



Submission to Senate Committee Inquiry into Australia's Overseas Aid and Development Assistance Program

7th February , 2014

Summary

- Australia has several policy priorities and international commitments to malaria control and elimination. Australia is recognised as a global leader in the work on malaria control and elimination, both through its government's programmes and investments, and the role of its research and education institutions. This leadership, already demonstrated by several years by the Australian government, must be sustained.
- The elimination of malaria improves the national capacity to attract investment and stimulate economic development, and that it will increase individuals' capacity to engage in economic activities. Additionally children free of the burden of malaria gain more from education and therefore the capacity to engage productively in economic activities and move out of poverty. Investment in malaria and malaria elimination in the Asia Pacific Region is a value for money investment with high returns on investment in health, education and development.
- Australia's commitment to support the Malaria 2012 Consensus on Malaria Control and Elimination in the Asia Pacific should continue to be honoured.
- Support is required by malaria endemic countries in the Asia Pacific region, particularly the high burden countries through bilateral, multilateral , public –private partnerships eg. Medicines for Malaria Venture (MMV), Foundation for Innovative New Diagnostics (FIND) and the Innovative Business and Mining Council of PNG "PNG Industry Malaria Plan" (an Initiative for Malaria Elimination) and the Global Fund for Tuberculosis, AIDS and Malaria (GFATM).
- Opportunities for building country leadership and management of disease control including malaria programmes through training, fellowships, peer-to-peer networks like APMEN and other capacity development channels are required.
- Support for priority operational and scientific research linked to the challenges of intensified malaria control and elimination such as treatment of *Plasmodium vivax*, outdoor mosquito biting control methods, low cost technology solutions to diagnosis of low parasite levels infections , single dose malaria medications, community mobilisation to prevent re-introduction of malaria, tools for intensified malaria surveillance and

epidemic responsiveness, population movements, improvement of health information systems to support evidence based decision making for malaria control is necessary.

- Funding for health systems strengthening is required to provide the platform for successful malaria programmes.
- The key challenges in the region which are emerging artemisinin resistance, insecticide resistance and waning political and financial support for malaria control and elimination, need to be addressed.

Background

The Asia Pacific Malaria Elimination Network (APMEN) is a country owned and led Network that brings together 15 countries in the Asia Pacific region that aim to eliminate malaria either nationally or subnationally. APMEN strategically links these 15 countries with a range of regional partners from the academic, non-governmental and private sectors, as well as the World Health Organization (WHO). The strong collaboration between APMEN countries, regional and global partners forms a platform from which the network initiates critical knowledge exchange, evidence generation, capacity building and regional advocacy for malaria elimination. The foundation funding (2009-2013) was provided by the Australian Government and the Bill and Melinda Gates Foundation. In 2013, in addition to these contributions to the Network, around 25% of the Network's budget comes from regional organisations and institutions, country partners and some private sector partners in the form of funding and pro bono and in-kind support. To complement funding the Network receives in-kind technical support from 2 Australian partner institutions – University of Queensland and Menzies School of Health Research, and the Global Health Group at University of California (San Francisco).

From 2000 to 2010, 13 APMEN countries have reduced their combined malaria cases by 64%. Some APMEN countries document even more rapid progress: from 2000 to 2010, China decreased malaria by 73%; Democratic People's Republic of Korea by 85%; Bhutan by 93%; and Sri Lanka by 99%

Introduction

In this submission we address the first two objectives of the Inquiry, namely:

- a) Australia's ability to deliver aid against stated policy objectives and international commitments
- b) Australia's ability to maintain its international development priorities including sectoral, regional, bilateral and multilateral international relationships.

We note that Australia has several policy priorities and international commitments to malaria control and elimination. These include:

- Signatory to the Millennium Development Goals 4,5 and 6 (namely Child health, Maternal health and Endemic diseases respectively)(United Nations Millennium Declaration, New York (2000) A/RES/55/2

- The Consensus on Malaria Control and Elimination in the Asia –Pacific¹
- Global Fund for Tuberculosis, AIDS and Malaria and on the Governing Board
- World Health Assembly Resolutions on malaria, including WHA 58.2 at WHO Fifty-eighth World Health Assembly, 2005

Australia is recognised as a global leader in the work on malaria control and elimination, both through its government's programmes and investments, and the role of its research and education institutions.

The Investment Case for Malaria

- Based on evidence from several countries that have eliminated malaria, APMEN believes that the **elimination of malaria improves the national capacity to attract investment and stimulate economic development, and that it will increase individuals' capacity to engage in economic activities**. Additionally children free of the burden of malaria gain more from education and therefore the capacity to engage productively in economic activities and move out of poverty.

APMEN contends that investment in malaria and malaria elimination in the Asia Pacific Region is a value for money investment with high returns on investment in health, education and development.

