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MALARIA IN THE AMERICAS: PROGRESS REPORT

Introduction

1. As countries of the Americas join the world in entering the final quarter of the decade to Roll Back Malaria (2001-2010) and move towards the achievement of the Millennium Development Goals for 2015, the Pan American Health Organization (PAHO) is reviewing the progress of efforts against malaria in the Region. It is considered essential to monitor achievements in combating malaria in the Region and to further intensify efforts to enable PAHO to fulfill its mandate and Member States to attain their national targets and commitments. PAHO is following up on Resolution CD46.R13 (2005) in which Member States requested designation of a *malaria day* to highlight efforts to attain the objectives of the Roll Back Malaria (RBM) initiative and the UN Millennium Development Goals. National malaria programs should be re-evaluated and efforts aligned accordingly, so that progress is achieved towards realizing both global and nation-specific targets.

Background

2. In September 2005, the 46th Directing Council of the Pan American Health Organization adopted Resolution CD46.R13 which highlighted, among other things, the need to establish policies and operational plans to achieve a reduction of the malaria burden by at least 50% by 2010 and 75% by 2015, and to designate a *Malaria Control Day in the Americas* on a selected annual date, to recognize past and current efforts to prevent and control malaria, promote awareness, and monitor progress (1). In November of that year, PAHO convened malaria professionals and stakeholders from the Region and commenced development of a plan that outlined the strategic directions to achieve the mandate of Resolution CD46.R13. The result is the consolidation and implementation of the Regional Strategic Plan for Malaria in the Americas, 2006-2010 (2). With regard to a designated Malaria Day, Guyana proposed 6 November, the date when the presence of

malaria parasites in the blood of patients with febrile symptoms was first observed by Charles Louis Alphonse Lavéran in 1880 (3).

3. In January 2007, a proposal to establish a World Malaria Day was introduced in the WHO Executive Board and a draft resolution states: “Malaria Day shall be commemorated annually on 25 April or on such other day or days as individual members may decide ...”(4). The resolution is among the topics for discussion and deliberation at the World Health Assembly in May 2007. (*Note: An addendum regarding the WHA decision on Malaria Day will be provided to the Executive Committee.*)

Progress

4. Since the adoption of Resolution CD46.R13 in 2005, efforts have been intensified at all levels – global, regional, national, and community. The Roll Back Malaria (RBM) Department of the World Health Organization in Geneva was redesignated the Global Malaria Program (GMP) (5) in early 2006 and has adopted a reorientation of approaches to facilitate the attainment of the RBM objectives and the malaria-related United Nations Millennium Development Goals (MDGs). The development, consolidation and implementation of the Regional Strategic Plan for Malaria in the Americas 2006-2010, has permitted alignment of efforts among stakeholders and sectors working towards global and national targets against malaria, and synergy of country programs with regional and global counterparts.

5. Based on preliminary country reports for 2006, the number of malaria cases reported in the Americas was 890,779, representing a 23% reduction in malaria-morbidity in the Region in comparison with 2000. Approximately 74% of infections are caused by *Plasmodium vivax*, with *Plasmodium falciparum* accounting for almost 26% of cases. Less than 0.01% of cases are due to *Plasmodium malariae* which is focused in certain areas of Brazil, French Guiana, Guyana, and Suriname. The latest regional data on malaria-associated mortality from the country reports in 2005 reflect a 69% decrease relative to the 2000 baseline figures. It is expected that these mortality figures further decreased in 2006.

6. In comparison with the situation in 2000, most recent data indicate a decrease in cases in 15 of the 21 PAHO Member States where the disease is endemic. Eight of these countries achieved the target of at least 50% case reduction and seven registered decreases below 50%. Increases were reported in the other six endemic countries (See following table.)

**Percent change in number of cases reported by country
(compared to baseline 2000 data)**

COUNTRY	LATEST ANNUAL REPORT	PERCENTAGE CHANGE
Argentina	2004	- 74%
Belize	2006*	-43%
Bolivia	2006*	-40%
Brazil	2006*	-11%
Colombia	2006*	-8%
Costa Rica	2006*	+55%
Dominican Republic	2005	+211%
Ecuador	2006*	-91%
El Salvador	2005	-91%
French Guiana	2006*	+2%
Guatemala	2005	-26%
Guyana	2006*	-12%
Haiti	2005	+29%
Honduras	2006*	-68%
Mexico	2006*	-67%
Nicaragua	2006*	-88%
Panama	2006*	+83%
Paraguay	2005	-95%
Peru	2006*	-5%
Suriname	2006*	-70%
Venezuela	2006*	+25%

* Preliminary Reports

7. Among the 27 Member States declared free of malaria transmission by WHO in previous years, between 900 and 1,300 cases were reported annually from 1999 to 2005. These imported cases occur among travelers from endemic countries in the Americas and from other regions of the world.

