

# 162nd SESSION OF THE EXECUTIVE COMMITTEE

Washington, D.C., USA, 18-22 June 2018

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*Provisional Agenda Item 7.20-H*

CE162/INF/20  
5 April 2018  
Original: English

## **H. PLAN OF ACTION FOR MALARIA ELIMINATION 2016-2020: MIDTERM REVIEW**

### **Background**

1. The Plan of Action for Malaria Elimination (Document CD55/13) and the corresponding Resolution CD55.R7 approved by the 55th Directing Council of the Pan American Health Organization (PAHO) in September 2016 provide the framework for technical cooperation with countries and other stakeholders toward achieving the Region's malaria targets for the year 2020 (1, 2). The Plan is strongly aligned with the World Health Organization's Global Technical Strategy for Malaria 2016-2030 (3), the Action and Investment to Defeat Malaria 2016-2030 (AIM) (4), and the United Nations Sustainable Development Goals (SDGs) (5).

2. Apart from malaria, the Plan also contributes to the fulfillment of other important mandates from the PAHO Directing Council, including the Strategy for Universal Access to Health and Universal Health Coverage (2014) (6); the Elimination of Neglected Diseases and Other Poverty-related Infections (2009) (7); the Policy on Research for Health (2009) (8); and Integrated Vector Management: A Comprehensive Response to Vector-borne Diseases (2008) (9).

### **Analysis of Progress Achieved**

3. The principal reference for preparation of the main updates is the list of targets that the Region has committed to for the period 2016-2020, which are as follows:

- a) further reduction of malaria morbidity by 40% or more (based on 2015 official figures);
  - b) further reduction of malaria-related deaths by 40% or more (based on 2015 official figures);
  - c) implementation of efforts to eliminate malaria in 18 of the 21 endemic countries and attainment of malaria-free status in at least four countries;
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- d) implementation of innovative approaches to address challenges in countries where progress has been limited;
- e) prevention of the reestablishment of malaria in countries that have been declared malaria-free.

4. In 2016, four countries and territories in the Region (Belize, Bolivia, Guatemala, and French Guiana) reported a reduction of over 10% in the number of *Plasmodium falciparum* (Pf) and *P. vivax* (Pv) cases relative to 2015. However, the Region showed an overall increase of 26%, influenced primarily by the continuing epidemic in Venezuela, which has recorded in recent years the highest number of malaria cases in its history. Peru experienced a 12% increase in Pf infections, while overall case increases of approximately 50% were also reported in Colombia, Ecuador, and Nicaragua. Case increases of less than 50% were noted in the Dominican Republic, Guyana, Haiti, Honduras, Mexico and Panama, reaffirming the fragileness of the Region's achievements between the years 2000 and 2015. Malaria deaths in the Region have likewise increased by 43%, from 159 in 2015 to 228 in 2016 (10).

5. Seven countries of the Region (Belize, Costa Rica, Ecuador, El Salvador, Mexico, Paraguay, and Suriname) were included by WHO in the group of 21 countries worldwide with the potential to eliminate local transmission of malaria by 2020 (11). Considerable progress has been made in Mesoamerican countries and Suriname in terms of reorienting their respective programs from control to elimination. The certification process for malaria elimination in Argentina and Paraguay is also progressing, with the goal of having them certified by the end of 2018.

6. With guidance from the Malaria Technical Advisory Group (Malaria TAG) and in coordination with partners, PAHO promoted operational innovation and strategies to accelerate progress in areas with greater challenges. These efforts include the Diagnosis-Treatment-Investigation and Response (DTI-R) initiative (12) and targeted approaches for hard-to-reach populations. A total of 27 countries and territories continue to be malaria-free in the Region. Fifteen of them are considered to still be receptive and vulnerable to malaria, of which 10 have recently ramped up efforts to prevent reestablishment.

