Introduction

This report shows effective strategies that families and communities can implement in order to eliminate mosquitoes’ eggs nests near homes, schools, and other public locations. More specifically, those measures executed by communities that have been effective on controlling diseases such as Dengue, Chikungunya and Zika.

After an exhaustive literature review, three types of actions can be executed: programmed and strategic participation based on public policy, induced participation according to controlling vectors, and participation on specific activities or situations.

**Programmed and Strategic Participation Based on Public Policy**

One of the most effective practices in vector controlling measures is horizontal communication strategies. It involves social and community participation as a main component. It includes activities from planning to executing and evaluating. Then, participation is institutionalized.

In this type of practices, social participation is not only a starting point, but also the arrival point. In fact, participation builds up in order to generate the most effective conditions. Getting all the community involved in the changing process will guarantee the greatest and more sustainable benefits.

In the suited cases, this participation is built through several components:

- Articulated participation in public policies.
- Participative Planning and Assessment
- Interinstitutional and Intersectoral Work.
- Training of professionals from different participating institutions, not only in elements related to controlling vectors, but also in community participation.
- Capacity building in communities for participation through active pedagogies, among other approaches. These include capabilities for access and delivery of information, deliberation, consensus building, agreements, and management, among others.
- The evaluation includes not only indicators of vector control, but also indicators of community participation.
Cuba
Sánchez et al. (2009)

**Methodology:** Randomised controlled trial.

**Intervention:** It was developed an intersectoral coordination at the level of Popular Councils in Cuba, combining programs and community empowerment.

**Period:** Between 2000 and 2005.

**Strategies:**
Overview / Intersectoral Coordination / Training for officials in conventional and participatory research / Community Empowerment Creation of intersectoral groups with the community, which were implemented / Program of Routine Control / Approach on Popular Education.

**Actions:**
To clean up common areas / To protect or eliminate water containers / To promote follow-up Visits.

**Results:**
- The community point of view was taking into account (1999: 48.9% to 2005: 94.8%).
- The community was informed of the decisions (1999: 21.7% to 2005: 93.3%).
- The population is consulted before decisions are taken (1999: 60% to 2005: 93.5%).
- Decisions included the point of view of the population (1999: 43.8% to 2005: 85.7%).
- The population participated in the assessment activities (1999: 18.9% to 2005: 40.7%) (< 0.001).

**Entomological Impact:**
- The Breteau Index, in the areas of intersectoral coordination, was lower than in the control areas (P < 0.05).
- The Breteau Index, in the areas with intersectoral coordination and community participation, had lower rates that in control areas (P = 0.004).

**Induced Participation According to Controlling Vectors**

This type of strategy may bring benefits in the short-term, but, according to some evidence, it is not sustainable. Indeed, it does not include sustainable participation. This strategy includes studies on projects that focus on controlling the event (e.g. empty any items that hold water like tires, buckets, etc.) rather than getting the community involved. This method does not include community empowerment, in other words it does not take into account the community in the decision-making, planning, or assessment processes. However, in some cases, there is interdisciplinary coordination, organization processes and training of communities and some results are worth highlighting. This type of participation includes activities such as:

- Recruitment and training of volunteers.
- Support Groups for activities implementation.
- Monthly meetings to feedback and provide solutions.
- Interpersonal communication supported in pamphlets with information on vector control, distributed house by house.
- Vector control actions by the community.
PARTICIPATION ON SPECIFIC ACTIVITIES OR SITUATIONS

This strategy refers to the involvement of the community at a specific time and on a precise action to address a controlling vector. This type of participation is the least recommendable, since it does not generate the involvement of the whole community members. In these cases, it is shown how the community is invited to participate through strategies of vertical communication, such as mass media.

Some examples of the undertaken actions are:

- Cleaning and capping of water containers.
- Cleaning and recycling tires.
- Activities of cleaning in the neighborhood.
- Refusal of accumulated garbage, among others.

FINAL CONSIDERATIONS

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

Although the different strategies of participation show a degree of effectiveness, it is desirable to develop strategies that involve participation at all levels. That means that individuals, family, and community have to participate in the formulation and implementation of public policies, right from its conception. It includes reviewing the contents of prevention and controlling vector policies in different sectors, such as health, environment, and others.

The participation also implies interinstitutional and interdisciplinary articulation, not as much as on the horizontal level, as on the vertical level.

- **At the horizontal level**: It relates to the involvement of people from the community and the corresponding contacts in schools, hospitals, and other related institutions. Indeed, those experiences that showed greater success included the articulated work between professionals from health, government sectors and schools. This contributed to a greater institutionalization and sustainability of processes.

- **At a vertical level**: It implies that managing the controlling vectors involves the participation of Chiefs, officers, professionals, assistants, and citizens. In other words, it may involve people from the top levels in government to the regular people on the field.

The training of the entire inter-institutional and interdisciplinary team is important. It should relate to the use of methodologies with active and empowering approaches, as well as in participatory planning and evaluation processes. The use of methodologies with active and empowering approaches is recommended. This allows community actors to be involved in a consistent and
autonomous manner during all the management process of intervention strategies of controlling vectors.

This allows a sustainable process. In this way, the controlling vector will be adopted as a daily activity or a habit. The actors include health and education managers, epidemiologists, entomologists, physicians, nurses, health workers, sociologists, communicators, teachers, among others.

The best way to manage controlling vectors is community working groups. They articulate both officials and local actors from different sectors, from the design to the assessment. These local actors should include different forms of community organization, minority associations, churches, schools, youth groups, community leaders, among others.

When it is not possible to institutionalize a long-term participation based on public policies, it is advisable to promote it from a social mobilization. This form of participation does not include the empowerment of the communities as an objective of the intervention, but it systematically conceives the specific participation oriented to the control of the vector, articulating practices of the same environments of school, neighborhood or family.

Finally, according to the findings, the worst results are obtained when participation relies only on calling people to be part of a specific activity.
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 18 were relevant for the purpose of this document.

**BIBLIOGRAPHY**


© The United Nations Children’s Fund, UNICEF
Regional Office for Latin America and the Caribbean

Author:
Universidad del Norte, research Group on Communication, Culture and Social Change PBX

Researchers:
Jair Vega Casanova, Jesús Arroyave Cabrera, Lina María Vega Estarita, Elizabeth Vargas Rosero y Ana María Erazo Coronado.

The contents of this document are the opinions of the authors and do not necessarily reflect the policies or views of UNICEF.

Reproduction of the contents of this document is permitted only for research, advocacy, and education purposes; provided that they are not altered and the corresponding credits are allocated (Unicef). This publication may not be reproduced for any other purpose without the prior written permission of UNICEF. Permit applications should be directed to the Unit of Communication, comlac@unicef.org.