has occurred with relevant organisations in South Australia. An AHP research reference group has been developed, with responsibility to develop metrics and refine the strategic direction. In the second phase, it is proposed that this allied health research reference group and may assume responsibility for the Allied Health Research Forum and Allied Health research metrics. It is anticipated that the strategic direction for building allied health research capacity locally will be reviewed and refined in Phase 2, and that a framework for allied health research capacity building will be considered and developed further.

Phase 1

Local Consultation

Key outcomes from Phase 1;

- > An overview of the local context, which will direct and inform Phase 2, and
- > Refinement of the strategic directions for building allied health research and translation, contextualised to SA, based on the local environmental scan.

In addition to the primary goals outlined in Table 4 for building research capacity and translation, consideration will be given to the development of skills for research, and investment in relevant research infrastructure.

To ensure that the development of research capacity and translation makes a difference to patient outcomes and service delivery, these goals are to be considered for the individual clinician, team, and organisation levels (Cooke, 2005) recognised as being important and interdependent (Golenko et al, 2012).

Factors for consideration will include identification of potential barriers and facilitators of the development of research and translational capacity at differing levels. In addition, a scan is planned of the current research within allied health, including profession focussed and multi-disciplinary research, and current research partnerships and linkages. It should be recognised that there will be some specific research questions and priorities for specific allied health professions, as well as organisational research which may encompass areas of concern to the organisation, across numerous professional groups (Pickstone et al, 2008).

The current state of quality improvement work, which may provide a platform upon which to build, will be explored.

Proposed timeline

Phase	Key Outcomes		
Local consultation with:	Identification of current:	Development of:	
 > Local Health Networks (metropolitan and country), and will include staff from all levels of the organisations > Allied Health Professional Advisory Groups > Allied Health Executive Group > Universities > South Australian Health and Medical Research Institute (SAHMRI) > SA Academic Health Science and 	 > Barriers and facilitators of allied health research and translation capacity (all levels) > Allied health University links > Allied health research positions > Allied health research linkages with external partners > Current allied health research > Opportunities for allied health research linkages in SA > Quality Improvement activity undertaken by 	 Understanding of local allied health research context Proposed terms of reference and membership for an Allied Health Research Reference Group Including providing membership to key high level SA Research Committees such as SA Health Research Committee and SAHMRI Steering Committee. Proposed Annual Evaluation Report to CEOs and ASHO Proposed allied health Metrics 	

Table 5: Phase 1 activities and key outcomes

Phase 1 activities have commenced and will continue as part of an iterative process.

Phase 2

It is recognised that the creation of knowledge does not, of itself, lead to widespread implementation and positive impacts on health. The knowledge must be translated into changes in practice and policy for the benefits to be translated into improved clinical outcomes for patients and health service efficiencies. For allied health to realise improvements in outcomes and health service delivery, requires this translation.

To deliver clinical excellence through building allied health research and translation capacity, the following overarching strategic goals are proposed, as outlined in Tables 6a and 6b.

Strategic Goal	Rationale	Key outcome examples
Reseach as core business leading to service delivery	Building and supporting the capacity of AHPs is key to promoting research quality and productivity, and evidence translation into high quality clinical practice At all levels, we are responsible for creating a culture of continuous improvement and research successes	Number of staff participating in research, as generators and users Number of higher degree research students Implementation of evidence-informed clinical guidelines
Research "close to practice" informing delivery of clinical practice	A closer academic and clinical environment is central to providing stronger connections between research and health care service delivery Generation of knowledge relevant to services and AHPs Development of critical thinking skills for application to decision making and supporting Quality Improvement activities Research that is translated and generated in clinical settings and supported by policy and structures has the greatest potential to sustain and enhance the impact of clinical research in delivery of excellence in health care	 Allied Health Research Forum with clinical presentations of research impact (both research and quality improvement activities) Co-funded Chair(s) of Allied Health Research in partnership with universities and LHN's Clinical guideline development, implementation and evaluation Professorial Chairs of Allied Health in each LHN
Research in Partnership	Working toward improved health outcomes involves greater and more valued linkages and partnerships with key stakeholders including health professionals, researchers, universites, research organisations and consumers	 Allied Health Research Network with; Terms of Reference and an Action Plan Building linkages with Medical and nursing collegaues currently engaged in research External partners eg SAHMRI, SA Academic Health Science and Translational Centre Consumers

