



**Public Health Association**  
AUSTRALIA

## **Submission to the Review of Health and Medical Research in Australia - 2012**

**PHAA - Public Health Research Advisory Group**

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## SUMMARY

### *Submission to the Review of Health and Medical Research in Australia - 2012*

#### **Public Health Association of Australia – Public Health Research Advisory Group**

- Public health research has a history of underfunding in Australia relative to the level of funding available for medical research
- Public health research has considerable potential to make a direct and central contribution to Australia's National Research Priorities, and effective implementation of health reforms
- **Recommendation:** that the Review calls for increased funding support for public health research in Australia, with priority given to research in: social determinants of health (SDH), evaluation of public health interventions, Indigenous health, and translation of public health evidence into policy
- **Recommendation:** that the Review identify research on health effects of climate change as a high priority

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

- Investment in public health research is in Australia's interests because of its potential to contribute to improved population health and reduced health inequities
- **Recommendation:** that the Review prioritises strategies to build and retain a skilled public health and health services research workforce in epidemiology and the social sciences
- **Recommendation:** that the Review considers strategies for NHMRC to implement recommendations of the Nutbeam Review of Public Health Research Funding in Australia
- **Recommendation:** that the Review recognise that the fundamental priority of health and medical research funding is to promote public and individual health, rather than to support perceived potential for commercialisation

#### **How might health and medical research (H&M) be best managed and funded in Australia?**

- Management and funding of H&M research in Australia should more appropriately realise the potential for public health research to contribute to improved population health. NHMRC should work to establish a comprehensive, strategic program of public health research to promote well-being
- **Key recommendations relating to NHMRC:**
  - Implement recommendations 10-13 of the Nutbeam Review
  - Involve public health and public interest NGOs in research priority setting
  - Assessment criteria for grant funding should place a greater value on engaging with communities, building research partnerships, and conducting research relevant to policy and practice
  - Reform incentives for academic researchers to allow for greater job security, and recognise successful engagement with community partners

- Ensure fellowship schemes provide flexibility and support for applicants who do not fit a standard career path
- Analyse and report on different forms of research funded as ‘public health research’
- Funding structures should better support implementation and evaluation of large-scale, longer-term public health interventions, through researcher-government partnerships

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

- **Recommendation:** H&M research strategies, priorities and funding criteria should be better aligned with the National Research Priorities in Health and with other relevant policy objectives.
- **Recommendation:** Improve alignment between Australia’s H&M research funding systems and determinants of good health by: recognising the role of public health research; support for a strategic program of public health research; support for research on area-based strategies to develop health promoting environments
- **Recommendation:** that the balance of emphasis in funding for public health research is shifted from descriptive research to intervention research

### ***‘Closing the gap’ between indigenous and non-indigenous Australians:***

- **Recommendation:** that the Review panel identify strategies for NHMRC to implement its *Roadmap II* framework for improving health of Aboriginal and Torres Strait Islander people through research
- **Recommendation:** improve representation of people with expertise in Indigenous health research on fellowship, scholarship and grant assessment panels
- **Recommendation:** assessment criteria for research grant funding should place a greater value on successful research in an Australian Indigenous context

### ***Health and research needs in low- and middle-income countries (LMICs):***

- **Recommendation:** that Australian research funding systems effectively support and assist public health research capacity building in LMICs
- **Recommendation:** that funding for Australian research in LMICs give priority to projects that build local research capacity, foster partnerships, and address priority health needs
- **Recommendation:** that civil society organisations within LMICs be consulted in determining Australia’s research agenda in those countries

### ***The interface between climate change, social conditions and health inequity:***

- **Recommendation:** H&M research strategies should give high priority to research addressing the adverse effects of climate change on health, both within Australian and in other countries
- **Recommendation:** Priority should be given to research investigating potential synergies between addressing SDH, addressing health effects of climate change, and mitigating climate change

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

- **Recommendation:** identify the key role of public health research, to inform and evaluate development of Medicare Locals and the health reform process

- **Recommendation:** prioritise research focused on effective translation of public health evidence into whole-of-government strategies to promote health and prevent disease
- **Recommendation:** reform academic incentives and measures of achievement to place greater value on engaged partnerships with government at all levels, civil society organisations and local
- **Recommendation:** reform H&M research funding structures and assessment of grant applications to allow for long-term evaluation of complex community-based interventions
- **Recommendation:** Optimise use of existing data (including data linkage from multiple sources) as an efficient way of gaining new knowledge and of program evaluation

**PHAA is happy for this submission to be available to the public.**

Signed:



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30 March 2012

## **Background**

The Public Health Association of Australia Incorporated (PHAA) is recognised as the principal non-government organisation for public health in Australia and works to promote the health and well-being of all Australians. The Association seeks better population health outcomes based on prevention, the social determinants of health and equity principles.

