

Challenges and barriers to participation in vector control interventions in the prevention of Dengue, Chikungunya and Zika

October 2016

Introduction

This report presents a set of considerations regarding barriers to social and community participation in controlling vector interventions when preventing Dengue, Chikungunya, and Zika.

After an exhaustive literature review, three types of barriers were identified: lack of a clear public policy in the vector management, deficits in personnel in charge of managing the vector, and scarcity of facilitating elements to promote community participation in activities and programs related to vector control.

LACK OF A CLEAR PUBLIC POLICY IN THE VECTOR MANAGEMENT

Lack of policies in terms of the vector management and control has a negative impact on the implementation of measures or actions and diminishes the community involvement. Examples of lacks of policies are: a) The absence of a clear guidelines on vector management, such as protocols for the elimination of breeding sites, as well as prevention and education processes; b) improper regulations and instructions for the work of different bodies; and, c) missing an interdisciplinary coordination at central, regional, and local level, for the administrative and field work, and resource distribution. As a results, tasks were diffused and ineffective, and the community did not participated.

The following are some of the challenges related to deficiencies in public policies:

- Lack of protocols and technical material to guide the actions of the personnel working in the field.
- Technical personnel with poor preparation that performs ineffective actions and who do not have the capacity, either to provide adequate information to the community, or to establish dialogues and communications within.
- Standards for evaluating deficient or non-existent interventions (e.g. processes, outcomes).
- Lack of intra- and inter-institutional coordination of units at both central and regional levels.
- Lack of planned and sustainable long-term actions.

- Lack of resources or budget management without adequate sustainable and long-term planning.
- Lack of direction on the structural problems (basic and environmental sanitation) that facilitate the conditions to reproduce the vector and continue the vicious cycle of the disease.

DEFICITS IN PERSONNEL IN CHARGE OF MANAGING THE VECTOR

Programs are planned and structured based on the evidence and expertise on the field. However, those assigned to perform the task on the field are not always well prepared. Consequently, communities are reluctant to cooperate or to participate.

Some challenges related to the lack of appropriate staff are:

- In some cases, health care providers do not handle the protocols related to diseases transmitted by the vector. This circumstance generates skepticism in communities, which consider those health professionals as unreliable.
- The Misinformation about what to do when symptoms appear and the treatment to follow can deteriorate the health of the patients.
- Some communities rely on traditional or homemade medicine. The consequence of this is the inappropriate measures of prevention and management of the disease, thus increasing the level of risk.

Country México
Torres López et al. (2012)

Methodology: Qualitative descriptive study. Analysis of thematic content of different concepts. Analysis of cultural dimensions from conglomerates.

Disease: Dengue

Objective:
Cognitive anthropological cultural study: Cultural dimensions that favor or hinder the prevention of Dengue.

Results: Cultural dimensions hampering Dengue prevention:

- Unclear and insufficient information.
- Attribution of responsibility to prevent other persons or public bodies.
- Overconfidence in fumigation as a preventive measure.

SCARCITY OF FACILITATING ELEMENTS TO PROMOTE COMMUNITY PARTICIPATION IN ALL CONTROLLING VECTORS, ACTIVITIES, AND PROGRAMS

The evidence from the consulted studies on Dengue and Chikungunya interventions shows some common challenges and barriers to engage communities in vector control. Among the most relevant, there are:

- Creating excessive expectations from strategies, which are not based on technical criteria, generates great resistance among community members to participate in vector control programs (E.g. Too much importance on chemical control even though this measure is not effective).

- Conducting interventions (e.g. fumigations, visits, community meetings) at more suitable times for the officers than for the community.

FINAL CONSIDERATIONS

Based on the above and the findings in the consulted studies, the following considerations are proposed:

To establish a clear public policy on vector management that includes specific guidelines regarding the protocols at different levels, standards for evaluating interventions, and a coordinated and interdisciplinary work for management and vector control.

To have suitable and prepared personnel with technical know-how and field experience in aspects related to the disease, as well as in abilities such as: communication, speech, and credibility. The result would be respected, confident, and credible person who will be able to lead a generate community commitment.

To ensure sufficient field experience and the allocation of financial resources necessary for the implementation of the activities of vector control.

To clearly identify both community leaders and the appropriate times to perform different activities that demand intervention.

Both vertical and horizontal-participatory interventions can be effective if they have adequate planning. The involvement of key personnel at various levels and in a cross-sectorial way is required. Elaboration of clear messages designed according to the needs of the target audience are strongly

advised. Moreover, a constant follow up and evaluation throughout the different stages of the process is necessary.

The intervention in sectors with low educational and socioeconomic inhabitants demands a greater effort. It not enough to promote knowledge and practices of vector control, but to explore specific support in aspects of a structural nature (e.g. access to water, waste management). This is essential to ensure effectiveness in the prevention of vector-borne diseases.

Method

A review of studies of the last 10 years was made in databases such as *Google Scholar*, *Cochrane Review*, *Com Update*, *Electronic Journal Communication*, *Science Direct*, *Web of Science*, *Wiley*, *Scopus*, *SciELO*, *BVS-Lilacs*, *PubMed* and *Microsoft Academic Search*. In addition, sources such as *International Research Consortium on Dengue Risk Assessment, Management and Surveillance*, *Pan American Health Organization*.

Studies were included from the descriptors Dengue, Chikungunya, Zika, Malaria / interventions / barriers / attitudes, knowledge and practices / measures of personal protection / repellent / insecticide / cover clothing / pregnant women and their equivalents in Portuguese and English. It was found 3427 search results, it was selected 52 articles that met the selection criteria, of which 22 were relevant for the purpose of this document.

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