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MALARIA AND THE MILLENNIUM DEVELOPMENT GOALS

Malaria transmission was eliminated from a number of territories but is still reported in 21 of the 39 Member States of PAHO. It is estimated that 77 million persons live in areas of moderate and high risk and approximately 1 million cases have been reported annually since 1987.

Having abandoned efforts to eradicate malaria, the World Health Organization launched the Global Malaria Control Strategy in 1992 which was adopted by PAHO member states. In 1998, the Roll Back Malaria Initiative was launched with the aim of creating a movement at the global, regional, national and local levels to further strengthen the implementation of the Global Malaria Control Strategy and to reduce the malaria burden by 50% by 2010.

At the 42nd Directing Council of PAHO, Member States resolved to adopt the Roll Back Malaria Initiative in territories where malaria constitutes a public health problem. In 2000, the General Assembly of the United Nations included "Combat HIV/AIDS, malaria and other diseases" in the Millennium Development Goals.

There has been a reduction in the overall malaria incidence in recent years but the disease still constitutes a public health problem in the region with a disparity in outcome of efforts in different countries related to a number of factors including variations in ecological conditions, diagnostic and treatment coverage, weaknesses in health systems and technical capacity issues. Operational research is important for evidenced based decision making.

There is need for continued commitment to achieving the Roll Back Malaria (RBM) Initiative and the Millennium Development Goals (MDG), preserving achievements in malaria control and focusing on present and new challenges including those related to communication, coordination and cooperation within the health and other sectors. Inter-country collaboration and community involvement in the application of prevention and control methods are essential in reducing the disease and preventing the spread of malaria across borders. The application of malaria prevention and control measures requires financing and there is need for mobilization and the effective and efficient utilization of finances. An annual evaluation of the malaria situation is necessary to gauge progress in reducing and in preventing resurgence of malaria.

The document complements the report to the World Health Assembly of May 2005 (WHA58/8), which focused on the Malaria Situation in Africa. It provides a summary of the malaria stiutation in the Americas and PAHO's technical cooperation to Member States. It also highlights achievements and the unfinished agenda, encourages Member States to continue commitment to the Roll Back Malaria Initiative and implementation of malaria prevention and control activities aimed at achieving the goals of RBM and MDG.

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Introduction

1. During the early years of the twentieth century, malaria transmission occurred throughout the Americas. It was one of the prevalent infectious diseases that triggered a Resolution of the Second International Conference of American States held in Mexico, January 1902, which recommended that "a General Convention of Representatives of the Health Organizations of the different American Republics" be convened. The convention held in Washington, D.C., U.S.A; on 2-4 December 1902, was the predecessor of the current Pan American Health Organization (PAHO). (1)

2. Although experience and knowledge in combating malaria was gained by efforts in the United States of America and other countries in the Region, malaria was identified as "the disease that causes most harm to the greater number of nations of the Continent" by the XI Pan American Sanitary Conference in 1942. It recommended that the Malaria Committee of the Pan American Sanitary Bureau be considered the consulting organization for carrying out survey and malaria control programs in the Americas. That role was undertaken and by 1948, it had shown great success in reducing malaria and even eliminating transmission in large areas of two South American countries, Guyana and Venezuela, a result of efforts led by Drs. George Giglioli and Arnoldo Gabaldon in the respective countries. There was additional information on successes in resolution of the malaria problem in Argentina and the United States of America and marked progress in Brazil and Ecuador. These were some examples used in promoting the call for eradication of the disease and in 1954, the XIV Pan American Sanitary Conference in Chile gave the Pan American Sanitary Bureau responsibility for support and coordination of malaria eradication from the Americas; a Global campaign to eradicate malaria was subsequently approved at the Eight World Health Assembly held in Mexico in May 1955. (2)

3. In undertaking the eradication strategy that focused on combating mosquitoes, efforts in the Americas were supported by the Pan American Health Organization (PAHO) until 1992 when the global eradication strategy was abandoned and replaced by the Global Malaria Control Strategy. The malaria strategy in the Americas is consistent with the four basic technical elements of the Global Malaria Control Strategy. The strategy was designed to provide early diagnosis and prompt treatment of malaria; to plan and implement selective and sustainable preventive measures, including vector control; to detect early, contain or prevent epidemics and to strengthen local capacities in basic and applied research to permit and promote the regular assessment of a country's malaria situation, in particular the ecological, social and economic determinants of the disease.

4. In 1998, the World Health Organization (WHO) and partner institutions launched the Roll Back Malaria (RBM) Initiative as a response to the recognition of the global burden associated with malaria. The initiative aims to halve the malaria burden in

participating countries by the year 2010 through interventions that are adapted to local needs and by reinforcement of the health sector (3). Two years later, in 2000, the United Nations promulgated the Millennium Development Goals which included as one of their salient elements the halting or beginning of the reversal of the spread of HIV/AIDS, malaria, and other major diseases by 2015 (4).