| <i>Strategic Line of Action 1: Universal access to good-quality malaria prevention interventions, integrated vector management, and malaria diagnosis and treatment</i>                      |   |  |
|--|---|--|
| <b>Objective</b>   | <b>Indicator, baseline, and targets</b>   | <b>Status</b>  |
| <b>1.1</b> Reinforce country capacity in terms of access to and compliance with malaria prevention and case management interventions through effective supply chain management, information, | <b>1.1.1</b> Number of Member States and territories implementing malaria prevention and case management efforts.<br><br>Baseline: 33<br>Target: 51 | Twenty of the 21 malaria-endemic countries in the Region have now made an official commitment to malaria elimination and are implementing corresponding efforts, although operational and technical challenges remain. Of the 15 |

| Objective  | Indicator, baseline, and targets  | Status  |
|--|---|---|
| education, and communication efforts, among others.  |   | nonendemic countries which remain receptive and vulnerable to the disease, 10 have been updated regarding their risk and are in the process of reinforcing their capacities.  |
| <b>1.2</b> Reinforce country capacity to address specific vector management problems, including monitoring of insecticide resistance.  | <b>1.2.1</b> Number of countries (both malaria endemic and nonendemic) that are implementing integrated vector management based on PAHO/WHO guidelines (including insecticide resistance surveillance and vector behavior studies).<br><br>Baseline: 15<br>Target: 18 | Sixteen countries reported distribution of long-lasting insecticide-treated bednets free of charge; 15 countries reported use of indoor residual spraying as a malaria intervention. However, challenges regarding quality and coverage of interventions need to be further addressed.  |
| <b>1.3</b> Enhance institutional, network, and country readiness to perform and manage appropriate and adequate malaria diagnosis and treatment in various program contexts. | <b>1.3.1</b> Number of malaria-endemic countries reporting malaria drug efficacy and drug resistance surveillance data to PAHO, per PAHO/WHO guidelines.<br><br>Baseline: 14<br>Target: 17  | Fifteen malaria-endemic countries are reporting surveillance data to PAHO on malaria drug efficacy and/or drug resistance, per PAHO/WHO guidelines.   |
|  | <b>1.3.2</b> Number of countries implementing PAHO/WHO guidelines for quality malaria diagnosis and treatment.<br><br>Baseline: 23<br>Target: 51  | Twenty-five countries are currently following PAHO/WHO guidelines for quality malaria diagnosis and treatment; 21 reference laboratories in 20 countries are participating in the external quality assurance program (EQAP) for malaria diagnosis; and 2 additional nonendemic Caribbean countries (JAM, MTQ) indicated interest in participating in EQAP starting in 2018. |

**Strategic Line of Action 2: Reinforced malaria surveillance toward evidence-based decision-making and response**

| <b>Objective</b>   | <b>Indicator, baseline, and targets</b>   | <b>Status</b>   |
|--|---|---|
| <b>2.1</b> Further improve surveillance systems with early detection of cases and outbreaks and advocate collection of malaria data (by case, including information on age, sex, ethnicity, and other variables that facilitate appropriate analysis of disparities and inequalities between populations). | <b>2.1.1</b> Number of countries reporting malaria surveillance data annually to PAHO/WHO, by subnational level, sex, age, and other, by subnational level, sex, age, and other equity-related variables. <sup>1</sup><br><br>Baseline: 27<br>Target: 51  | Thirty-five countries and territories are reporting malaria surveillance data annually to PAHO/WHO, by subnational level, sex, age, and other equity-related variables.     |
| <b>2.2</b> Strengthen and improve data-informed decision-making through epidemiological information exchange at all levels: regional, between countries with common borders, and within the countries themselves.  | <b>2.2.1</b> Number of malaria-endemic countries <sup>2</sup> that are exhibiting strengthened data-informed decision-making (based on the PAHO malaria data verification tool) and sharing epidemiological information.<br><br>Baseline: 0<br>Target: 21 | Twelve countries in the Region have used the PAHO malaria data verification tool, shared epidemiological information, and strengthened their data-informed decision-making. |

**Strategic Line of Action 3: Strengthened health systems, strategic planning, monitoring and evaluation, operational research, and country-level capacity building**

| <b>Objective</b>  | <b>Indicator, baseline, and targets</b>   | <b>Status</b>   |
|---|---|---|
| <b>3.1</b> Improve recruitment, training, and retention of health personnel trained in malaria in country health systems and within PAHO/WHO to facilitate relevant technical cooperation at various levels of work (regional, inter-country, and intra-country) and program (particularly malaria elimination) contexts. | <b>3.1.1</b> Number of countries implementing plans for training health personnel on malaria.<br><br>Baseline: 21<br>Target: 33 | Twenty-one malaria-endemic and 10 nonendemic countries have recently participated in various malaria elimination field missions, capacity-building activities, and workshops. |

<sup>1</sup> Place of residence, race/ethnicity/culture/language, occupation, religion, education, socioeconomic status, social capital, and other possible factors such as disease status or disability.

