

# Communication for Social Mobilization in the Installation of Long Lasting Insecticide Treated Nets

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## Abstract

The Department of Health, Region VIII Office, along with Oxford for Families conducted a program on the installation of Long Lasting Insecticide Treated Nets combined with barangay surveillance activities around six identified elementary schools and surrounding communities in Tacloban City, Leyte, Philippines. The purpose of this paper was to mirror issues on the installation activities and to forge solutions as direct community interventions in the fight against dengue-causing mosquitoes. Some of the issues forwarded were difficulty in the installation procedure, lack of proper communication as a mobilization campaign between the school principals and carpenters thereby reducing the efficacy of installed nets, and the absence of evaluation of the program that would identify short-term and long-term solutions. Lastly, the importance of theory illuminated through intricate applications provided a robust scrutiny of the prevailing issues in the overall health campaign.

*Keywords:* LLITN; dengue mosquito; community mobilization theory.

## Introduction

The 4-S Advocacy of the Department of Health (DOH) dengue prevention: search and destroy, secure self-protection measures, seek early consultation, and support fogging activities was divided into two implementing programs, the installation of Long Lasting Insecticide Treated Nets (LLITN) and Barangay Surveillance for search and destroy operations in the identified communities in Tacloban City, Leyte, Philippines.

The overarching activity was spearheaded by DOH along with OXFAM. In an effort to foster community based interventions, teams were dispatched to the different schools and surrounding communities identified based on the identified cases of dengue-causing mosquitoes. Team members conducted house visitations as well probing on household interventions in preventing the spread of mosquito breeding sites, providing educational awareness through the distribution of pamphlets and other educational materials.

This paper narrates the activities conducted during the entire surveillances, installations of LLITNs, and post-evaluation communication activities.

## Theoretical Framework

- *Collective Behavior Theory.* It refers to the activities that marshal many people to perform behaviors that identify a sense of common interest and identity. These activities require a group of people to resemble an organized group behavior (Killan, 2020).

The theoretical underpinning is relevant for the 4-S campaign under study as it involves community response as a collective behavior in following protocols such as destroying breeding sites of mosquitoes in the environment, in seeking early consultation if dengue symptoms appear, in securing self-protection measures such as wearing long sleeves to cover the skin, putting on lotion that prevents mosquito bites or drive them away, in supporting fogging operations conducted in the community to eliminate mosquitoes. Cooperation is the key to collective behavior, a concerted effort based on common understanding that the protocols are meant to drive away mosquitoes in the community and schools.

Finally, Collective Behavior Theory is aligned to the empowerment recommendation that calls for active participation among community members as a collective behavior rather than as individual units in providing interventions.

- *Community Mobilization Theory*. The theory posits that concerns and issues are addressed as community based efforts. It is an organizing strategy that will guide plans and actions in achieving goals and objectives, thus, it focuses on collective process rather than outcomes of those processes. Internal stakeholders and community members comprise mobilizing groups seeing to it that actions are in accordance to the plan and evaluation is likewise in effect.

As applied in the current program, the theory underscores barangay surveillances to be enhanced for effective implementation of the 4-S campaign. Through persistent home visitations and community-wide interventions such as cleaning water canals, destroying larva birthing sites in tires, drums, pails, cans all over the community as a collective behavior, all of which will unify efforts in containing dengue infections. As such, Community Mobilization Theory is aligned to the Periodic Barangay Surveillance recommendation for the most part.

Next, Community Mobilization Theory draws attention in providing awareness to the stakeholders (community members) before action is done. In this process, they are immersed in communication related activities such as orientations, consultative meetings between school teachers, net carpenters, DOH/OXFAM staff in an engaging exchange of ideas in the spirit of collaborative sharing and understanding. The theory posits that good relationships are formed among individuals so that ideas generated from gatherings are products of harmonious exchange rather than impositions.

- *Resource Mobilization Theory (RMT)*. The theory focuses on how resources, both human and non-human (knowledge, capital, technology, etc.) are effectively utilized in the achievement of group goals and objectives. In effecting social change, individuals who partake in the process are called adherents while those spectators watching on the side are called bystanders. In the process of mobilization, bystanders can transform to become adherents while adherents may likewise turn into bystanders. Such cycle solidifies active participation from both ends.

