Medical Research Future Fund consultation to inform the second Australian Medical Research and Innovation Priorities 2018 – 2020

Australian Association of Gerontology (AAG) submission

Question 6. Which 2016–2018 MRFF Priorities do you think need further focus?

- Clinical researcher fellowships
- Targeted translation topics
- Building evidence in primary care

Question 7. How can the 2016–2018 MRFF Priorities you identified in Question 6 be extended or re-emphasised in the 2018–2020 MRFF Priorities?

Clinical Researcher Fellowships: There is a major gap in funding fellowships in all areas of ageing research. Capacity building and career development in ageing research are critical. In particular, research relevant to service delivery models and clinician/practitioner roles in healthy ageing needs to be fostered in Australia, as the service context in Australia differs from other countries. The MRFF Clinical Researcher Fellowships Program should be extended with quarantined funds to explicitly include fellowships in all areas of clinical research into ageing.

Targeted translation topics: Translation of ageing research into practice should be explicitly included among the translation topics, both by adding a specific “Ageing Research Translation” topic; and by including a greater focus on ageing research in other translation topics, particularly the topics “Targeted Health System and Community Organisation research”, “Keeping Australians Out of Hospital”, and “Boosting Preventative Health Research”.

Building evidence in primary care: This Priority should be extended to include a focus on building further evidence regarding the role of primary care in promoting healthy ageing and managing multimorbidity amongst older people in the community. This might include, for example, building further evidence on: the role of primary care in reducing risk factors impeding healthy ageing; access by older Australians, including those in residential aged care, to appropriate primary health care services; and the interfaces between primary care and other care required by older Australians, including aged care services (home based and residential), disability services, dementia services, housing services, and other community services and support. It is also likely that the policy focus on reducing avoidable hospitalisations will place increasing strain on the primary care system, and evidence will need to be gathered in this area to ensure there is an understanding of future capacity requirements in the primary care system to support healthy ageing in the community.
Question 8. What unaddressed gaps in knowledge, capacity and effort across the healthcare system and research pipeline need to be addressed in the 2018–2020 MRFF Priorities?

The first gap is in knowledge, capacity and effort across the healthcare system and research pipeline, to support the promotion of healthy ageing and a life course approach to ageing well.

Ageing well is about optimising quality of life throughout the life course, which is the ultimate health goal for all Australians. Ageing well means remaining physically, mentally and socially active for longer, delaying the onset and improving the management of chronic complex multimorbid conditions, supporting people to remain active in the community, and delaying the need for entry to residential aged care. It also includes palliation for those with life limiting conditions, and a dignified death. Ageing well is a priority for the whole community, as well as a basic human right.

In terms of sheer numbers, population ageing is largely a story of success. On average, Australians are living for 25 years longer than we did a century ago and we rank sixth in the world in terms of life expectancy. The number of Australians aged over 65 is expected to more than double to almost 9 million by 2055.

However, a challenge remains in ensuring that the later years of life are as healthy and productive as possible. It is well known that social conditions and resources as well as common behavioural and psycho-social risk factors impact on physical and mental health throughout the life course, and consequently impact on healthy ageing. In particular, it is now well recognised that dementia and cognitive decline share many common risk factors with chronic diseases such as cardiovascular diseases, type 2 diabetes, and many cancers. It is also known that exposure to risk and adversity from the early years onwards can exert effects over decades and may have a large compounded influence. More knowledge is needed about how to change social and environmental factors and individual behaviours to positively influence risk factors and prevent multimorbidity. Research into injury prevention, including falls prevention and prevention of violence and abuse, is also an important element in the research agenda for ageing well. In addition, particular research focus and translation activities optimising physical and mental health of the large number of older informal carers of frail older people will help sustain longer term independent living at home for this vulnerable group.

The 2015 Intergenerational Report\(^1\) outlined several economic challenges arising from an ageing population; the great majority of these challenges are entrenched in the expected ill health of the later years of life. Increased healthy life expectancy offers opportunities for

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economic and social benefits arising from greater social and workforce participation, as well as reduced demand on health and aged care services.

