

Malaria, including a proposal for establishment of World Malaria Day

1. Each year, over 3000 million people are at risk of contracting malaria and more than 500 million people suffer from acute disease resulting in more than one million deaths. Also, more than 125 million non-immune travellers visit malaria-endemic countries annually, with between 10 000 to 30 000 contracting the disease. Malaria contributes indirectly to many additional deaths, mainly of young children, through synergy with other infections and illnesses. It is a major cause of anaemia in children and pregnant women and of low birth weight, premature births and infant mortality. In endemic African countries, 25% to 35% of all outpatient visits, 20% to 45% of admissions to hospital and 15% to 35% of hospital deaths are due to malaria, imposing a great burden on already fragile health-care systems. Evidence continues to accumulate that, in areas with high prevalence rates of both malaria and HIV/AIDS (such as in sub-Saharan Africa), the interaction between the two diseases, including coinfection, worsens the morbidity and mortality of the other.
2. Patterns of malaria transmission and disease vary markedly between regions and even within countries. This diversity results from variations between malaria parasites, mosquito vectors, ecological conditions and socioeconomic factors, such as poverty and access to effective health-care and prevention services. About 60% of the cases of malaria worldwide, 75% of all cases of falciparum malaria and more than 80% of deaths due to malaria occur in sub-Saharan Africa. *Plasmodium falciparum* causes the vast majority of infections in this region and about 18% of deaths in children under five years of age.
3. In 1998 the Roll Back Malaria movement was established and a global partnership was launched by WHO, UNICEF, UNDP and the World Bank. The Roll Back Malaria Partnership now comprises a wide range of partners, including malaria-endemic countries, donors, the private sector, nongovernmental and community-based organizations, foundations and research and academic institutions. These initiatives led to a resurgence in national and international attention and support for malaria control and rekindled hope of achieving the goal of halving the malaria mortality rate for the year 2000 by 2010 and by 75% by 2015, and also reaching the Millennium Development Goal of halting and beginning to reverse the incidence of malaria by 2015 (target 8).
4. Awareness of malaria as a global problem remains low. Malaria transmission is still poorly understood by those at risk and they therefore often do not know how to protect themselves and their families against infection. In order to ensure that advocacy is sustained globally, it is proposed that Africa Malaria Day, which is observed on 25 April, should be declared World Malaria Day.
5. In recent years, efforts to promote, and political support for, malaria prevention and control have increased dramatically. Funding for work on malaria has also been increasing, especially through mechanisms such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the malaria initiative of the President of the United States of America, the World Bank Booster Program for Malaria Control, and the Bill & Melinda Gates Foundation. Various new tools have become available, such as

artemisinin-based combination therapies, long-lasting insecticide-treated bednets, and rapid diagnostic tests, and progress in the development of new drugs and vaccines is encouraging. Malaria control is therefore at a critical point where new tools, targeted strategies, visibility and funding are all simultaneously available.

6. In all regions, expectations of nearing or attaining the target of eliminating malaria have been raised. The Tashkent Declaration of 2005 and the new strategy of the Regional Office for Europe, both entitled “The move from malaria control to elimination”, aim at eliminating the disease within affected countries by 2015. Member States in the Eastern Mediterranean Region are focusing on maintaining and expanding malaria-free areas, in particular the Arabian Peninsula and North Africa. Some Member States in the Region of the Americas and the South-East Asia and Western Pacific regions are also focusing on maintaining or moving towards the status of malaria elimination. In particular, expectations have been raised that some Member States in the African Region may also possibly achieve elimination. Despite these positive improvements, to date no country in sub-Saharan Africa has achieved the targets set in the Abuja Declaration on Roll Back Malaria in Africa (2000),¹ and few are likely to attain the Millennium Development Goal target for malaria. There, malaria exacts its greatest toll, costs an estimated US\$ 12 000 million per year in lost gross domestic product and consumes up to 25% of household incomes.

7. Not all countries have changed their national treatment policies on combating drug-resistant parasites, withdrawn the marketing authorization of oral artemisinin monotherapy for uncomplicated falciparum malaria, or have the capacity to measure progress towards effective case-management targets. Some countries have set clear targets and operational plans on how to expand insecticide-treated bednet coverage, but many have not. Few countries have set clear targets, devised operational plans and assigned sufficient, well-trained human resources to ensure indoor residual spraying, which must be meticulously and carefully managed and correctly applied in the appropriate epidemiological settings with no leakage of insecticide (particularly DDT) into the agricultural sector.

