Journal of Development Communication, Volume 31 (1)

RISK COMMUNICATION IN THE FIGHT AGAINST CHOLERA OUTBREAK: THE CASE OF AMHARA NATIONAL REGIONAL STATE HEALTH BUREAU IN ETHIOPIA

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Abstract

In developing countries such as Ethiopia the outbreaks of pressing health problems (epidemics) has posed significant challenges. Unable to properly communicate during such risks results in countries paying social, economic and political costs. This study tries to understand the risk communication practice of Amhara National Regional State Health Bureau (referred to below as the Bureau) during the outbreaks of AWD (Acute Watery Diarrheal Disease)/Cholera in 2016. The study employed qualitative research method using focus group discussion, in-depth interview and document analysis as data gathering tools. The findings show that the Bureau for the most part did not employ risk communication on the basis of its basic principles. The Bureau does not clearly understand the very idea of risk communication and has been found to have no risk plan at all before the prevalence of the pandemic. The Bureau has been found to have no organised means to collect feedback from the audience. In addition, there is no proper evaluation and analysis of feedback coupled with lack of honesty during the process. What is more, the recovery phase was found to have not been communicated properly. To be effective, the Bureau is advised to apply risk communication as an important weapon in the fight against cholera epidemic.

***Keywords*:** risk communication, cholera, health communication, Amhara region, Ethiopia

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Background and Justification of the Study

Cholera remains one of the greatest challenges of health across the globe. WHO (2014), mentioned that in 2012 it was estimated that annually 502,000 diarrheal deaths were recorded due to inadequate drinking water, and 280,000 deaths were caused as a result of inadequate sanitation, and another 297,000 deaths were due to inadequate hand washing. Developing countries have been affected by sudden cholera outbreak at different times in history. For example, historical evidences have shown that Ethiopia encountered at least five cholera epidemics in the nineteenth and early twentieth centuries. Several outbreaks were reported between 1831 and

1836, in 1856 and 1866-7, during the great famine of 1889-1892, and, finally, in 1906 when the disease appears to have brought relatively little damage (Pankrust, n.d).

According to Gemechu, Tesfaye and Zayeda (2016), cholera/Acute Watery Diarrhoea (AWD) is an acute bacterial infection of the intestine caused by ingestion of food or water containing bacteria called Vibrio cholera, serogroups O1 or O139, there are about 200 serogroups of V. cholera, but only two, V. cholera O1 and O139 are known to cause the specific disease known as cholera.

According to Fisseha (2017) Cholera is one of the priority diseases and events that are reportable in Public Health Emergency Managements system in Ethiopia. He also pointed out that from July 2008 to June 2009, there were a total of 9,485 cases and 193 deaths of acute watery diarrhoeal in six regions including Addis Ababa.

In the year 2016 Acute Watery Diarrhoea/cholera outbreak was a very big threat for Ethiopians. According to the report of world vision (2016), at the middle of the 2016 more than 33,500 Ethiopians were under the threat of cholera/AWD. People living in Amhara region were included in this data. A cholera/AWD outbreak across Amhara region has already been reported to affect more than 5,000 people from this number the Bureau reported that 64 people died (Tsegaye, 2016).

WHO (n.d.) pointed out that communication is an unavoidable and integral part in the effort to prevent and curb the magnitude of the epidemic. Communication has thus been considered to have a central role in risk management. According to Centre of Disease Prevention and Control (CDC) (2012), risk communication is used to help individuals adjust to risky events that have already occurred. Risk communication would prepare people for that possibility and make them feel protected and, if handled properly, the communication would lower their chance of dying from the threat (CDC, 2012

AWD/Cholera outbreak threatened Amhara region for a year, killing 64 people and affecting more than 6 thousand people, though the process of controlling the outbreak in the region cost more than 200 million birr (Tsegaye, 2016). This amount of money could be used to build many health centers and schools. The people under the threat were anxious and diverted from their daily activities. The problem continued for months. Every part of the region was not safe from resultant problems.