There has been limited investment in multidisciplinary research that delivers practical health and wellbeing benefits for older Australians. Investing in such research will help inform and empower governments and service providers (across the health, aged care and disability sectors) to develop evidence-based solutions that address the economic and social challenges and opportunities of an ageing population.

The second gap is in knowledge, capacity and effort across the healthcare system and research pipeline, to support better understanding and management of the complex and multi-factorial health and medical issues that affect older people.

As Australia’s population ages, it is expected that the number of people with multiple chronic conditions will increase (complex multimorbidity). Studies have shown that multimorbidity is associated with reduced quality of life and increased demand on health resources, complexity of care, and mortality. Australian research has confirmed that prevalence of multimorbidity indeed increases with age, with a significant proportion of older patients having seven or more chronic diseases, affecting multiple body systems. Yet Australia’s secondary and tertiary health care system largely has a single disease focus.\(^2\)

Much of the research funded through the MRFF similarly has a single disease focus. A better understanding is needed of the patterns, mechanisms and effects of multimorbidity in older people, and of how the health service system at all levels, and the aged care service system, can better manage multimorbidity. There is an opportunity to build on current evidence-based, best practice methods and clinical and quality improvement frameworks in both health care and aged care service delivery; and to improve the integration of services between aged care, primary care, acute care and disability support.

The impact of workforce models on our health system is also poorly studied. In aged care facilities, the high use of temporary staff and difficulty in recruitment confound workforce data and the measurement of direct care staff to resident ratios\(^3\). Across all settings there is clear international evidence that fixed staff to patient/resident ratios improve care\(^4\), though there is a lack of clear evidence on the ratios needed and the best skill mix in different environments (acute, community, and aged care facilities). There is a lack of understanding of how to effectively accommodate the scope of practice of different professions to safely


\(^3\) https://www.gen-agedcaredata.gov.au/Resources/Dashboards/Australia_s_aged_care_workforce

integrate the holistic care needs of older people, including safe and appropriate delegation and referral. Further research in this area would be valuable.

The third gap is in knowledge, capacity and effort across the healthcare system and research pipeline to support improved care and quality of life for older people, towards the end of life.

The Australian Commission on Safety and Quality in Health Care has noted that many Australians spend the last year of their life in and out of hospital, and more than half of those who die now do so in acute settings⁵. This often reflects unnecessary and avoidable acute care admissions, many involving high-cost, low-value interventions. The Commission has noted that the health care that people receive towards the end of life can minimize distress and grief for the person who is dying, and for their loved ones.⁶

Australian society’s attitudes to dying are changing, as indicated by increased interest and activity in relation to several aspects of end-of-life care including advance care planning and other aspects of decision-making about care, reduction of futile treatments, palliative care, and discussions around the concept of “a dignified death”, with most people preferring to die at home. A range of position papers and consensus statements have been produced on these and related topics⁷.

Yet there is limited hard evidence to support potential improvements in end-of-life care in the Australian context (other than for people with cancer), with many of the current recommendations based on expert opinion rather than research evidence. Research and research translation in this area, including on the health service system and aged care system responses to end-of-life issues, and the workforce implications of these responses, is a key gap that needs to be addressed. The shift to models of shared decision making and open communication requires focused evidence and translational research⁸.

Research evidence about appropriate workforce models for older people is needed for both community and institutional settings, covering: what staff ratios and mixes are needed to

⁵ Over a 2 year period, ~30% of RACF residents spent time in acute care in the last month of life, 14% dying there. Additionally only 15% of RACF residents were identified as needing palliative care before death. Australian Institute of Health and Welfare 2018. Cause of death patterns and people’s use of aged care: A Pathway in Aged Care analysis of 2012–14 death statistics. Cat. no. AGE 83. Canberra: AIHW.
⁸ https://spcare.bmj.com/content/4/4/331.
provide quality care and outcomes; what are adequate numbers of direct care staff; and what core skills can improve outcomes in a cost effective way. A relational model of staff allocation increases the capacity and likelihood of unregulated care staff being able to identify change requiring referral, and to be able to undertake delegated tasks appropriately.