### **Public Health**

Public health includes, but goes beyond the treatment of individuals to encompass health promotion, prevention of disease and disability, recovery and rehabilitation, and disability support. This framework, together with attention to the social, economic and environmental determinants of health, provides particular relevance to, and expertly informs the Association's role.

### **The Public Health Association of Australia**

PHAA is a national organisation comprising around 1900 individual members and representing over 40 professional groups concerned with the promotion of health at a population level.

Key roles of the organisation include capacity building, advocacy and the development of policy. Core to our work is an evidence base drawn from a wide range of members working in public health practice, research, administration and related fields who volunteer their time to inform policy, support advocacy and assist in capacity building within the sector. PHAA has been a key proponent of a preventive approach for better population health outcomes championing such policies and providing strong support for the Australian Government and for the Preventative Health Taskforce and National Health and Medical Research Council (NHMRC) in their efforts to develop and strengthen research and actions in this area across Australia.

PHAA has Branches in every State and Territory and a wide range of Special Interest Groups. The Branches work with the National Office in providing policy advice, in organising seminars and public events and in mentoring public health professionals. This work is based on the agreed policies of the PHAA. Our Special Interest Groups provide specific expertise, peer review and professionalism in assisting the National Organisation to respond to issues and challenges as well as a close involvement in the development of policies. In addition to these groups the Australian and New Zealand Journal of Public Health (ANZJPH) draws on individuals from within PHAA who provide editorial advice, and review and edit the Journal.

### **The Public Health Research Advisory Group**

The Public Health Research Advisory Group provides high level advice to the Board and members of the PHAA across a range of issues with a particular focus on research. The broad goal of the PHAA PHRAG is to promote and advocate for public health research and development so that members, stakeholders and the Australian community will benefit from a sound, strategic and shared research base in public health

Specifically, the PHRAG Committee has identified its specific goals to:

- Identify, promote and advocate opportunities for training and continuing professional development in public health research for PHAA members

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- Contribute to informed public and professional debate about public health research
- Encouraging the monitoring of public health research funding in Australian and contribute to efforts to increase funding in absolute terms
- Encourage more effective links between public health policy, research and practice
- Encourage PHAA representation on research and other relevant groups and working parties of the NHMRC and advocate for increased representation.
- Liaise with the Population Health Division of the Commonwealth Department of Health & Aged Care Services, other government health bureaucracies and non-government organisations with an involvement or stake in public health research and development.
- Maintain a 'watching brief' over developments in medical and public health research at national level.
- Advocate for increased representation and offer support to public health representatives.
- Encourage best practice in research through recognised awards, including liaison with and enhancement of PHERT, dissemination through the Journal and other strategies

## Introduction

This submission has been prepared by the PHAA Public Health Research Advisory Group on behalf of the Public Health Association of Australia.

Public health research has a history of underfunding in Australia relative to the level of funding available for medical research. Public health research has considerable potential to make a direct and central contribution to Australia's National Research Priorities. It makes a direct contribution to the priority of 'Promoting and Maintaining Good Health' and can also build synergies between health and other goals such as environmental sustainability. By informing effective strategies for health promotion and disease prevention across the life course, public health research can help to control the demand for, and public costs of, medical care. A continued focus on biomedical research, and on new forms of medical intervention (valuable as they may be), will not achieve our national research priorities in health, and may indeed contribute to growth in public costs of medical treatments. Public health research can support action to address the social determinants of health (SDH), so as to promote the public good and reduce health inequities.

Public health research is quite different from bio-medical research. It focuses on the health of whole populations and is concerned with documenting the incidence of disease, understanding the origins of disease, determining what factors make for healthy populations and evaluating the impact of measures (including policies, programs and social changes) that keep populations healthy and free from disease. Public health research is multi-disciplinary and includes epidemiology and the full range of social sciences (including sociology, psychology, economics, and anthropology). Public health research focuses on how social, economic, physical and natural environments shape health and health-related behaviours. It also includes much health services research, especially that which monitors the effects on whole populations. Public health research addresses upstream structural drivers of health inequities (such as trade, macroeconomic policy, labour markets, environmental change etc) and conditions of daily living that affect health (health care, urban environment, working conditions and social relations). Public health research also covers evaluation of interventions, so as to determine what works in improving population health.