Table 6, part a: Proposed Phase 2 strategic goals and key outcomes

Strategic Goal	Rationale	Key outcome examples
Skills and confidence	AHP require appropriate skills and confidence to be invovled at different levels of research	Individual AHP able to review published literature and apply to clinical practice
		Mentoring available for AHP's to undertake research activities
Dissemination to maximise impact	Widespread dissemination of research and quality improvement work undertaken is crucial to maximise clinical outcomes, and enable development of linkages and partnerships with other relevant health services and professionals	e.g. number of reports, peer reviewed publications, book chapters,
Sustainable and embedded	Recognition of staff with research skills which apply to clinical practice will enable realisation of ongoing benefits and build upon previous work	Number of staff with research degrees working in clinical services
Research infrastructure	Infrastrutuce is essentail to enable engagement in research activities from research conscious to research active AHP	Quarantined time to undertake research relevant activities Access to appropriate licences, grant funding to support research related activities and projects

Table 6, part b: Proposed Phase 2 strategic goals and key outcomes

Proposed Timeline

Phase 2 is proposed to occur during 2019, and is likely to overlap with Phase 1 activities, as part of the iterative process of developing research capacity. Activities and key outcomes are outlined below, and may be subject to modification, based on the consultation and other local considerations.

	Phase 2 Activities	Key Outcomes
2019	Refinement of goals, objectives and strategies Development of key performance indicators	 Continuation of Allied Health Research Reference Group, responsible for; Allied Health Research Forum Allied health research metrics (both process and outcome) Providing membership to key high level SA Research Committees such as SA Health Research Committee and SAHMRI Steering Committee. Annual Evaluation Report to CEOs and ASHO Inaugural Professorial Chairs of Allied Health Funding for allied health research

Table 7: Proposed Phase 2 activities and key outcomes

Future phases

This discussion document represents the initial stages of an iterative research capacity building development process. As allied health research capacity develops and matures, and in consideration of local South Australian context, future phased work will develop iteratively and consider consumer input to the research agenda, health economics, innovative models of practice and development of high impact allied health research and knowledge translation.

References

- Alison, J., B. Zafiropoulos, and R. Heard, *Key factors influencing allied health research capacity in a large Australian metropolitan health district.* Journal of Multidisciplinary Healthcare, 2017. 10: p. 277–291.
- Cooke, J., A framework to evaluate research capacity building in health care. BMC Family Practice, 2005. 6(1): p. 44.
- Gee, M., Cooke, J., How do NHS organisations plan research capacity development? Strategies, strengths, and opportunities for improvement. BMC Health Services Research, 2018. 18:198
- Golenko, X., S. Pager, and L. Holden, A thematic analysis of the role of the organisation in building allied health research capacity: a senior managers' perspective. BMC Health Services Research, 2012. 12(1): p. 276.
- Lizarondo, L., et al., *Allied health: integral to transforming health.* Australian Health Review, 2016. 40(2): p. 194-204.
- Matus et al. Research capacity building frameworks for allied health professionals a systematic Review BMC Health Services Research. 2018. 18:716
- Pickstone, C., et al., *Building research capacity in the allied health professions.* Evidence and Policy, 2008. 4(1): p. 53-68.
- Redman, S., et al., *The SPIRIT Action Framework: A structured approach to selecting and testing strategies to increase the use of research in policy.* Social Science & Medicine, 2015. 136-137: p. 147-55.
- SA Health (2015) Demonstrating the Value of Allied Health Care in SA Health
- SA Health (2017) Research Focus 2020
- SA Health (2017) SA Health Strategic Plan 2017 to 2020
- Slade, S.C., K. Philip, and M.E. Morris, *Frameworks for embedding a research culture in allied health practice: a rapid review.* Health Research Policy and Systems, 2018. 16(1): p. 29.
- Whitworth, A., S. Haining, and H. Stringer, *Enhancing research capacity across healthcare and higher education sectors: development and evaluation of an integrated model.* BMC Health Services Research., 2012. 12.