As an important theoretical underpinning, RMT is active in mobilizing individuals (human resources) in effecting social change such that destruction of dengue sites is effectively pursued, adherence to self-protective measures are properly observed (putting on mosquito-repellant lotions, wearing long sleeves), supporting fogging operations by allowing foggers to enter into private surroundings to conduct spraying and fogging. These active players are called adherents seriously following protocols. Bystanders in some parts of the community watch how the operations can benefit the whole community so they also conduct search and destroy interventions, among others, making them adherents to the social change process.

- *Mass mobilization*. In this theory, a national approach becomes imperative in effecting social change that affects a larger society. It can be a political campaign from a national government, or a centralized strategy to effect upon social mobilization which can be faced with criticisms, challenges in implementing procedures, funding, among many concerns.

In the current program, 4-S is a national campaign of DOH that aims to reduce birthing sites of mosquitoes, and in effectively killing mosquitoes trapped in treated LLITN. Implementation of LLITN was sought with criticisms from various departments of DOH and from the government side as well because of funding concerns and sustainability of treated nets as discussed in the recommendation part.

Having said, the program, with the help of OXFAM, was implemented as a joint effort conducted shortly after Tacloban City, the site of the program, was ravaged by Super Typhoon Yolanda. The partnership offered wider opportunities to extend LLITN to include barangay surveillance after gaining support from the national level.

- *Theory of Change*. Theory of change is basically a roadmap, a description on how and why change is sought in a given context. In the given situation, DOH and OXFAM staff laid out plans to consolidate suggestions

made by carpenters, surveillance teams and other stakeholders in terms of changing window panels to fit in LLITN, in intensifying community interventions after reports of non-participation from some households were received resulting from those consultative negotiations.

## Methodology

This study was conducted using survey method alongside semi-structured interviews with the barangay residents near the school premises where the LLITNs were constructed. Aside from the residents, survey questionnaires were also distributed to the principal, teachers, and neighboring barangay leaders probing on the efficacy of the treated nets. Collected data were grouped and analyzed in the view that mobilization processes were cascaded to the different groups. The following phases were identified in the course of the study:

### Phase 1

Activity	Timeline
Lecture/Discussion with DOH & OXFAM officials and surveillance teams.	3 days at Leyte Park Hotel
Deployment to the different barangays through house-to-house visitation.	2 weeks around Tacloban City
Installment of LLITNs to six identified elementary schools.	1 week
Classroom visits through plastic cups	1 week

### Phase 2

Activity	Timeline
Monitoring of LLITNs, plastic cups with the presence or absence of larvae pupae	2 weeks
Discussions/critical reflections	1 week
Post-evaluation of operations	1 day
Writing and submission of final report	3 days

## Results and Discussion

In the implementation of LLITN as part of the 4-S advocacy campaign, carpenters were hired to install window frames where insecticide-induced nets were installed in 6 identified schools of Tacloban City. The schools were pre-determined based on ocular inspection conducted by DOH and Oxford for Families (OXFAM). My team, composed of 5 individuals, was tasked to put plastic cups with clear water in the different classrooms in order to examine growth of mosquito larvae in the area to be observed within one week.

Although the implementation of safety nets was a success, the process in achieving the main objective was difficult for many staff and workers. First of all, carpenters were not briefed clearly on the specific requirements of net installation in terms of the correct measurement of window frames in the different schools causing delay in actual installation. Without prior orientation, the process was filled with trials and errors that could have been minimized if proper communication was in place. Second, there was no formal communication between the school teacher in the classrooms identified for net installation, rather, the meeting was overburdened with documents from DOH and OXFAM presented in order to convince the teacher on the legality of the procedure which could have been avoided if conducted prior to the meeting. Third, finished products were not as expected because some portions of the net were not nailed perfectly on the sides of the frame, in other words, mosquitoes could still pass through easily. Fourth, there was no evaluation of the project from the DOH or OXFAM after weeks of installation that would indicate its success in terms of mosquitoes being trapped in the treated nets. At the end of the program, so many LLITNs were discarded while some were donated to households within the community without wooden frames.

