

# Australian Medical Research and Innovation Two Year Priorities

**Title:** Prioritising dietary risk factors in the prevention and treatment of disease.

**Submitted by:** Dietitians Association of Australia (DAA)

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## 1. What is the gap in Australia's health system to be addressed by this priority?

The prevention and treatment of disease through dietary measures is an obvious gap in Australia's health and medical research system, with the latest international figure showing that 'high body-mass index' and 'dietary risks' are the top two leading risk factors contributing to the burden of disease in Australia (<http://www.healthdata.org/australia>).

## 2. How does your area of priority address either an existing or a new health or health system challenge?

Around 10% of the total burden of disease in Australia is attributed to **dietary risk** (AIHW, 2016 and Global Burden of Disease, 2013), yet millions of dollars are spent on pharmaceuticals for chronic disease (<https://www.pbs.gov.au/statistics/2014-2015-files/exp-prs-book-01-2014-15.pdf>) and expenditure on health and medical research largely neglects diet and nutrition.

## 3. Comment on which aims and objectives your priority is likely to meet.

Prioritising nutrition and diet in Australia's health and medical research system meets the following objectives of the Australian Medical Research and Innovation Strategy:

- Preventions and cures of tomorrow
- Economic benefits
- Sustainable, high-quality, cost-effective health care

## 4. Mandatory considerations – which of the mandatory considerations set out in the *Medical Research Future Fund Act (2015)* does your priority proposal address?

- Burden of disease on the Australian Community
- How to deliver practical benefits from medical research and medical innovation to as many Australians as possible
- How to ensure that financial assistance provides that greatest value for all Australians
- How to ensure that disbursements complement and enhance other assistance provided to the sector

## 5. Outline of priority proposal:

Proposed solutions to the gaps and challenges identified above include:

- Engagement of the Australian Medical Research Advisory Board (Advisory Board) with the Dietitians Association of Australia (DAA) and prominent Australian nutrition researchers to assist in the development of priorities for nutrition and diet research and innovations, in order to reduce the risk of diet-related disease in Australia.
- Prioritised funding for:
  - Disease prevention and early intervention research:
    - dedicated funding for research into innovative, sustainable and cost-effective approaches (with a significant focus on technology) that have the biggest impact on diet-related chronic disease in Australia. It is recommended that all studies (and technologies) include a cost-effectiveness analysis and all projects have funding to support capacity building within this domain.
    - research into consumer dietary behaviours, to identify drivers of health that might support personalised dietary care decision making.

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- research into personal devices (e.g. smartphones, activity and food intake monitors, wearable GPS units) and electronic data capture tools that monitor dietary behaviours so as to improve accessibility of behavioural interventions and enable real-time assessment of influences on personal health.

## Measurement of nutrition epidemiology research:

- research into the prevention of malnutrition and malnutrition-related issues (e.g. pressure injuries and poor wound healing) among the elderly population. Studies show the prevalence of malnutrition in Australia in the community and in residential aged care facilities is unacceptably high, at levels of 8-30 percent and 40-70 percent respectively. Given Australia is an ageing population and limited research is available on how best to prevent malnutrition among the elderly in the community and in care, this area of focus warrants immediate attention.

## Implementation Science:

- 'implementation science' is the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice. Implementation science focuses on identifying all major contributions to improvement of health care, from individual factors up to policy and public health interventions. DAA recommends priority be given to investment for implementation science.

## 6. What measures of success do you propose and what will be the impact on health care consumers?

DAA considers measuring success is important for all stakeholders and agrees that the impact of research on health care consumers should inform grant allocation. We propose measures of success in the following areas:

- Increased access to sustainable, evidence-based nutrition care, with demonstrated cost-effectiveness to reduce the development and progression of diet-related chronic disease in Australia.
- Increased research capacity with more nutrition and diet researchers and centres of research excellence in nutrition and diet translation.
- Improved access to new models of care that utilise technology to address current inequities (e.g. cost, rurality, time, education, SES, ethnicity).