Evidence:

The Background document to the Malaria 2012 Conference "Malaria in Asia Pacific : Burden, success and challenges"² (Lynch, C and Hewitt, S 2012 Canberra: HRF) notes, based on extensive literature review of scientific evidence:

- Poor populations are most at risk: they are more likely to live or work in environments where the risk of malaria infection is high, and less likely to use preventive measures such as mosquito nets³.
- When the poor fall ill, they may not be able to access or afford treatment, and may fall more deeply into poverty.
- Large numbers of people with malaria can impact on economic growth, investment and income from tourism⁴.
- Conversely, malaria control can have positive economic benefits: one study suggests that a 10 per cent reduction in malaria can lead to 0.3 per cent higher economic growth.⁵

¹ The background papers of this Malaria 2012 Conference are available on www.malaria2012conference.com

² (Lynch, C and Hewitt, S 2012 Malaria in Asia Pacific : Burden, success and challenges Canberra: HRF)

³ Gallup, John Luke, and Jeffrey D. Sachs. 2001. "The Economic Burden of Malaria." *American Journal of Tropical Medicine and Hygiene*, 64(1, 2): 85–96

⁴ Lynch and Hewitt 2012 op.cit.

⁵ Gallup and Sachs op.cit

- Several studies have reviewed the economic benefits of control and elimination of malaria⁶
 - The Copenhagen Consensus Center notes that investment in represent s very good value for money (See submission to this Inquiry).
 - Reducing the impact of malaria can lead to improvements in health care systems, poverty, educational attainment and economic development⁷
- APMEN has identified two major issues for the political leaders of the malaria endemic countries in the Asia Pacific region and for the development partners who have supported these countries.
- One is the issue that **allowing malaria to re-establish in these countries will undermine the investments** in saving women and children's lives (MDG4 and 5) and adults and working populations from malaria (MDG6) and decrease the chances for children to participate in education (MDG 2)..
 - Secondly, the ethical issue is that these are not just numbers or declining indicators, but people, especially infants, young children and mothers who will be now be even more vulnerable to malaria . **Successes made in controlling malaria in the region may have now made a whole generation of young children and mother's more susceptible to death from a resurgence of malaria.** Their increased risk from malaria is a responsibility that should be shared by the donors who have invested in malaria's control.
 - There are broad gains to be made in education and health from reduction in malaria. It has been demonstrated that addressing malaria can lead to improvements in all causes of child mortality (Roll Back Malaria 2012). The literature cites malaria's role in increasing susceptibility to infectious diseases such as pneumonia, tuberculosis and dysenteric illness as well as contributing to health risks such as malnutrition, low-birth weight and maternal ill-health⁸. Shanks et al (2008) noted that malaria

⁶ Gallup and Sachs op.cit

⁷ Narain JP (2011) Eradicating and eliminating infectious diseases: past, present and future. *Indian J Public Health* 55:81-87

⁸ Giglioli G. Changes in the pattern of mortality following the eradication of hyperendemic malaria from a highly susceptible community. *Bulletin of the World Health Organization*. 1972;46: 181-202.

Shanks GD, Hay SI, Bradley DJ. Malaria's indirect contribution to all-cause mortality in the Andaman Islands during the colonial era. *The Lancet Infectious Diseases*. 2008;8:564-570.

McGregor IA. Malaria: nutritional implications. *Review of Infectious Diseases*. 1982;4:798-804.

Hartman TK, Rogerson SJ, Fischer PR. The impact of maternal malaria on newborns. *Annals of Tropical Paediatrics*. 2010;30(4):271-282.

Murphy SC, Breman JG. Gaps in the childhood malaria burden in Africa: cerebral malaria, neurological sequelae, anemia, respiratory distress, hypoglycemia, and complications of pregnancy. *The American Journal of Tropical Medicine and Hygiene*. 2001;65(1,2;s):57-67.

Bradley D. Morbidity and mortality at Pare-Taveta, Kenya and Tanzania, 1954-66: The Effects of a Period of Malaria Control. *New York: Oxford University Press*. 1991:248-263.

control programmes can result in 2 more deaths being averted in children under 5 from these other causes (called indirect deaths averted) for every child under 5 whose death was averted from malaria.