One of the central concerns of public health research is with increasing health equity, through actions to address the gradient in health status across social groups and to improve the health of vulnerable groups. Aboriginal health is a particular focus of public health research, and to address the COAG building blocks endorsed by the Commonwealth, requires an understanding of the social determinants impacting on the lives of Australia's Aboriginal and Torres Strait Islander people.

Beyond the general need for increased funding support for various forms of public health research in Australia, we suggest that particular areas of research priority include:

- Understanding social determinants of physical and mental health in Australia
- Evaluation of public health interventions



- Indigenous health research
- Health and social policy research, to understand what kinds of policy are best placed to support gains in population health and well-being, and improve health equity
- Health services research, including in primary health care
- Research on translation of public health evidence into effective public policy
- Understanding, managing and preventing the adverse health effects of climate change

We note that the Review panel’s considerable skills and experience would have been further enhanced with the inclusion of an eminent researcher in population-level public health research. Given the absence of such a person on the Review panel we urge the Panel to ensure that it seeks and uses external advice on public health research. We note that PHAA members are well-placed to provide this advice.

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

### **Terms of Reference 1 and 6**

Investment in a stronger public health research workforce is in Australia’s interests because of its potential to contribute to improved population health and reduced health inequities, and thus to support other social and economic policy objectives. We ask the Review to recommend as a high priority, strategies to build and retain a skilled public health and health services research workforce in a range of disciplines in epidemiology, health services research and the social sciences (including sociology, psychology, economics, political science and anthropology). Achieving a world-leading public health research sector will also be enhanced through development of planning and funding mechanisms to drive more strategic investment in intervention and policy research, which is engaged with communities and policy makers; as recommended in the Nutbeam Review of Public Health Research Funding in Australia (1).

We suggest that aspirations for an ‘internationally competitive’ health and medical research sector also reflect in part a growing pressure both in Australia (2) and in other high-income countries (3) to fund biomedical research seen as likely to lead to commercialisation of new medical interventions. Therefore, we ask the Review to consider the following points:

- The role of public health research is primarily to promote the public good; research likely to contribute to improved population health typically gives no or very little scope for commercialisation
- Commercialisation of new biomedical interventions may contribute to increased public costs of health care, while doing little to prevent disease and promote health at a population level (although benefiting a few individuals)
- NHMRC should prioritise funding to support research most likely to promote public and individual health, as per Objective 1 of its Strategic Plan. Funding research according to its perceived potential for commercialisation should be a secondary consideration

- Funding for research leading to commercialisation is most often directed towards development of biomedical treatments for non-communicable disease (NCDs) in high-income countries. Thus it is often of only limited relevance to the main health and health research needs of low- and middle-income countries (3-4). In terms of population health there is a diminishing return on biomedical investments as they affect high risk individuals. Nevertheless, research into methods to ensure wide availability of affordable, effective interventions addressing major health issues in low- and middle-income countries and in vulnerable groups in high income countries should be a priority

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

### **Terms of Reference 2, 3 and 7**

Current structures and processes for management and funding of health and medical research in Australia require improvement, to realise the potential for public health research to contribute to improved population health. Particularly in relation to the NHMRC, we ask the Review to take full account of the Nutbeam Review of Public Health Research Funding (1), and make the following points:

- NHMRC structures, priorities and stakeholders should focus much more directly on the “health” in its name, and establish a program of research which considers ways in which the well-being of Australians can be increased. Currently the overwhelming amount of funding is spent on “medical” rather than “health” research.
- NHMRC should implement recommendations 10-13 of the Nutbeam Review
- Research priority setting should include greater involvement of public health and public interest NGOs
- Assessment criteria for research grant funding should place a greater value on academic researchers’ success in engaging with communities, building research partnerships, and conducting research relevant to policy and practice in Australian settings. They should also recognise the skills and experience of research partners working in non-academic settings
- Grant funding criteria and grant assessment committees should recognise the role of the social sciences in public health research and include more social scientists in the process of assessment
- Grant funding criteria and grant assessment committees should improve support for multidisciplinary public health research
- Fellowship schemes should provide greater flexibility and support for applicants who do not fit the standard career path, and reward evidence of engagement with policy makers and public health practitioners and public health impact, not just academic peer-reviewed publications
- Structure of incentives for academic researchers should be reformed to allow for greater job security, and recognise successful engagement with community, policy and practice partners

- NHMRC reporting should better define and disaggregate forms of research funded under the heading of public health research. Currently it appears that much biomedical research is counted as public health research
- The ARC has funded some forms of public health social science research and its role in doing this should be encouraged and strengthened by this review. Both the NHMRC and the ARC provides a strong mechanism for supporting research on the social determinants of health
- Funding structures should better support implementation and concurrent evaluation of large-scale, longer-term public health interventions, through researcher-government partnerships

## **The health and medical research strategic directions and priorities and how might we meet them?**

### **Terms of Reference 5, 12 and 13**

Key elements of the strategic environment for health research in Australia are unsustainable growth in costs of medical care and chronic illness, growth in incidence of preventable conditions such as obesity and type-2 diabetes, and continuing health inequalities. Improving the health of Aboriginal people remains a key priority. Such factors strongly support a need for research to inform effective public health interventions, and policies in all sectors of government to promote better health and prevent disease, including through actions on SDH. Research on the present and future health effects of climate change must also be accorded high priority.

