















IMINATION ASIA-PACIFIC











CONSENSUS ON MALARIA **ELIMINATION ASIA-PACIFIC**











Consensus on Malaria Control and Elimination in the Asia-Pacific



With a common purpose – to combat and ultimately eliminate malaria from the region – representatives from over 30 countries and 130 organisations in the Asia-Pacific region and beyond met in Sydney, Australia, from 31 October to 2 November 2012 at *Malaria 2012:* Saving lives in the Asia-Pacific. This gathering was held in the lead up to 2015, the target date for achieving the Millennium Development Goals (MDGs).

This consensus document summarises priority actions to achieve global and national malaria targets in the Asia-Pacific region and to immediately address emerging artemisinin resistance. It emphasises the importance of collective regional action to achieve these goals – action that will save lives and reduce suffering and economic loss.

This consensus is based on individual and public consultations and deliberations in the lead up to and during *Malaria 2012*; the findings of background papers prepared for *Malaria 2012*; and the recommendations of a recent detailed assessment of the response to artemisinin resistance. The final consensus represents the agreement of participants at *Malaria 2012*.

Our goal, targets and priority actions



We have agreed to work together to achieve the following goals, targets and priority actions in the Asia-Pacific region:

Long-term goal

• to eliminate malaria in the Asia-Pacific region

Targets by 2015

- to reduce malaria cases and deaths by 75 per centⁱⁱ
- to contribute to the UN Secretary General's goal of near zero deaths worldwide
- to contain artemisinin resistance

Achievement of these targets in the Asia-Pacific region will result in

- 70 000 lives saved
- 50 million cases of malaria prevented

Targets by 2025

 half of the countries in the region with malaria today, to achieve their malaria elimination targetsiv

Priority Actions

1. Promote high-level regional political leadership and collaboration.

- Establish the Asia-Pacific Leaders Malaria Alliance APLMA (by April 2013) to:
 - drive and review progress and report to appropriate regional bodies to promote accountability at all levels
 - advocate for action for prevention of malaria across relevant sectors such as housing, education, agriculture, environment
 - engage the private sector and communities
 - > identify common lessons for broader regional health security
 - ensure and Asia-Pacific perspective is reflected in the global post-2015 development agenda.

2. Close the financing gap.

- Convene a taskforce with support from technical and funding partners (by May 2013)
 to:
 - identify financial shortfalls and commodity gaps to meet the agreed targets (by September 2013)
 - develop a strategic plan to address these gaps, including options for a regional financing mechanism based on voluntary contributions (by December 2013)
 - agree priorities and implement financing options as appropriate (by January 2014)
 - > report to appropriate regional bodies.

3. Expand access to quality medicines and technologies.

- Convene a taskforce with support from technical and funding partners (by May 2013)
 to:
 - identify and implement options to increase regional production capacity for and access to medicines and technologies that meet international standards (by December 2013)
 - identify opportunities for regional collaboration to strengthen regulatory services in public and private sectors (by December 2013)
 - work to halt the use of oral monotherapies and medicines that do not meet international standards
 - > report to appropriate regional bodies.

Priority Actions

4. Achieve universal coverage of key malaria interventions in priority areas.

- Intensify support for national plans with immediate priority to areas where artemisinin resistance has emerged, to vulnerable groups and high burden areas through:
 - strengthened management of field operations in areas where artemisinin resistance has emerged (by June 2013)
 - > immediately prioritising 100 per cent coverage for effective interventions in high burden population areas and areas where artemisinin resistance is present
 - tracking all malaria cases and deaths through strengthened surveillance systems
 - > innovative approaches to addressing the needs of migrant/mobile populations and other vulnerable groups
 - ensuring community ownership and engagement
 - y gaining commitment of key private sector and non-government actors in high-risk areas to help achieve 100 per cent coverage of key interventions for their workforce and where appropriate other populations at risk
 - building country capacity in areas such as service delivery, surveillance, and research, and strengthening cross country linkages.

5. Accelerate highest priority research

- Agree on and implement a focused research and development agenda (under APLMA by May 2013)
 - national malaria programs, researchers and technical partners collaborate to agree priorities
 - > secure adequate funding.

