Dissemination of Health Communication Materials for the Prevention and Control of Leptospirosis in the National Capital Region, Philippines

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RESEARCH ARTICLE

Abstract

Background: Dissemination of health communication materials is one of the most important strategies to increase awareness on the prevention and control of leptospirosis. One of the projects under the Program on the Prevention and Control of Leptospirosis in the Philippines (LepCon) is the dissemination of health communication materials.

Objectives: This study assessed the dissemination of health communication materials to 14 city and municipal health offices in the National Capital Region (NCR), Philippines. Specifically, this study determined: (1) how the health communication materials were disseminated by the city and municipal health offices; (2) the placement of the materials in the health facilities; and (3) the challenges encountered during the dissemination process.

Results: The city/municipal health offices used different approaches in disseminating the health communication materials and these are classified into distribution for public consumption, utilization as health education materials, and maintenance of supply by reproducing the materials in other forms. Eleven (11) out of the 14 city/municipal health offices (78.6%) still had leptospirosis posters. Seven (50%) of them posted the poster in the health facility. However, only four (28.6%) facilities placed the posters in locations where health facility clients can easily see and read them. Two of the 14 city/municipal health offices (14.3%) had an information, education and communication (IEC) display area where the LepCon fan is one of the health communication materials on display. The number of materials provided to the health offices was noted to be inadequate to reach the health facilities' target audiences. Finally, the monitoring and evaluation of health communication materials disseminated to facilities under health offices' jurisdiction was also a big challenge. Conclusions: Different approaches were used in disseminating the posters and fans to the health facilities under the jurisdiction of the city/municipal health offices. It was also noted that the number of materials provided to the health offices was not adequate to reach the health facilities' target audiences. Although three-fourths of the health offices covered still have health communication materials in their facility, only less than 25% of these facilities have posters placed in strategic locations in the facility. A formal scheme of monitoring the dissemination of the materials was expressed by the informants.

Keywords: Leptospirosis; Prevention and Control; Health Communication Materials

Introduction

Leptospirosis is a bacterial disease affecting both humans and animals. The causative organism has been found in a variety of both wild and domesticated animals, including rodents, dogs, cattles, pigs, and horses. Caused by pathogenic Leptospira species, human infection occurs through direct contact with the urine of infected animals or by contact with a urine-contaminated environment, such as surface water, soil, and plants [1]. It gains entry through cuts and abrasions in the skin and through mucous membranes of the eyes, nose, and mouth. The disease may present with a wide variety of clinical manifestations including high fever, headache, chills, muscle aches, vomiting, jaundice, etc. It may also mimic other diseases with these symptoms [2].



Figure 1. Poster as health communication material for disseminating information about leptospirosis.



Figure 2. Fan as health communication material for disseminating information about leptospirosis A. Front and B. Back

Outdoor and agricultural workers, such as rice-paddy and sugarcane workers are particularly at risk of acquiring leptospirosis. Aside from occupational exposure, the infection is a recreational hazard for individuals who swim or wade in contaminated waters. Leptospirosis cases often peak during rainy seasons, especially in endemic areas, aggravated by the flooding [3].

Leptospirosis incidence is estimated by the World Health Organization (WHO) to be 0.1 to 1 per 100,000 in temperate climate areas to as high as 10 per 100,000 in tropical climate regions. However, little is still known on its true incidence due to

Phil J Health Res Dev April-June 2017 Vol.21 No.2, 9-16

underreporting [4]. While it occurs in many parts of the world, it is endemic mainly in countries with humid subtropical and tropical climates. In endemic areas, the number of leptospirosis cases may peak during the rainy season and may even reach epidemic proportions in case of flooding. It has a great epidemic potential in the Southeast Asian Region, including the Philippines. A leptospirosis outbreak was declared in October 2009 by the Philippines' Department of Health two weeks after the heavy rainfall typhoon due to Ketsana (Ondoy) which happened on September 26, 2009. A total of 2,292 suspected cases of leptospirosis were recorded with 178 deaths (8%) in 15 hospitals in Metro Manila in October 2009 [5]. The College of Public Health-University of the Philippines Manila (CPH-UPM) conceptualized the Program for the Prevention and Control of Leptospirosis in the Philippines (LepCon) in 2010. This five-year program was conducted in collaboration with Kyushu University (KU), Japan International Cooperation Agency (JICA), World Health Organization (WHO), and the Philippine Council for Health Research and Development (PCHRD) of the Department of Science and Technology (DOST). Four working groups comprised this program and one of these is the Advocacy Group. The advocacy group conducted advocacy activities for the prevention and control of leptospirosis in the National Capital Region (NCR), Philippines [6].

