

Tomorrow's health solutions are as important as today's

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Medicines for Malaria Venture

Too often, leading countries like Australia, with very strong international aid programs, miss a critical element in their aid effectiveness. Their heavy focus on delivering today's medicines and health solutions to developing nations often means future health treatments are forgotten.

There is no question that current treatments are critically important, although aid programs can only be sustainable if the health needs of tomorrow are also met. In particular, future treatments and prevention of infectious diseases – such as malaria, tuberculosis and HIV – are vital, especially as resistance to the drugs used to treat these diseases emerges throughout the world.

Australia and the other 187 countries committed to achieving the UN's [Millennium Development Goals](#) (MDGs) by 2015 have no chance of success unless these infectious diseases are controlled.

Infectious diseases directly impact achieving five of the eight MDGs - eradicate extreme poverty and hunger, reduce child mortality, improving maternal health, combat HIV/AIDS, malaria & other diseases, and developing a global partnership for development. They also indirectly impact achieving the remaining three MDGs - aiming to achieve universal primary education, promote gender equality and promote women, and ensure environmental stability.

This future focus is already being supported by fellow donor governments, such as the UK and the US, who recognise that progress in developing countries is being held back by entrenched infectious diseases. In Australia's case it is not only critical for the victims of these diseases, it is also crucial for the industries that sustain it's growth and continued prosperity, most notably the mining sector which is increasingly working in infectious disease endemic regions in Asia Pacific and Africa. Many in these industries are well aware of the wide-ranging, damaging impact of disease on their operations and the communities in which they operate.

Malaria, for example doesn't just kill almost 1 million people each year, of which 91% are in Africa and 85% are children less than five years old; it debilitates both individuals and 108 nations – employment and productivity is lost and more than 40% of national health budgets are consumed by malaria control. This terrible disease perpetuates a cycle of poverty costing more than \$12 billion every year in lost GDP in Africa alone, and much more in compromised human potential. Malaria has these countries in a stranglehold that can only be loosened by the development and use of new and effective health products.

The best way Australia can help is to support clinical trials of new health product candidates. This would be a natural progression of Australia's research excellence, using the country's recognised capabilities to benefit vulnerable populations in the developing world.

But it's not a job for government alone.

Australia can achieve this with limited risk and high return by having these clinical trials conducted by well established Product Development Partnerships (PDPs) with successful track records demonstrated over 10 years or more. These are global not-for-profit entities that leverage private and public funds and expertise to

develop high quality, affordable health products including vaccines, drugs and diagnostic equipment.

PDPs provide an opportunity for public and private funding to work together to achieve truly extraordinary benefits. They have an established track record of achievement, strong governance, and tight fiscal management, and they collaborate extensively with governments, global health experts, scientists and major international industry partners.

The [Medicines for Malaria Venture](#) (MMV) is one such example of a highly successful PDP. MMV was established as a foundation by a group of scientists in 1999 with the aim of discovering, developing and delivering new, effective and affordable antimalarial drugs. It aims, ultimately, to help eradicate this terrible disease.

MMV started with seed funding of only \$4 million, and now has an impressive group of supporters that includes the Bill and Melinda Gates Foundation, the World Bank, several government aid organisations and ExxonMobil. As a “virtual pharmaceutical company”, MMV partners with scientists and researchers from research institutes, biotechnology companies, academic organisations as well as the pharmaceutical industry.

After nine years of diligent research MMV's first success came with the launch of a paediatric-specific antimalarial formulation. This has brought new hope to countless young malaria sufferers; more than 72 million treatments have now been delivered to around 35 countries at costs typically below USD 50 cents per treatment. The research, however, has not stopped – MMV continues to identify and test a handful of new molecules and compounds, only a few of which will ultimately survive rigorous trials to emerge as malaria treatments in the future.

An important example of Australia's role as one of MMV's most essential research partners is the OZ439 drug candidate discovered by Monash Faculty of Pharmacy. OZ439 holds promise to combat the currently developing parasite resistance to current first line treatment using artemisinin- based drugs. It may also provide a single dose cure mitigating the normal compliance problems involved with current 3 to 14 day drug treatment regimens. Because OZ439 is a synthetic (man-made) compound it is not dependent upon often limited harvesting the rare artemisinin-based plant in China and a few other Asian countries. In contrast, OZ439 can be produced under Good Manufacturing Practice standards set by the TGA or FDA and at any required scale.

MMV recognises that the eradication of malaria, and other infectious diseases, cannot happen overnight by the efforts of one organisation alone. It needs the joint efforts of hundreds of partners working to the same end with the same level of dedication. This is the modus operandi of PDP's, such as MMV, who believe their goals can be achieved more effectively with the support of leading nations, such as Australia.

By providing financial support to clinical trials conducted by PDPs, Australia will join a group of far-sighted donor countries that aim to improve health outcomes in the developing world through a structure that brings together unique capabilities provided by public partners, donors and the private sector; and which is well managed, and committed to achieving outcomes.

A wealth of both preclinical and clinical infectious diseases expertise exists in Australia's universities, medical research institutes and other related entities that can be harnessed for global public good through Australia's private sector.

Through this type of investment, Australia can enhance its aid effectiveness by contributing to the discovery, development and delivery of effective new treatments to control and ultimately eradicate infectious diseases both today and in the future. Such an outcome would make a major contribution towards achieving the UN's Millennium Development Goals which is Australia's stated commitment.

Andrea Lucard is Executive Vice-President External Relations, Medicines for Malaria Venture. She will be speaking at a Parliamentary Briefing on Thursday 22nd September.