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A response to the SA Productivity Commission's Health and Medical Research Inquiry

The Rosemary Bryant AO Research Centre (the Centre) is a partnership between the University of South Australia, School of Nursing and Midwifery and the Rosemary Bryant Foundation. The Centre aims to strengthen the role of the nursing & midwifery profession across the health system through the development of a research-driven, evidence-based platform of healthcare.

The Centre has prepared the following submission to the SA Productivity Commission's Inquiry.

Key feedback:

- There is a lack of funding opportunities for nursing and midwifery-led research. South Australia has an ideal opportunity to establish itself as the Australian focal point for nursing- or midwifery-led research internationally with sustained investment and leveraging of industry partnerships.
- A more agile, flexible approach to the infrastructure that supports research is required to accommodate future sector reform, changes to research and changes to research investment.
- Current reviews such as the Birch report into the public sector's clinical research enterprise are welcome but the state also requires a more robust health and medical research (HMR) strategy. Such documents also require independent monitoring and evaluation to ensure that the recommendations provide optimal outcomes for the research community as they are implemented.
- Current data systems focused on the outcomes and experiences of the healthcare client/consumer/patient are either inaccessible, or insufficient for research purposes. Investment here would result in a more efficient healthcare system through monitoring of best practice care, resulting in reduced waste, minimized adverse events, and South Australians returning to being active members of the community and economy more quickly.
- More work needs to be done at a health systems level to elevate nursing and midwifery-led research to the same level as its other HMR counterparts potentially through the establishment of a Nursing and Midwifery Research Advisory Committee that has appropriate linkages and voice within Government and research entities.

The Centre has prepared the submission with a position that, while there has been strong commitment to the HMR sector over the past ten years, there is still much work to be done in order to increase our national competitiveness. Our argument articulates that research into the fundamental delivery of healthcare, like implementing best practice care, guidelines and frameworks would be a good return on investment through broader economic channels. These include reducing system waste, minimising adverse events, reducing readmission rates and ultimately returning people to their previous roles in the community faster and with less short or long-term impact will set South Australia up as a state with strong foundations ready for big growth areas like medtech and pharmaceuticals. To do this, SA needs to invest in its clinical workforce and health services research at a higher level than it currently does presently, while continuing to maintain strong support for other technologically-driven areas of R&D. A commitment to ongoing, strategic investment is critical.

The Centre has aligned its response under particular areas of inquiry, however many of the points made align to other matters noted by the Commission.

Response to assessing the performance of health and medical R&D in South Australia, with particular reference to how health and medical R&D in South Australia:

- a. Fosters innovation and improvements in health care service delivery that lead to improved health outcomes from the community and provide cost savings to the health system**
- b. Encourages staff development that promotes high profession standards and supports recruitment and retention.**

Fostering research capacity for nurses and midwives, who make up the largest group of the healthcare workforce, is vital to effectively supporting innovation and improvements in healthcare and service delivery in acute care, primary care, mental healthcare, aged care, and maternity care across the array of where such services are delivered. These services are expensive to deliver and are our most vulnerable asset during rapid changes in the health of our population including during the recent bushfire and pandemic periods.

Fostering the capacity of nurses and midwives to be involved in and lead research leads to improved clinical and wellbeing outcomes for patients, clients, and community members and results in cost savings and greater efficiencies for the system. Involvement and leadership in research also delivers positive outcomes in terms of better workplace and job satisfaction which in turn improves workplace safety, risk minimisation, workforce recruitment and retention to ensure a strong health, aged, and maternity care system.

Currently, too little investment is directed toward research and evaluation involving and led by nurses and midwives in proportion to the available funding pool. While research into medical devices and pharmaceuticals is necessary, nurse- and midwife-led research and evaluation has the capacity to deliver positive results and outcomes to safety, cost effectiveness, health, and wellbeing in a way that has greater likelihood of eventuating in more rapidly implementable interventions and actions.

South Australia is well-positioned to be a leading State in nursing and midwifery research and evaluation, with three high-level universities offering tertiary education in nursing and midwifery and other registered training organisations and TAFEs. Our metropolitan health and maternity services are also easily accessible to researchers and our large and spread out population in rural, regional, and remote areas allows for comparison to inner regional and metropolitan contexts as well as targeted research focussing on important place/context-based issues and questions. Primary healthcare is also an area where nursing and midwifery research could make a real difference in SA; to keep people healthier and out of hospitals and residential aged care for longer.

One approach that should be considered is greater collaboration between the universities, State health and aged care services, and industry to develop non-competitive consortia which could access larger pools of funding to undertake programmatic research and evaluation into wider issues facing health, aged, maternity, and mental health. Nurses and midwives should be offered the opportunity to lead this research as they are the primary coordinators of care in many of these services, and hence, have a sound understanding of where improvements can be made.