5. It is in the context of the aforementioned global objectives and efforts that the malaria situation is monitored and analyzed in the Americas. The same framework is used to conceptualize, plan, implement, and monitor malaria projects in the Region, as well as respond to the continuing, emerging, and re-emerging challenges that the disease presents. Member States provide PAHO with information on malaria, used in preparation of a situation report annually. In the Region, prevention of a re-emergence of malaria is an important consideration in North America and the majority of the islands in the Caribbean where elimination has been achieved.

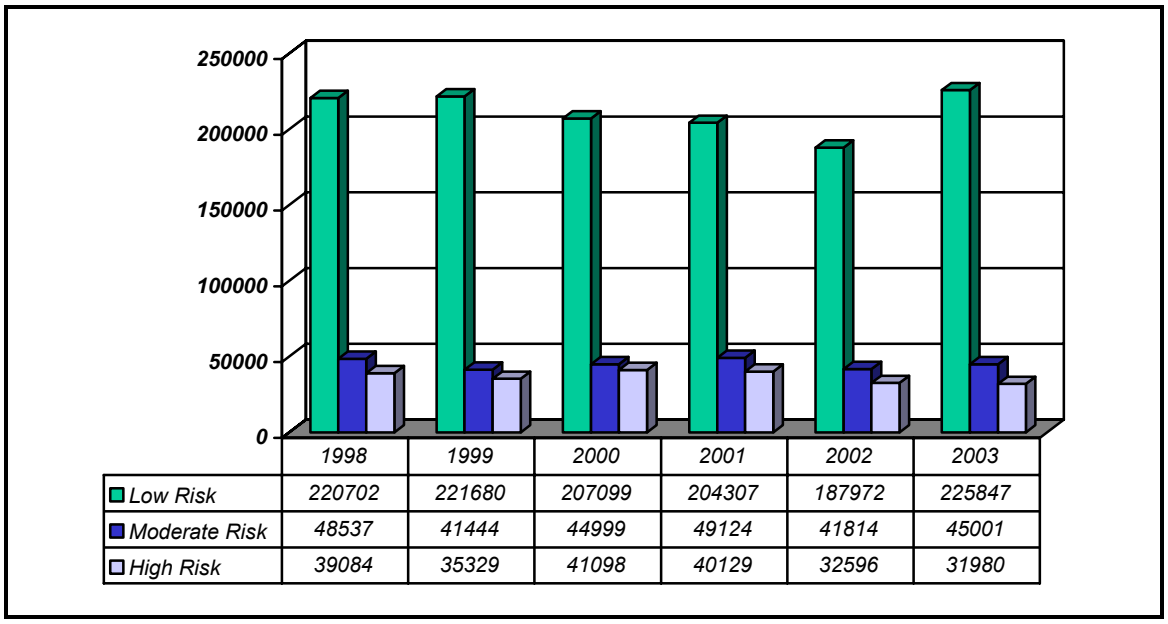
6. The purpose of the report is to provide a summary of the malaria situation in the Americas since the Roll Back Malaria Initiative launched by WHO in 1998; to highlight achievements and the unfinished agenda and to encourage Member States to continue commitment to achievement of the Roll Back Malaria and Millennium Development Goals of malaria prevention and control, taking into account new and contemplated challenges.

7. This document complements the Report by the Secretariat of WHO on Malaria (A58/8; 14 April 2005), which focused on the situation of malaria in Africa and was discussed at the World Health Assembly in May 2005.

Current Malaria Situation: an Overview of the Epidemiological Patterns

8. In 2003, PAHO Member States indicated that of the estimated 859 million inhabitants of the Americas, approximately 303 million live in areas at ecological risk of malaria transmission. Of those, approximately 226 million live in areas at low or extremely low levels of risk; 45 million in areas of moderate risk and 32 million at high risk (Figure 1). These figures represent a 3.08% decrease in the percentage of the Region's overall population reported at risk of malaria transmission in 1998 when the RBM initiative was launched. Malaria remains a public health problem in the region with transmission reported in 21 of the 39 PAHO Member States.