- Malaria directly affects educational attainment through several possible mechanisms, including: malaria in pregnant women can result in anaemia affecting the nutrition of the foetus which can affect subsequent cognitive, physical, and neurosensory development, and potentially a child's success in school or even ability to attend school; severe malaria in childhood can cause lifelong cognitive difficulties, indirectly malaria in a household can reduce income available for nutrition, schooling and use of health care for all household members⁹.
- So these gains will be lost. However resurgence of malaria (return after malaria was eliminated or almost eliminated) creates even larger effects, especially for children and pregnant women. One example of this damaging effect is in the Case Study of Sri Lanka¹⁰.
- A systematic review of 75 malaria resurgence events in 61 countries, occurring from the 1930s through the 2000s by Cohen et al (2012)¹¹ found "Almost all resurgence events (91%) were attributed at least in part to the weakening of malaria control programmes for a variety of reasons, of which resource constraints were the most common (57%). Given that most malaria resurgences have been linked to weakening of control programmes, there is an urgent need to develop practical solutions to the financial and operational threats to effectively sustaining today's successful malaria control programmes". They noted that "Increased funding since 2000 has allowed scale-up of effective interventions, and malaria has declined considerably in many previously highly endemic parts of the world. While these successes confirm that well-funded anti-malaria interventions can have enormous impact, the global increase in malaria burden that occurred in the aftermath of the GMEP underscores the potential fragility of such gains".

Conclusion

APMEN believes that the elimination of malaria improves the national capacity to attract investment and stimulate economic development, and that it will increase individuals' capacity to engage in economic activities, and as more children survive and then gain the

⁹ Lucas, A. 2010 Malaria Eradication and Educational Attainment: Evidence from Paraguay and Sri Lanka† *American Economic Journal: Applied Economics* 2 (April 2010): 46–71
<http://www.aeaweb.org/articles.php?doi=10.1257/app.2.2.46>

¹⁰ Ministry of Health Sri Lanka and the World Health Organization and the University of California, San Francisco (2012). *Eliminating Malaria: Case-study 3 | Progress towards elimination in Sri Lanka*, Geneva: The World Health Organization.

¹¹ Cohen JM, Smith DL, Cotter C, Ward A, Yamey G, Sabot OJ, Moonen B (2012) Malaria resurgence: a systematic review and assessment of its causes. *Malar J* 11:122

education required to assist their path to work and financial independence. Malaria elimination also has the potential to align with other strategies for development, such as surveillance and response for other infectious diseases outbreaks in the region such as dengue and influenza; other disease elimination activities and water, sanitation and hygiene (WASH) programs.

The Australian government and the people of Australia have supported significant and successful investments in malaria control and elimination in the Asia Pacific region, as well as in saving women and children's lives, for several decades of development assistance. The evidence shows that reducing the investments and support to finishing the job in partnership with countries of the region, that is elimination of malaria, will cost several thousands of infants and women's lives, and negatively impact on the economic and social development of these countries. It will also undermine the other investments made in development in the region.

Taking the foot off the accelerator will not just slow or stop the progress in the fight against malaria, and reduction of death and disability in children and women, it may put it into reverse, and cost the lives of thousands in the region.

Recommendations.

- Continue the commitment to support the Malaria 2012 Consensus on Malaria control and elimination in the Asia Pacific , a consensus representing the agreement of all participants at malaria 2012 (30 countries and 130 organisations in the Asia Pacific region, including the Government of Australia and the Opposition party in 2012). These are:
 - Promotion of high-level regional political leadership and collaboration, including supporting the Asia Pacific Leaders Malaria Alliance (APLMA) which is co-chaired as foundation chairs by the Prime Ministers of Vietnam and Australia
 - Closing the financing gap
 - Expanding access to quality medicine and technologies
 - Achieving universal coverage to key malaria interventions in priority areas
 - Accelerating highest priority research.
- Continue to support funding and technical support to malaria endemic countries in the Asia Pacific region, particularly the high burden countries through bilateral, multilateral , public –private partnerships eg. Medicines for Malaria Venture (MMV), Foundation for Innovative New Diagnostics (FIND) and the Innovative Business and Mining Council of PNG “PNG Industry Malaria Plan” (an Initiative for Malaria Elimination) and the Global Fund for Tuberculosis, AIDS and Malaria (GFATM).
- Sustain the leadership already demonstrated by several years of Australian government to the cause of malaria control and elimination by encouraging regional country and private sector investment in the agenda, and investing in strong monitoring and evaluation to ensure value for money and universal coverage of malaria interventions.

- Provide opportunities for building country leadership and management of disease control including malaria programmes through training, fellowships, peer-to-peer networks like APMEN and other capacity development channels,
- Supporting priority operational and scientific research linked to the challenges of intensified malaria control and elimination such as treatment of *Plasmodium vivax*, outdoor mosquito biting control methods, low cost technology solutions to diagnosis of low parasite levels infections , single dose malaria medications, community mobilisation to prevent re-introduction of malaria, tools for intensified malaria surveillance and epidemic responsiveness, population movements, improvement of health information systems to support evidence based decision making for malaria control.
- Encourage and support health systems strengthening as the strengths and weaknesses of these systems directly affect the success of the malaria programmes
- Support the focus on the key challenges in the region which are emerging artemisinin resistance, insecticide resistance and waning political and financial support for malaria control and elimination.