One of the most important aspects of the prevention and control of leptospirosis is raising people's awareness about the disease, its transmission, prevention and control [7]. This can be done through the use of health communication materials. Examples of these materials are posters, flyers, leaflets, brochures, booklets, messages for health education sessions, radio broadcast or TV spots [8]. Disseminating the health information or messages contained in the health communication materials is one of the tasks of healthcare workers. If efforts are sustained, this may lead to improved awareness and participation in health activities among the general population.

In 2010-2011, the Program for the Prevention and Control of Leptospirosis in the Philippines (LepCon) conducted a study that determined the knowledge, attitudes and practices of adult residents in the National Capital Region (NCR) concerning the prevention and control of leptospirosis. One of the findings of this study shows a low use of health communication materials in the participating communities. Less than 10% of the surveyed population have read information on leptospirosis from flyers (9%), posters (9%) and leaflets (7%) [9,10]. With this, health communication materials (Figure 1. Poster and Figure 2A and 2B) were developed in 2012. The materials have undergone pretesting at various levels, such as expert review by the officials from the National Center of Health Promotion (NCHP) and Infectious Disease Office (IDO) of the Department of Health (DOH) and focus group discussion at the community level before finalization and reproduction. These materials were later on given to city and municipal health offices in the NCR for utilization in their facility and in the health centers under their jurisdiction. In July 2014, the materials were reproduced and similar instructions were given to the target users.

This study assessed the dissemination of the health communication materials provided to the city and municipal health offices in the National Capital Region in

Profile		Frequency n(%)
Age	20-29	1 (7.1%)
	30-39	1 (7.1%)
	40-49	5 (35.7%)
	50 and above	7 (50.0%)
Sex	Female	10 (71.4%)
	Male	4 (28.6%)
Position	Health Education and Promotion Officer (HEPO)	6 (42.9%)
	Medical Officer	2 (14.3%)
	Nurse	2 (14.3%)
	Assistant City Health Officer	1 (7.1%)
	Chief Technical Services	1 (7.1%)
	Municipal Health Officer	1 (7.1%)
	Surveillance Officer	1 (7.1%)

Table 1. Profile of Key Informants (N=14)

July 2014. Specifically, this study determined (1) how the health communication materials were disseminated by the city and municipal health offices; (2) the placement of the materials in the health facilities; and (3) the challenges encountered during the dissemination process. The assessment of the contents, form, style, language, understanding and retention of the messages was done through focus group discussions among members of the community in the selected communities/villages, however, this component is discussed in another paper.

Methodology

Study Site, Design and Sampling

Fourteen selected health offices in NCR participated in the study. This descriptive study utilized the purposive sampling design. Fourteen informants, who were the focal persons of the city/municipal health offices on the prevention and control of leptospirosis, participated in the key informant interviews. Ocular inspection of the participating health offices was also done.

Data Collection

The study utilized two instruments for data collection, a topic guide for the key informant interview and an observation tool for the ocular inspection. Prior to data collection, informed consent was obtained from the key informants. Key informants were selected based on their involvement in leptospirosis prevention and control program in their respective local government units (LGUs). The interview lasted for almost an hour and the data collectors transcribed the information collected from the informants. After the interview, the city health offices were observed for the presence or absence of health communication materials (posters and fans).

Data Analysis

After the responses from the key informants were transcribed, the information was summarized and categorized based on the specific questions of the study. Descriptive statistics were used in determining the proportion of health facilities with or without the health communication materials.

Ethical Considerations

This study was part of a more encompassing research on the "Assessment of the Utilization of Health Communication

Materials by the Communities in the National Capital Region, Philippines." The study protocol of this research was approved by the UP Manila Research Ethics Board with UPMREB code 2014-059-01. Before the interview, the purpose of the study, methodology, duration of the interview, risks and benefits in participating in the study were explained to the informants. The data collectors gave enough time to the informants to completely read and understand the details indicated in the informed consent form before asking them to sign the form after agreeing to participate in the study. Permission to record the interview was also obtained from the informants. Informants were informed that all identifying information shall be kept confidential and that they will not be identified by name or by any identifying characteristics. The data collectors also asked permission from the key informants to check the

Results

Profile of Key Informants

materials given to the health facility.