8. Outbreaks of malaria were reported in two non-endemic countries in 2006. At least 19 introduced cases of *P. falciparum* were reported in the island of Great Exuma in the Bahamas beginning in June 2006 before the outbreak ended in September (6). Beginning November 2006, Jamaica identified an outbreak of *P. falciparum* cases in the capital, Kingston, with approximately 350 cases being detected up to April 2007 (7).

9. The Region follows a five component strategy to address the malaria challenge in the Americas: Malaria Prevention, Surveillance, and Early Detection and Containment of Epidemics; Integrated Vector Management; Malaria Diagnosis and Treatment; Enabling Environment for Malaria Prevention and Control; and Health Systems Strengthening/Country-Level Capacity-Building (2). These strategic components align the areas of work advocated by the Global Malaria Program: surveillance, monitoring, and evaluation; case management and research; vector control and prevention; and supply chain management; alongside national malaria program approaches (5).

10. Supporting the efforts to decrease the burden of malaria in the Region are various partner governments and institutions in the following networks / projects:

- Amazon Network for the Surveillance of Anti-malarial Drug Resistance/Amazon Malaria Initiative (RAVREDA/AMI). PAHO/WHO as lead collaborator, with funds from the United States Agency for International Development (USAID); Health Ministries of Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, Venezuela; Management Sciences for Health (MSH)/Rational Pharmaceutical Management Plus (RPM Plus); United States Centers for Disease Control and Prevention (CDC); United States Pharmacopeia Drug Quality Information Program (USP DQI); and other service delivery, advocacy, research, and academic organizations/institutions. RAVREDA/AMI has expanded its areas of work from antimalarial drug resistance surveillance to include drug policy implementation, access and quality of diagnosis and treatment, evidence-based vector control, and epidemiologic stratification through financing of approximately \$8.8 million between 2001 and 2006 (8).
- Regional Action Program and Demonstration of Sustainable Alternatives for Malaria Vector Control without Using DDT in Mexico and Central America (DDT-GEF). This project is coordinated by PAHO's Area of Sustainable Development and Environmental Health (SDE); with the United Nations Environmental Program (UNEP), the Cooperación Ambiental de America del Norte (CCA), and national collaborators. In addition to sustainable alternatives to vector control, the network has rich experience in mobilizing community participation for disease surveillance and control with financing of approximately \$13 million from 2003-2006 (9).
- Global Fund to Fight AIDS, Tuberculosis, and Malaria (Global Fund). Projects approved in 11 of the 21 endemic countries, individually for Bolivia, Guatemala, Guyana, Haiti, Honduras, Nicaragua, and Suriname, and a joint project in Colombia, Ecuador, Peru, and Venezuela through an approved proposal from the Andean Health Organism [ORAS] (10). Bolivia is contemplating presentation of a revised proposal to the Global Fund by the end of June to continue its current

country project. Cumulatively, these projects are for \$65 million, of which approximately \$41.7 million has been disbursed.

11. Currently, the interprogrammatic, intersectoral, and alignment efforts on malaria prevention and control in the Americas have resulted in significant milestones:

- Strengthening of epidemiologic surveillance and monitoring system for malaria that facilitates evidence-based public health policy decision-making;
- Coordination between the regional malaria program and the regional epidemic and alert response to strengthen capabilities of countries to combat outbreaks;
- Use of vector control interventions: insecticide treated mosquito nets (ITN's), Insecticide Residual Spraying (IRS), as determined by national authorities;
- Integrated vector management including monitoring of resistance to insecticides;
- Artemisinin-based Combination Therapy (ACT's) for treatment of *P. falciparum* in eight target countries sharing the Amazon Rainforest; expansion of work to improve access, quality of diagnosis and treatment, and epidemiologic stratification;
- Movement towards conducting efficacy trials to guide treatment policy in Mexico, Central America, and Hispaniola;
- Increased involvement of the community and various sectors through the DDT-GEF project in participating countries;
- Engagement in communications, publications and advocacy efforts; technical cooperation and training to reinforce the importance of commitment and continuity of efforts in combating malaria;
- Consideration of the possibilities of malaria elimination in six of the 21 endemic countries: Argentina, El Salvador, Guyana, Mexico, Paraguay and Suriname.

