



**Australian Government**

**Australian National Preventive Health Agency**

**Strategic Review of Health and Medical Research in Australia  
ANPHA Submission**

*Simon*  
Dear Mr McKeon

The Australian National Preventive Health Agency (ANPHA) appreciates the opportunity to provide a submission to the Strategic Review of Health and Medical Research.

Established on 1 January 2011, the Australian National Preventive Health Agency (ANPHA) is supporting the COAG package of health reforms with a particular focus on preventive health and the recommendations of the National Preventative Health Taskforce. The priorities, set by the government, are for the risk factors of obesity, smoking and harmful use of alcohol with a view to health promotion and disease prevention.

The submission from ANPHA identifies the importance of population level applied research in addressing these priority areas and the importance of translating this research into practice to improve health outcomes for all Australians. The evidence, as reviewed by the Taskforce, and health economics research support the claim that prevention works and there are economic and financial benefits to individuals, business and governments.

The chance to review the preventive health research agenda as part of the Strategic Review of Health and Medical Research in Australia is opportune and I look forward to the outcomes of the review.

I would welcome an opportunity to meet with the Review Team to discuss this submission.

If you have any queries please don't hesitate to contact Dr Helen Cameron, Director Surveillance, Research and Evaluation at ANPHA on (02) 6289 2866 or at [Helen.audrey.cameron@anpha.gov.au](mailto:Helen.audrey.cameron@anpha.gov.au).

Yours sincerely

Louise Sylvan  
Chief Executive Officer

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## Australian Government

### Australian National Preventive Health Agency

## Submission to Strategic Review of Health and Medical Research in Australia

### Background

The Australian National Preventive Health Agency (ANPHA) was established on 1 January 2011 to strengthen Australia's investment in preventive health, following the commencement of the *Australian National Preventive Health Agency Act 2010*.

The Council of Australian Governments (COAG) agreed to establish ANPHA in November 2008, as part of the *National Partnership Agreement on Preventive Health*.<sup>4</sup> The creation of a national preventive health agency was also recommended in the National Health and Hospitals Reform Commission's Report (released in July 2009) and in the final report of the National Preventative Health Taskforce (released in September 2009).<sup>5</sup>

The National Preventative Health Taskforce Report stated that effective prevention brings significant benefits to society as a whole, including reduced personal and family burden, better use of health system resources and improved economic performance and productivity.

COAG agreed in November 2008 to a package of reforms aimed at improving the quality and effectiveness of government health services across Australia. Preventive health was identified as requiring expanded effort to support those reforms, for which the government committed \$872 million over six years from 2009 under the National Partnership Agreement on Preventive Health.

The Partnership Agreement funded the establishment of the National Preventive Health Agency for enhanced critical infrastructure to improve national capacity. The ANPHA Act guides its function with objectives that include "(a) to effectively monitor, evaluate and build evidence in relation to preventive health strategies; and (b) to facilitate a national health prevention research infrastructure".

The Partnership Agreement provided committed \$13.1 million for the National Preventive Health Research Fund for research translating evidence into preventive health policy and programs. ANPHA commenced the roll-out of this Research Fund with an investigator-driven grant round in 2011. On the 6 March 2012 Ministers Butler and Plibersek announced the 13 projects that are to be funded from the Preventive Health Research Grant Program 2011/12. Details of the successful grant applications can be found at <http://www.anpha.gov.au/grants>.

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<sup>4</sup> COAG 2008. *National Partnership Agreement on Preventive Health*. Available at [http://www.federalfinancialrelations.gov.au/content/national\\_partnership\\_agreements/HE004/Preventive\\_Health](http://www.federalfinancialrelations.gov.au/content/national_partnership_agreements/HE004/Preventive_Health)

<sup>5</sup> National Preventative Health Taskforce (2009) *Australia: the healthiest country by 2020* National Preventative Health Strategy – the roadmap for action Commonwealth of Australia

ANPHA is developing a National Preventive Health Research Strategy that will be a national guide for building infrastructure and capabilities across the preventive health stakeholder network, and to guide further expenditure of the ANPHA Research Fund.

