



Malaria Technical Advisory Group to the Pan American Health Organization: Meeting Report Bogota, Colombia May 2 -3, 2016

SUMMARY

The Malaria Technical Advisory Group (TAG) convened on May 2 – 3, 2016 in Bogota Colombia to discuss the updated version of the Plan of Action for Malaria Elimination (in the Americas) 2016-2020; and review the progress of key malaria efforts carried out by the Pan American Health Organization Regional Malaria Program.

The meeting included 6 sessions and discussed the following topics: (1) the Plan of Action for Malaria Elimination 2016-2020; (2) the Malaria Situation in Venezuela; (3) the Malaria Research Agenda; (4) the Malaria Data Validation / Surveillance Assessment in Mesoamerica; 5) Updates on the Proceedings / Recommendations from the TAG on Public Health Entomology; and 6) Updates on the Malaria Elimination Operational Manual (which was conducted as a joint session with participants in the AMI/RAVREDA technical meeting).

At the closing session, the key observations / recommendations of the Malaria Technical Advisory Group to PAHO included:

- **Plan of Action for Malaria Elimination 2016-2020:** The Malaria TAG congratulated PAHO for the work done in updating the plan and for strongly reflecting the feedback obtained from countries, partners, and various stakeholders during the regional consultation meeting conducted at the Dominican Republic in October 2015. Discussions focused on refining some key segments of the plan, indicators, and in finalizing the draft resolution that will be presented during the 158th Session of the PAHO Executive Committee in June 2016 and subsequently to the to the 55th PAHO Directing Council in September 2016. The Malaria TAG requested that the final version of the complete plan be shared once available.
- **Malaria Situation in Venezuela:** An update on the resurgence of malaria in Venezuela was presented, which highlighted the seriousness of the on-going situation. The Malaria TAG recommends urgent action to be taken which is likely to require both political and technical approaches.

- **Malaria Research Agenda:** The Malaria TAG felt that the current research agenda document has an academic bias or tone to it, and may not sufficiently capture operational issues at country level. A suggested way to proceed is to accept more input on the research agenda (from Malaria TAG members). The need to keep research priorities updated was stressed, and potentially establishing an annual process for reviewing the priorities, either by the TAG or by an ad hoc subgroup. Additional recommendations on this process will be done by TAG in the near future.
- **Malaria Data Validation / Surveillance Assessment in Mesoamerica:** The Malaria TAG emphasized the usefulness of the process of implementing this activity particularly in terms of highlighting some key gaps in surveillance systems, and associated capacity-building needs. It is also recommended that methods and definitions of key terms and concepts be standardized across countries as the Region progresses towards its malaria elimination goals.
- **Updates on the Proceedings / Recommendations from the Technical Advisory Group on Public Health Entomology (PHE):** The Malaria TAG welcomed the clarification that the PHE TAG is intended to be a complementary group to the Malaria TAG. The PHE TAG is focused on Integrated Vector Management (IVM) and vector-borne diseases, not just malaria. It was noted that IVM remains a vague term, often interpreted in different ways by different people. It was further clarified that the Malaria TAG should not assume the vector control research priorities which will be covered by the PHE TAG, but both TAGs should coordinate in identifying these gaps. The Malaria TAG also shared some specific recommendations pertaining to the importance of having a matrix of vector control interventions and impacts on different vector species; the importance of communicating the successes of insecticide-based interventions; and the importance of positioning malaria advocacy in close collaboration with other vector-borne diseases such as Dengue and Zika advocacy so that malaria elimination does not end up competing for shrinking funds and declining political will.
- **Updates on the WHO Malaria Elimination Operational Manual (Joint Session with AMI/RAVREDA):** Participants of the session were updated regarding the progress on the development of the WHO Malaria Elimination Operational Manual which is set to be published by the end of 2016. As this was a joint plenary session with participants of the AMI/RAVREDA technical meeting, the Malaria TAG did not have a chance to discuss in-depth and consolidate recommendations. Everyone in the joint session was however encouraged to subsequently communicate to the PAHO Regional Malaria Program any specific concerns / inputs to the WHO Malaria Elimination Operational Manual.

BACKGROUND

The Pan American Health Organization Regional Malaria Program convened on May 2 – 3, 2016 the 2nd meeting of the Malaria Technical Advisory Group (TAG) in Bogota Colombia. The Malaria TAG is the principal advisory group to PAHO / AMRO on matters related to malaria in the Region of the Americas, and is convened to provide an independent evaluation on the strategic, scientific and technical aspects of PAHO/AMRO malaria activities, including progress and challenges. It will also review and make recommendations on committees, working groups, and networks on priority malaria activities. With the exception of the session on the WHO Malaria Elimination Operational Manual (which was held as a joint session with participants from the AMI/RAVREDA technical meeting), all other sessions of the 2nd Malaria TAG meeting were decided and conducted as closed sessions by the Malaria TAG members. Seven of the current nine members of the Malaria TAG actively participated during the meeting.