<sup>2</sup> Given the ongoing malaria elimination efforts, the number of malaria-endemic countries in the Region is likely to be less than 21 by 2020.

| Objective   | Indicator, baseline, and targets   | Status   |
|---|--|--|
| <p><b>3.2</b> Reinforce malaria policy development and strategic planning in collaboration with countries and stakeholders.</p>   | <p><b>3.2.1</b> Number of countries with national strategic plans (focusing on/including malaria) that align with WHO-recommended strategies and components of the PAHO Plan of Action for Malaria.</p> <p>Baseline: 31<br/>Target: 51</p> | <p>Sixteen of the 21 malaria-endemic countries have updated their respective national malaria plans toward elimination, while 10 nonendemic countries have indicated interest and some have requested PAHO support in developing a malaria outbreak response plan/guideline.<sup>3</sup></p> |
| <p><b>3.3</b> Strengthen the capacity of national programs in the areas of management and logistics in collaboration with partners and stakeholders.</p>                              | <p><b>3.3.1</b> Number of malaria-endemic countries with no stockouts of key malaria supplies (including antimalarials) at the national level in a given year.</p> <p>Baseline: 19<br/>Target: 21</p>                                      | <p>Nineteen of the 21 malaria-endemic countries had no stockouts of key malaria supplies in 2017.</p>  |
| <p><b>3.4</b> Develop financial strategies to sustain malaria prevention and elimination efforts at different levels in collaboration and synergy with partners and stakeholders.</p> | <p><b>3.4.1</b> Number of countries with sustained domestic funding for malaria efforts.</p> <p>Baseline: 20<br/>Target: 51</p>  | <p>Twenty of the 21 malaria-endemic countries have maintained domestic funding for malaria efforts, although financial gaps persist.</p>   |
| <p><b>3.5</b> Reinforce operations research in program development and management.</p>  | <p><b>3.5.1</b> Number of countries conducting malaria operational research, including IVM topics.</p> <p>Baseline: 13<br/>Target: 21</p>  | <p>Thirteen malaria-endemic countries continue to engage in malaria operational research, including integrated vector management (IVM) topics.</p>   |

<sup>3</sup> The list of 26 countries which have achieved the indicator as of 2018 is not necessarily the same as the 31 baseline countries noted in 2015. Reporting of status/progress for this indicator is now also guided by the Framework for Malaria Elimination published by WHO in 2017.

| <b><i>Strategic Line of Action 4: Strategic advocacy, communications, and partnerships and collaborations</i></b>  |   |   |
|--|---|---|
| <b>Objective</b>   | <b>Indicator, baseline, and targets</b>   | <b>Status</b>   |
| <b>4.1</b> Support the development and strengthening of capacities through existing malaria networks, partnerships, and collaborations in the Region.  | <b>4.1.1</b> Number of countries participating in regional-level networks and collaborations.<br>Baseline: 19<br>Target: 42   | Twenty of the 21 malaria-endemic countries are participating in various networks and collaboration initiatives, while 10 nonendemic countries have recently affirmed the importance of maintaining a network among those that remain receptive and vulnerable to malaria, particularly in terms of preventing and managing outbreaks. |
| <b>4.2</b> Optimize opportunities for coordination, synergy, and information sharing with other existing PAHO/WHO initiatives (e.g., integration of malaria efforts with maternal and child health in community and local health care programs, communications and social mobilization, health promotion and education interventions, programs on neglected diseases, and occupational health) and policies. | <b>4.2.1</b> Number of countries engaged in interprogrammatic and/or synergistic actions advocated under PAHO/WHO initiatives and policies.<br>Baseline: 18<br>Target: 26 | Nineteen of the 21 malaria-endemic countries are currently engaged in interprogrammatic and/or synergistic actions advocated under PAHO/WHO initiatives and policies.   |
| <b>4.3</b> Strengthen and support efforts to identify, document, and replicate best practices, including models of disease elimination and successful integration of cross-cutting issues.   | <b>4.3.1</b> Number of countries with identified best practices in their malaria activities.<br>Baseline: 13<br>Target: 15  | To date, 27 malaria best practices have been identified, documented, and shared by 14 countries in the Region.  |