9. What specific priority or initiative can address the above gaps?

**A new MRFF Priority is needed on the topic of Ageing Well.** Investment in this area will build knowledge, capacity and effort across the healthcare system and research pipeline, to support the promotion of healthy ageing and a life course approach to ageing well. This would include prevention and intervention strategies, and a focus on nutrition and physical activity, as well as psychological wellbeing, mental health, diversity and social participation.

Australia needs increased investment in research to develop effective strategies to prevent and minimize the effects of chronic diseases and cognitive decline in older people, and to improve the ongoing management of those who already have chronic diseases and cognitive decline. There is growing evidence of the health benefits of lifestyle approaches including increased physical activity, in maintaining cognitive health or slowing the rate of cognitive decline. Longitudinal and population-based studies will be particularly important in providing an evidence base for effective risk reduction strategies. Other areas for attention include developing a better understanding of “normal ageing”; research into the cost-effectiveness of prevention and early intervention approaches; research into predictive biomarkers; and targeted physical, cognitive and social research, including specific exercise research.

Prevention and improved management of illness and disability has the potential to compress morbidity, delay disability and loss of function, and increase capability and mobility. The positive social and economic consequences will include improved quality of life, a reduction in avoidable hospitalisation, and delayed need for aged care, particularly high-level residential aged care. There will be a significant economic return on investment in this area.

It is critical that research in this area – and in other areas of ageing – is co-designed with older people, who should not lose “authorship” of their own destinies simply due to ageing. Australian consumers have already expressed their support for research into age-related diseases, symptoms and problems of ageing, lifestyle factors, and mental and social issues of ageing.9

**A new MRFF Priority is needed on the topic of multi-factorial geriatric syndromes.** Research in this area will lead to a better understanding of the patterns, mechanisms and mechanisms and

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effects of multimorbidity in older people, and how the health service system at all levels, and the aged care service system, can better manage multimorbidity. An evidence base to support effective treatments and service responses, which are likely to differ to those applicable to single diseases, will lead to better outcomes for those with multimorbidity. Effective research and translation in this area must be built on a foundation of multi-disciplinary research methods to consider complex inter-related causation, prevention and clinical management; and include a holistic approach to addressing age-related and life limiting disease and illness. This should include realist (real world) program evaluations, population level studies, data linkage across states, countries and disease registries, and clinical trials that i) involve older people with multimorbidity and/or frailty; ii) look at the effectiveness of interventions that take multimorbidity and frailty into account; and iii) focus on outcomes that matter to older people.

There is also a need for a health services research component to better understand how the health service system at primary, secondary, and tertiary levels, as well as the aged care system, disability services, and other services relevant to older people, can be integrated to achieve better outcomes in managing multimorbidity and frailty, and improving quality of life for older people. Research into system design and navigation will be an important element within this priority research area; and improved evidence on quality of care is also critical.

A small number of trials of inreach (for example, successful models for aged care involving Primary Health Networks) and outreach services have demonstrated likely cost-effectiveness and improvement in quality of care with a focus on the interactions between acute care/primary health care and aged care facilities. Given the likely benefits to Australia, this type of health service research needs to be rapidly expanded, as a stronger evidence base is needed.

**A new MRFF Priority is needed on the topic of end-of-life care for older people.** This would encourage the development of an evidence base in the Australian context for improved medical, health and social care system and aged care system responses to the needs of older people towards the end of life. The primary aim would be to improve the experience of end-of-life both for the older person who is dying, and for their family and carers. A secondary aim would be to reduce avoidable hospitalisations and to identify and stop futile (and sometimes harmful) treatments. Enabling more older people to die in comfort at home without invasive medical treatments would meet the preferences of more people, and generate savings for the health care system. Health professionals, care workers, and families need evidence-based recommendations to provide confidence and support difficult end-of-life decisions.

There is also a need for translational research to improve health system, community and cultural responses to dying. In addition, health professionals need better communication skills and tools to help them initiate and conduct conversations about death and dying, with a focus on shared decision-making models and life course focused care planning.
Communities need skills in offering compassion and instrumental support. Real world trials and service evaluations are needed to look for examples of best practice and to understand translational context needs.

**Question 10.** What Strategic Platforms (identified in the MRFF Strategy document) would the Priority/ies you identified in Question 8 fall under?

