February 6th, 2014
Submission to the Inquiry into Australia's overseas aid and development assistance program
From: International AIDS Vaccine Initiative

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To: Senate Standing Committees on Foreign Affairs Defence and Trade
From: IAVI, The International AIDS Vaccine Initiative

As explained below, IAVI is an international public-private partnership seeking to develop safe and effective AIDS vaccines for use throughout the world. This submission seeks to raise issues relevant to two of the Inquiry's stated Terms of Reference: a) Australia's ability to deliver aid against stated policy objectives and international commitments; and b) its ability to maintain international development priorities, including sectoral, regional, bilateral and multilateral international relationships.

In that context, **IAVI calls on the Government to:**

- Recognise the critical need for new technologies to fight neglected and poverty-related diseases, and the role that innovation can play in creating effective and economically sustainable responses to global and regional challenges.

- Acknowledge the role that Product Development Partnerships can play in delivering new health technologies, particularly via their role in accelerating innovation in partnership with private sector.

- Support the development of new prevention technologies to fight HIV/AIDS in the Asia-Pacific region and elsewhere, including the development of an effective AIDS vaccine.

- Make a renewed financial commitment to product development, continuing and expanding PDP funding rather than letting it stagnate in the pilot phase, with a particular focus on research into the diseases which impose the greatest global burden.

- Support efforts to promote the development of new health technologies in the post-2015 development framework.

Why new health technologies are needed

Recent years have seen great progress in tackling deadly diseases, but they continue to inflict a devastating toll on many countries. Worldwide, one death in three is from an infectious or communicable disease such as HIV/AIDS, TB or malaria; almost all of these in the non-industrialized world.

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HIV/AIDS is a particularly striking example – despite impressive progress in developing and then rolling out anti-retroviral medications, the disease continues to kill some 1.7 million people every year, and more than 6,000 people worldwide are newly infected with HIV every single day[i]. In the Asia-Pacific region, HIV/AIDS remains a serious public health issue. AIDS-related deaths have not fallen at the same rate as in other regions.[ii] Around 350,000 people were newly infected with HIV in the region in 2012, nearly a quarter of them children and adolescents.[iii]

Despite strong progress in some places, new HIV infections have more than doubled[iv] in countries such as Indonesia, where the government estimates 6.4 million people remain at risk of infection.[v] In the Philippines, the pandemic has accelerated at an unprecedented rate: from one new HIV infection every three days in 2000, to a new infection every three hours in 2011. HIV prevalence in that country is forecast to double by 2015.[vi]

One problem is that existing HIV prevention options have often poorly served women and young girls and other key populations such as men who have sex with men, people who use drugs, transgender people and sex workers. Prevailing gender inequalities, stigma and discrimination also often limit access to available health services. In the Asia-Pacific region, only half of people who are eligible for antiretroviral treatment have access to it; significantly below the global average.[vii] Even in Australia, with near-universal access to treatment and healthcare, the number of new infections remains stable at around a thousand people per year.[viii]The economic burden imposed by HIV/AIDS on developing economies can be crippling, and the financial cost of providing drugs on an ongoing basis is formidable. Perhaps most worrying of all, HIV/AIDS is still spreading faster than the drugs to treat and prevent it: for every person getting access to treatment, more than one other is newly infected with HIV[ix].

Many other diseases exhibit a similar pattern: impressive recent progress in reducing deaths, but a lack of progress in improving prevention technologies, and limited options for maintaining recent progress over the longer term in an affordable and equitable way. Preventing diseases is not only better than treating them, but also more financially sustainable. In this context, it is clear that new health technologies are needed.

The role of Product Development Partnerships

Unfortunately, these new health technologies are not currently being delivered. One reason for this is a chronic lack of investment in the new tools needed to fight disease in developing countries. A lack of short-term financial incentives means the private sector is often unwilling to invest in neglected diseases: private research investments are strongly skewed towards developing products for the non-communicable, wealthy-market diseases. As Australia's

Medical Research Strategy (2012) noted: "as well as fostering conditions which cause ill-health, poverty means that there is little financial incentive for commercial investment in the diseases that primarily affect the poor." Consequently, only 16 of the 1,400 (or 1%) of new medicines developed between 1975 and 1999 were aimed at fighting neglected diseases.[x]

Product Development Partnerships (PDPs) arose about a decade ago as an answer to this gap. PDPs are focused on developing new products in situations where the paying market is non-existent or insufficient to incentivize the private sector to front the costs and bear the risk of development or production on its own. As not-for profit organisations, PDPs focus on filling gaps in the product development process - catalysing research for which there is a desperate global need, but limited funding. Crucially, they work in close partnership with the private sector, scientists, governments, and civil society; enabling them to share risks and costs, and accelerate the development process.

