Introduction

This report shows a set of proposals based on successful strategies regarding self-care actions to prevent Dengue, Chikungunya and Zika. It also includes major challenges and obstacles encountered while adopting these behaviors.

WHAT STRATEGIES WERE EFFECTIVE TO ENCOURAGE SELF-CARE BEHAVIORS?

After an exhaustive literature review, participatory processes and social education appear to be very effective. However, vertical communication processes may not be discarded. It is important to consider that experiences occur in different scenarios (i.e. countries with diverse social and cultural characteristics), whereby it is necessary to understand the results in their respective contexts.

SOCIAL EDUCATION

There is plenty of evidence showing that social education strategies are an effective way to promote high-impact self-care behaviors within a community.

It is important to note that education has to focus on the integration and training of people in all aspects related to living in a society. It has to be organized and structured with strictness, in some cases channeled through schools.

In practice, this type of education is implemented by different sectors, which promote health and environmental knowledge, and encourage actions such as the use of protective clothing or the use of repellent.

PARTICIPATIVE PROCESSES

Involving the community and stimulating participation and empowering processes have a greater impact on programs aimed at adopting self-care behaviors, as opposed to those that follow a vertical orientation.
VERTICAL CAMPAIGNS

Education and Communication Strategies (IEC) and other media campaigns have, to a lesser extent, changed some practices. There is evidence that free distribution of insecticide-treated mosquito nets, along with educational actions, has been a viable strategy. The advantage relies on the small investment the government has to make and the increasing participation of pregnant women and children under 5 years old. Similarly, the literature reports that vertical strategies led by health personnel have also been effective in promoting the adoption of self-care behaviors. Nonetheless, it has to come with adequate planning, clear messages, and designed to the needs of the intervention and with permanent supervision.

WHAT ARE THE GREATEST CHALLENGES/OBSTACLES TO THE ADOPTION OF SELF-CARE BEHAVIORS?

Some aspects are considered key when implementing self-care processes. These are the level of perceived risk, messages quality, socio-demographics, and environmental, management and cultural factors. Moreover, some obstacles that challenge the success of these programs include excessive reliance in chemical control and leaving the responsibility of prevention to the government. Finally, some limitations to encourage the use of self-care behaviours in pregnant women are mentioned.

LEVEL OF PERCEIVED RISK

The perception of risk is one of the central factors to be considered as an obstacle in the adoption of self-care behaviors related to vector management and/or control. A low perception of susceptibility triggers apathy or resistance to protective measures. In some cases, despite of the efforts made by health authorities, people do not use enough protection tools. People do not perceive the mosquito as a risk factor, since it has been present for a long time in the region where they live.

In relation to the use of insecticides, there is no distinction between a chemical and biological substance, ignoring the potential health risks related to these products. This lack of knowledge is due to the concealment of the risk in some technical manuals, which minimizes the fact that these products only affect mosquitoes and are innocuous for humans.

QUALITY OF MESSAGES

Several studies have evidenced that in some cases the messages have not been clear in providing information about effective methods for prevention, its benefits, and/or how to use them. A number of interviewed mothers indicated...
that health workers did not provide a full education, focusing more on diagnosis than on presenting homemade methods to prevent the disease. In other cases, the information used in campaigns on individual and household protection against insect bites has been scarce, confusing or not culturally adapted.

SOCIODEMOGRAPHIC FACTORS

Some sociodemographic factors influence the adoption of the expected behaviors. There is a clear relationship between effective self-care measures and the educational and socioeconomic level in a household. At a greater educational and socioeconomic level, there are greater possibilities of adopting self-care measures and being willing to pay for different prevention devices.

CULTURAL FACTORS

Among the non-scientific practices considered as most effective by the population are: the use of racket to kill mosquitoes, the burning of incense to shoo mosquitoes, the burning of garbage around the house, citronella candles or physical removal of mosquitoes by using various objects, which are not a guarantee of prevention. Also, the use of vitamin B1 is very common, although studies show that vitamin B is ineffective as a repellent.

EXCESSIVE RELIANCE IN CHEMICAL CONTROL

One of the barriers that has prevented the adoption of personal protection behaviors has been excessive reliance on chemical control. In some cases, government agencies market an excessive security or a "false sense of security" because they use larvicides as the main tool. When chemical control measures are introduced as the main strategy, it can become a factor that generates resistance in the adoption of self-care behaviors. In order to be effective, they have to be complemented with other actions or a wide educational process that contextualizes the effectiveness of its use.
CONSIDERING THAT PREVENTION IS A GOVERNMENT RESPONSIBILITY

The literature also shows that one of the barriers to Dengue prevention is that people attribute the responsibility of prevention actions to other people or public agencies, emphasizing on the government responsibility. This diminishes the adoption of protective behaviors by individuals. The idea is to transfer the individual responsibility, which belongs to each individual or family, to someone else, leading it to inaction.

LIMITATIONS TO ENCOURAGE THE USE OF PERSONAL PROTECTIVE BEHAVIORS IN PREGNANT WOMEN

The evidence on the practices of pregnant women in the use or adoption of protective measures against the vector shows that these are related to their educational level and socioeconomic status. Thus, women with low levels of education and economic difficulties are less susceptible to use them, while women with higher educational and socioeconomic levels have more probabilities to take protective measures and be more willing to pay for different prevention devices.

Among the reasons for which pregnant women do not use protective measures, such as mosquito nets in spite of having these, are: the discomfort (increased sensation of heat), problems in hanging them, the lack of space, the low awareness of the need and seasonal variations in their use. Allergies to chemical components of some protective measures have also been pointed out as one of the reasons for not using them. Hence, some women prefer the use of different ineffective traditional remedies such as burning leaves, cow dung, and rice with peel or wood to repel mosquitoes.
FINAL
CONSIDERATIONS

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

It is important to encourage involvement processes that empower the community and enable volunteer members to play active roles from their design, implementation and even to the final evaluation.

The interventions should promote concrete actions that give effective short-term results among pregnant women in the adoption of self-care behaviors, in such a way that generates a perception that the program is being effective.

It is important to have information that, besides of being technical, scientific and truthful, is clear and culturally contextualized. This will help to the population on the adoption of effective self-care behaviors.

An effective strategy should include measures that increase the perception of risk and, thus, generate self-awareness to individuals.

For protecting pregnant women in vulnerable conditions, it is advisable to implement frequent and sustained interventions that can articulate the free delivery of protection elements (e.g., mosquito net) with educational actions. These interventions are feasible since it does not involve high costs for governments and guarantee better results in the use of these elements.

In those vulnerable and low educational sectors, where there are not adequate access of water and sanitation systems, the work of intervention must occur with greater regularity and intensity.
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 23 were relevant for the purpose of this document.

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