Most of the key informants directly involved in the dissemination of health communication materials were the Health Education and Promotion Officers (HEPOs) followed by nurses and medical officers. The other informants were health workers with supervisory responsibilities who also oversee the distribution of the materials. Most of the informants were from the 40 and above age group and females comprised the majority of the key informants. Table 1 shows the demographic profile of the key informants in this study.

The Process of Disseminating the Health Communication Materials

The health workers mainly responsible for the health communication materials were the Health Education and Promotion Officers (HEPOs). HEPOs received the materials and allocated them mainly to the health centers under the city's/municipality's jurisdiction. An informant mentioned, "In our office, the one who usually allocates the materials is the HEPO, she distributes them per health center (Female, 50, Medical Officer V)". Some materials were also distributed to the barangay halls and to the villages (barangays). For some cities, schools and hospitals were also given health communication materials once they requested for these. In the health center, health center staff particularly nurses, midwives and barangay health workers



(BHWs) were responsible for distributing the materials. Another informant added, "First, the HEPO allocated them [the health communication materials] to the health centers... The point person in the health center is the midwife who is in charge of health education. Nurses and midwives as well as the BHWs. conducted lectures (Female, 51, Chief of Technical Services)." Another informant clarified, "Usually when I distribute, the driver delivers the materials to the health centers. I know that they received [the materials] because they have the signature. That's how I monitor if the health centers received them. Then in the health centers, the doctor receives the materials. If the doctor is not around, then the nurse or midwife or any health center staff receive them. For the barangay hall, their staff, the secretary [receives the materials] (Female, 50, Assistant City Health Officer)." Other health personnel who assisted in the distribution of the materials were the surveillance officers and utility personnel.

The health communication materials given to the city/municipal health offices were posters and fans. In general, the posters were distributed mainly to the health centers under the supervision of the city/municipal health offices. The posters were distributed with the instruction to post them in locations where they can easily be seen and read by the health facility clients. Some health offices also distributed the posters to the barangay halls, schools, hospitals and community. The fans were given to the community residents who attended the health education classes conducted by the city health offices. One informant said, "We allocated the materials such that bigger health centers got more IEC materials than smaller ones. We also distributed the fans during lectures and to partners like NGOs (Female, 26, HEPO)." Another informant shared, "We gave the posters to the health centers and the staff posted them in their health facility. We distributed the fans in the community (Female, 50, Medical Officer V)." Aside from posting posters and distributing fans, some health center staff also used the materials during their health education activities while the patients were waiting for their consultation schedule.

Placement of the Health Communication Materials in the Health Facilities

The ocular inspection done was limited only to the main health facilities or the city/municipal health offices. Eleven (11) out of the 14 city/municipal health offices (78.6%) still had leptospirosis posters. Seven (50%) of them posted the materials in the health facility. However, only four (28.6%) facilities placed the posters in locations where health facility clients can easily see and read them like the bulletin boards. Two of the 14 city/municipal health offices (14.3%) had an IEC display area where the LepCon fan is one of the health communication materials on display.

Challenges Encountered in the Dissemination Process

Most informants mentioned that the number of materials that they received were not sufficient. Some of the direct quotes from the informants were - "Inadequate. Because of the limited [materials], we were only able to give them to limited number of health centers (Male, 45, Surveillance Officer"; "As for the posters, we really want to have a lot of them... The posters must not be limited to the health centers and barangay halls. The community must have them as well. Each barangay has different communities as well (Male, 47, Municipal Health Officer)";..... "I recommend one [material] per household. (Female, 50, HEPO');"We have 897 barangays right? Hopefully all of them can be given at least one poster... And the 59 health centers as well... Plus buffer (Female, 42, HEPO)". Some key informants mentioned the strategies that they used to address the limited supply of health communication materials, such as conducting lectures during community assemblies, limiting the distribution of materials during the rainy season when people are more interested in preventing and controlling leptospirosis, and reproducing the content of the materials into other forms of IEC materials, such as flyers. An informant mentioned that "When there is a shortage of [leptospirosis] posters in a health center, community residents will ask for flyers and we reproduced the messages [in the materials that were given to us] instead... The fans are the ones that really caught the attention of the people in the community (Female, 26, HEPO)".