The Strategy will focus on population health, behavioural research and the importance of linking this research to new policy and a change in preventive health practice. Without an invigorated effort from researchers, policy makers and practitioners working together for effective intervention implementation, the impact of current trends in chronic disease prevalence and associated risk factors will have a significant and growing effect on the Australian health system.

### **1. Why is it in Australia's interest to have a viable, internationally competitive health and medical research sector?**

Preventive health has a key role to play in maximising health and minimising the risk of chronic disease through facilitating and supporting population level behaviour change. ANPHA therefore advocates that it is in Australia's interest to have an internationally competitive research sector which can include strong behavioural research capacity to support policy and practice for preventive health.

The importance of preventive health cannot be overemphasised. The National Preventive Health Taskforce identified that 'smoking, obesity, harmful use of alcohol, physical inactivity, and poor diet together with high blood pressure and high blood cholesterol cause approximately 32% of Australia's burden of disease'.<sup>6</sup> To continue to effectively redress this situation, Australia needs to answer important policy and intervention questions through research.

Policy makers and program implementers need specific population health intervention research conducted in Australia because application of effective strategies are context-specific and cannot be easily translated from research in other countries and settings. Further, Australia is committed to *Closing the Gap* in Indigenous health status and the determinants of health are directly linked to Australia's history, demography and economic make up.

Research has the potential to provide a sound basis for good policy in order to strengthen the use of evidence in a priority setting, particularly in relation to government policies and programs and to maximise the effectiveness of interventions to enhance population health. Research will also help decision makers move resources from less efficient practices to more efficient preventive health action that results in greater health gain.

The health economist Leonie Segal (2006) stressed the importance of research in preventive health to determine:

- **Through which sector** of the economy a behavioural intervention should be delivered – health, transport, environment, physical activity, human services;
- **The type of intervention** – legislation, taxation, media, social marketing, education, clinical, community level interventions;
- **The reach of an intervention** – national, state, regional, local;

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<sup>6</sup> Australian Institute of Health and Welfare (2008) *Australia's Health 2008*. Cat No. AUS 99. Canberra: Australian Institute of Health and Welfare and repeated in *Australia's Health 2010* as no more recent data were available

- **The target of the strategy/intervention** – e.g. Indigenous people, obese people with impaired glucose tolerance who are at risk of Type 2 diabetes;
- **Identify resources** needed to support the prevention; and
- **Identify and review modifiable risk factors** – lifestyle behaviour (smoking), clinical attributes (obesity), social & physical infrastructure and access to and use of health care<sup>7</sup>.

The achievement of all these arms of analysis calls for many stakeholders across these sectors in the generation and transfer of knowledge that will support the translation of evidence into practice. With an emphasis on translation, an integrated approach and shift to systems thinking is required in order to determine the key factors identified by Dr Segal.

## **2. How might health and medical research be best managed and funded in Australia?**

In order to examine how preventive health research might best be managed, it is important to identify the cultural and institutional impediments that can be overcome while focussing on the need to generate research that is useable for policy, to effect change in population health.

Management of funds and oversight of strategic direction for Australia's preventive health research requires expertise and understanding in the field. One of the key issues is that Australia's research funding bodies have only begun to develop this capability with the required shifts in thinking away from more traditional quantitative biomedical research, randomised controlled trials and rigorous epidemiology. This shift can be difficult to make in the culture and processes of long-standing organisations.

This shift also should recognise the need for research that is responsive to, and/or results in, changing policy and practice. The creation of user-ready evidence from research requires an emphasis from an early stage on incorporation of translational strategies in order for the research to have practical application. Public health research dollars are a scarce resource and need to be invested where results are relevant to policy and programs and their use is actively facilitated. Capacity building, with attention to the specific skills required by those working at this research-policy interface, is required.