Appendices

Appendix 1: Abbreviations

AH	Allied Health
AHP	Allied Health Professional
EA	Enterprise agreement
ESOP	Extended Scope of Practice
EBP	Evidence based practice
EIP	Evidence informed Practice
RF	Research Fellow
SAHMRI	South Australian Health and Medical Research Institute

Appendix 2: Definitions

Research capacity building	a process of individual and institutional development which leads to higher levels of skills and greater ability to perform useful research		
Framework	a structure, overview, outline, system or plan consisting of various descriptive categories e.g. constructs or variables and relationships between them that are presumed to account for a phenomenon		
Knowledge translation	ensuring that stakeholders are aware of and use research evidence to inform their health and healthcare decision-making		
	a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically-sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system (from Canadian Institutes for Health Research, 2000)		

Appendix 3: National Environmental Scan of Research Capacity

Background: The following tables provide a brief overview of a national environmental scan of allied health research capacity within Australia, updated by the National Allied Health Research Network (NAHRN) in late 2018. This update was based on initial work was undertaken by Jo Nolan, Senior Program Manager, Allied Health Research Project, SA Department for Health, from September to December, 2017.

Purpose: To provide a baseline overview of the current capacity for allied health research in each jurisdiction and proposed direction for the desired future capacity. The information will be used to develop the NAHRN work plan for 2019.

	QLD	WA	NSW	VIC	ACT	TAS	NT	SA
	(updated)	(updated)	(updated)	(updated)	(updated)	(updated)	(updated)	(updated)
Current state and driver(s)	Benefits of improved AH clinical research capacity and translation into clinical care being recognised	Better patient outcomes and system efficiencies	Benefits of improved AH clinical research capacity and translation into clinical care recognized; capacity is particularly building in LHD's with conjoint Professors of Allied Health (currently 5 in 4 health districts)	Desire for better co- ordination of research (research capacity varied across disciplines and Health services, with varied outcomes and capacity)	Driven by need to improve patient outcomes. Desire for better co-ordination of research as well as supporting research capacity Some "standout" professions with research capacity (e.g. Physiotherapy, Pharmacy, OT, Psychology)	Desire for improved co-ordination and building research capacity	No work currently in progress	Benefits of improved AH clinical research capacity and translation into clinical care being recognised

Appendix Table 1: 2018 National Environmental Scan

	QLD	WA	NSW	VIC	ACT	TAS	NT	SA
	(updated)	(updated)	(updated)	(updated)	(updated)	(updated)	(updated)	(updated)
Future Direction for building AH Research Capacity	Ten year strategy for allied health research developed (Awaiting formal endorsement of overarching strategy) Work commencing on standardizing statewide research metrics and on developing research career pathways within health services (This would include Consultant type roles)	Collaboration with the WAHTN and stakeholders, is developing a coordinated state-wide approach to building and supporting the research and knowledge translation capacity and culture of our AHHS professions	Encouragement of links between universities and Health Districts is growing and more are currently planned In addition some are also appointing honorary appointments to further build capacity and link with existing allied health clinicians in Health Districts	Desire to develop structures to embed and sustain AH research as a core activity to demonstrate effectiveness, improve efficiency, divestment strategy, staff retention strategy Bridge gap between research and translation	Using the AH Research Network (commenced Jan 2017) to shape and direct AH research, with support being offered Conjoint Professor of AH Research started in new role to support AH research	Developing structure: • Formalise relationships with Universities • Build research network between AH clinicians • AH Research Clinicians to support other AH staff • Develop supporting Documents • AH Research Strategy (underway) • Proposed "coffee shop" research group meetings to build connections between researchers • Possibility of an AH grand round in 2019 – idea still in its infancy • Project in conjunction with UTAS planned for 2019 to investigate research capacity of AH clinicians. Investigations to include what research AH staff are doing, barriers / enablers to research, time, self-efficacy	Keen to share and develop as able	Work in progress since late 2017 to develop a strategic plan to build AH research capacity to provide better patient outcomes
Perspective regarding University links and collaborations	Crucial	Vital	Crucial	Important	Important	Vital	Important	Important