The relatively small, centralised population of South Australia allows investigation of issues that both affect locals as well as those facing other jurisdictions. This enables effective translation and transfer of evidence to other locations. By investing in nursing and midwifery research in South Australia, local achievements can put SA on the map in terms of leading to increased attraction of funding, and broader national and international outcomes and developments. Different health networks and health and aged care services could host multi-sited nursing- and midwifery-led projects and examine the impact of different forms of clinical interventions as well as the impact of different contexts on implementation.

These sorts of multi-sited projects can also share learnings and lessons on implementation with one another to rapidly result in better care for clients and patients more rapidly than biomedical and pharmaceutical research which focuses on research questions much further upstream from the bedside.

Response to identifying and assessing key factors influencing the level of public sector and private sector health and medical research output and activity in South Australia: Access to data including current regulation affecting access to data and efficiency of collection and acquisition

The Centre wishes to highlight one area of data that, if addressed, we believe will give SA a distinct competitive advantage relative to other jurisdictions; Patient-reported data. Patient-reported data represent standardised systematic assessment of patients' symptoms, adverse side-effects of treatment, experience of navigating the health system, and the impact of these things on quality of life and are central to patient-centred care.¹ Patient-reported data can inform effective health reform and targeted service delivery and should therefore be included in health system surveillance and reporting. Research and development, underpinned by relevant supporting regulation, is required to develop the best methods for collecting and using patient-reported data at the micro-level to improve patient-clinician communication/patient management, inform service delivery/improvement, and policy and service planning.

In South Australia there is a gap in knowledge, capacity and effort across the healthcare continuum and research pipeline to collect patient-reported data, which limits our ability to realise the following benefits:

- a. Patient benefit: e.g. identifying long-term and chronic side effects of new treatments, unmet needs
- b. Service evaluation: e.g. systemic problems that lead to errors, safety/quality issues, inefficiencies
- c. Inequalities and gaps in care, particularly for vulnerable populations: e.g. socioeconomically disadvantaged, low health literacy, geographically remote.

An environmental scan of patient-reported data in Australia commissioned by the Australian Commission on Safety and Quality in Health Care concluded "although many organisations in the healthcare sector are interested in [patient-reported outcome measures], their actual development, collection and use is currently patchy and inconsistent".² In 2008 The National Cancer Strategy identified a need for better data for cancer monitoring, including quality of life and other aspects of survivorship after diagnosis.³ We are no further in progressing this 12 years later.

Research investment in methods to capture and use patient-reported data that work in the Australian setting is essential to ensure that we can keep pace with international appetite and momentum for patient-reported data as part of routine practice, health service evaluation and quality improvement. This in turn will provide evidence-based and informed strategies to make health care more patient-centred. This aligns with two key recommendations of the Australian Government Productivity Commission's productivity review in 2017 – reconfiguring the health care system around the principles of patient-centred care, and using information and data better to inform providers, researchers and consumers.⁴

¹ Snyder C et al. Patient-reported Outcomes: Putting the Patient Perspective in Patient-centered Outcomes Research. *Medical Care* 2013; 51:S73–S79.

² Thompson C et al. Patient-reported outcome measures: an environmental scan of the Australian healthcare sector. Sydney: ACSQHC;2016

³ Cancer Australia (2008). A national cancer data strategy for Australia. Canberra, Commonwealth of Australia.

⁴ Australian Government, Productivity Commission. Shifting the Dial: 5 year productivity review. Canberra; 2017.

A number of initiatives could be considered to facilitate many of the methodological and practical challenges in the effective and efficient capture and use patient-reported data:

- A recognised research concentration in health outcome research that includes researchers (multi-disciplinary), health economists, clinical leaders, policy makers and consumers to drive R&D and bring together teams that are pursuing local initiatives.
- Funding for Patient-Reported Data Research Fellows and PhDs, in clinical and policy settings.
- Funding for key infrastructure to support collection and use of patient-reported data, including regulation that supports innovation and protects privacy.
- Funding for training and education for all stakeholders in methods to collect, interpret and use patient-reported data in Australian health care settings.
- A South Australian data strategy that identifies the challenges and specific actions in different settings.

In summary, South Australia would benefit from an integrated strategy for collection and use of patient-reported data to inform responsive quality and safety initiatives in healthcare, and patient-centred care.

Response to identifying industry needs and current barriers to undertaking health and medical research and development in SA and propose models to facilitate industry health and medical R&D.