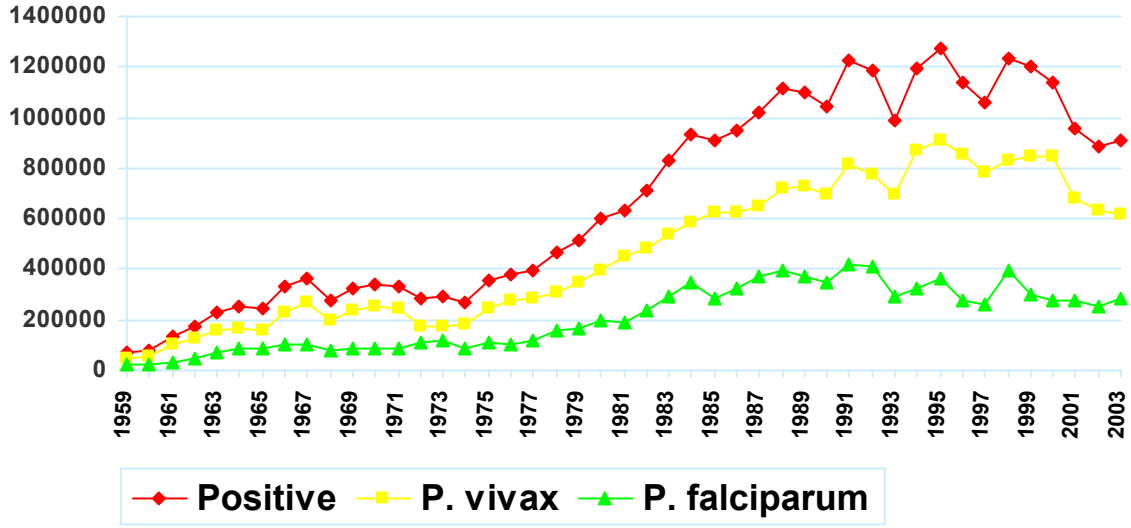
Figure 1: Population of the Americas according to Level of Transmission Risk, 1998-2003 (in thousands)



	1998	1999	2000	2001	2002	2003
Low Risk	220702	221680	207099	204307	187972	225847
Moderate Risk	48537	41444	44999	49124	41814	45001
High Risk	39084	35329	41098	40129	32596	31980

9. Weaknesses in health information systems make underreporting of events likely. Since 1959, information on the annual number of cases by malaria parasite has been reported by Member States to PAHO. By 1963 over 200,000 cases were reported; that number quadrupled by 1983 and continued increasing to over 1 million cases in 1987. When the RBM Initiative was launched in 1998, there were 1.2 million cases reported. Since then, Member States have reported reduced incidence and improvement in epidemiological trends (Figure2).

Figure 2: Malaria in the Americas by Parasite Species, 1959-2003
Number of Cases



10. *Plasmodium vivax* is the leading cause of malaria in the Region, accounting for 68% of all cases, *P. falciparum* was the cause of 31.5% and *P. malariae* less than 0.5% of all cases. In the countries sharing the Amazon rain forest, similar proportions are observed at the country level with the exception of those in the Guyana Shield. In Mesoamerica, *P. vivax* accounts for 80% of the cases, but in the Dominican Republic and Haiti almost 100% of the cases are due to *P. falciparum.*

11. The burden of malaria reported in the Americas by Member States in 2003 revealed that there were 909,788 cases (Figure 3) and 99 deaths (Figure 4). This reflects a 30% reduction in the absolute number of cases in the entire Region and a 12% reduction in the high and moderate risk areas since 1998; there was a 73% decrease in the overall number of malaria-attributed deaths since 1998.

Figure 3: Malaria Morbidity in the Americas, 1998-2003
Number of Positive Blood Slides