	QLD (updated)	WA (updated)	NSW (updated)	VIC (updated)	ACT (updated)	TAS (updated)	NT	SA (updated)
Co-funded Professorial Chairs of AH	Four Professorial Chairs of Allied Health	Chair of Allied Health, Child and Adolescent Health Service	Yes (five currently co- funded and additional Professorial chairs are planned)	Numerous	Commenced August 2018	None	Limited	One co-funded Professorial Chair of Restorative Care in Ageing
Research Positions	15 FTE Research Fellows, including conjoint positions with Universities across Qld	One recently created	Yes in specific health districts. There are several research assistant / research officer positions co- funded as part of the professorial roles, supported by specific LHDs, and universities In addition, several Health Districts support other research positions, as part of independent research funds	Vic Health 10 AHP Gr4 Research Positions 10 AHP Gr3 Clinical Educators (focus clinical placement, inter- professional Clinical Education) Plus Allied Health Research and Translation Program Director to support the 10 AH Research positions to commence June 2018	No specific Canberra Health Services dedicated allied health research positions (some roles with research as one of their functions; also some areas with partnerships with universities)	No designated research positions Research forms a part of a Statement of Duties for AHP Level 3 and above	Limited	Small number of part-time positions across SA Health which include research as part of broader portfolios. No formal linkages between positions.

Appendix Table 2: Jurisdictional environmental scan summary, December 2018

In place	Work in progress	Limited or not planned

Research Strategystrategy developed awaiting endorsement of overarching allied health ten year strategyStrategy Developed- currently planning implementationordinated strategy.but is plannel for work activity in 2019. A number of health districts have own research strategyvictorian totic so n communication, education, activity/needs mapping and strategicprogresssince late 201AH research funding annually foci ESOP, innovative service delivery models, tele- healthNo specific toticits tele positionSeveral health districts support and istrict support allied health, as part of university and health district plansNo specific toudingNo specific toudingNo specific toudingAH research funding\$400,000 Grant Funding annually foci ESOP, innovative service delivery models, tele- healthNo specific toding-still negotiating this positionSeveral health districts support and health districts plans or touriersity and health district plans (most -\$20K per my apply for local research at local research at measering models, tele- healthNo specific touding in 2018No s		QLD (updated)	WA (updated)	NSW (updated)	VIC (updated)	ACT (updated)	TAS (updated)	NT (updated)	SA (updated)
fundingFunding annually foci ESOP, innovative service delivery models, tele- healthfunding-still negotiating this positiondistricts support \$5K Kickstarter grants specific to allied health; as part of university and health district plans (most -\$20K per year). Others may apply for local research health funds, but these are not necessarily allied health specificfunding\$30,000 in AH research grants - \$500 to \$5000 	Research	strategy developed awaiting endorsement of overarching allied health ten	Strategy Developed- currently planning	ordinated strategy, but is planned for work activity in 2019. A number of health districts have own research	Victorian Allied Health Research	for organisation overall; AH research network strategy endorsed with focus on communication, education, activity/needs mapping and		-	Work in progress since late 2017
funding		Funding annually foci ESOP, innovative service delivery models, tele-	funding- still negotiating this	districts support \$5K Kickstarter grants specific to allied health; as part of university and health district plans (most ~\$20K per year). Others may apply for local research health funds, but these are not necessarily allied health specific		\$30,000 in AH research grants – \$500 to \$5000 per project; Scholarships for AH staff to enroll in Grad Dip Research at University of Canberra. One	funding for AH research. AH staff may have access to funding for research along with other staff, although this is		combined collaborative funding in 2018 (University SA with and one Local Health Network, and another with ASHO) Some site or service specific funding for different AH
		In place			Work in progress		L	imited or not planne	d

