

Australia's new International Development Policy

Introduction

Research Australia welcomes the opportunity to make this submission to the Department of Foreign Affairs and Trade's consultation on Australia's new International Development Policy. We do so on behalf of our membership, as the national alliance representing the entire health and medical research pipeline, from the laboratory to the patient and the marketplace.

We recognise that along with education, improving health outcomes in our partner countries is a central element of the existing development policy and this commitment should be maintained.

Better population health is a critical element of the economic and social development of any population, and healthier populations are more prosperous. Improved health and reduced rates of disability support participation in education and the workforce, this raising living standards. Everyone values better health and everyone in a community benefits from better health.

We believe there is scope for an expanded role for health and medical research to support this objective as part of the new development policy (with a concomitantly greater proportion of funding), and this is the focus of our submission. We have drawn case studies from within our broad membership to illustrate the role health and medical research can play in Australia's new International Development Policy.

Health and medical research

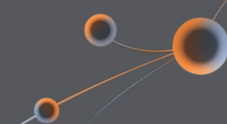
Health and medical research exists to improve the health and wellbeing of people. It draws on our knowledge of the human body and the world around us to find ways to identify, prevent and cure disease; reduce injury and disability; improve the delivery of health services; and help us lead healthier and more productive lives.

Health and medical research embraces a range of different disciplines including biology, physiology, pharmacology, chemistry, engineering, biotechnology, epidemiology, medicine, psychology, nursing, allied health, population studies, IT, mathematics, economics and health services research.

It is concerned with:

- how our bodies and minds function and how they respond to disease;
- the development of new drugs, procedures and therapies;
- influencing behaviour to improve health; and
- making our health services more effective and efficient.

Research takes place in universities and hospitals, medical research institutes and companies, as well as in the community. The researchers include scientists, medical specialists, nurses, GPs, and allied health professionals to name a few. Some are full time researchers and others undertake research as a part of their job.



The role for health and medical research

While Australia is currently investing, for example, through the Health for Development Strategy 2015-20 in developing new treatments and diagnostic tools for malaria and tuberculosis, Australia has world leading expertise in health and medical research that can be utilised in many different ways as part of our International Development Policy.

Health and medical research is most often connected with understanding the underlying causes of illness and the development of new drugs and therapies and preventive measures.

Equally important is research that provides the means to:

- assess the safety, quality, effectiveness (including cost effectiveness) of existing programmes and services;
- assess the effectiveness of existing therapies and practices in supporting better health outcomes;
- provide an evidence base for the introduction of new therapies and practices;
- include the perspective of health consumers and their carers; and
- inform the translation of new therapies and practices into healthcare.

Following are examples of some areas where Australian health and medical researchers can, and are, contributing to better health outcomes and regional health security. As we are restricted in the length of the submission that can be made to five pages, it is by no means comprehensive but does illustrate the scope of research.

Bolstering responses to preventable disease

While malaria and drug resistant tuberculosis continue to plague our partner nations, so do preventable diseases, as is clear from the 2019 measles outbreak in Samoa.

Australian researchers can assist in the design, monitoring and evaluation of effective public health programs and improvements in the delivery of health care, including vaccination programs.

Case Study

Outcome: Researchers at the University of Melbourne have been able to demonstrate the ongoing effectiveness and cost effectiveness of the Pneumococcal Conjugate Vaccine (PCV) in Fiji in reducing the incidence of pneumonias in the community. Their findings support continuation of the vaccination program.

'We found evidence of direct and indirect effects on babies too young to be vaccinated with PCV and on toddlers, older children and their caregivers following the introduction of the vaccine in Fiji. The vaccine used here protects against the most common 10 of the more than 90 different types of pneumococci.

*And this information is available as a result of a series of studies that we conducted in Fiji in partnership with the Fiji government, funded by the Australian Government through the [Fiji Health Sector Support Program](#) and the [Bill & Melinda Gates Foundation](#) to measure the impact of these vaccines.'*¹

Evidence of cost effectiveness is important as the PCV is a relatively expensive vaccine.