8. There are still too few staff at the country level to implement effectively recommended strategies. Training in specialties related to malaria control, particularly entomology, has been declining globally, thereby reducing the available pool of human resources. In many countries increasing the national capacity for implementing strategies and reaching targets is a severe challenge.

9. Initially, a rapid increase in demand, together with inadequate attention to supply-chain management, led to global shortages of key commodities, most notably single-source artemisinin-based combination therapies or limited-source, long-lasting insecticide-treated bednets. Globally research has not necessarily been directed at producing much-needed new products or devising strategies for malaria control. Cohesive support to countries by technical agencies has been lacking. Many countries are facing difficulties that require cross-border and interregional cooperation, which will require political commitment at the highest level. Few countries have set aside dedicated resources (both financial and human) towards ensuring that they will be able to measure accurately their disease burden and evaluate their progress towards malaria-control targets. The 15% of annual government budgets which African Heads of State and Government pledged in the Abuja Declaration on HIV/AIDS, Tuberculosis and other Infectious Diseases (2001), and reaffirmed in the Maputo

¹ The targets in the Abuja Declaration are: (i) at least 60% of people suffering from malaria should be able to access and use correct, affordable and appropriate treatment within 24 h of onset of symptoms; (ii) at least 60% of people at risk of malaria, particularly pregnant women and children under five, should benefit from suitable personal and community protective measures such as insecticide-treated bednets and (iii) at least 60% of all pregnant women who are at risk of malaria, especially those in their first pregnancies, should receive intermittent preventive treatment by 2005.

Declaration on HIV/AIDS, Tuberculosis and other Infectious Diseases (2003), to allocate to the health sector has also failed to materialize (to date, only Botswana has met this target).

10. The Roll Back Malaria Partnership has not been as effective as was envisaged. Overlapping functions between its Secretariat and WHO's Secretariat led to unnecessary competition and often conflicting advice. Financial support has been less than expected and WHO has been criticized for lack of strong technical leadership.

11. Consequently, at the beginning of 2006, the Director-General established the Global Malaria Programme in order to redefine strategies, correct serious flaws in the malaria programme and respond cohesively and strongly to malaria-control needs worldwide. As an essential first step, WHO's technical and strategic direction was re-established, through an organization-wide consultation of staff, followed by an ad hoc meeting of the WHO Strategic and Technical Advisory Group on Malaria. It was concluded at both these meetings that currently WHO can best contribute to the Partnership by providing robust technical and strategic leadership and clearly distinguishing the roles and responsibilities of WHO's malaria programme from those of the Partnership's Secretariat. In parallel, the Roll Back Malaria Partnership has started a change initiative to improve effectiveness. WHO is contributing to the process, by defining its strategic and technical role and thereby becoming a better, stronger partner. The process seems to be yielding positive results, making partners – including WHO – more accountable, and the Partnership's Secretariat more responsive to partners' needs.

12. At the first WHO Global Malaria Staff Meeting (Tunis, 27 February – 2 March 2006), the following strategic directions were identified for the Global Malaria Programme: (1) strengthening WHO's technical leadership on malaria-control policies and strategies and the support provided to countries on how to achieve set targets; (2) providing support to malaria-endemic countries for applying the best available approaches and tools, including indoor residual spraying where indicated, free or highly subsidized distribution of long-lasting insecticide-treated bednets to all at-risk groups, diagnosis of malaria cases and treatment with artemisinin-combination therapies, and working closely with countries to ensure that interventions are tailored to each country's epidemiological and socioeconomic profile; (3) providing support to countries for achieving malaria elimination targets, where feasible; (4) preventing malaria in travellers from countries not endemic for malaria, thereby encouraging tourism and investment; (5) setting clearer standards and developing better tools for monitoring and evaluation, in particular making a clear distinction between monitoring of intervention performance and evaluation of impact; (6) including high-priority research in the Global Malaria Programme, with a particular focus on the development of new methods, strategies and tools, and overcoming obstacles to implementation; (7) ensuring that malaria-control efforts contribute to strengthening health systems by fostering a multisectoral approach, with strong health-sector leadership, and supporting the integrated delivery of essential health services; and (8) coordinating partnership at the country level, in particular through the strengthening of WHO offices and increasing the availability of well-trained human resources, in order to ensure that support is harmonized and aligned with national strategies and plans. In addition, five cross-cutting Secretariat task forces (on case management, insecticide-treated bednets, indoor residual spraying, surveillance, and elimination) have been formed in order to ensure inputs from, and collaboration at, all levels. WHO has also been working progressively during 2006 to ensure that from 2007 its malaria programme, encompassing staff in headquarters and regional and country offices, will operate with a single workplan and budget.

