

RECOMMENDATIONS OF THE TECHNICAL ADVISORY GROUP ON PUBLIC HEALTH ENTOMOLOGY AND VECTOR CONTROL (TAG-PHEVC)

Summary

The second meeting of the TAG-PHEVC was held February 1-3, 2017, at PAHO headquarters in Washington, DC. Meeting topics included: 1) review and update on the current status of vector-borne diseases in the Americas; 2) review of progress and achievements to date on implementation of recommendations from the 1st TAG-PHEVC meeting (March 2016); 3) discussion regarding guidance to countries on use of new technologies for vector control and integrated vector management (IVM); 4) discussion regarding PAHO's Regional Public Health Entomology and Vector Control Program's strategic actions to date; and 5) review of the technical and operational components of the *Strategic Plan for Public Health Entomology and Vector Control for the Americas*.

The TAG-PHEVC issues the following recommendations to the Director of PAHO:

Integrated Vector Management

- The TAG-PHEVC **endorses IVM as the framework for the regional approach** for strengthening vector control programs and reducing transmission of vector-borne diseases (VBDs) in the Americas.
- The PAHO Secretariat should **strengthen and enhance existing effective measures of entomological surveillance and vector control** to reduce the risk of transmission of VBDs, and contribute to elimination efforts of specific VBDs within the IVM framework in the Americas.

Surveillance

- The PAHO Secretariat should **define the critical elements of a practical, integrated entomological surveillance system** that will provide routine and timely entomological information, including but not limited to monitoring of vectors, changes in vector behavior, and insecticide resistance, to support the decision-making process.
- The PAHO Secretariat should **determine mechanisms of transfer** of knowledge and technology from countries with recommended models of integrated entomological surveillance systems to countries interested in creating similar systems.
- The PAHO Secretariat should **establish an Insecticide Resistance Monitoring and Evaluation Network** to support regional surveillance efforts for insecticide resistance and management.
- The PAHO Secretariat should **work with the Arbovirus Laboratory Network in the Americas (RELDA) to establish and expand capacity for virus detection and identification in mosquitoes** as part of the integrated surveillance system. **Develop standardized protocols** for virus detection and identification in mosquitoes and guidelines for use and interpretation of the data to focus vector control actions.
- The PAHO Secretariat should **promote and strengthen cross-border surveillance**, information sharing and coordination of vector control interventions between countries as a priority.

Training in Entomology, Surveillance, Prevention and Control of Vectors

- The PAHO Secretariat should **ensure the creation of standards for technical capacity building in IVM** that Member States in the Region can use to develop or adapt entomological and vector control training curricula to their local settings. These standards should be used to **create national-level certification programs** to ensure staff meet minimum standards and participate in ongoing retraining and recertification processes.
- The PAHO Secretariat should **continue to assess and identify** individual country capacity building needs, including the types and levels of training required. **Assess opportunities** for working with PAHO/WHO Collaborating Centers, universities and regional centers of excellence to support training of professionals from the Region.

Implementation, Monitoring and Evaluation

- **Sustain technical staff** of the PAHO Regional Public Health Entomology and Vector Control Program through identification of partners and additional funding sources, in order to sustain the significant advances made over the past year.
- The PAHO Secretariat should **develop and provide** international standardized protocols for penetration testing of insecticides and testing of biological efficacy, prioritizing countries where the situation of insecticide resistance is unknown.
- The PAHO Secretariat should **create and field test standardized monitoring and evaluation protocols** with the criteria needed to properly evaluate entomological actions, including IVM, vector control, field operations, work equipment, and operational procedures. Monitoring and evaluation should be conducted to determine the impact of prevention and control actions and their cost-effectiveness, and to the extent possible, impact on disease transmission and incidence.

New Tools

- **Promote better coordination between PAHO, WHO, ministries of health, and other partner agencies** regarding new vector control technologies activities and initiatives, including studies and field trials, implementation of recommendations from the WHO Vector Control Advisory Group (WHO VCAG) and PAHO TAG-PHEVC, and development of protocols and guidelines.
- The PAHO Secretariat should **provide written guidance and technical assistance to Member States on how to determine their “readiness” for participation in field trials and scaling up** of new and supplemental tools for control of *Aedes* spp. and other vectors, such as the various types of *Wolbachia*, genetically modified mosquitoes and sterile insect techniques.

Operational Research

- The PAHO Secretariat should **promote partnerships and collaboration between the research community and vector control sector** to foster relevant operational research and engage social scientists in the evaluation of the contribution of community actions to vector control effectiveness and the role of communication strategies for sustaining community engagement.
- The PAHO Secretariat should **support pilot studies** for the development of new entomological indicators, for example those based on entomological-virological surveillance and community participation in vector control actions (e.g., behavior change, social mobilization), prioritizing tools and indicators identified by the WHO VCAG, PAHO TAG-PHEVC and those requested by Member States in the Region.

Social Mobilization and Alliances

- **Promote collaboration with social scientists and communication experts** to create appropriate messages using tested planning methodologies such as the WHO Communication for Behavioral Impact (COMBI) or behavior change communication (BCC).
- Encourage Member States to **identify social networks** at the community level and in high-risk neighborhoods or areas to establish partnerships that promote and support the dissemination of information relating to surveillance, vector control - including the results of community vector control actions, and special populations at-risk for VBDs, with the goal of sustainable community participation in the control of mosquito and other vector breeding sites.
- Encourage Member States to **strengthen and enhance** existing social communication/education tools on individual prevention and control actions through **strategic alliances with women’s health and maternal/child health programs**, and organizations/institutions targeting these populations, with a particular focus on protection of women of reproductive age from Zika virus infection.

Publications

- **Support the establishment of a PAHO repository that will serve as a resource** for operations-related guidelines, manuals, standardized operating procedures (SOPs), and standardized protocols relevant to IVM, comprehensive entomological surveillance and new technologies for vector control, among others topics.