Australian government reviews have consistently highlighted the need to develop a broader and more multidisciplinary approach to addressing healthcare challenges and have highlighted that public health, health policy, health services and health systems research need to be embedded into ongoing evaluation of health reforms (5, p. 243). However, historically research funding outcomes have not aligned with these stated policy priorities.

In relation to overall strategic directions for health and medical research, and how to meet them, we make the following points:

- Health and medical research strategic directions and priorities need to be better aligned with the National Research Priorities in Health and with other relevant policy objectives. Such alignment should be reflected in funding bodies' selection criteria and levels of appointment for fellowships, and assessment criteria for research grant funding
- The alignment between Australia's health and medical research funding systems and the determinants of good health needs to be improved. A key step to doing so is to ensure research funding systems:
  - Recognise the different characteristics and contributions of biomedical and public health research to improved health outcomes
  - Support a strategic program of public health research to inform action on social determinants of positive health
  - Support long-term research and evaluation of comprehensive area-based strategies to develop resilient communities and health promoting environments

- Within public health research, the balance of emphasis needs to shift from descriptive research to intervention research (6), ‘policy and practice focused research, and the translation of research into policy and practice’ (1). However, continued research on the social determinants of health remains important, including in relation to social determinants of mental health and illness.
- While we welcome the establishment of the Australian National Preventive Health Agency, preventive health research and strategies targeting individual behaviour change must be complemented by strategies to develop health promoting environments, with proportionately greater investment in disadvantaged communities.

### **‘Closing the gap’ between indigenous and non-indigenous Australians**

- Health and medical research strategies must continue to give priority to Indigenous health research and building the capacity of Aboriginal and Torres Strait Islander researchers
- Specifically in relation to NHMRC, we welcome recent developments regarding Indigenous health research.
- We recommend that the Review panel give close attention to the 2010 NHMRC *Roadmap II* strategic framework for improving the health of Aboriginal and Torres Strait Islander people through research (7) and the NHMRC Statement on Values and Ethics in Indigenous Health Research (8); and that the Review make recommendations on how the NHMRC can most effectively support the full implementation of these plans. This should consider:
  - Review of the general design and assessment criteria for research funding schemes and people support schemes, to ensure they effectively support (and do not hinder) the implementation of the *Roadmap*
  - Development of new schemes that specifically support the sort of research outlined in the *Roadmap*
- There should be more appropriate representation of people with expertise in Indigenous health research on fellowship, scholarship and grant assessment panels
- Assessment criteria for research grant funding should place a greater value on successful research in an Australian Indigenous context, which has improved outcomes and builds capacity in the Indigenous health sector
- NHMRC budget allocations for Aboriginal and Torres Strait Islander health research must be transparent
- Evaluations need to be up to date and consistent to determine the effects of current and existing programs employed for Indigenous people’s health

### **Health and research needs in low- and middle-income countries (LMICs):**

- It is essential that Australian research funding systems effectively support and assist public health research capacity building in LMICs
- Funding for Australian research in LMICs should give priority to projects that build local research capacity, foster long-term partnerships, address priority population health needs, and focus on efficacy of interventions in real-world settings

- The biomedical research which tends to dominate health and medical research in high-income countries may not be the form of research most likely to support significant population health gains in LMICs
- Civil society organisations within LMICs should play a consultative role in determining Australia’s research agenda in those countries
- Research is urgently required on why existing technologies with the greatest potential to improve public health are often underutilised in LMIC settings (9)