ANPHA recently conducted an investigator-driven project round for translational population intervention health research with an awareness of the need for a multi-disciplinary approach to assessment of multi-disciplinary research proposals. The conduct of this funding round was supported by ANPHA's research committee<sup>8</sup> comprising a mix of expertise in tobacco control, alcohol harms, obesity prevention, intervention science and translational research. It should also be noted that the ANPHA Research Committee has cross-membership with the NHMRC Prevention and Community Health Committee. The peer review process was run by ANPHA drawing on expertise in a wide range of areas such as health economics, taxation, sociology and community development as well as the behavioural risk factors reflecting the diverse range of topics covered in the grant applications received.

Coordination of research efforts and avoiding duplication across projects and research groups are essential for ensuring efficiency and effectiveness in research investments. Public health

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<sup>7</sup> Segal, L. (2006) *Developing a Strategy for Preventative Health: A Framework* Centre for Health Economics Research, Research Paper 2006 (15) Monash University

<sup>8</sup> <http://www.anpha.gov.au/internet/anpha/publishing.nsf/Content/research-committee>

and prevention research is undertaken and supported by a range of bodies and from a number of perspectives. These include the health insurance industry, peak bodies focused on health promotion or specific diseases, state health departments, various federal government departments and numerous research institutions. While each sector is striving toward a positive outcome, the efforts are often uncoordinated and there is duplication and inefficiency in efforts.

The potential for a cross-health system model for research funding provided by the NHMRC Partnership Centre model that is currently taking shape across a number of domains in the health sector is a very positive development. ANPHA is one of the funding partners for the Partnership Centre on the theme, *Systems Perspectives on Preventing Lifestyle-Related Chronic Health Problem*; other funders are the NHMRC and three state jurisdictions. The Centre will support new research to improve preventive health policy and programs using methods that are cross-sectoral, inter-disciplinary and trans-national in scope and will build capacity within the research community to do applied, user-ready, research.

In our view, the NHMRC's approach in developing the Partnership Centre model presents a good opportunity for better coordination and strategy development across jurisdictions. Further, the broad systems approach moves the focus from narrow perspectives such as a single disease condition or risk factor, to a population prevention perspective which offers much in the way of investment return for the Australian community.

### **3. What are the health and medical research strategic directions and priorities and how might we meet them?**

Put simply, there is a great need for public health (i.e. prevention) research to be more highly placed on the strategic research agenda of the NHMRC.

The National Preventative Health Taskforce made a strong case for the benefits of prevention and noted the significant body of evidence that shows comprehensive, multi-faceted approaches, which include research, can work. Comprehensive, multi-faceted and sustained approaches have been associated with major public health gains have been made in tobacco control, road trauma, skin cancers, immunisation, cardiovascular disease, childhood infection diseases, Sudden Infant Death Syndrome, HIV and AIDS control.<sup>9</sup> As progress has been made in each of these areas the need for high quality, timely research has grown and changed. As the attitudes, characteristics and behaviours of populations change, so do the policy and program needs. Research and data are crucial to understanding these changes and to enable public health efforts to keep ahead of the game.

A report from Deakin Health Economics (2009) group makes the case for greater investment in preventive health research and preventive health action because of the economic and financial benefits to individuals, business and governments.<sup>10</sup> The report found that the greatest health gains in Disability Adjusted Life Years (DALYs) could be achieved from reducing high risk alcohol consumption and tobacco smoking because these are associated with a larger number of fatal and non-fatal diseases compared to other risk factors. Overall there are potential savings if we achieve a 'feasible' reduction in the prevalence of risk

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<sup>9</sup> Abelson P and Applied Economics (2003) *Returns on Investment in Public Health* Canberra: Department of Health and Ageing

<sup>10</sup> Cadilhac DA (2009) *The Health and Economic Benefits of Reducing Disease Risk Factors Research Report 2009* Deakin Health Economics

factors. The report found, over the lifetime of the 2008 Australian adult population, opportunity cost savings to be between \$2.3 billion and \$3.1 billion but noted further work was needed to confirm the estimates.