Evaluating the practice of risk communication in Amhara National Regional State Health Bureau is the focus of this study. In this study, the way the Bureau approached to the risk and how people understood and perceived the approach have been analysed based on the principles of risk communication. This will also pave the way to correct some flaws in the future. As far as our reading is concerned, there is no any other research conducted in Ethiopia other than those aforementioned.

Objectives of the Study

General Objective

The general objective of this study is to understand the risk communication practices of Amhara National Regional State Health Bureau in the case of 2016 Cholera outbreak.

Specific Objectives

Specifically the purposes of this study are:

- To point out the risk communication practices of ANRS Health Bureau during the 2016 cholera outbreak.
- To find out the perception of the local community about the cholera outbreak and its related communication practices.
- To identify the major communication strategies and channels used during the 2016 outbreak.

Research Questions

To examine the communication approach of the regional bureau the following questions

- How was the risk communication practice of the Bureau applied?
- What was the perception of the local community about the 2016 cholera outbreak and the communication practices?
- What communication strategies and channels were used?

Scope/Delimitation of the Study

The scope of this study is confined on examining the risk communication practices of Amhara National Regional State Health Bureau in the period of the 2016 cholera outbreak. The reason for selecting cholera is for its sudden nature. For being the major accountable body, the organisation chosen by this study is Amhara National Regional State Health Bureau.

Literature Review

Risk Communication and Its Importance

Risk communication is any kind of focused exchange of information about risks between interested parties (Lang, Fewtrell and Bartram, 2005). At the early time, risk communication was about motivating people to abandon smoking, use their seat-belts while driving, evacuate homes during emergencies, avoid drinking and driving, avoid living under power lines, avoid living near power plants, and become aware of passing on genetic risks (Ejiugwo, 2013). Therefore it was about giving information to the risk vulnerable society. As Agency for Toxic Substances and Disease Registry (2001) states, health risk communication is about communicating with various interested parties about the nature and level of risk and the controls that could be changed. Hence Ejiugwo (2013) expressed the idea behind health risk communication as pointing out potential health hazards to the public in order to motivate them to take actions.

According to European Centre for Disease Prevention and Control (2013) risk communication refers to an exchange of information about risks caused by environmental, industrial, or agricultural processes, policies, or products among individuals, groups and institutions. Exchange of information enables two way communication. Therefore, effective risk communication should entail feedback. According to WuqiQiu, Rutherford, Chu, Mao and Hou (2016) defined risk communication as an interactive method of exchange of information among individuals, groups and institutions.

Risk communication motivates stakeholders' engagement and community participation and supplements the information needed by decision makers (WuqiQiuetal, 2016). Centre for Disease Control and Prevention (2012) explained that it is possible to provide the audience with information about the expected type and the extent of an outcome from a behaviour or exposure, through risk communication. According to WuqiQiuetal (2016), risk communication will push decision makers to understand what the experts and the public are really concerned about and in turn, the outcomes, policies or strategies, may better help the target community to minimise the adverse impact of a risk. Typically, risk communication involves a discussion about adverse outcomes, including the possibilities of those outcomes recurring (CDC, 2012).

Principles of Risk Communication

World Health organization (2006) mentioned that the risk communication strategies applicable to outbreak communication with the public can be grouped into four overlapping categories. The risk communicators are expected to take part in guiding, developing, implementing, and evaluating communication efforts (Ng and Hamby, n.d). Based on evidence and experience, the global experts agreed on the four best strategies to achieve the outbreak communication goal (WHO, 2008). Those strategies are the following:

a. Trust, credibility, accountability, honesty, and transparency.
b. Message content issues -agreement and debate.
c. Emotion, empathy, and compassion.
d. Planning, public assessment, evaluation, message development, and internal communication.

CDC (2012) put the following six principles of effective risk communication:

1. Be First: Transmitting information quickly is almost always important because for members of the public, the first source of information mostly becomes the preferred and trusted source.
2. Be Right: Accuracy can make credible.
3. Be Credible: Honesty and truthfulness should be given due attention during risk time.
4. Express Empathy: For the harms occurred by risks the suffering should get an acknowledgment in words which means addressing what people are feeling, and the challenges they face and this builds trust and understanding.
5. Promote Action: Telling people basic things to do reduces anxiety, helps rebuild order, and promotes a re-established sense of control.
6. Show Respect: Communicating with respect is particularly important when people feel anxious.