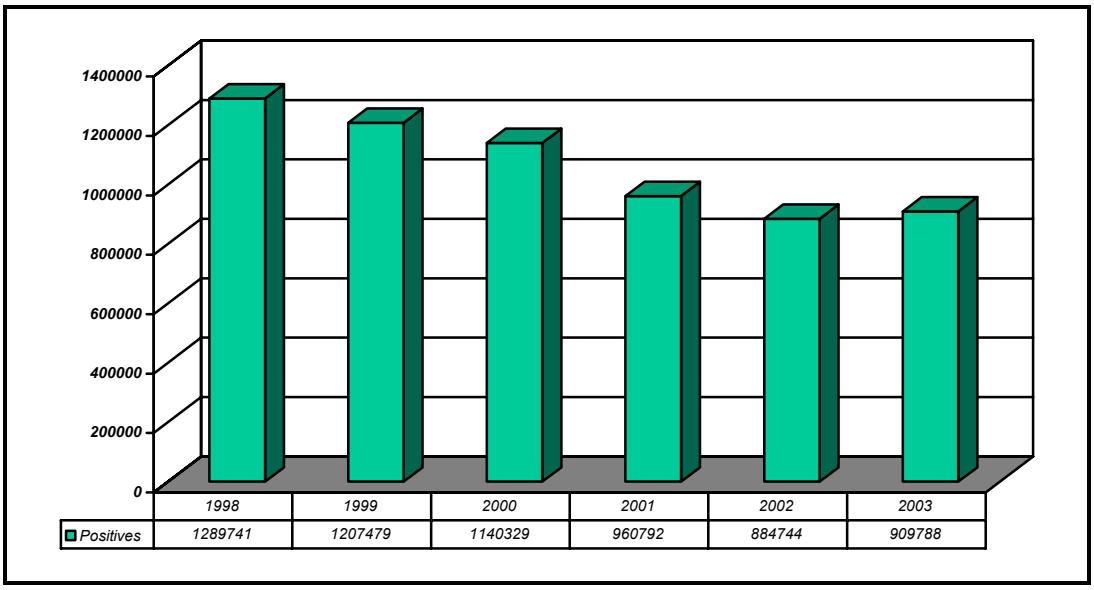
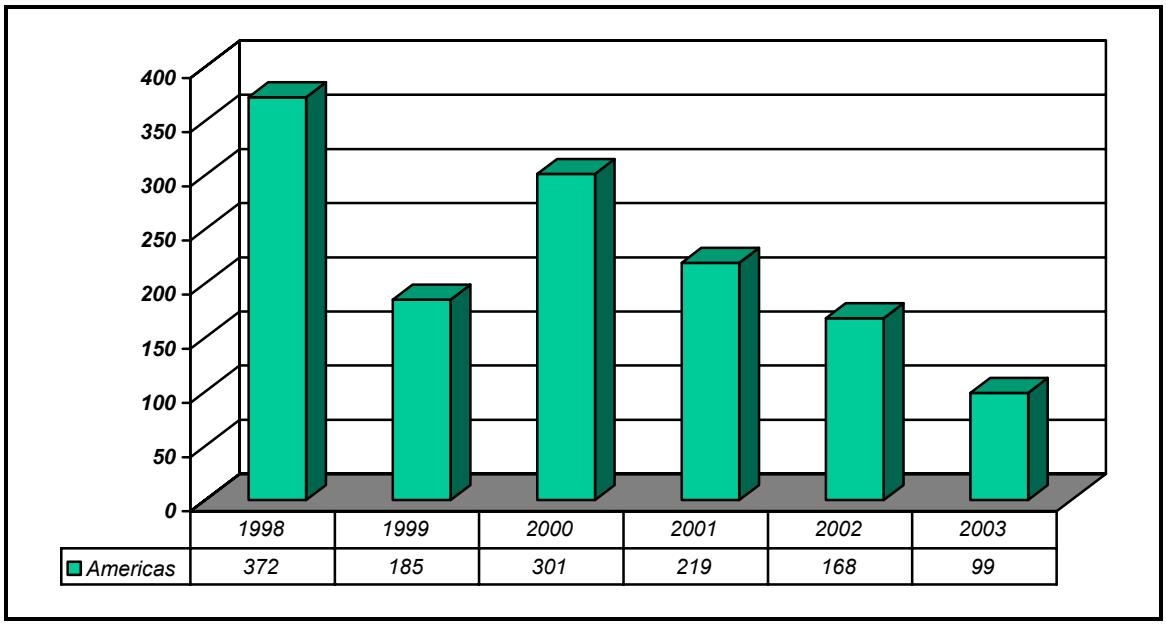
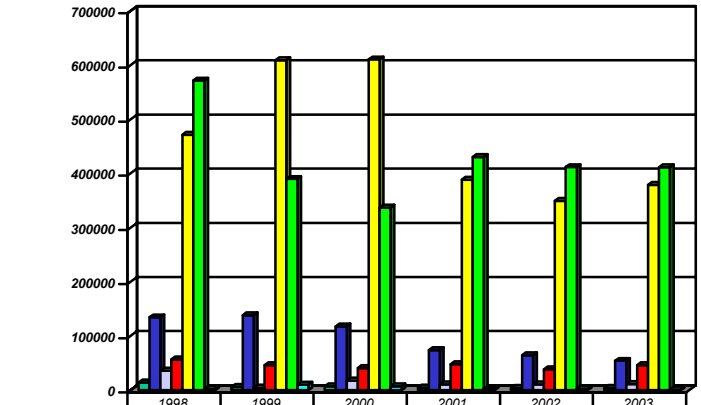