Aside from the inadequacy of the health communication materials, an informant said that there are some policies that prevent them from posting posters, such as the disapproval of the local officials to post health communication materials in new/newly renovated health centers. This informant said "Some of the health centers are new so the captains do not want to post anything on the walls (Female, 62, HEPO Designate)." This was addressed by creating a community health board where all IEC materials are posted instead of mounting them directly on walls. Finally, monitoring was also a big challenge for the key informants as all of them mentioned that they have no standing policies on how to monitor and evaluate the health communication materials disseminated to facilities under their jurisdiction. An informant cited "We don't have a design for monitoring [of the health communication materials] (Male, 45, Surveillance Officer)."

Discussion

In preventing and controlling leptospirosis, strategies are classified into three target levels: a) source of infection, b) route of transmission, and c) human host [11,12]. At the level of the human host, prevention and control may be done through antibiotic prophylaxis, immunization, or health education and promotion (through increasing the awareness of the disease among the population, risk groups and health care providers) [11,12]. In line with this, the Advocacy Group under the Program for the Prevention and Control of Leptospirosis in the Philippines (LepCon) developed and disseminated health communication materials in the form of posters and fans to promote awareness on the said disease. The materials were given in July 2014, which was very timely since that was the beginning of the typhoon and monsoon season when people are more exposed and, thus, are more interested in leptospirosis.

In general, the fans and posters were disseminated by the city/municipal health offices to the health facilities under their jurisdiction. The different city health offices had different approaches in disseminating the health communication materials and their strategies are classified into distribution for public consumption, utilization as health education materials, and maintenance of supply by reproducing the materials in other forms. Key informants shared that the health communication materials were not enough for the city/municipality (especially for those sites with big population) and that more materials are needed in their community. To promote public awareness, it is essential to reach the materials' target population, and this would be difficult if there is a limitation in the number of materials. It is therefore important to consider the materials-to-population ratio in determining the number of health communication materials to be allocated for the health facilities, however, this was not fully implemented due to some limitations in resources.

It was revealed that only one quarter of the inspected main health facilities have posters placed in strategic positions. The strategic position or placement of the posters plays an important role in reaching the target audiences. A strategic position is a place or position where it will be most useful or have the most effect. If you put something in a strategic position where people frequently spend time around or pass by, health communication materials will be more accessible to the target audiences [13]. Crowded areas (such as public markets) and events (such as during community assemblies) are places that should be taken advantage of as these can reach a lot of people from diverse communities.

Some key informants also mentioned that they did not have a formal scheme for monitoring the health communication materials. In most cases, once the materials have been delivered to their intended destinations, no follow-up activities are implemented. It would be a worthwhile activity if some form of monitoring or assessment is done once the materials have been received by the recipient health facilities.

Developing health communication materials is resource-intensive. Once the initial set of materials have been developed, a series of pretesting is done in order to ensure that they are appropriate and culturally acceptable to their target audience. After pretesting, revision is done before coming up with the prototype health communication materials. Finally, the materials are reproduced and disseminated. In all these steps, human, material and financial resources are utilized. Health promotion and education personnel must see to it that the materials are not only disseminated, but more importantly, reach their intended audience.

Conclusions and Recommendations

The city and municipal health personnel involved in the distribution of the health communication materials were the Health Education and Promotion Officers (HEPOs) followed by other health facility staff such as doctors and nurses. In general, the posters and fans were disseminated to the health centers under the jurisdiction of the city/municipal health offices. However, it was also noted that the number of materials provided to the health offices was not adequate to reach the health facilities' target audiences. The need to develop other types of materials was emphasized. Although three-fourths of the health offices covered still have health communication materials in their facility, only less than 25% of these facilities have posters placed in strategic positions in the facility. A formal scheme of monitoring and evaluating the dissemination of the materials was expressed by the informants.

In the light of the above-mentioned findings, the following recommendations are offered: (1) Development

and dissemination of guidelines on the use of health communication materials and a plan on the allocation of materials in the health facilities (considering number of facilities/population) to maximize utilization, visibility, and impact; (2) Formulation of a monitoring and evaluation protocol for the health communication materials to ensure adherence to the dissemination guidelines; and (3) Installation of community health information boards which will serve as strategic areas in providing main source of health information for the community residents, especially where there are some restrictions or standing policies on placement of health communication materials in government-owned and managed facilities.

Acknowledgements

The authors would like to thank Japan International Cooperation Agency (JICA) for supporting this study; Yves Miel H. Zuñiga, Sofia Lemuelle C. Capistrano, and Maribel G. Oidem for their assistance in conducting the study.

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