Background and additional information



Why malaria? Why now?

Malaria caused an estimated 655 000 deaths in 2010°. It is the ninth largest cause of death and disability worldwide.

The Asia-Pacific region has already made significant progress, reducing the number of malaria cases and mortality rates by around 25 per cent since 2000. However, despite this progress, malaria remains a major threat, with around 30 million cases and 42 000 deaths in the region each year. This loss of human life is unacceptable, and even more so because it is wholly preventable.

Malaria has a detrimental effect on development, causing a loss of productivity, costing work and school days, increasing health care costs and threatening industries such as tourism. Economies of countries with intensive malaria grow 1.3 per cent less per capita than countries without a high burden.

Reducing the burden of malaria will help countries in the region achieve several MDGs. Our actions will combat malaria (MDG 6). contribute to reducing child mortality (MDG 4), improve maternal health (MDG 5), have an impact on ending poverty more broadly (MDG 1) and improve education access (MDG 2). We will also be building our global development partnership capacity (MDG 8).

Artemisinin resistance - a threat requiring urgent action

The emergence of artemisinin resistance is now an urgent concern. Resistance to artemisinin, the core ingredient in the most effective malaria treatment – artemisinin-based combination therapy (ACT). This puts at risk the gains we have made to date to combat malaria, and may seriously jeopardise further progress in malaria control and elimination in the Asia-Pacific.

The impact of widespread resistance to ACT would be substantial. Through modelling, we estimate malaria mortality could increase globally by 25 per cent. The additional costs of retreatment for patients whose ACT has failed are likely to be over US\$30 million a year. Productivity losses could exceed US\$4 billion annually.

Opportunities and challenges in malaria control and elimination in the Asia-Pacific

The Asia-Pacific is a region of change and opportunity. At a time of global financial pressure, the region continues to make a significant contribution to global economic output. The region has the expertise and know-how to control, and in some places, eliminate malaria. It is home to world-leading researchers and institutions, and a large private sector that is involved in provision of health services and production of malaria drugs and commodities. In 2011, 42 per cent of global expenditure on malaria technologies benefited manufacturers in Asia, 80 per cent of the world's supply of artemisinin is cultivated in China and Vietnam, and four out of 10 manufacturers of World Health Organization (WHO) approved long-lasting insecticide-treated mosquito nets are in the region.^{ix}

However, challenges remain. Mosquitoes are developing resistance to insecticides used on mosquito nets and for indoor residual spraying. Close regional collaboration across sectors such as agriculture and health will be required to tackle this.

In comparison to other parts of the world, the Asia-Pacific region faces some unique challenges in the fight against malaria. There is a different pattern to the spread of malaria, more types of mosquitoes, with different behaviour patterns, and more of the difficult-to-treat *Plasmodium vivax* strain of malaria. Estimates in this paper on the likely reduction in cases are based on global evidence, much of it collected outside of the Asia-Pacific region. These and the estimates of associated costs may need to be adjusted as we improve our knowledge of the impact of key interventions in the Asia-Pacific region. Most importantly, we need further information on the use of insecticide-treated mosquito nets and indoor residual spraying.

Other factors in the region can also exacerbate the spread of malaria and artemisinin resistance, and other disease threats such as tuberculosis. These factors are large-scale population movements across borders, urbanisation, changes in land use for agriculture or industry, new infrastructure and the prevalence of medicines that do not meet international standards. Climate change may further impact the disease. In addition, the global financial crisis has put pressure on external aid budgets and domestic financing for malaria.

Where are we now?

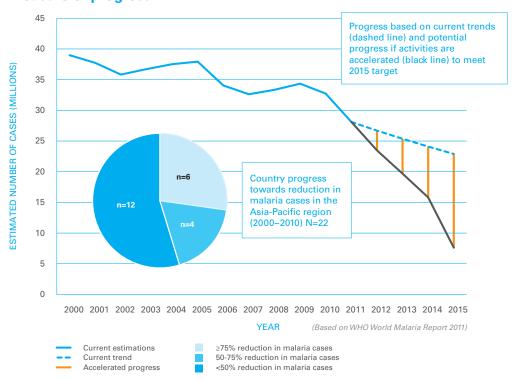
In 2005, at the World Health Assembly, member states agreed to reduce the burden of malaria by 75 per cent from 2000 to 2015. Since then regional resolutions have echoed this call and global advocacy efforts under the Global Malaria Action Plan have raised the ambition of achieving near zero deaths from malaria.