With respect to barriers for industry, the biggest challenge is addressing risks to SA being an uncompetitive place for industry to do business. This is driven by too much internal competition, especially in areas that should be harmonised. There are a lot of incentives in SA for industry to spend their money here, but we have an unagile health system that has been through more than ten years of health reform, budget crises, job cuts, changes of leadership (political and executive), and changes in direction, which has contributed to health system more focused on cost-containment than focused on setting long-term, aspirational goals and working together towards them. This hampers research because innovation will be one of the key mechanisms for achieving any long-term goals.

This can be overcome however, if South Australia sets and executes a research strategy that is focused on the health, welfare and economic opportunity for its people. This is a welcomed point included in the Commission's Issues paper. However, the current HMR strategy, *Research Focus 2020*, falls short of being a strategy. A strategy requires a careful consideration of the forcing functions that are influencing the current state. It then requires accurate identification of the problem and the goal, followed by a guiding policy in line with the goal, a set of actions that will achieve the goal and most importantly, these actions to be enacted. Such a document would empower SA Health to take the lead on what it wants to see achieved over a 5-10 year period, and hence where it will be looking to invest. It also allows key stakeholders to orient their business models and plan for long term success. The current HMR strategy is also very close to being obsolete. Perhaps the requirement for SA to always have a current HMR strategy to minimise the risk of the state operating without one.

Historically, the South Australian public system has struggled with providing agile research service support. Research governance offices have a very strong role to play in determining how agile we can be as a state. We welcome the Birch report's review of the clinical research enterprise in South Australia as an opportunity to remodel this component of the system because it is not contemporary with other international models. The lack of shared ethics arrangements across the public sector and with private or university partners is noted here.

There are also no transparent metrics for these services and no reported benchmarks. In the UK, the NHS and its research arm, the NIHR, work complementary under a hub and spoke model to deliver research support to all NHS providers equally. Targets are set with incentives for achieving these targets for the NIHR's research support services and through delivery of these targets the Director of the NIHR lobbies treasury for ongoing commitment of essential research funding. This is an understood, agreed,

functional system that allows people at all levels to understand the importance of their role in achieving the strategic objectives of the NIHR. Furthermore, these targets have created an industry in themselves and producing a return on investment through efficiency gains, attracting and retaining new industry partners, and mitigating the risk of the sheer size of the NHS and its research arm, the NIHR, grinding these services to a near halt through bureaucracy. There is also an issue here of appropriate and transparent use of public funds, something that the NHS is conscious of. Such information is not as easy to locate in South Australia.

To this end, fundamental infrastructure in some areas is lacking. When national and, in particular, international competitors have well-established, lean processes around research management and data collection infrastructure and improved HR management with respect to clinical research, it does not make South Australia a compelling place to do business. South Australia, as a small state, has the opportunity to have a unified approach to cover all sites doing research no matter how many studies, participants or users – public or private. We should not be competing among ourselves for basic infrastructure to run clinical research. Ultimately everyone loses under this approach. This would also demonstrate appropriate use of public funds. However, recent experience demonstrates that gaining agreement among all parties is not easy and requires strong leadership, time and resource investment. An appropriate body such as the new Commission, SA Health's central research office or the SA Translation centre, would be suited to this challenge, but would require a ministerial level mandate in order to gain state-wide taction and buy-in.

Action that the SA Government might take to:

- a) Increase the state's share of Australian Government funding for health and medical R&D.**
- b) Increase the scale and productivity of publicly funded and public health and medical research institution R&D as well as private sector R&D.**
- c) Increase the impact of health and medical R&D activity in South Australia on the state's economic growth.**

As the largest group of healthcare providers in South Australia, nurses and midwives play a vital and increasingly leading role in the prevention, treatment and rehabilitation of those with acute and chronic disease. Supporting nursing and midwifery education and research and promoting nursing leadership in policymaking fit within the World Health Organisation's (WHO) five main strategic areas for nursing and midwifery, namely: strengthening health systems and services; developing and implementing nursing and midwifery policy and practice; addressing the education, training and career development of nursing and midwifery personnel; assisting in maximizing the management of the nursing and midwifery workforce; and creating partnerships within and between nursing and midwifery services, and other services.⁵

South Australia, as a state with one of the oldest populations, is experiencing and will continue to experience into the foreseeable future, the high cost and burden of chronic disease. Nationally, the health system is being re-oriented from acute hospital-based care to more community based primary health care. Nurses and midwives are needed to fill in the gaps in services and to deliver care in the community through new models of care. The large contribution that the nursing and midwifery research community contributes to evidence-based and value-added care is often overlooked in a medical-centric model of care.