forumworkshop, open to all, twice per yearstate-wide event just for Allied Health, but involved in Science by the Swan, which has a potentially strong Allied Health focusevent, but several are held in specific health districtsVictorian Allied Health Research ConferenceHealth SymposiumHealth Symposiumprogress for Ma 2019Research NetworkYes (pibled MisiaterialNo specific AH network, butNo specific AH network at aAllied Health TherapyVictorian Allied Health Research ConferenceHealth SymposiumHealth Symposiumprogress for Ma SymposiumResearch NetworkYes (pibled Misiaterial)No specific AH network, butNo specific AH network at aAllied Health TherapyCommenced Jan 2017The AHP WorkforceResearch Reference		QLD (updated)	WA (updated)	NSW (updated)	VIC (updated)	ACT (updated)	TAS (updated)	NT (updated)	SA (updated)
Network (formal)(initial Ministerial (taskforce built Research Framework and established Network)network, but started conversations with our WA Health Translation Networknetwork at a State levelTherapy Research Professors regularly meet and discuss research (WATHN) and developed an Allied Health Enabling Networknetwork at a State levelTherapy 	Research forum	workshop, open to all, twice per	state-wide event just for Allied Health, but involved in Science by the Swan, which has a potentially strong Allied	event, but several are held in specific health	Victorian Allied Health Research	presenting to Clinicians research and QI forum. Canberra Hospital Research Forum (CHARM) ACTH AH Research Forum	Health		progress for May
	Research Network (formal)	(initial Ministerial taskforce built Research Framework and established	network, but started conversations with our WA Health Translation Network (WATHN) and developed an Allied Health Enabling	network at a State level Conjoint professors regularly meet and discuss research capacity; additionally, the professors are part of a larger informal national network of conjoint research	Therapy Research		Workforce Development Unit (AHP WDU) hold a register of AH research		Reference Group established in 2018 (Developing strategic Directions to build AH Research and Translation
In place Work in progress Limited or not planned									

	QLD (updated)	WA (updated)	NSW (updated)	VIC (updated)	ACT (updated)	TAS (updated)	NT (updated)	SA (updated)
Research workshops for clinicians	Available, delivered by researchers in the health services	Not specific to AH e.g. Research Education Program at PCH, & WAHTN online education	Yes Several held in each year, particularly in health districts with professors. Research workshops include research design, writing for publications, planning grant applications, etc.	Allied Health Research Community of Practice	No AH specific research workshops – grant writing workshops commenced in late 2018 Leading Change workshop on QI Project planning – Dr Lesley Holdsworth Scottish NHS: 7 Oct 2018	Yes. Currently working towards increasing, and on a regular basis	-	2018 Research webinar series available to AHPs, delivered by iCAHE (International Centre for Allied Health Evidence).
Careers Structure "Research" mentioned in Enterprise Agreement	Research stream is part of the Clinical stream	In relation to leave for courses, degrees which is up to the discretion of the employer	No; there is however provision for study leave and research responsibilities in some positions such as the Level 6 Clinical Specialist	EA has streams recognising expertise in Clinical, Management and Research	"research will be promoted" and is mainly carried by AHP3 and AHP4's	"research" included at AHP Level 3 and above		Yes, Research stream is available yet seldom used by LHNs

In place	Work in progress	Limited or not planned

	QLD (updated)	WA (updated)	NSW (updated)	VIC (updated)	ACT (updated)	TAS (updated)	NT (updated)	SA (updated)
Quality Improvement	Occurring	Occurring While QI is important, it is not research, and we could consider removing from the environmental scan. Without ethics approvals for QI, it cannot be published as research	Occurring	Occurring	Occurring	Occurring	Active in respective AH departments	Occurring
Annual Research Report	Part of Annual Report	Not specific to AH (part of other reports)	Not state-wide, but some Health Districts produce research reports	Workplans to be submitted from 10 AH Research & translation positions	None	Not specific to Allied Health, may form part of Annual Report	-	No AH specific report
Research metrics	Grants and KPI's of the researchers	State-wide data system captures research by all, including AH. Individual services report other metrics.	Captured in some health districts, but not state wide. These include grant funds, publications, HDR students	Development of research KPIs	None reported	In development	-	Limited reporting

Additional information or comments from National Allied Health Research Network: NSW: Higher Degree Research (including Masters of research, PhD, and professional doctorates); Recommend inclusion of support for Higher Degree Research students, which is important in building capacity.

In place	Work in progress	Limited or not planned
----------	------------------	------------------------

For more information

Allied and Scientific Health Office Office for Professional Leadership Citi Centre Building 11 Hindmarsh Square, ADELAIDE 5000 Telephone: 08 8266 6406 Public I1-A1 www.sahealth.sa.gov.au



© Department for Health and Wellbeing, Government of South Australia. All rights reserved