Response to Call for Comments – August 2012
AusAID’s Draft Medical Research Strategy

This response has been prepared with input from academic and professional staff at the University of Sydney with international expertise in the areas of medicine, health sciences, medical anthropology and development.

We commend the Australian Government for its initiative in developing a Medical Research Strategy and thank the Australian Agency for International Development for the opportunity to contribute to the document.

The University respondents agree with the overall rationale and principles of AusAID investing in medical research to save lives, reduce poverty and achieve the Millennium Development Goals. We express concern on the purpose, research priorities and the criteria selected to inform them, and make the following comments and recommendations with reference to the relevant headings and page numbers in the draft Strategy.

1. PURPOSE (P. 2)
The Strategy commits AusAID to invest in medical research to save the lives of poor people in the Asia Pacific region.

- Why medical research and not a broader spectrum of research?
- What is the justification for such a restricted approach?

Saving lives in poor communities in the Asia Pacific region will only be solved by a public health perspective that considers wider social demographic, environmental and cultural contexts. Further, medical research “to save lives” implies medical cures or technological breakthroughs are the solution. We believe this is a fallacy because most health problems of the poor are complex and cannot be solved by simple medical technological solutions.

The Purpose assumes there are “magical medical bullets” that will solve these complex health problems faced by the poor in the Asia Pacific region. We believe this assumption is too simplistic and recommend it to be reconsidered.

2. CRITERIA FOR INVESTMENT (P. 2)
We agree with the criteria for investment.

AUSAID OBJECTIVE ONE
We do not fully understand how medical research will reduce barriers to achieving priority health outcomes. These barriers are more than a lack of medical technologies. Indeed, ineffective or lack of application of existing technologies are often the real impediments to progress. A much broader concept is required. We doubt that the development of more technologies alone will result in better health outcomes. We suggest the objectives to be revised to give AusAID a better framework to provide medical research support that removes or reduces the barriers to achieving priority health outcomes in the Asia Pacific more effectively and efficiently.

Approach
Product development partnerships: We believe this is too narrow an approach. A wider range of interventions is required such as health communications, improved delivery of health services and up-skilling of health workers, not only drugs and vaccines. The latter will require the above infrastructures to make the drugs and vaccines accessible and available to the poor communities.

We agree with the approach to work with the National Health and Research Council (NHMRC) which is already successful in funding a wide range of interventions addressing the needs of poor communities in the Asia Pacific region through their Global Health Priority Program. An alternative model should be considered.
in which AusAID establishes a research institute similar to the Australian Council for International Agricultural Research (ACIAR).

**AUSAID OBJECTIVE TWO**
We agree with this objective. AusAID’s investments will also encourage innovation and collaboration, including the strengthening of capacity and institutional links in the region.

**Approach**
We agree with the approach proposed but believe it is too narrow and should cover a wider range of health disciplines, methods and perspectives.

### 3. THE RATIONALE FOR SUPPORTING MEDICAL RESEARCH (P. 3-4)

The rationale for supporting medical research is incongruent with alleviating poverty because medical research focuses on solving the disease problems of individual patients. Poverty is a multifaceted condition with multiple causes; it is not just a disease problem.

- How does supporting medical research prevent poor people from suffering and hunger?
- How do new drugs and vaccines improve people’s access to reliable health services and affordable medicine?

We suggest revising the rationale to include broader perspectives of public health, socio-cultural, economic and environmental factors by which “to strengthen the building blocks of equitable health services… “.

We also question the following statement made in the Strategy: "However, our ability to combat diseases and health issues could be vastly improved by medical research breakthroughs in cases where effective proven medical interventions don't exist, are not appropriate for use in poor communities, or are just too expensive..." We fail to understand how most of the above can be achieved through medical research only, compared with public health research and the investigation of socio-cultural, environmental factors which contextualise communities, poor or not.

We agree with the Strategy’s statement that “research can deliver a better understanding of how people are affected by diseases and how they could be treated” but we disagree that medical research alone can deliver such outcomes. This perspective is narrow and ill informed.

### 4. PRINCIPLES FOR INVESTING IN MEDICAL RESEARCH (P. 5)

We do not agree with AusAID’s statement of purpose, as per our comment under point 3. We agree with the criteria for investment.

We recommend AusAID to include sustainability as a criterion for prioritising investment in medical research. This would entail both:

- long-term sustainability of skills, support systems and services, i.e. sustainability of the intended benefits and outcomes of the programs/interventions; and
- environmental sustainability, i.e. resilience to emerging environmental, climate and disaster challenges.

Considerations should be given to financial, environmental, institutional, human resource and political constraints.

### 5. WHAT IS MEDICAL RESEARCH (P. 6)

The definition provided in this section is too narrow. It should include a wider range of disciplines including public health.

We believe the research AusAID is funding should not be focussed on finding solutions for individual patients alone but must include research that addresses solutions at a population level otherwise there will be no impact on saving lives from these investments.
6. OUR PRIORITIES (P. 7)
The Strategy document states that “AusAID will invest in diseases and health issues which have a need for new and/or improved medical interventions for use in poor communities ...”. We find this scope of interventions is too narrow and suggest it to be revised “for new and/or improved medical and public health interventions”.

We agree with the criteria proposed by AusAID as the basis for establishing disease priorities for investment.

7. DISEASE AND HEALTH ISSUE PRIORITIES (P. 8)
Overall, we agree with the inclusion of malaria, maternal and neonatal health conditions and tuberculosis as health issue priorities. We have made the following specific comments about disease priorities and their justification.