Figure 4: Malaria Mortality in the Americas, 1998-2003
Number of deaths



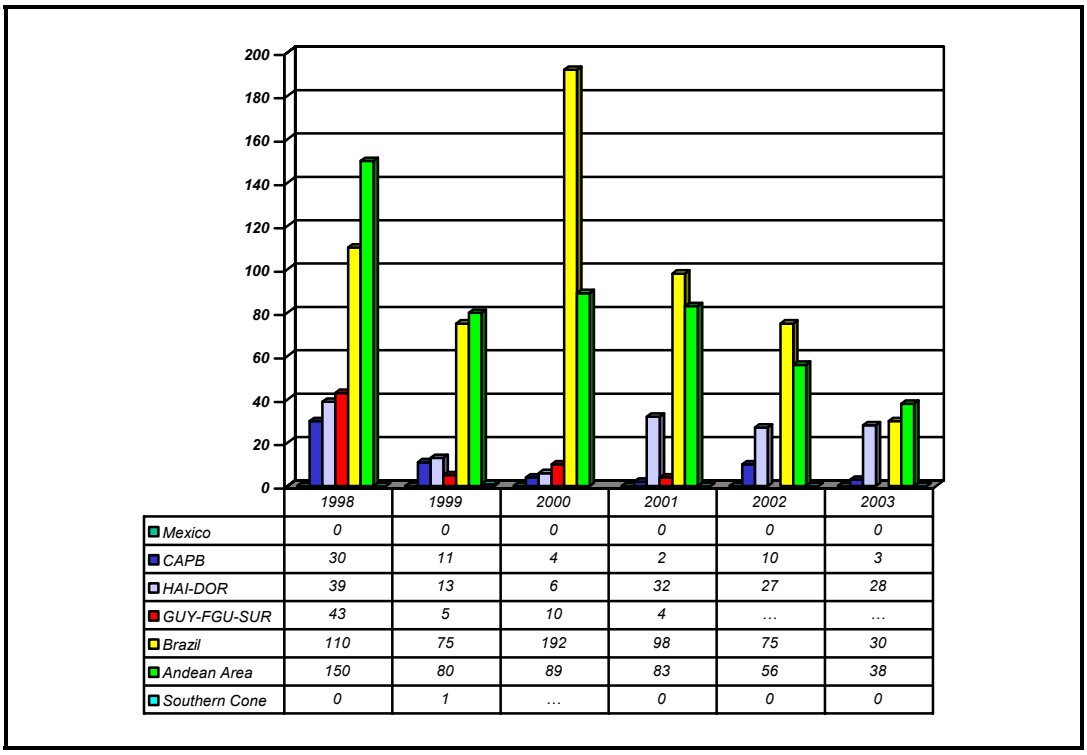
12. The countries which share the Amazon rainforest comprising those in the Andean Region (Bolivia, Colombia, Ecuador, Peru, and Venezuela); Brazil; and the Guyana Shield (French Guiana, Guyana, and Suriname) have borne the brunt of the problem, with 92% of all malaria cases and 69% of all malaria-attributed deaths reported in 2003 (Figures 5 and 6).

Figure 5: Malaria Morbidity in the Americas by Sub-Region, 1998-2003: Number of Positive Blood Slides



	1998	1999	2000	2001	2002	2003
Mexico	14451	6402	7390	4831	4289	4289
CAPB	134554	138528	117593	74079	64539	54292
HAI-DOR	36455	4785	18112	10875	11133	11366
GUY-FGU-SUR	57074	46529	40858	48019	38647	46123
Brazil	471892	609594	610878	388658	349873	379340
Andean Area	571930	390167	337144	430342	411985	411703
Southern Cone	2430	10169	7293	2925	2993	1514

Figure 6: Malaria Mortality in the Americas by Sub-Region, 1998-2003: Number of deaths



	1998	1999	2000	2001	2002	2003
Mexico	0	0	0	0	0	0
CAPB	30	11	4	2	10	3
HAI-DOR	39	13	6	32	27	28
GUY-FGU-SUR	43	5	10	4	...	...
Brazil	110	75	192	98	75	30
Andean Area	150	80	89	83	56	38
Southern Cone	0	1	...	0	0	0

13. Of the 21 Member States where malaria is endemic, 15 reported decreases in the absolute number of cases, ten of them decreases over 50%, but six countries reported increases (Table 1). There was no reintroduction of transmission in Member States where it has been interrupted.

Table 1: Percent change in number of cases reported, 1998 – 2003 By Country

COUNTRY	PERCENTAGE CHANGE
Argentina	- 64%
Belize	- 65%
Bolivia	- 72%
Brazil	- 20%
Colombia	+ 20%
Costa Rica	- 86%
Dominican Republic	- 24%
Ecuador	+ 19%
El Salvador	- 93%
French Guiana	+ 11%
Guatemala	- 35%
Guyana	- 33%
Haiti	- 71%
Honduras	- 76%
Mexico	- 70%
Nicaragua	- 80%
Panama	+ 334%
Paraguay	- 33%
Peru	- 65%
Suriname	+ 18%
Venezuela	+ 45%

14. *Plasmodium falciparum* is the most pathogenic of the malaria parasites. This is the only parasite for which resistance to antimalarials, first reported in Colombia in 1958, is now reported worldwide. In the Americas, resistance has only been suspected and/or confirmed in the countries which share the Amazon rain forest.

Malaria Strategy in the Region: Implementation and Resource Mobilization

15. In keeping with the resolutions made at the recent World Health Assemblies and conferences of the WHO and of PAHO; specifically those made during the 52nd World Health Assembly (5), the 126th Executive Committee (6), e 115th session of the Executive Board (7) and the 58th World Health Assembly (8); PAHO member countries adopted and support the Roll Back Malaria Initiative and the attainment of the UN Millennium Development Goals.