12. These milestones serve as a basis for PAHO to fulfill its commitment and mandate and for the Region to contribute to the attainment of global and national goals, including the UN Millennium Development Goals set for 2015.

Challenges

13. The Region continues to confront a number of formidable challenges and situations that contribute to current constraints in the progress of work against malaria. These include:

- Increased migration of people within and among countries as a result of both tourism and other socioeconomic and political reasons has made epidemiologic surveillance and monitoring ever more challenging and increased the susceptibility of countries, both endemic and nonendemic, to malaria outbreaks and epidemics.
- Dynamic changes in the organization of institutions and health systems of countries create new sets of specific conditions that necessitate inter-programmatic coordination. In particular, the decentralization of vertical programs resulted in the transfer of responsibilities to the local level which, in many instances, lack managerial capacities; and loss of trained personnel as malaria posts are suspended, with many of the local governments resorting to contracting personnel on a temporary basis.
- Investments made on establishing the scientific basis for malaria prevention and control do not necessarily translate into implemented interventions in the countries.
- Active participation of many sectors, particularly civil society and communities, remains lacking in many countries.
- In some cases, there is limited coordination between PAHO and the principal recipient of the Global Fund, which undermines the potential for optimizing the investments of the country projects and the realization of their corresponding targets.
- Urban infrastructure development is deemed to have a concrete connection to the spread of malaria and other communicable diseases, particularly as a consequence of waste management problems, pollution of water reservoirs, and inadequate housing.
- Malaria programs in many countries continue to be primarily vertical in approach and orientation and are minimally articulated/integrated with the primary health care system, thus undermining the potential gains in integrated and holistic health care for the affected populations.
- Countries of the Region are in varying degrees of readiness to sustain and build on the current efforts on malaria, which needs to be taken into account for long-term sustainability of programs and achievement of desired outcomes.

Recommendations

14. To address these constraints and challenges, PAHO recommends countries and others stakeholders in malaria in the Region to collaborate towards:

- Upgrading the health surveillance, monitoring, and evaluation system to facilitate evidence-based development and implementation of policies and interventions that yield the desired results; likewise, countries are requested to collaborate with PAHO country office advisors on malaria/communicable diseases in conducting a joint assessment of epidemiologic events such as outbreaks and in accordance with the International Health Regulations (IHR) Annex 2 (decision instrument);
- Fostering efficient and close collaboration between programs within institutions (including PAHO) and within the countries to optimize efforts and results;
- Staffing, training, and other human resource management reforms to complement program changes;
- Translating evidence-based recommendations and interventions into implemented policies, as appropriate to country specificities;
- Improving the communication process and extension of advocacy work to all stakeholders and target audiences. This concern highlights the importance of commemorating the World Malaria Day/Malaria Day in the Americas, proposed by Guyana for 6 November;
- Clarifying the mechanisms for and reinforcing PAHO's participation in the implementation of the Global Fund country projects (as mandated by Resolution CD46.R13);
- Engaging in a multisectoral, multipronged agenda on urban infrastructure development that will address various health consequences (including malaria);
- Strengthening the commitment to primary health care and intensifying efforts towards the integration of malaria work into the primary health care system;
- Institutionalization and sustaining malaria efforts within the health system.

Action by the Executive Committee

15. The way forward requires concerted efforts. Changes in the nature and intensity of challenges are expected to occur since the battle against malaria is a dynamic process. However, PAHO Member States have already provided the mandate to address these matters aggressively and appropriately through Resolution CD46.R13. The next step is to proceed with implementation and decision on the date when Malaria Day will be commemorated in the countries of the Region. Institutionalizing a World Malaria Day, a

Malaria Day in the Americas, or National Malaria Days among countries annually will facilitate and accelerate the achievement of global and national goals. The Executive Committee is requested to review this document, provide comments to the Secretariat, as appropriate, and foster consensus among Member States on the date(s) for the commemoration of Malaria Day.

Reference Documents

- (1) Pan American Health Organization. Resolution CD46.R13: Malaria and the Internationally Agreed-upon Development Goals Including Those Contained in the Millennium Declaration. 46th Meeting of the PAHO Directing Council; 57th Session of the WHO Regional Committee for the Americas. Washington D.C.: PAHO; 26-30 September 2005. [Online]. 2002 [consulted 2006 July 20]. Available from: <http://www.paho.org/english/gov/cd/CD46.r13-e.pdf>.
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