MATERNAL AND NEONATAL HEALTH
We believe it is a significant oversight not to give specific mention to:
- family planning/planned pregnancy; and
- undernutrition of women of reproductive age and in pregnancy.

Both of these issues are key contributors to maternal and infant mortality.

DIARRHOEA, BACTERIAL PNEUMONIA AND MENINGITIS
We recommend a more specific focus on vaccine preventable diseases, with emphasis on pragmatic strategies to maximise vaccine uptake and improve and expand coverage. This is one of the most cost-effective health interventions but remains poorly implemented in many of the least developed countries in the Asia Pacific.

Zoonotic diseases such as avian influenza and rabies should also be considered in this category as they offer significant threats to Australia.

TUBERCULOSIS
The Strategy’s justification to invest in TB should refer to the disease’s highly transmissible nature (both drug sensitive and resistant types), which sets it apart from most of the other diseases as a potential threat to Australian citizens as well as the cost and duration of treatment. We also recommend the Strategy to take note of poor TB control practices in many developing countries in our immediate region and the impact this has on impoverished populations.

In addition to the health issues already identified in the Strategy, we recommend maternal and child undernutrition, HIV, cancer and non-communicable diseases to be considered by AusAID as additional health priorities.

CANCER
We recommend AusAID to include cancer as a health issue priority as predictions indicate it will become the most common cause of death by 2030. The majority of these deaths will be in developing countries. Cancer prevention programs (vaccines, screening and tobacco control) will be crucial to effectively and efficiently address this issue.

HIV AND OTHER SEXUALLY TRANSMITTED DISEASES
We recommend AusAID to include HIV and other sexually transmitted diseases as a health issue priority, given the high disease rates in particular communities and significant challenges of marginalisation and stigmatisation. These diseases differentially affect the poor and also have a major impact on neonatal/child health. The risk posed by unsafe blood products represents a related concern. Significant progress has been made in the area of hepatitis; however, several countries in the Asia Pacific continue to suffer huge disease burdens. Australia can provide substantial research expertise to address such challenges.

MATERNAL AND CHILD UNDERNUTRITION
We recommend AusAID to include maternal and child undernutrition as a health issue priority. Maternal and child undernutrition is highly prevalent in all the AusAID target low-income and middle-income countries and it
results in substantial increases in mortality and overall disease burden for women and children especially for those from poor families. Globally the combination of chronic and severe acute child malnutrition, and intrauterine growth restriction are responsible for 2.2 million deaths and 21% of disability-adjusted life-years (DALYs) for under five children younger than 5 years. Micronutrient deficiencies (vitamin A, zinc, iodine and iron) in children account for about 1 million deaths and 9.2% of global childhood DALYs. Iron deficiency is a risk factor for maternal deaths and is associated with an increased risk of neonatal deaths. Suboptimum breastfeeding is responsible for 1.4 million child deaths and 10% of DALYs in children younger than 5 years. Overall inappropriate infant and young child feeding is the main key pathway to child undernutrition. Overall, about 35% of child deaths and 11% of the total global disease burden can be attributed to these nutrition related factors.

There is an urgent need to develop more effective nutrition interventions and these have the potential to save millions if appropriately design and linked to existing health infrastructure.

NON-COMMUNICABLE DISEASES
We recommend AusAID to include non-communicable diseases (NCDs) as a health issue priority. NCDs (such as diabetes, cancer and cardiovascular disease) caused an estimated 29 million deaths in low and middle-income countries in 2008, and predictions suggest they will account for a growing proportion of total deaths in the future. Through the University of Sydney’s Charles Perkins Centre and the George Institute for Global Health, Australia has profound international research expertise that can significantly contribute to finding solutions that improve and transform lives in the Asia Pacific region.

8. RESEARCH FRAMEWORK (P. 9)
We think that the proposed time of 5 years from research to outcomes for poor people in the Asia Pacific region is unrealistic. Applying this criterion to the Strategy might distort the judgements about what projects to fund.

We recommend AusAID to consider including laboratory capacity development initiatives as part of the Strategy’s research framework. The lack of institutional capacity of national laboratories continues to be a significant impediment to effective research and clinical service delivery.

We also recommend the Strategy to support smaller scale descriptive studies to quantify the specific disease profiles and burden to enable the development of effective intervention strategies. Currently, the disease burden remains poorly quantified in many settings, with limited guidance for optimal priority setting.

Late stage clinical trials (drugs and vaccines) should be broadened to include trials of interventions other than drugs and vaccines that may lead to rapid changed practices and impact for target populations. For example, the NHMRC Global Health Program has funded interventions such as peer counselling to improve infant and child feeding and early use in pregnancy of iron and folic acid supplements to reduce neonatal deaths. The findings from both these studies if having a positive effect should be rapid and widespread.

9. HOW WILL AUSAID INVEST (P. 14)
We recommend the Australia Development Research Awards Scheme (ADRAS) to be considered as an aid modality for investment in medical research.

We recommend AusAID to create linkages with other elements of its broader research framework such as funding research fellowships for Australian medical and public health researchers to become more involved in the work of the International Centre for Diarrhoeal Disease Research, Bangladesh for which AusAID provides core funding.

As noted above, an alternative model should also be considered in which AusAID establishes a research institute similar to the Australian Council for International Agricultural Research (ACIAR).
CONTACT DETAILS

THOMAS T. SOEM
International Development Manager (Resources)
Office of the Deputy Vice-Chancellor (International)
The University of Sydney NSW 2006
AUSTRALIA

T + 61 2 9036 5140
E thomas.soem@sydney.edu.au