16. A number of significant global events, initiatives and other factors have influenced the present malaria strategy in the Americas. These include: (a) the Global Malaria Control Strategy (GMCS), which was adopted by the Ministerial Conference of 1992; (b) the Roll Back Malaria (RBM) Initiative launched in 1998; (c) the promulgation of the UN Millennium Development Goals in 2002; (d) resolutions made in recent World Health Assemblies and conferences of WHO and PAHO; (e) the emerging global problem of anti-malarial drug resistance and its impact in the Americas; and (f) the status of PAHO and Member Countries institutional, human, and financial resources.

17. Within the framework of the current malaria strategy for the Americas, efforts focus on support of health ministries' functions related to malaria prevention and control; promotion of synergies with related health programs, especially those for environmental health, pharmaceuticals and maternal and child health, HIV/AIDS and tuberculosis; promotion of the participation of communities and civil society; engagement of the private sector in delivery of prevention and treatment; identification of best practices, partnership and finance mechanisms for extending interventions; preparation of tools and support measures for district level management; capacity building; and the promotion of collaboration among countries.

18. Protecting achievements made in the reduction of incidence and in preventing reintroduction of transmission where it has been interrupted depends on the continued commitment by Member States to monitor progress; and by PAHO to continue supporting mechanisms for monitoring progress of prevention and control measures as well as those aimed at mobilizing resources in conformity with PAHO resolution CE126.R19 (4).

19. Member States utilize national resources to combat malaria. The Roll Back Malaria Initiative provides financial support for malaria prevention and control activities. PAHO's assistance in additional resource mobilization in the Region includes: (a) the Amazon Network for the Surveillance of Antimalarial Drug Resistance (RAVREDA)/ Amazon Malaria Initiative (AMI); (b) the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and (c) the Global Environment Facility/U.N. Environmental Program

Project for the prevention of the reintroduction of DDT use in malaria vector control in Mexico and Central America.

20. The Amazon Network for the Surveillance of Antimalarial Drug Resistance / Amazon Malaria Initiative is a response to the global phenomenon of increasing antimalarial drug resistance by *Plasmodium falciparum*. The network, established at a PAHO coordinated meeting in Bahia, Brazil in 2001, has its funding available through the Amazon Malaria Initiative of the United States Agency for International Development (USAID). The partnership includes the countries of Bolivia, Brazil, Ecuador, Colombia, Guyana, Peru, Suriname, and Venezuela. It is coordinated by PAHO and USAID; technical cooperation is provided by PAHO, the United States Centers for Disease Control and Prevention (CDC), Rational Pharmaceutical Management Plus, and United States Pharmacopoeia.(9). Based on evidence from efficacy trials undertaken, six of the abovementioned participating countries have changed treatment policy and are using combination antimalarial therapy, recommended by WHO since 2001 and referred to in Resolution EB115.R14 and WHA Document A58/8.

21. The Global Fund to Fight AIDS, Tuberculosis and Malaria approved individual country proposals to finance efforts to combat malaria in Bolivia, Guatemala, Guyana, Haiti, Honduras, Nicaragua and Suriname and is finalizing an agreement with the Organismo Andino de Salud (ORAS) on a proposal to combat the disease in the border areas of Colombia, Ecuador, Peru and Venezuela.

22. The Global Environmental Facility/United Nations Environmental Program approved a Regional Action and Demonstration Program on sustainable alternatives to control malaria vectors without the use of DDT in Mexico and Central America with participation of PAHO's technical areas of Sustainable Development and Environment; Health Analysis and Information Systems and Disease Prevention and Control.

23. Research efforts to develop more effective tools for prevention and control of malaria have been spearheaded by the World Bank/United Nations Development Program/World Health Organization program for Research and Training in Tropical Diseases (TDR) and in collaboration with PAHO have supported malaria research projects in the Region.

Current Malaria Challenge, Scaling-Up Strategies, and the Role of PAHO

24. The World Health Assembly, in resolution WHA52.11, encouraged Member States "to reduce malaria-related suffering and promote national development in a sustained way by rolling back malaria"; in 2000, the General Assembly of the United Nations included the halting or beginning of the reversal of the spread of HIV/AIDS, malaria, and other major diseases by 2015, in the Millennium Development Goals. Also

in 2000, PAHO's Directing Council urged member states to adopt the Roll Back Malaria initiative in territories where malaria still constitutes a public health problem and; to make a commitment to perform an annual evaluation of progress in the different areas of the initiative, until malaria is eliminated as a public health problem in the Region. As a review of the data between 1998 and 2003 revealed, this is an unfinished agenda in the Americas as malaria continues to be a public health problem and also increased in some Member States.

25. Challenges in the Americas are directly related to the evolving epidemiologic trends in the Region and disparity in the outcome of the malaria strategy in different countries and sub-regions are related to a number of factors.