OVERVIEW OF SESSIONS AND CONCLUSIONS

Plan of Action for Malaria Elimination 2016-2020

Background: The updated version of the Plan of Action for Malaria Elimination 2016-2020 and the draft resolution was circulated in advance to the Malaria TAG members for corresponding review. A brief presentation regarding the updated contents of the plan and the comprehensive consultation process that began in April 2014 alongside the development of the Global Technical Strategy (GTS) for Malaria 2016-2030 was made prior to opening the topic for discussion. The very strong engagement of least 25 countries, 15 partners institutions and various stakeholder representatives during the regional consultation meeting conducted at the Dominican Republic in October 2015 was likewise noted. Among the ideas and efforts integrated in the updated version of the plan include: the paradigm shift that all countries can now focus on malaria elimination as goal; prioritization of focused efforts in the Southern Cone, MesoAmerica and the Guyana Shield, particularly on artemisinin resistance; strengthening of technical capacity to prevent re-establishment; targeting vulnerable populations; and capacity-building on malaria elimination across all levels of work, including communities at the grassroots level.

Discussions / Conclusions: The Malaria TAG members congratulate PAHO for the work done. The following specific points were noted during the discussions:

- Doubts were expressed that elimination may not be a feasible option given the resurgence in Venezuela.
- Some reservations were expressed regarding the title of the document which seems to suggest that elimination by 2020 was the goal. The group suggested that the title should be re-worded to be: “Malaria Elimination: Plan of Action 2016-2020”
- It was noted that there is no mention of the region in the global context especially about sharing information with Asia and that this should perhaps be added to the document.

- Some specific changes to language in some parts of the resolution were suggested which have been noted and will be integrated accordingly by the PAHO specialist on malaria advocacy and policy
- The approach of not specifying names of countries in the document was questioned. After some discussion it was agreed the names of the 18 countries with endemic malaria which have adopted elimination as their strategic goal should be listed.
- Likewise, the value of naming names of countries which are not meeting objectives is a question which PAHO would appreciate the TAG discussing further and developing specific recommendations based on experiences in other areas or settings where it has had positive benefits.
- Regarding indicators, it was requested that the targets be expressed in terms of both a numerator and a denominator, as otherwise it is very difficult to interpret the target.
- Indicator 3.4 was felt to be problematic. The objective is stated in terms of “developing national financial strategies to sustain” and the indicator was expressed as number of countries with sustained funding. This could be fixed by changing the indicator to “number of countries with national strategies for sustained domestic funding, with quantification of domestic investments”. The documentation of domestic funding would strengthen countries’ case for accessing donor funding. The denominator for this indicator should be 51 countries and not just 21 endemic countries since action to prevention of reintroduction is needed in other countries.
- The target for indicator 5.2 - number of countries implementing the 2015 WHO *P. vivax* recommendations, was felt to be too low. It was recommended to target 16 countries.
- TAG members felt that the increase in funding should be discussed in the document to show the justification for tripling the budget. Adopting the *Plasmodium vivax* guidelines were felt to be a strong argument.
- The TAG will draft a recommendation to PAHO to form an ad hoc group to use modeling and other techniques to lay out a process for effectively addressing malaria in the Amazon Basin.
- It was suggested that some information on species distribution and percentage of malaria cases in Amazon Basin should be included in Plan background.
- It was requested that the final version of the complete Plan to be shared with TAG when available.

Malaria Situation in Venezuela

Background: The latest available information regarding the malaria situation in Venezuela was presented focusing on the demographic, geographical and ecological factors that determine the receptivity of Venezuela to malaria; past malaria control efforts; and the current situation, including are the epidemiological changes which have occurred in recent decades.

The country has diverse eco-regions surrounded by countries with rich ecosystems and with a rich variety of vectors. This challenge was addressed in the past by the

creation of the Ministry of Health and Social Welfare and the Division of Malariology, which was quite successful in decreasing the burden of the disease in the country. Major epidemics of malaria in Venezuela are associated with disorganized gold mining in forest areas and / or difficult to access the states of Bolivar and Amazonas. The preliminary number of cases reported by the MSPPS of *Plasmodium vivax* until week 52 of 2015 was 112,371 and around 24,018 cases of *P. falciparum*.