DAA agrees that Key Performance Indicators (KPIs) may be used for a number of purposes, including:

- to monitor success.
- to inform grant allocation. For example, there could be a series of targeted calls for grant applications for research related to non-communicable chronic disease which focus on specific translation and application to health care. Second stage funding would be available to teams which demonstrate feasibility and cost-effectiveness in the first three to five years using agreed KPIs.
- to provide incentives for translation scale-up, including trialling novel ways for end-user adoption.

Proposed key performance indicators include:

- A reduction in the total burden of disease in Australia attributed to: (a) dietary risk factors and (b) other diet-related modifiable risk factors (e.g. high body mass, high blood pressure, high blood glucose, high cholesterol, iron deficiency, low bone mineral density).
- A reduction in the number of elderly Australians with malnutrition and health issues stemming from malnutrition (e.g. pressure injuries and poor wound healing).
- Improved understanding of (a) consumer dietary behaviours and (b) the drivers of health that support personalised dietary care decision making.

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- Improved accessibility to electronic capture tools that monitor dietary behaviours and assess influences on nutritional health.
- Increased availability of eHealth / uHealth diet related technologies that facilitate cost effective nutrition care.
- An increase in the number 'implementation science' research projects carried out within Australia and improvements in health care which stem from such research.

## 7. Please outline any linkages your proposal has with stakeholders, policy agendas and other health and medical research funding agencies.

The Dietitians Association of Australia (DAA) is the national association of the dietetic profession. As a science based profession, DAA has members who are highly respected in the area of research in health and nutrition. This was recognised by the NHMRC in its contracts with DAA for the revision of the food modelling system and evaluation of the evidence to inform the revision of the Australian Dietary Guidelines.

DAA support for applied research into health and nutrition is very relevant to the DAA policy agenda which includes:

- prevention and treatment of malnutrition in older Australians;
- access to evidence-based services for physical health in mental health;
- access to evidence-based services for nutrition in disability;
- better access to nutrition care for chronic disease through Medicare;
- alternative models of multidisciplinary chronic disease management under Medicare;
- improved public health nutrition services to assist Australians to make healthier food choices;
- greater investment in nutrition programs for Aboriginal and Torres Strait Islander people.

DAA is well networked and interacts with health organisations and research bodies within Australia. DAA linkages that are of relevance to this submission include:

- Australian universities – DAA is well connected with a number of leading Australian universities which offer accredited dietetic programs, some of which also have nutrition and diet research streams. The University of Wollongong (UOW) for example is renowned for its nutrition research through the SMART Foods Centre.
- Dietetic professionals - DAA has access to over 5900 DAA members, of which 74% work in the field of community nutrition and clinical dietetics (e.g. in hospitals, outpatient clinics, private practice, community health centres), 4% work in research and 6% work in the field of academia (e.g. university lecturers). DAA members work with consumers/clients to translate science into practical advice, to guide food choices for good health.
- Practice-based Evidence in Nutrition (PEN) – this international collaboration between Dietitians of Canada, DAA and the British Dietetic Association is a powerful knowledge translation tool delivering evidence-based nutrition and dietetic answers to practice-based questions.
- Allied health professional networks – DAA has affiliations with Allied Health Professionals of Australia (AHPA), Indigenous Allied Health Australia (IAHA), Public Health Association of Australia (PHAA), Exercise Sport Science Australia (ESSA) and the Australian Psychological Society (APS).
- Not for profit sector – DAA is engaged with the National Heart Foundation of Australia (NHFA), Diabetes Australia (DA), Nutrition Australia (NA) and the Australian Red Cross to advocate for access to programs and services for better nutritional health.
- Industry – DAA is well networked with a range of food industry stakeholders via DAA's Corporate Partnership Program to support the vision for leadership in dietetics, food and nutrition for healthier people and healthier nations.