13. The Strategic and Technical Advisory Group also recommended that a technical and research advisory committee and six associated working groups (on economics, finance and impact; scaling-up and capacity development; case management; insecticide-treated bednets; indoor residual spraying; and preventive chemotherapy) should be convened to review and oversee the malaria programme's

progress, plans and budget and to reinforce WHO's technical support to countries on the following key interventions:

- **Case management.** Artemisinin-combination therapies are now recommended as the best current treatment for uncomplicated falciparum malaria. WHO published its treatment guidelines earlier this year¹ and issued a ban on monotherapy in order to protect the efficacy of combination therapies and to delay the development of resistance. To date, 67 countries have adopted the combination therapies and 16 countries do not allow the marketing of antimalarial treatments with a single medicine. The task force on case management is currently finalizing a comprehensive manual including redesigned patients' cards and tracking mechanisms, in order to provide support to countries in implementing their national treatment policies, and streamlining and increasing the effectiveness of their malaria case management. This manual is to be piloted in countries in conjunction with interventions designed to strengthen health-information systems.
- **Malaria prevention (insecticide-treated bednets).** WHO is focusing on universal access to long-lasting insecticide-treated bednets, in partnership with UNICEF. Both agencies continue to advocate for free or highly subsidized distributions of such bednets on a regular basis or through campaigns (especially the Expanded Programme on Immunization) to reach vulnerable populations. However, current coverage with such bednets is extremely low, even though they offer the best protection available. The task force on insecticide-treated bednets is completing a comprehensive manual as an aid to countries globally for expanding distribution and increasing coverage.
- **Malaria prevention (indoor residual spraying).** Indoor residual spraying is highly effective for rapidly reducing mosquito-population density and therefore rapidly reducing malaria-related morbidity and mortality. However, this intervention is massively underused: only 12 million households in 51 countries are currently being protected by such spraying. As an initial step, WHO has issued a position paper on the use of indoor residual spraying, based on various country experiences, including spraying with DDT which has long been the cheapest insecticide, the one with the longest residual efficacy (6–12 months) and the only one used exclusively for public health.² The task force on indoor residual spraying is preparing a manual that includes guidance on improving the quality of the intervention in countries where it is already in use and for countries that will apply it for the first time. This manual will be piloted in various regions.

14. In addition to these three interventions, intermittent preventive treatment in pregnancy with sulfadoxine-pyrimethamine is being implemented in 22 African countries with an appropriate pattern of malaria transmission. However, the current rapid increase in resistance of *P. falciparum* to sulfadoxine-pyrimethamine and the lack of safety and efficacy data on alternative antimalarial agents for prevention and treatment pose an enormous challenge. Intermittent treatment is recommended only in areas of high endemicity with stable transmission and where resistance to sulfadoxine-pyrimethamine is low.

15. The surveillance task force has created a country-profile database, including indicators on the epidemiological situation, malaria policy, strategies and programme performance, health-delivery

¹ WHO guidelines for the treatment of malaria. Geneva, World Health Organization, 2006.

² Document WHO/HTM/MAL/2006.1112.

structure, status of drug and insecticide resistance, and resource flows. The collected data will assist countries to improve programmes and guide the allocation of programme resources.

16. The elimination task force is formulating guidelines for national malaria-elimination programmes, providing technical and operational support to countries in the near-elimination phase, and is setting up mechanisms for official certification. The Global Malaria Programme is revising its prevention strategy for travellers, in order to ensure non-immune voyagers are protected when visiting or working in malaria-endemic areas.