¹ <https://pursuit.unimelb.edu.au/articles/the-vaccine-saving-the-lives-of-pacific-children>

Countering the rise of non communicable disease

The work referred to above to develop treatments for tuberculosis and malaria demonstrate that infectious diseases remain a significant problem in the Indo-Pacific region. However, as in Australia, non communicable diseases are emerging as the biggest component of the burden of disease.

*'Noncommunicable diseases (NCDs) including cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, represent the single largest cause of premature mortality in the Pacific Islands. The rise of NCDs in the Pacific – as elsewhere – has been driven primarily by four major risk factors: tobacco use, unhealthy diets, physical inactivity, and the harmful use of alcohol.'*²

In many cases the solutions to better care are common to those in Australia. But implementing these solutions is different and more complex than administering a new drug to affected patients. It requires translational research to develop the most effective strategies; what works in the suburbs of Sydney or outback Queensland won't necessarily work in a village in Vanuatu.

Australia's experience in developing responses to NCDs can be very valuable in assisting our regional partners to develop policies and interventions that will work in their own communities. We can not only provide researchers but help build local capabilities in developing, piloting and evaluating programs.

Case Study

Outcome: Implementation of policies to address obesity.

The Pacific Research Centre for the Prevention of Obesity and Noncommunicable Diseases (C-POND) was established in 2009 as a collaborative research centre between Deakin University and Fiji National University. C-POND's vision is to conduct solution-oriented research and to build research capacity with respect to the prevention of obesity and NCDs in the Pacific Region. In the decade since its establishment, C-POND has become a major player in NCD research in the Pacific Region, and in December 2019, was inaugurated as a World Health Organization Collaborating Centre for Obesity Prevention and Management. Deakin University continues to work with C-POND through collaboration on joint research projects, and the provision of mentoring, training and PhD student supervision.

Examples of joint research include:

- Translational Research on Obesity Prevention in Communities (TROPIC) where the research team worked with policymakers to develop obesity prevention policies, a number of which were adopted by government and enacted in legislation.
- Application of systems approach to food-policy making in Fiji identified the barriers and facilitators to the making of food-relate policy, and explored how a systems-based strategy could improve the use of evidence in the development of such policy.
- Developing of the business case for non-communicable disease prevention and control in Fiji.³

² World Health organisation, <https://www.who.int/westernpacific/activities/addressing-ncds-in-the-pacific>

³ <https://www.fnu.ac.fj/college-of-medicine/home-cpond>

Improving maternal and child health- a complex problem requiring multiple actions

One of the greatest contributors to improved life expectancy in developed nations has been the decline in maternal and infant mortality.

*'Maternal deaths contribute more than any other cause to differences in life expectancy at birth between men and women. Maternal deaths are concentrated in low-income countries, being related primarily to lack of access to essential health services.'*⁴

The decline in maternal death rates in developed countries has been hard won over many decades and required the implementation of multiple strategies. It is an area where improvements have profound effects on the health and welfare of whole populations, and where Australia has expertise that can assist our partner countries.

Case Study

Outcome: Identification of interventions to reduce maternal mortality.

The maternal mortality rate in PNG is one of the highest in the world and 80 times worse than in Australia. More than 5000 newborns die each year, yet two-thirds of these deaths could be prevented with basic but effective interventions.

The Burnet Institute's Healthy Mothers Healthy Babies (HMHB) is a philanthropically-funded collaborative research program involving partnering with local representatives at the district, provincial and national level. It includes five separate but complementary studies to provide a complete overview of the issues being faced. The emphasis is on the generation of evidence that has immediate use in East New Britain to improve services, and that can inform future health policy in PNG and similar settings.