| <b>Strategic Line of Action 5: Focused efforts and tailored approaches to facilitate malaria elimination and prevent reestablishment in malaria-free areas</b> |   |  |
|--|---|--|
| <b>Objective</b>   | <b>Indicator, baseline, and targets</b>   | <b>Status</b>  |
| <b>5.1</b> Resolve critical gaps in key target populations <sup>4</sup> in relation to the achievement of malaria elimination goals.                           | <b>5.1.1</b> Number of countries implementing strategies to address malaria among populations in situations of vulnerability.<br><br>Baseline: 10<br>Target: 18 | Sixteen of the 21 malaria-endemic countries have updated their national malaria plans toward elimination and integrated specific strategies for populations in situations of vulnerability.            |
| <b>5.2</b> Address critical knowledge and technical gaps, including those pertaining to <i>P. vivax</i> and the preparation for end-game scenarios.            | <b>5.2.1</b> Number of countries implementing the 2015 WHO <i>P. vivax</i> recommendations (13).<br><br>Baseline: 0<br>Target: 16                               | All 19 endemic countries with <i>P. vivax</i> transmission are currently implementing key <i>P. vivax</i> elimination recommendations, although operational and technical challenges remain.           |
| <b>5.3</b> Implement the process of malaria program reorientation toward malaria elimination and certification (as may be requested by Member States).         | <b>5.3.1</b> Number of countries supported in terms of malaria program reorientation toward malaria elimination.<br><br>Baseline: 10<br>Target: 18              | Twenty-one malaria-endemic countries have received direct technical support for malaria program reorientation.   |
| <b>5.4</b> Sustain key capacities in countries that have eliminated local malaria transmission.  | <b>5.4.1</b> Number of nonendemic countries supported in terms of maintaining key malaria capacities.<br><br>Baseline: 9<br>Target: 17                          | Ten of the 15 nonendemic countries <sup>5</sup> in the Caribbean that continue to be receptive and vulnerable to potential malaria reintroduction participated in a malaria workshop in November 2017. |

## Challenges and Lessons Learned

7. While the Region has been strongly sensitized regarding the concept, prospects for, and importance of malaria elimination, operational and technical challenges continuously surface as a reflection of underlying political and administrative problems evolving in

<sup>4</sup> For example, pregnant women, children, persons living with HIV/AIDS, travelers, mobile populations, miners, loggers, banana and sugarcane plantation workers, indigenous groups, populations in areas of armed and/or social conflict, and people living in border areas or areas of common epidemiological interest.

<sup>5</sup> The WHO Framework for Malaria Elimination published in 2017 clarified that the assessment of the risk for malaria re-establishment should take into account factors pertaining to receptivity or the ability of the ecosystem to allow malaria transmission; and vulnerability or the probability that malaria parasites will be imported into a country or areas. Based on this, it was determined that while most countries can have imported cases, only 15 non-endemic countries in the Region are at actual risk of malaria re-establishment.

endemic countries. While countries of the Region have officially expressed their commitment to malaria elimination, local support and resources are still inadequate in many areas where malaria transmission remains pervasive.

### **Action Necessary to Improve the Situation**

8. To mitigate the current situation, countries are encouraged to raise their commitment to the highest political level and implement their respective national plans for malaria elimination, incorporating strategies that operationalize the WHO Framework for Malaria Elimination (14) and the concept of surveillance as an intervention. Early access to diagnosis, treatment, and investigation of cases must be central to a malaria elimination agenda that involves other actors and the community. Partners and stakeholders are likewise called to engage with PAHO in boosting advocacy efforts, including high-level advocacy calls and missions, to ensure that malaria remains high on the political and development agenda of affected countries so that malaria programs receive appropriate support in their work toward elimination. These and other key provisions outlined in Resolution CD55.R7 (2) are reiterated in this appeal for corresponding action by Member States, partners, and relevant stakeholders.

### **Action by the Executive Committee**

9. The Executive Committee is invited to take note of this report and make any recommendations it deems pertinent.

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