Discussions / Conclusions:

Key reflections and discussion points include the following:

- Internal migrations of people due economic reasons have had a profound role in the epidemiology of malaria.
- Expropriation of gold mine companies accompanied by massive invasion of immunologically naive artisan miners, have caused among other health problems, an epidemic situation of malaria in southern Venezuela. Gold mining today seems also linked to drug trafficking, which uses gold for money laundering.
- Young people engaged in reported prostitution networks have a higher mortality by delayed diagnosis and treatment; at a time that coincides with epidemics of dengue, Chikungunya and Zika fever, there is confusion and delay in the diagnosis and treatment of severe malaria
- Environmental changes caused by humans, have resulted to new breeding places for Anophelines; and have had a profound impact in the epidemiology:
- These factors have occurred in the context of decreases the field activities of previous integrated control programs of the Minister of Health. Nowadays, there is more focus on medical attention of patients; with minor efforts on preventive measures, community participation and surveillance. There is on-going reinfection of previously non infected states.
- Budget deficits limit malaria control activities in the absence of vehicles, insecticides, adequate payment of salaries and per diem staff, as well as important deficit of insecticides and antimalarial drugs (incomplete treatments).
- There risk of increasing resistance to anti-malarials is a strong concern and is an important motivation to re-incorporate again with RAVREDA.
- Some suggestions from the Malaria TAG have been made in terms of exploring different partners that PAHO could engage directly or through different channels, namely: countries in the region, faith based organizations, human rights organizations, research institutions in the region

Malaria Research Agenda

Background: Setting a research agenda and implementing prioritized malaria research areas/ lines will foster more efficient the use of scarce resources; enable the acceleration of progress towards elimination; and facilitate the achievement of targets indicated in the Plan of Action for Malaria Elimination 2016-2020, and beyond.

The consultations for the development of the Malaria Research Agenda began in 2012 in response to important knowledge gaps noted during the implementation of the Strategy and Plan of Action for Malaria in the Americas 2011-2015. Five areas were prioritized to evaluate existing research gaps in the Region of the Americas (i.e. malaria outbreaks and emergencies; strategies for malaria control; costs and cost-effectiveness of strategies for the prevention, control and elimination of malaria in Latin America and the Caribbean; social and behavioral factors associated with malaria transmission; and environmental, ecological, entomological, and climatic factors associated with malaria transmission). A systematic literature review was conducted by the Centro de Estudios e Investigación en Salud (CEIS), Fundación Santa Fe de Bogota and the results were discussed vis a vis global discussions on operational research in a consultation meeting in Washington, DC, in April 2013. Following recommendations during the meeting, an online survey was developed and the preliminary questionnaire containing the list of priorities was established, pilot tested and validated. A survey of research priorities in the Americas was conducted in 2014 and the findings were presented to the Malaria TAG.

Discussions / Conclusions:

Some TAG members felt that the current research agenda document has an academic bias or tone to it, and may not sufficiently capture operational issues at country level. A couple of specific research issues were suggested, including:

- Preparing for operational rollout of Tafenoquine by getting a good test for G6PD deficiency tested and baseline data collected.
- Monitoring consumption of antimalarials through private sector outlets.

A suggested way to proceed is to accept more input on research agenda (from TAG members) than conduct interviews with a group of selected key informants from country level to confirm, or if necessary adjust, the current set of priorities. Finalizing this process and making this research agenda available is urgent so the work done is not lost for being outdated.

The need to keep research priorities updated was stressed, and potentially establishing an annual process for reviewing the priorities, either by the TAG or by an ad hoc subgroup. Additional recommendation on this process will be done by TAG in the near future.

Malaria Data Validation / Surveillance Assessment in Mesoamerica

Background: An overview of the data validation methodology designed to assist countries participating in the EMMIE grant was presented. The tool's purpose was to document progress against indicators by providing reasonably valid estimates of baseline prevalence. It is explicitly an approximation and the methodology is now proposed to be used as a standard way of checking the relative quality of surveillance data being reported from (and within) countries. It already has been used in the nine EMMIE countries, Guyana and there is an opportunity for probable use (if deemed applicable) to the certification process in Argentina to validate this method.

Discussions / Conclusions:

The methodology was well received by the Malaria TAG and there was indication that changes in the methodology at this point should be discussed carefully since that can cause problems with the funding stream for countries participating in EMMIE. The usefulness of the process of implementing this activity has been highlighted as it facilitates the systematic identification of gaps in surveillance systems and associated capacity-building needs.

The importance of standardizing methods and definitions across countries was also discussed such as in the case of relapses of *P. vivax* which can be counted as new cases, or presented as a separate sub-category; and should not be ignored and left out of the data. Asymptomatic case definitions and methods for detection also vary across countries, and need to be standardized. Since the detection of asymptomatic infections can vary depending on the strategy used, guidance on active case detection is needed.