Theoretical Framework

The Risk Perception Model

As Covello et al. (2001) assert, various risk perception factors have been identified that have direct relevance to risk communication. These factors play a large role in determining levels of concern, worry, anger, anxiety, fear, hostility, and outrage, which in turn can significantly change attitudes and behaviour. According to Ejiugwo (2013), based on the cultural, linguistic, ethnic/racial, gender, and geographical differences seen around the world, it should be understood that the perception of risk will differ from region to region, person to person, and culture to culture respectively. Covello et al. (2001) also pointed that an individual's perception of risk is based on a combination of hazard (e.g., mortality and morbidity statistics) and outrage and specific activities should ideally be undertaken as part of a risk communication effort therefore first, it is important to collect and evaluate experiential information obtained through surveys, focus groups, or interviews about stakeholder judgments of each of the risk perception factors (particularly trust, benefits, control, fairness, and anxiety). Sustained interaction and exchange of information with stakeholders about identified areas of concern are also necessary. To plan and organize effective risk communication strategies, understanding of interested or affected parties regarding stakeholder perceptions and the expected levels of concern, worry, fear, hostility, stress, and outrage is necessary.

Ejiugwo (2013) put risk perception factors as follows:

- Voluntariness: Risks from activities supposed to be unintentional or imposed are less accepted than risks supposed to be voluntary.
- Trust: risks related to credible and trustworthy institutions are more accepted when compared to risks which are attached to organisations.
- Reversibility: Risks seeming to have irreversible adverse effects are expected to be greater than risks considered to have reversible effects.
- Equity: Risks expected to be unfairly distributed are less accepted than risks which are fairly distributed.
- Human vs. natural origin: Risks originated from nature are more accepted than risks originated by human.
- Familiarity: Risks which are not familiar are thought to be more serious and less accepted than risks that are familiar.
- Victim identity: Risks which bring specific and identifiable victims are thought to be greater than risks from activities that produce statistical victims.
- Uncertainty: Risks thought as relatively unidentified are less readily accepted than risks that are already known to science.

- Media attention: Risks which gets much media coverage are expected to be greater and more serious than risks that receive little or no media coverage.
- Effects on children: Risks that have a greater impact on children are thought to be greater than risks that do not.
- Catastrophic potential: Risks that are expected to cause significant numbers of fatalities, injuries, and illness grouped in time and space are less accepted and judged to be greater than risks from activities that have random and scattered effects.

The Trust Determination Model

A basic thing in all risk communication strategies is the need to establish trust. Only when trust has been established can other goals, such as education and consensus building, be achieved (Covello et.al, 2001). When the people feel that they have been unfairly treated, exposed to threats, and lied to, their natural instinct will be distrust towards the authorities, but trust is achieved gradually through actions, listening, and communication skill (Ejiugwo, 2013). Because of the importance of trust in resolving risk controversies, a significant part of the risk communication literature focuses on the application of a trust determination model to particular scenarios (Covello et al, 2001). If there is a communications gap between the risk communicator and the public, the gap will be filled by speculation, rumours, or misinformation (Ng and Hamby, n.d.).

Cholera Outbreak Communication

UNICEF (2012) stated that actual and planned communication in different forms (media and external relations, advocacy, hygiene promotion, behaviour change communication, communication for social change and social mobilisation, etc.) very pertinent measures to the control of cholera. When disease outbreaks such as cholera occur, planning how to communicate, building trust, making early announcements, being transparent, and respecting public concerns are very important measures to be taken (WHO, 2005). Successful cholera communication strategies achieve five main criteria: they are based on research and evidence, are measurable, integrate a variety of different channels, mobilise a width of different actors and involve communities at different levels (UNICEF, 2012). While practising communication during a cholera outbreak, understanding the public is serious and it is usually difficult to change pre-existing beliefs unless those beliefs are clearly addressed, which means it is impossible to design successful messages that bridge the gap between the expert and the public without understanding what the public thinks (WHO, 2005).