Products currently being developed by PDPs include new drugs, vaccines and diagnostics for everything from HIV, TB and malaria, to sleeping sickness and river blindness. To date, PDPs have developed 19 different products to tackle neglected diseases, including (for example) a new meningitis A vaccine which helped reduce meningitis incidence by 94% in parts of Africa.[xi] One of the key game-changing technologies currently in development are AIDS vaccines: modelling[xii] shows that even a vaccine which is only partially effective could avert up to 10.7 million new HIV infections and save up to £49 billion in treatment costs in the first decade. IAVI is the only international public-private partnership working to develop AIDS vaccines tailored to the strains of the virus most prevalent in developing countries; focused on translational research which is needed to develop promising early concepts into usable vaccines.

Australia's role

Australia has a long track record of providing strong support to efforts to improve global health. In the case of HIV/AIDS, for example, the government has contributed US$313M to the Global Fund since 2008, and recently made a very welcome commitment to maintain donations in the future[xiii]. AusAID's work in health has also long been supported by a program of research.

Over the last five years, AusAID has invested over $100 million in research to examine how to effectively strengthen health systems and deliver pro-poor health investments in low resource environments[xiv]. The 2012 Medical Research Strategy confirmed that this type of health research would continue to be the priority for AusAID's health program, to provide the

evidence for current program needs and anticipate future knowledge requirements. In 2013, a total of AUS$10m (US$8.8m/€6.4m) was awarded as single-year grants to support PDPs working on new technologies to fight diseases including TB and malaria[xv]. Pre-election, the Coalition's *Policy to Protect and Streamline Health and Medical Research Funding* also stated that "Australians can trust the Coalition to protect medical research funding as we have a clear record that demonstrates our support for this critical sector."

However, there are now signs that funding will not be made available in future. In January 2014, DFAT reportedly stated that the 2013-14 budget for global health investments, including health research, is fully committed on government priorities, and they are as such unable to continue to fund medical research at this time.

Given the scale of the remaining public health challenges, this is extremely concerning. Cuts to product development funding not only risk undermining valuable research, but also seem to contradict the Coalition's broader policies of supporting technological innovation and promoting partnership between the public and private sector. They also risk undermining the country's ability to deliver aid in line with its international commitments, such as the Millennium Development Goals. The potential termination of R&D funding also comes despite the fact that other governments facing similar budgetary pressures (e.g. the United States, United Kingdom, the Netherlands) are renewing their own commitments to supporting product development[xvi]. With numerous new products approaching human clinical trials, it seems misguided to cut funding just at the point when strong returns on investment might reasonably be expected.

Given the size and strength of Australia's economy, and its history of leadership in both development and scientific innovation, the country has the potential to play a critical role in the development of new tools to fight deadly diseases. IAVI very much hopes that the new government will agree to do so.

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[i] UNAIDS, Global Fact Sheet 2013
[ii] UNAIDS, 'HIV in Asia and the Pacific', 2013
[iii] UN News, 19 November 2013
[iv] UNAIDS, 'HIV in Asia and the Pacific', 2013
[v] Indonesia National AIDS Commission, 2012Progress Report
[vi] Philippine National AIDS Council, 2012 Progress Report
[vii] UNAIDS, 'HIV in Asia and the Pacific', 2013
[viii] UNAIDS, Australia Country Progress Report 2012
[ix] UNAIDS, Global Fact Sheet 2013
[x] Netherlands Ministry of Foreign Affairs, External Review of Product Development Partnership Grant Framework, 2009

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[xi] The Lancet, September 2013
[xii] Conducted by the Futures Institute and IAVI; available at iavi.org
[xiii] Global Fund, Pledges and Contributions, 2013
[xiv] AusAID Medical Research Strategy 2012
[xv] Global Health Technologies Coalition, 21 August 2013
[xvi] See, for example: http://www.usaid.gov/what-we-do/global-health/hiv-and-aids/technical-areas/hiv-vaccine-research-development