- Health services and systems
- Capacity and collaboration
- Trials and translation

**Question 11.** How can current research capacity, production and use within the health system be further strengthened through the MRFF?

A new Ageing Research Mission should be added to the current MRFF Missions. The Mission’s objective would be *to extend the years of healthy life available to older Australians, and to improve the end of life experience for older Australians.*

Building a robust evidence base is an essential foundation upon which to develop ageing and aged care policies and reforms, and service delivery models, that best meet the challenges and opportunities of an ageing Australian population. Dedicated research funding can generate significant activity and rapidly increase outcomes, as demonstrated by the decade of funding stimulus for dementia research.

Unlike much medical research, ageing research does not apply a single-disease research model, nor fit within a single disciplinary paradigm. Instead it recognises the multi-factorial causality of age-related health issues. Therefore, the Ageing Research Mission will require a multidisciplinary and cross-sectoral approach that builds research capacity and collaboration across relevant areas (such as medical, psychosocial, nursing, allied health, disability, technology, design and policy), including international collaboration where relevant. Consideration should be given to developing a multidisciplinary Geriatric Medicine Clinical Trials Group to enhance opportunity, rigour and collaboration in clinical research in geriatric medicine.

Research and evaluation are critical for identifying the support and care needs of older people and their carers, and for informing ways of increasing the appropriateness, effectiveness and efficiency of services and actions on their behalf. Trials and pilot programs with evaluation and follow up to find out what works in terms of sustainability and cost-effectiveness, and why, are important. Pragmatic implementation trials are needed. Evidence-based workforce and service models will deliver enhanced health and engagement of older people, and contribute to future productivity in Australia.

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The focus should move towards healthy ageing, and the Mission should include opportunities for disciplined intervention and comparative effectiveness research with good translation, noting that teaching nursing homes can provide a base for high-quality, practical research.\textsuperscript{11} Particular consideration should be given to the participation of clinician/practitioner researchers within this Mission.

All ageing research should:
\begin{itemize}
  \item be multidisciplinary
  \item encourage participation by key stakeholders
  \item be based on co-design with older people themselves, to ensure research answers the questions that are important to them\textsuperscript{12}
  \item emphasise positive outcomes
  \item be of sufficient quality, scale and continuity to bring together collaborative teams and build substantial bodies of knowledge
  \item incorporate budgets and mechanisms for engagement of policy makers and practitioners throughout the research process, and dissemination and translation of research findings to increase uptake and application of knowledge.
\end{itemize}

In addition, where appropriate, ageing research should:
\begin{itemize}
  \item include a focus on equity and social justice and representation of diverse populations (for example, AAG is currently developing a position paper on LGBTI ageing research)
  \item include evaluation of the costs and benefits of research undertaken.
\end{itemize}

\section*{12. Do you have any additional comments on the Discussion Paper?}

A new focus on ageing research is needed within the MRFF. Given the challenges presented by the ageing of the Australian population, there is urgency in building an evidence base to support healthy ageing, better management of multimorbidity, and improved end-of-life care. This approach will incorporate several MRFF goals and objectives, including novelty and the importance of transformative research. Investment in ageing research offers an excellent return on investment, by supporting evidence-based strategies to enable more people to age well in the community, delay the need for entry to aged care, and reduce avoidable hospitalisations and futile care at end-of-life.

The MRFF funding process should support identification of research questions that address real world issues, and enable co-production of rigorous research which can be applied in policy and practice. It is important to allow sufficient time within the funding cycle for researchers to develop innovative ideas and sound directions, and to negotiate strong and

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effective collaborations. The MRFF’s funding approach should be strategic, rational and focused, and aim to allow for evidence, contexts, and relationships to come together.

More emphasis is needed on mechanisms to support knowledge transfer, translation of research into policy and practice (including consideration of “to whom”, “by whom”, and “how” this will occur), and evaluation of research implementation. Regulatory, resourcing and organisational culture changes will be required to support effective implementation of evidence-based practice improvements, as well as realising the opportunities for efficiency gains and potential commercialisation.

Open and transparent mechanisms for distribution of funding are critical. In addition, co-funding of research projects with philanthropic research trusts should be considered where appropriate.