There has been substantial progress in meeting these targets in the Asia-Pacific. By 2010, around one quarter of the countries in the region with malaria have reduced cases by more than 75 per cent. This positive momentum has allowed many countries to envisage a malaria-free future and many have set malaria elimination targets.

However, the pace of progress across the region is not sufficient (see graph over page). Intensified action, starting now, is needed to achieve these targets. This is made more urgent

by the emerging crisis of artemisinin drug resistance that threatens to undermine the success to date and prevent future gains.

Measure of progress



What's needed?

The Asia-Pacific region has significant financial and human resources, experience and knowledge that can and must be mobilised.

Urgent collective action is required by all countries and development partners in the region to achieve the established global targets and contain artemisinin resistance. The 2015 targets can be achieved with existing tools, provided the impact of artemisinin resistance is limited.

Universal coverage of malaria interventions: Achieving a 75 per cent reduction in malaria cases and deaths in the Asia-Pacific region by 2015, contributing to near zero deaths worldwide, will require universal coverage with proven preventative and curative interventions. It is estimated that among other inputs the following will be required by 2015:

- 276 million insecticide-treated mosquito nets
- 2 billion rapid diagnostic tests
- 47 million quality malaria treatments (ACTs)^x

Priority must be given to high-burden countries and cross-border regions, vulnerable populations, and areas where artemisinin resistance is emerging. The private sector and civil society, working with governments, have a key role to play in providing services to those in need, producing high-quality commodities and policy advocacy.

Country health systems are the foundation of the malaria response and essential interventions can only be delivered if there are enough trained health workers, if services are integrated, if supply systems can deliver drugs and mosquito nets, if information systems can track the disease and if services reach the poorest and mobile populations. Communities need to be engaged and community-based approaches must be expanded to cover hard to reach areas.

Strong political commitment and regional collaboration: is required to raise and sustain the necessary resources; to prioritise policies and programs; to coordinate and cooperate across borders and ensure access to services by at-risk communities and to achieve universal coverage of key malaria interventions and services. This collaboration needs to be across sectors that influence the response such as health, education, finance, commerce, and defence. In addition, there is need for advocacy on broad development issues such as housing, environment, education, agriculture and forestry that can contribute to the prevention of malaria and other diseases. Increased political leadership and collaboration can also improve our preparedness and action on other emerging disease threats (e.g. multi-drug-resistant tuberculosis, pandemic diseases). Such regional collaboration can draw on technical and global partnerships and organisations.

Close the financing gap: The funding gap to achieve universal coverage, including the required health system investments, is estimated to be around US\$1.69 billion for 2013-2015, almost 60 per cent of which is for China and India. This estimate takes into account domestic budgets, private contributions and existing commitments from external sources such as development assistance.

Much of the investment is needed up front to rapidly expand coverage of key interventions and ensure that required malaria technologies are available. To mobilise this investment countries and partners need to develop approaches to financing and resource mobilisation that can be sustained in the long term, albeit at a lower level beyond 2015, to prevent a resurgence of malaria.

Expanding access to quality medicines and technologies: High-quality affordable medicines and other technologies are critical weapons in the fight against malaria and to prevent further drug resistance. Resistance can occur if patients are treated with poor quality ACTs, or single (mono) treatments rather than combination therapies.

To ensure access to quality medicines and technologies, regional and country regulatory services in the public and private sectors require strengthening. There is an urgent need to halt the use of monotherapies and medicines not meeting international quality standards; to introduce quality assurance mechanisms; and to improve country and regional supply chain systems.

Regional capacity to produce quality malaria medicines and technologies must be exploited to its fullest potential including through the use, where appropriate, of market based incentives.