⁵ Enhancing nursing and midwifery capacity to contribute to the prevention, treatment and management of noncommunicable diseases. World Health Organisation 2012. <https://www.who.int/hrh/resources/observer12.pdf>

Health Translation SA has been an important development in bringing together South Australia's academic, research and health care agencies to ensure research can be quickly translated into improved health outcomes. However, improving existing partnerships with nursing and midwifery researchers needs to be strengthened, as does the acknowledgment and visibility of the high-quality research being undertaken.

This could be achieved by:

- Including nursing and midwifery research/outcomes in all seven reporting metrics of the SA Research Focus 2020. For example (metric 1): *number of health and medical projects undertaken across SA Health by speciality/discipline* and (metric 7): *significant outcomes of research, including successful translation of research into illness prevention, health promotion, clinical service delivery, health policy and health systems management as well as commercialisation of intellectual property by SA Health researchers*.⁶
- SA Health to support and actively promote the evidence-based, cost-effective research and outcomes demonstrated by those in advanced practice nursing roles. This includes working collaboratively with professional nursing organisations to decrease the employment and bureaucratic barriers to working in these advanced roles. For example, one of the flagship priorities of Health Translation SA is reducing deaths from colorectal cancer. Time to colonoscopy is one of the outcome indicators in the national screening program. A very successful pilot program for nurse endoscopist was run and evaluated in SA at the Queen Elizabeth Hospital. The comprehensive evaluation recommended that advanced practice nurse endoscopist model of care is a safe and acceptable model to introduce into the workforce.⁷ System benefits and improved satisfaction were noted, and it was recommended that the nurses be integrated into the multidisciplinary workforce to support the current SA waiting list. However, this very successful and cost-effective program was not taken up in SA largely due to bureaucratic roadblocks.
- Similar to advanced practice roles, the bureaucratic and local health network barriers for Nurse Practitioner roles across SA need to be reviewed and corrected. Enormous cost savings could be gained from the placement of nurse practitioners in Country Health and areas poorly serviced by the medical workforce. The encumbrances in the current processes have made it nearly impossible for nurses to work in this role. SA could be a leading example of how this could work nationally, providing cost-savings to SA Health and increasing collaborative opportunities.
- SA Health could build on Health Translation SA by broadening the scope and representativeness of the unit to include partnership with key nursing and midwifery research institutions. This could take the form of a SA Nursing and Midwifery Research Advisory Committee that reports to the Department. This partnership could work together to recruit and retain the very best nursing and midwifery academics and clinicians and drive quality research and education.

⁶ Research Focus 2020 Our strategic priorities. SA Health Government of South Australia. SA Health. <https://www.sahealth.sa.gov.au/wps/wcm/connect/68c7d28042c9694fa587f78cd21c605e/Research+Framework+v8.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-68c7d28042c9694fa587f78cd21c605e-n5iR8Wg>

⁷ Cusack, L et al. Evaluating nurse endoscopist advanced practice roles in a South Australia metropolitan health service. University of Adelaide. Oct 2018. <https://www.sahealth.sa.gov.au/wps/wcm/connect/7dde8be1-7676-4605-893a-fe86183906a2/Evaluating+nurse+Endoscopist+advanced+practice+roles+in+SA+metropolitan+health+service+Final+Evaluation+Report+2018.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-7dde8be1-7676-4605-893a-fe86183906a2-mPRrykz>

The primary research funding bodies, NHMRC and MRFF have historically provided little funding to nursing and midwifery research despite the profession's significant contribution to improving health care. SA Health could agree to partner with nursing and midwifery researchers and research centres to improve the chances of securing large scale national funding. In particular, the following areas are particularly amenable to nursing- and midwifery-led research:

- MRFF priority Ageing and Aged Care. South Australia nursing researchers have made significant contributions to research in aged care, including submissions made to the Royal Commission. Research areas of expertise include aged care workforce models, co-morbidity, consumer choice and care needs.
- MRFF priority Primary Care Research. Nursing research currently underway in chronic care is potentially scalable and would be cost-effective to SA Health. The approaches to upscaling could be through partnership with the SA Health Translations Centre.
- MRFF priority Comparative Effectiveness Research. Through advances in national standardised databases and capitalising on existing evidence-based research, nursing research centres and professional organisations, funding could be sought from both MRFF and NHMRC. Areas particularly amenable to existing nursing research include integrating best practice guidelines into clinical decision making and evidence-based quality improvement.

In summary, greater linkages between nursing and midwifery researchers, and large state initiatives would support other arguments presented in this submission that the contribution of these two professions to the health and welfare of the community is recognised and valued in the state's R&D future.