Shaw and Tanamas (2012) highlight that prevention of type 2 diabetes is possible and urgent, but there is uncertainty about how to implement the lifestyle changes to support the required obesity reduction.<sup>11</sup> Early intervention can reduce the risk of developing diabetes by nearly 60% over a three year period. They estimated that 3 million Australians over the age of 25 years will have diabetes by the year 2025 if diabetes continues to rise at the current rate and identify the secondary kidney and cardiovascular diseases and other complications. The total annual cost for Australians with type 2 diabetes is up to \$6 billion.

It has become clear to ANPHA that not only is preventive health research important to informing policy, the translation of policy into practice is also critical. Priority setting must take this into account because if there is no strategic change in practice and thus individual behaviours then there will not be population-level change.

The priority areas for preventive health programs have been identified by the Australian government as obesity, tobacco and the harmful use of alcohol because of the burden of preventable, non-communicable disease with which they are associated. At the same time it must be recognised that these risk factors do not occur in isolation from each other, or in isolation from other risk factors and conditions such as illicit drug use, injury, mental health or communicable disease.

#### **4. How can we optimise translation of health and medical research into better health and wellbeing?**

While preventive health research provides the opportunity to significantly improve the health of Australians, it cannot be assumed that preventive health studies that ‘worked’ in research settings will work in a program setting.

To enhance integration of research and practice, we need to change how we perform research program development, evaluation and reporting. Glasgow (2007) argued that it is critical that research design addresses the key factors that will assist translation into practice.<sup>12</sup> Evaluation research needs to pay attention to the cost of implementation, the reach, the situation of the intended target, staff expertise, the flexibility of the intervention and whether there is enough evidence to translate, replicate and/or scale up.

Paradigms for the translation of medical research into medical practice have been in existence for many years, but it is only more recently that distinct models for the complex reality of population health have been proposed. Ogilvie (2009) proposed a translational framework for public health research, as opposed to clinical medicine, which allowed for the collective effects of the determinants of health on the population, emphasised evidence synthesis and knowledge translation and the social interaction that influence public opinion.<sup>13</sup> Other

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<sup>11</sup> Shaw J & Tanamas J (2012) *Diabetes: the silent pandemic and its impact on Australia* Baker IDI Heart and Diabetes Institute.

<sup>12</sup> Glasgow RE & Emmons KM (2007) *How can we increase translation of research into practice? Types of evidence needed* Annual Review of Public. Health 2007 28:413-433.

<sup>13</sup> Ogilvie D, Criag P, griffin S et al (2009) *A translational framework for public health research* BMC public Health9: 116 doi:10.1186/1471-2458/9/116.

variations have been proposed and further work is required to ensure that there is a workable model for current Australian structures and administrations.

Building agreement about what counts as evidence is important and better evidence is called for on 'external validity' which refers to "inferences about the extent to which a causal relationship holds over variations in persons, settings, treatments, and outcomes"<sup>14</sup>.

Oldenburg and Absetz (2011) refer to a significant gap in the uptake of interventions where there is, in fact, compelling evidence that social, behavioural and community interventions can be used to effectively prevent many conditions or detect them at an early stage.<sup>15</sup> They discuss possible reasons, including:

- The different values and perspectives that exist between practitioners, program implementers, policy makers and researchers;
- Practitioners often find evidence-based interventions difficult to conduct in community settings especially when there is limited information about how to adapt programs to the local context;
- Researchers are usually more concerned with the internal validity of their programs as distinct from external validity;
- Efforts to move effective preventive strategies into widespread use too often have been unsystematic, uncoordinated and insufficiently capitalised; and
- Little is known about the best strategies to facilitate active dissemination and rapid implementation of evidence-based practices.

To facilitate the translation of research into practice Lomas (2007) refers to the need for good decision making in practice as incorporating better linkage and exchange between the two processes of finding the facts and the thinking that incorporates the values being applied.<sup>16</sup> Decision-making in policy and practice uses knowledge and weighs up a variety of factors. A clear decision making process is explicit about what factors are used and the weightings attached to each factor.

Overcoming barriers to the use of research also requires the need to build relationships, improve the dissemination of research findings, and an acknowledgment of the different value systems of the different players.<sup>17</sup> Thus, a priority is to develop the means for relationship building between research, policy and preventive health practice to allow a shared understanding of what drives policy and how ideas are spread through practice systems.