However, these challenges were juxtaposed with positive impacts both in process and outcome. In the process level, communication between the carpenters and DOH/OXFAM staff intensified when corrections had to be made on the

installation procedures, when staff would roam around in the 6 identified schools to check on the progress of work, monitor attendance, and consult for various suggestions on how to increase efficiency and productivity within the two-week period of implementation. During these occasions, crash course orientation on the nature, purpose and significance of net installation was sought for deeper understanding to provide direction for more meaningful realization of the goals and objectives. Mobilization was sought in terms of active participation and empowerment among the workers as their voices were heard in consultative meetings especially on intricate matters about installation. Multi-vocal discussions among workers also provided solutions and challenges met by the workers in their day-to-day transactions in the field.

The second part of the implementation process was a barangay surveillance conducted by the team of five members assigned to conduct house-to-house visits to check on search and destroy operations such as stagnant water collected on water jugs and drums that had to be emptied because they were considered mosquito breeding sites. Information dissemination was also conducted through lectures conducted in the different households focusing on the urgency of protecting oneself from dengue infection as part of the 4-S advocacy campaign. After which, we roamed around the community surroundings and destroyed breeding sites such as water-filled tires, stagnant water collected from drums, pails, cans, etc., and swept surroundings as part of general cleanliness. All of these activities obtained consent from the barangay captain and the different households we visited.

While success of implementation was magnified in terms of voluntary participation, some were met with stubbornness and unwillingness to cooperate. There were occasions that the house owner would nod along pretending to understand but we found out later that there was no actual emptying of stagnant water in drums, pails, etc. We had to do it ourselves. The overall drawback of the mobilization process was really about cooperation. People did not take the program seriously. When the staff from DOH/OXFAM convened, several issues were raised.

### **Conclusion and Recommendations**

The 4-S advocacy campaign of DOH and OXFAM through the installation of LLITNs along with barangay surveillance is a testament of the continued commitment of the agencies in the fight against the spread of dengue. As a public health concern, direct community interventions are vital in making sure that proper actions are delivered to the constituents. The use of communication in mobilization instigates community-driven initiatives that rely upon feedback mechanisms, interactive communication practices manifested in barangay surveillances, household visitations, and formal communication with the written answers to survey questionnaires and appeals from the school principals were considered.

Lastly, the issues identified in the study are public concerns that resonate to the different sectors: DOH, OXFAM, barangays, schools, and households. With proper guidance from the authorities, the fight against dengue goes beyond rhetoric through community mobilization realized through effective communication practices.

The following recommendations are worth pondering:

- *Sustainability.* Safety nets need to be replaced on a regular basis as their effectivity only lasts for a short period of time. Insecticides sprayed on LLITN do not have lasting effect, in other words, mosquitoes can land on them without being electrocuted as clearly reported by some teachers in the school. This would mean more funding for more nets, wooden frames and payment for labor. In this regard, monitoring and evaluation of LLITN should be periodically checked with replacements made for worn-out nets. DOH/OXFAM as implementing institutions should be well-informed on evaluative reports so that proper actions are done.
- *Proper orientation about the program.* Workers should be well-informed on the nature, scope, purpose and significance of the program so that they will be guided in their tasks and see the value of their work. Proper orientation should be a formal sit-down meeting with an expert to divulge on step-by-step accounts so that carpenters do not end up asking too many questions as they work in the field.
- *Strengthen communication between workers and the community (schools and barangays).* Communication that changes behavior is very important in making sure that the 4-S advocacy is carried out. In the household

level, individuals should not only be aware but must follow the protocols of cleanliness, destroying breeding sites in the house and in the surroundings and must do so habitually because mosquitoes come and go easily. Behavioral approach to communication must also make them aggregable to fogging operations that will force them to leave the house temporarily in order to be free from gas infection from fog. This collective behavior is important in the overall success of the program. Communication between barangay leaders and community members must be sought in order to discuss any concerns, challenges and questions so that solutions will be suggested.

- *Empowerment.* Active participation and empowerment of the community members is very important. With this, each household member must act responsively by following protective measures in place as explained to them. Also, they have to include other community individuals by disseminating information and by showing proper interventions in dealing with search and destroy operations, following protective measures, seeking early consultation at the onslaught of dengue, and supporting fogging operations – the 4-S Advocacy of the dengue campaign.
- *Periodic barangay surveillance.* This initiative instills that 4-S campaign is closely monitored in terms of household cooperation and the effect of such cooperation on increase or decrease of mosquito breeding sites in the community. School surveillance will also check on effectiveness of installed LLITN, replace destroyed nets, check on plastic cups distributed in the classroom whether mosquito larva is found that would indicate presence of active mosquito breeding site in the area.

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