An important technical issue to consider in terms of the methodology is that treatment seeking in the private sector, and associated consumption of anti-malarial drugs is not necessarily addressed.

Updates on the Proceedings / Recommendations from the Technical Advisory Group on Public Health Entomology

Background: The PHE TAG will anchor and support PAHO's recommendations on technical, scientific and operational actions to strengthen PHE and Integrated Vector Management (IVM) as a tool and model; and to support the prevention and control of vector-borne diseases (VBDs) in the Americas. It is intended to be a complementary group to the Malaria TAG. The PHE TAG is focused on IVM and vector-borne diseases, not just malaria. Therefore, the Malaria TAG should not assume that research priorities for vector control which would be covered by the PHE TAG.

Discussions / Conclusions:

- IVM remains a vague term, often interpreted in quite different ways by different people. It is not yet well-defined.
- TAG members felt a matrix of vector control interventions and impacts on different vector species would be very useful. It was clarified that the WHO IVM document now includes such a table.
- The successes of insecticide-based interventions have not been sufficiently advertised nor appreciated by the public health community or the general public. Getting the word out about how effective vector control has been against a wide variety of disease vectors would be very helpful.
- The emphasis on training in the PHE TAG report was welcomed by Malaria TAG members.
- It will be important that malaria advocacy position itself to work in close collaboration with Dengue, Chikungunya, and Zika advocacy so that malaria elimination does not end up competing for shrinking funds and political will,

but is positioned as a vector control success story strengthening the other VBD's position.

- Examples of effective IVM will be much more likely to come from country studies and pilots since it depends on decision making and management at the local level.
- The Malaria TAG will go ahead and propose what is deemed needed for malaria vector control, and then work with the PHE TAG to coordinate and reconcile any differences.

Updates on the WHO Malaria Elimination Operational Manual (Joint Session with AMI/RAVREDA)

Background: An Evidence Review Group (ERG) was convened by WHO to update the Malaria Elimination guidance to cover all epidemiological settings, and provide comprehensive and relevant guidance in the new malaria landscape, in line with the mandate of the Global Technical Strategy for Malaria 2016-2030. Among the evolving details of the manual include:

- New title: “**Malaria elimination: An operational manual**”
- Audience: all, but **primarily** National Malaria Control Program managers
- Scope of guidance: all epidemiological settings as opposed to countries nearing elimination only
- Focus: progression of **all** malaria-endemic countries towards elimination in accord with the GTS, moving away from the previous multi-staged / compartmented process from control to elimination

The summary of key changes is also presented as follows:

- New chapter “Innovation and research for elimination” (*GTS supporting element 1. Harnessing innovation and expanding research*).
- Previous Chapter 2 “Feasibility of malaria elimination” will be renamed to preclude the “Go/No Go” idea that may inhibit countries from pursuing malaria elimination
- New section on subnational elimination of malaria, referred to as Subnational verification of malaria elimination (country process) *on the way* to the WHO-led process of national certification.
- Special situations, lessons learnt from malaria elimination: examples and or boxes will be inserted where appropriate.
- Glossary to be aligned with the malaria elimination / eradication terminology.

Discussions / Conclusions:

The Malaria TAG did not have a chance to discuss in-depth and consolidate recommendations as the session was conducted in plenary with participants of the AMI/RAVREDA technical meeting. Everyone in the joint session was however encouraged to subsequently communicate to the PAHO Regional Malaria Program any specific concerns / inputs to the WHO Malaria Elimination Operational Manual.

Malaria TAG Members present at the meeting:

- Ana Carolina Santelli, *(Chair, Malaria TAG), Coordinator, National Malaria Control Program, Brazil*
- Frank O. Richards, Jr., *Director, River Blindness, LF and Schistosomiasis Programs, Carter Center*
- Jose Manuel Puello, *Director, Viceministerio Salud Colectivo, Ministerio de Salud Publica*
- Karen-Webster Kerr, *Principal Medical Officer, National Epidemiologist, Ministry of Health*
- Marcelo Urbano Ferreira, *Chair of Parasitology Department, University of Sao Paulo, Brazil*
- Matthew Lynch, *Director Global Program for Malaria, Johns Hopkins Center for Communication Programs*
- Oscar Octavio Noya Gonzalez, *Professor of Parasitology, Fac. of Med, Univ Central de Caracas Venezuela*

Malaria TAG Members absent:

- Francisco Paniagua Araya, *Quebrada Nando, San Francisco de Coyote, Costa Rica*
- Laurence Slutsker, *Director, Division of Parasitic Diseases and Malaria, Center for Global Health, CDC (US)*