Prioritised research and development: Investing in research can support operational research and evaluation to accelerate progress, development of new technologies and

improved means of delivering existing technologies. A prioritised and coordinated research and development agenda is required to address critical issues such as the safe use of primaquine as part of comprehensive malaria treatment, new diagnostics that can quickly and cheaply test large populations, and identification of a molecular marker for artemisinin resistance. Research into effective protection of high-risk populations is also urgently needed, including tools that are effective against outdoor biting mosquitoes.

The benefits of investing now

Lives saved: If we ensure everyone who is at risk of malaria is protected and every person suffering malaria is diagnosed and correctly treated, we will achieve a reduction of more than 75 per cent in malaria cases and deaths and contribute to achieving near zero deaths from malaria worldwide. If this rapid scale up is achieved in the coming years the following should be achieved in the Asia-Pacific region by 2015:

- 70 000 lives saved
- 50 million malaria cases prevented
- containment of the spread of artemisinin resistancexii

Economic returns: Reaching the global malaria targets will bring broader economic and social benefits to the region and bolster development outcomes. Reducing malaria means more people at work, more children at school, thus contributing to poverty reduction.

Removing malaria as a major public health threat will free up health service capacity to meet other pressing requirements.

Investment in malaria control and elimination is an investment in broader health outcomes. It should be seen as part of the push to achieve universal healthcare coverage, to strengthen health systems by increasing the number of trained health workers, strengthening information, health procurement and supply systems and improving laboratory services.

The economic return on this investment, through fewer deaths and less illness has been estimated to be valued at around US\$49 billion. This exceeds the investment cost by a factor of two over the period to 2030, making malaria programs one of the best value health investments.**

Reducing malaria can directly support private sector development. Increasing the region's manufacturers' share of the global market for quality medicines and technologies will bring further economic returns. It will also have positive benefits for the tourism industry, enticing more travellers to the region.

Some private sector employers are already providing services for malaria prevention, diagnosis and treatment for their employees and communities where they work. There is potential to increase the coverage of these services. Such investment increases workforce productivity by reducing labour losses due to ill health.

Progress towards elimination: If interventions are rapidly scaled-up between now and 2015 and sustained in the following decade it is realistic to expect that half of the countries in the region with malaria today will achieve their stated elimination targets by 2025.

* * * *

In short, evidence suggests that investing in efforts to combat malaria will produce results and represents good value for money. Progress to date has been impressive but accelerated efforts are needed to meet global targets. Working together as a region will strengthen the response and address the cross-sectoral and cross-border nature of the disease. Urgently addressing artemisinin resistance will not only protect the region but also protect the gains and progress made in malaria control and elimination around the world.

Endnotes

¹ Joint Assessment of the Response to Artemisinin Resistance in the Greater Mekong Sub-Region, November 2011 to February 2012. World Health Organization, UK Department for International Development (DFID), US Agency for International Development (USAID) President's Malaria Initiative, Australian Agency for International Development (AusAID), Bill & Melinda Gates Foundation (BMGF).

World Health Assembly Resolution WHAA58.2, defined as a 75% reduction in malaria burden from a 2000 baseline Global Malaria Action Plan 2011, defined as less than 1 death, from malaria, per 100,000 population at risk (hospital

Global Malaria Action Plan 2011, defined as less than 1 death, from malaria, per 100,000 population at risk (hospital based).

This is based on elimination targets already set by Asia Pacific countries up to 2025.

VWHO 2011

vi WHO World Malaria Report 2011

vii Gallup & Sachs 2001.

viii Malaria 2012 Issues Paper 4.

ix Malaria 2012 Issues Paper 3.

^{*} Malaria 2012 Issues Paper 1 & 2.

xi Malaria 2012 Issues Paper 2.

xii Malaria 2012 Issues Paper 2.

xiii Malaria 2012 Issues Paper 2.





Promote high-level regional political leadership and collaboration



Close the financing gap



Expand access to quality medicines and technologies



Achieve universal coverage of key malaria interventions in priority areas



Accelerate highest priority research and development