The three major needs to be addressed are:

- Developing and testing better ways to provide interventions of proven effectiveness to communities that currently lack access
- Defining the major disease burdens that contribute to maternal and infant mortality, such as anaemia, malaria, TB, STIs, malnutrition, and maternal complications of childbirth
- Developing new feasible, acceptable and effective interventions and service delivery strategies to improve reproductive, maternal, neonatal and child health outcomes in PNG.⁵

Establishing the prevalence of disease and ill health

The starting point for any intervention to improve health is understanding the prevalence of various causes of ill health. While the availability of this information is something we take for granted in Australia where treatment is provided within a health system with effective medical records, the reality is very different for many of Australia's regional partners.

Australian researchers can assist in undertaking research to establish disease prevalence, and with the design of systems to capture and analyse health data in our regional partners.

The below case study is of research at a local level, but Australia also has expertise in epidemiology, biostatistics and bioinformatics which can be useful in establishing national and regional prevalence.

⁴ World health statistics overview 2019: monitoring health for the SDGs, sustainable development goals. Geneva: World Health Organization; 2019 (WHO/DAD/2019.1). Licence: CC BY-NC-SA 3.0 IGO. Page 4

⁵ https://www.burnet.edu.au/programs/18_healthy_mothers_healthy_babies_hmhb

Case Study

Outcome: More accurate estimates of disease prevalence

Bond University has a close relationship with the Solomon Islands, including providing placements in the Solomon Islands for many of its students. The University's Medical School offers placements at Kirakira Hospital, a remote provincial hospital in Solomon Islands. In addition to providing a unique opportunity for students to experience a transformative practical experience in a developing world community, the placements facilitate practical fieldwork evaluative research projects.

Examples of this research include:

- a study to determine the prevalence of TB and its impact on the health of locals and their health system. TB consumes 15% of the current healthcare budget of Makira-Ulawa Province where the Kirakira hospital is located.⁶
- a study into perinatal mortality rate which concluded there had been no improvement over the six year period of the study. It also found a rate double that reported for the Solomon Islands in current World Health Organization data. 'This discrepancy is likely due to an absence of clinical data outside of the National Referral Hospital in Honiara.' The research also identified clinical indicators that could be targeted to help lower the perinatal mortality rate in this remote and impoverished community.⁷

Conclusion

The purpose of this high level submission is to highlight the range of opportunities that exist for health and medical research to support the objectives of the Department's new International Development Policy.

We are aware of the role that health and medical research has played in the past in Australia's engagement with our partner countries in the program; we believe there is significant scope for this role to be increased. This includes helping build the infrastructure needed to record and measure what is happening in partner countries' health systems and populations.

As the case studies from Research Australia members illustrate, health and medical research requires direct engagement with communities, researchers and health systems. In addition to engagement at a national level, the Australian Government can do more to encourage and support Australian universities to build long term relationships with specific communities in our region, similar to Bond University's engagement in Kirakira.

Direct engagement provides a great opportunity to build valuable and enduring relationships and for Australia to be associated with improving the health of populations and building the capacity of local health systems. These are outcomes that are valued by all individuals in every community in the world and can create goodwill towards Australia throughout our region. They also provide opportunities to expand the experience, expertise and capabilities of Australia's health and medical research workforce and institutions.

Please do not hesitate to contact me if you would like further information or to discuss any aspect of this submission further.

Nadia Levin,

CEO and Managing Director, Research Australia

⁶ Jones, P., Denniss, A., Subhaharan, D., Doolan, B., Karnik, T., Fink, J., & Rara, G. (2019). TB or not TB? That is the question regarding TB treatment in a remote provincial hospital in Solomon Islands. *Rural and Remote Health, 19*(2), [4918]. <https://doi.org/10.22605/RRH4918>

⁷ Jones, P. D., Balasundaram, N., D'Costa, L., Kacker, K., Kaludewa, A., & Fink, J. (2018). High perinatal mortality rates persist in Kirakira: The sustainable development goals for health remain out of reach in the provinces of Solomon Islands. *Journal of Paediatrics and Child Health, 54*(8), 895-899. <https://doi.org/10.1111/jpc.139>