26. Issues to be addressed include information on mosquito vectors in different sub-regions, their distribution, biting and behavioral patterns, operational research to identify and utilize new and innovative vector control methods as well as the selective use of appropriate insecticides. With respect to diagnosis of the disease, there is need for expansion of the laboratory network where feasible and to expand use of rapid diagnostic tests by community workers and volunteers in areas with difficult access to health services. Another issue which has to be addressed is the higher cost of combination therapy for drug resistant *P. falciparum,* as well as availability and adherence to treatment regimens including the standard fourteen day treatment for *P. vivax* malaria. Poorer and itinerant population groups with deficient housing conditions, inaccessibility to adequate prevention and control interventions are subjected to even greater poverty as a result of the disease. Decentralization and health sector reform in several countries with redefinition of delivery and financing of services are issues which impact on management of health services. Changes in health systems have resulted in loss of malaria-trained personnel, and together with shortage in nursing staff, should be taken into account in determining training needs. The deficiency in systematic flow of information is another issue which should be addressed through formation of communication networks between various technical units of Ministries of Health and other institutions. Countries successful in mobilization of financial resources for malaria prevention and control through mechanisms such as the Global Fund will need technical cooperation in implementation, monitoring and evaluation of planned activities. PAHO can provide technical cooperation, coordinate and collaborate with other organizations in effective utilization of resources. PAHO's strategic fund is a potential mechanism for acquisition of appropriate antimalarial drugs.

27. Ecological conditions weigh heavily in addressing the challenge of malaria because it is a vector-borne disease. Transmission is dependent on presence of malaria-infected persons and mosquito characteristics, affected by environmental conditions such as temperature, humidity and vegetation. The general Amazon environment predisposes the countries of the area to greater risk of transmission. As part of the unfinished agenda,

entomologic research needs to be intensified in order to define and apply the most appropriate and feasible vector control options.

28. Drug resistance to *P. falciparum* exists in the region. Diagnosis and treatment-related factors are also issues of concern. The situation is worse in areas where accessibility and adherence to treatment either among patients or health service providers remains a problem. Effectiveness of treatment decreases, even in the presence of efficacious drugs, if coverage is not sufficient. Coverage can also be affected by duration of treatment, cost of more expensive combination therapy and education of those affected. Rapid diagnostic tests are available and recommended for use in specific settings but these tests still need to be improved. As part of the unfinished agenda, treatment evaluation, specifically in terms of resistance and effectiveness, are necessary components to be addressed. In addition, there is still need for greater efforts in education on malaria, community involvement and participation of all sectors in ensuring prompt diagnosis, appropriate, available and affordable treatment.

29. Weak health systems and inadequate service delivery and quality of care impede the potential for epidemiologic improvements. Political and administrative decentralization and health sector reform in several countries are changing management, organization, delivery and financing of services. With redefinition of functions of central, regional and local governments in management of both individual and population based health care services, the need for strengthening managerial capacity at all levels is imperative. Poorer population groups and itinerant occupational groups in areas with increased ecological risk of transmission, with deficiencies in housing conditions, prevention interventions, and health service provision, are both predisposed to the consequences of the disease and further poverty as a result of less productivity and loss of income. As part of the unfinished agenda, health systems need to be reinforced in order to address challenges in specific situations. In some instances, there is need for establishment of health outposts, reinforcement of efforts through integration of health program delivery, strengthening the health information system, improving logistical capacities, drug procurement and distribution policies, quality improvement, community participation including establishment of a network of voluntary collaborators, and private-public partnerships.

30. Directly related to the problem of weak health systems is the diminishing number of personnel with technical capabilities to address malaria-specific problems within the existing health systems. Changes in the health systems of many of the countries have resulted in the loss of malaria-trained personnel without adequate replacement. As part of the unfinished agenda, efforts must be made to assess need for malaria-trained staff, ensure recruitment and retention of health personnel as well as training in both the technical and management aspects of malaria control, including use of epidemiologic stratification to identify priority areas for interventions.

31. Problems of communication, coordination and cooperation undermine the potential for better results of malaria control efforts and also lower effectiveness in use of available resources. A new challenge is to promote the formation of communication networks between various technical units of Ministries of Health and other institutions, including non-governmental organizations and the private sector to facilitate a systematic flow of information and reduce difficulty in pursuing effective courses of action to address malaria prevention and control.

32. PAHO's strength in providing leadership and technical cooperation through country offices in member states and coordination of technical support from WHO and collaborating centers such as the United States Centers for Disease Control and Prevention (CDC) keep the institution's role vital in orientation and supporting implementation of effective malaria control measures in the Americas.

33. Technical cooperation efforts must aim at preserving achievements and focus on present and new challenges in capacity building, horizontal cooperation, dissemination of information and knowledge, development of norms, plans and policies, research promotion, training and resource mobilization and collaboration mechanisms to strengthen inter-country collaboration to reduce burden and prevent spread of malaria across borders.