17. New interests and investments, such as that by the Bill & Melinda Gates Foundation, in research and development are crucial to supporting the increased efforts in controlling malaria worldwide and overcoming obstacles. Although greater use of medicines and insecticides is essential to combating the malaria epidemic, it also increases the likelihood that malaria parasites and their mosquito vectors will develop resistance. WHO is working to contain the threat of resistance emerging to artemisinin-combination therapies along the border between Cambodia and Thailand. Through close collaboration with the Medicines for Malaria Venture and other drug development partners, several new such combination therapies are being developed in order to replace existing ones to which resistance may emerge. The Global Malaria Programme will convene an expert meeting to review the evidence of the potential of intermittent preventive treatment in infants against malaria and severe anaemia in children in areas where the rate of transmission of malaria is high. The cross-sectional research task force has drawn up an agenda for high-priority research, including improved monitoring and surveillance tools, validation of methodologies and better estimates of the disease burden. WHO is working to ensure that gaps in knowledge are filled, new and appropriate tools and strategies are developed, and evidence from research is translated promptly into policy and practice, in conjunction with its country-level assistance on operational and implementation research.

ACTION BY THE EXECUTIVE BOARD

18. The Board is invited to consider the following draft resolution:

The Executive Board,

Having considered the report on malaria, including a proposal for establishment of World Malaria Day;¹

Noting that few malaria-endemic countries have made substantial progress towards achieving the United Nations Millennium Development Goals relating to malaria, but that valuable opportunities are being created in the form of new tools and better defined strategies, and that momentum for expanding malaria-control interventions, and increasing financial resources at country and global levels, is growing,

RECOMMENDS to the Sixtieth World Health Assembly the adoption of the following resolution:²

¹ Document EB120/5.

² See document EB120/5 Add.1 for the administrative and financial implications for the Secretariat of the resolution.

The Sixtieth World Health Assembly,

Having considered the report on malaria, including a proposal for the establishment of World Malaria Day;

Concerned that malaria continues to cause more than one million preventable deaths a year;

Recalling that combating HIV/AIDS, malaria and other diseases is included in the United Nations Millennium Development Goals;

Mindful that the global burden of malaria needs to be decreased in order to reach the Millennium Development Goal of reducing child mortality by two thirds by 2015 and to help to achieve the Millennium Development Goals of improving maternal health and eradicating extreme poverty,

1. URGES Member States:

(1) to apply to their specific contexts the policies, strategies and tools recommended by WHO, and to establish evidence-based national policies, operational plans and performance-based monitoring and evaluation in order to expand coverage with major preventive and curative interventions in populations at risk, and assess programme performance and the coverage and impact of interventions in an effective and timely manner, particularly with use of the WHO country-profile database;

(2) to assign national and international resources, both human and financial, for the provision of technical support in order to ensure that the most locally and epidemiologically appropriate strategies are effectively implemented and target populations are reached;

(3) to withdraw from the market or withdraw the marketing authorization for oral artemisinin monotherapies, and assure that financing bodies cease to procure those monotherapies or other medicines, including prequalified antiretroviral medicines, from manufacturers that continue to market artemisinin monotherapy products;

(4) to waive taxes and tariffs for bednets, medicines and other products needed for malaria control, in order both to reduce the price of these commodities to consumers and to stimulate more competitive trade in these products;

2. REQUESTS international organizations:

(1) to provide support to countries in expanding the three main interventions: case management with artemisinin-combination therapies, indoor residual spraying, and use of long-lasting insecticide-treated bednets as indicated by WHO, and using monitoring and evaluation systems, including the country database, as developed by WHO;

(2) to increase funding to the various financing mechanisms for malaria control, so that they can continue providing support to countries, and to channel additional resources, for technical support to ensure that they can be absorbed and used effectively in countries;

3. REQUESTS the Director General:

(1) to take steps to identify knowledge gaps for malaria control; to support the development of new tools and strategies; to estimate more accurately the global disease burden and determine trends; to develop new tools and methods for assessing impact and cost-effectiveness of interventions; to build up WHO's current research on malaria, including that of the UNICEF-UNDP-World Bank-WHO Special Programme for Research and Training in Tropical Diseases; and to provide technical support to countries for conducting operational and implementation research into ways to ensure adequate coverage with antimalarial interventions;

(2) to strengthen and rationalize human resources for malaria by decentralizing staff to country level, thus improving the capacity of WHO's country offices to provide support to national health programmes for coordinating partners to prevent and control malaria;

(3) to report to the Health Assembly through the Executive Board on progress made in implementation of this resolution;

4. RESOLVES that World Malaria Day be commemorated annually on 25 April, in order to provide education and understanding of malaria as a global scourge that is preventable and a disease that is curable.

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