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<sup>14</sup> Shadish, WR, Cook TD, Campbell DT (2002) *Experimental and quasi-experimental design for generalised causal inference* Boston: Houghton Mifflin.

<sup>15</sup> Oldenburg B, & Absetz, P (2011) *Lost in translation: overcoming the barriers to global implementation and exchange of behavioural medicine evidence* Translational Behavioral Medicine 1(2):252-255.

<sup>16</sup> Lomas J (2007) *The in-between world of knowledge brokering* British Medical Journal, 334: 129-32.

<sup>17</sup> Adapted from Lewig K, Arney F and Scott D (2006) *Closing the research-policy and research-practice gaps - Ideas for child and family services* Family Matters No 74 Australian Institute of Family Studies.

## National Preventative Health Taskforce Report 2009

The National Preventative Health Taskforce identified, and Australia's preventive health efforts are seeking to address, the following issues<sup>18</sup>:

- Between 1990 and 2005 the number of overweight and obese Australian adults increased by 2.8 million. If this trend continues for the next 20 years it is estimated that almost three quarters of the Australian population will be overweight or obese in 2025.
- Almost a quarter of Australian children are overweight or obese. Nearly a third of children do not meet the national physical activity guidelines, one fifth of 4-8 year olds and one-twentieth of 14-16 year olds meet the dietary guidelines for vegetable intake<sup>19</sup>.
- Type 2 diabetes is projected to become the leading cause of disease burden for males and the second leading cause for females by 2023, mainly due to the expected growth in the prevalence of obesity. If this occurs, annual health care costs will increase from \$1.4 billion to \$7 billion by 2023<sup>20</sup>.
- Almost 2.9 million Australian adults smoke on a daily basis. Smoking-related illness costs up to \$5.7 billion per year in lost productivity<sup>21</sup>.
- One in five Australians drink at a level that puts them at risk of short-term harm at least once a month, particularly among young adults<sup>22</sup>.
- The harmful consumption of alcohol not only causes problems for those who drink at risky levels but has repercussions across our society. Alcohol is involved in 62% of all police attendances, 73% of assaults, 77% of street offences, 40% of domestic violence incidents and 90% of late-night calls<sup>23</sup>.
- The annual costs of harmful consumption of alcohol consist of crime (1.6 billion), health (\$1.9 billion), loss of productivity in the home (1.5 billion) and road trauma (\$2.2 billion)<sup>4</sup>.

In total, the overall cost to the health care system associated with these three risk factors is almost \$6 billion dollars per year, while lost productivity is estimated to be almost \$13 billion<sup>4,24</sup>.

Obesity, tobacco and alcohol risk factors also make up a significant part of the 17 year difference in life expectancy between Indigenous and non-Indigenous Australians, between rich and poor Australians and between city dwellers and rural and remote Australians.

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<sup>18</sup> National Preventative Health Taskforce (2009) *Australia: the healthiest country by 2020* National Preventative Health Strategy – the roadmap for action Commonwealth of Australia.

<sup>19</sup> The National Children's Nutrition and Physical Activity Survey 2007.

<sup>20</sup> Department of Human Services 2008. Future prevalence of overweight and obesity in Australian children and adolescents. 2005-2025. Melbourne: Victorian Government.

<sup>21</sup> Collins D and Lapsley H 2008. The costs of tobacco, alcohol and illicit drug abuse to Australian society in 2004/05. P3 2625. Canberra: Department of Health and Ageing.

<sup>22</sup> Australian Institute of Health and Welfare 2007. National Drug Strategy Household Survey: first results. Drug Statistics Series. Number 20. Canberra: Australian Institute of Health and Welfare.

<sup>23</sup> Doherty S and Roche A 2003. Alcohol and licensed premises: best practice in policing. A monograph for police and policy makers. Adelaide: Australasian Centre for Policing Research.

<sup>24</sup> Access Economics 2008. The growing cost of obesity in 2008: three years on. Canberra: Diabetes Australia.