34. A summary of achievements to be preserved, aspects of the unfinished agenda and new challenges in presented in Table 2.

35. There is need for continued allocation of domestic resources by Member States to ensure surveillance to prevent resurgence after achievements in reduction. A new and important challenge for PAHO is to provide Member States the necessary technical coordination and cooperation to mobilize and effectively and efficiently utilize increased financial resources, such as those available from the Global Fund, in continuing to pursue the Roll Back Malaria and Millennium Development Goals on malaria.

36. There is need for continued commitment to the Roll Back Malaria Initiative and the establishment of national policies and operational plans to ensure increased accessibility by those at risk or affected by malaria to prevention and control interventions and a commitment to an annual evaluation of the initiative.

37. The issues identified above are in accord with the Report of the WHO Secretariat (A58/8, 2005); and the Resolution by WHO Executive Board (EB115.R14, 2005) to the World Health Assembly.

Table 2: Summary of Achievements, Unfinished Agenda and Perceived Challenges

Achievements to Preserve	Unfinished Agenda	New Challenges
1. Interruption of transmission in 18 countries, prior to Roll Back Malaria Initiative, in North and South America and Islands of the Caribbean (exception Hispaniola).	a. Surveillance on possible imported cases of malaria to territories where transmission interrupted.	a. Imported cases with resistant strains necessitate mitigation through availability of appropriate treatment and vector control surveillance.
2. National Programs to combat malaria established in endemic countries	a. Integration of technical and managerial capacity within health system and development of synergies with other health programs. b. Participation of community members in malaria prevention and control activities.	a. Recruitment; development of technical capacity in malaria prevention and control; and retention of personnel. b. Communication and country collaboration to prevent spread of malaria across borders. c. Development of strategy to increase and maintain community participation.
3. Implementation of the Global Malaria Control Strategy and Roll Back Malaria Initiative in all endemic countries (CE126.R19, PAHO 2000)	a. Assessment of degree of implementation of components of strategy. b. Adaptation of plans, norms and policies to face new challenges in implementation.	a. Timely data collection and annual evaluation of malaria situation. b. Integration of vertical malaria surveillance systems into general health surveillance system.
4. Reduction in cases of malaria in 15 of 21 endemic territories.	a. Application of prevention and control activities to further reduce incidence aimed at achieving the Roll Back Malaria and Millennium Development Goals.	a. Prevent resurgence where reduction achieved through sustained malaria prevention and control efforts. b. Increase in malaria transmission in some territories and difficulty in accessibility to diagnosis and treatment.
5. Establishment of multicountry and multi-institutional network to monitor antimalarial drug resistance in Amazon countries and acquisition of in vivo efficacy trial results.	a. Adoption of new malaria treatment policies, implementation of malaria treatment guidelines and use within the public and private sectors. b. Development of similar network in Mesoamerican subregion.	a. Cost of new combination therapy higher than previous treatment regimens. b. Combat sale of counterfeit antimalarial drugs. c. Drug procurement and distribution of quality antimalarials. d. Adherence to treatment guidelines by providers and users.

Achievements to Preserve	Unfinished Agenda	New Challenges
6. Success in financial resource mobilization	a. Implementation of malaria prevention and control activities in countries with successful proposals to the Global Fund, development of new individual or joint country proposals by other endemic countries. b. Other resource (human and technical) mobilization.	a. Inability to undertake programmed activities on schedule can result in discontinuation of financing by Global Fund. b. Establishment of mechanisms for effective utilization of financial resources through networking and collaboration with technical organizations such as PAHO. c. Further financial resource mobilization to ensure sustainable efforts of prevention and control.
7. Selected vector control activities based on epidemiologic stratification	a. Operational research on vector resistance to insecticides and most appropriate and innovative interventions. b. Implementation of Integrated Vector Control Management.	a. Identification, acceptability and utilization of alternatives such as impregnated bed nets, new and innovative vector control methodologies.
8. Inter-programmatic (Environment, Information Systems, Malaria, Technology, Health Services) and inter-country collaboration (Mexico, Central America).	a. Consolidation of activities, attainment and utilization of results.	a. Mobilization of resources to implement appropriate and innovative interventions identified through the inter-programmatic approach.
9. Coordination of technical cooperation by PAHO with agencies and WHO collaborating centers (eg.CDC).	a. Increased collaboration with Roll Back Partners including Private Sector.	a. Harmonization of work among technical agencies, non-governmental agencies, universities.

Action by the Executive Committee

38. The Executive Committee is asked to provide comments and suggestions on the need for a resolution by Member States to continue commitment to the Roll Back Malaria Initiative and Millennium Development Goals, to monitor and evaluate progress towards the respective goals; promote resource mobilization, operational research and technical cooperation and coordination between countries.

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