### **The interface between climate change, social conditions and health inequity:**

- Recent human activity has increased the atmospheric levels of greenhouse gases to a near-critical state that now threatens an environmental crisis as the world warms, parts of it become unusually wetter and sub-tropical regions become drier. Implications include the impacts of sea level rise, disrupted agricultural productivity, displacement of people and loss of livelihoods. These already pose serious direct and indirect risks to health and well-being in Australia and globally, especially in socially vulnerable populations but ultimately for all.
- There are potential co-benefits for people and planet from coherent cross-sectoral policies and programs at local, national and global levels. Health-focused adaptation to climate change means attention to, for example, the built environment and housing quality – each of these are existing social determinants of health. Environmental scientists are now paying increasing attention to agriculture, transport, fuel, buildings, industry and waste strategies relevant to mitigating climate change. Such a framework is also central to population health and health equity.
- Addressing the social determinants of health will not only improve health and health equity, but will also help to avert further damage to the environment, and to reduce poverty and social inequity such that people, communities and nations are better able to cope with the impacts of climate change (10).
- To date the interface between climate change, social determinants and health have been explored mainly conceptually. Investment in Australian research focused on actions to address these issues together is both timely and vital.

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

### **Terms of Reference 4, 8, 9, 10 and 11**

Public health research and current evidence on the social determinants of health already identifies a range of health and public policy opportunities to reduce incidence of many more common forms of chronic disease, promote well-being, and reduce health inequalities. This includes a number of cost-effective strategies to reduce prevalence of risky health behaviours (11). Action in these areas can reduce demand on costly medical care and enhance the effectiveness of medical services. It is essential for the health and medical research sector to recognise that many of these opportunities lie outside the health care sector as such, and focus on changing environments and building community resources. Therefore, in our view, optimising translation of research into better health and well-being requires a research program which

places the value of public health research on an equal footing with biomedical research; and aims to support a mix of complementary policies and strategies to promote health, within and outside the health sector. Some proposals for steps to achieve such a change are as follows:

- Public health research has a key role to play, to inform and evaluate development of Medicare Locals and the health reform process (5, 12)
- There is an urgent need for research focused on effective translation of public health evidence into whole-of-government strategies to promote health and prevent disease
- Changes are needed to academic incentives and measures of achievement to place greater value on engaged partnerships with government at all levels, civil society organisations and local communities – the current Excellence in Research Australia (ERA) system and most fellowship schemes in the NHMRC and the ARC privilege academic publications rather than evidence of engagement with policy makers, clinicians and public health practitioners and evidence of impact on policy and practice
- Funding structures and assessment of grant applications should provide for long-term evaluation of complex community-based interventions
- Optimal use should be made of existing data (including data linkage from multiple sources) as an efficient way of gaining new knowledge and of program evaluation

## Conclusion

We thank the Review for considering our submission and wish them well in development of their report and recommendations.

**PHAA is happy for this submission to be available to the public.**

Signed:



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## References

1. Public Health Research Advisory Committee, Nutbeam D. Report of the review of Public Health Research funding in Australia. Canberra: National Health and Medical Research Council, Australian Government, 2008.
2. National Health & Medical Research Council. Discussion Paper: Health and medical research and the future in NHMRC's 75th Year. Canberra: NHMRC, 2011.
3. Pratt B, Loff B. Health research systems: Promoting health equity or economic competitiveness? Bulletin of the World Health Organization. 2012;90:55-62.
4. Leroy J, Habicht JP, Pelto G, Bertozzi S. Current priorities in health research funding and lack of impact on the number of child deaths per year. American Journal of Public Health. 2007;97(2):219-23.
5. National Health and Hospitals Reform Commission. A healthier future for all Australians: Final report of the National Health and Hospitals Reform Commission. Canberra: Commonwealth of Australia, 2009.
6. Catford J. Advancing the 'science of delivery' of health promotion: not just the 'science of discovery'. Health Promotion International. 2009;24(1):1-5.
7. National Health & Medical Research Council. The NHMRC Road Map II: A strategic framework for improving the health of Aboriginal and Torres Strait Islander people through research. Canberra: NHMRC, 2010.
8. National Health & Medical Research Council. Values and Ethics: Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health Research. Canberra: NHMRC, 2003.
9. Fontaine O, Kosek M, Bhatnagar S, Boschi-Pinto C, Chan KY, Duggan C, et al. Setting Research Priorities to Reduce Global Mortality from Childhood Diarrhoea by 2015. PLoS Medicine. 2009;6(3).
10. Friel S, Marmot M, McMichael AJ, Kjellstrom T, Vågerö D. Global health equity and climate stabilisation: a common agenda. The Lancet. 2008;372:1677-1683.
11. Vos T, Carter R, Barendregt JJ, Mihalopoulos C, Veerman JL, Magnus A, et al. Assessing cost-effectiveness in prevention (ACE-Prevention): Final report. Brisbane, Melbourne: University of Queensland, Deakin University 2010.
12. Kalucy E. Reforming and researching primary health care. Australian Journal of Primary Health. 2012;18(1).