Methodology

The study used qualitative research method. Qualitative research enables researchers to understand people's interpretations of their experiences (Vanderstop and Johnston, 2009) in this case the experience of cholera communication. To assess the risk communication practise of the Amhara National Regional State Health Bureau, the study selected Bahir Dar City and Andassa Holy Water site (an area which was the source of the outbreak in most parts of the region and within the boundary of Bair Dar Zuria Wereda). The reason behind selecting the two research sites (Bahir Dar and Andassa) was that the areas were highly affected by the 2016 cholera outbreak an hence worth being studied in order to learn about the practice of cholera communication.

Study Population and Setting

The study was conducted in Amhara region West Gojjam Zone, Bahir Dar and the surrounding area, Andassa. Geographically, Bahir Dar is located 565 km from Adiss Ababa, the capital city of Ethiopia. According to central statistics agency's population projection (2013) Bahir Dar Zuria Wereda's population is 206,684. The population of Bahir Dar city is reported to be 282,017 (Central Statistics Agency, 2013). The study population mainly included the surrounding villages of the Andassa area. There is a holy water source inside St George Monastery at Andassa. Different Orthodox Christians undertake a pilgrimage to this monastery in the belief that it will cure various diseases. This pilgrimage custom resulted in the monastery being a shelter for thousands of

people. Several people move to the holy water site every day and the same number moved out after receiving the holy water.

According to the terminal report on outbreak response of AWD in the region (2018) the outbreak which occurred in Western part of the region started from the Andassa area and spread widely and affected 400 people within 72 hours. The reason that makes the Andassa area a source of the outbreak is related with the holy water users. The settlement of holy water users is much overcrowded, which is conducive to any epidemic being disseminated rapidly. There is also evidence of poor hygiene and sanitation. There is a shortage of pure drinking water in the area, so people mostly drink Andassa and Abay/Nile River water. Most of the holy water users lodge inside the monastery. The monastery's large lodge is not capable of sheltering all holy water users, and thus there are also holy water users who get baptised and pass the night renting out housing from villagers. This facilitates contamination from holy water users to the resident society spread rapidly. The holy water users have been defecating and puking in the field expecting to see their disease extracted from their body. People were moving to Andassa Holy Water to get a cure from their illness, but they were dying of AWD outbreak.

Sample Size and Sampling Technique

Four persons who participated in message development about cholera pandemic from the Health Bureau were selected for the interview. These research participants were selected to see how the Bureau communicates during an epidemic. Four persons living in Bahir Dar and who were directly or indirectly affected by the 2016 outbreak were selected by using qualitative snowball sampling technique. These people were selected to understand the perception of the people about the outbreak around the city and the communication works. For the focus group discussion people who live in Andassa kebele and health professionals at Andassa health centre were purposefully chosen. Because Andassa kebele was the source of the outbreak and the people living there were highly affected by the outbreak and health professionals at the health centre were the first professionals to experience the outbreak. The focus group discussion contains three groups constituting 19 persons.. Those who were included in the first two focus group discussions were all householders and 6 males and 6 females. The first group of the discussion comprises all men and the second group comprises all women. Individuals selected for the focus group discussion were selected because they observed the scenario during the outbreak and they at least know one person affected by the outbreak and health professionals were there to teach and treat the society. The third focus group is a collection of health professionals working in Andassa Health Centre.

In addition**,** the researcher critically examined the Regional Bureau documents to study how effective their risk communication strategy was. These documents were reports related with the outbreak, Ethiopia's guideline on cholera outbreak management and Health Workers Quick Guide for Public Health Emergency Management of Amhara Region and the outbreak response plan and the terminal report of AWD outbreak response in the region.

Data Collection Instruments

The data was collected by individual in-depth interviews, focus group discussion and ddocument analysis.

Data Analysis

The participants were given a pseudonym before their responses were transcribed. This makes the research preserve the confidential status of the study. All individuals who participated in the research are informed and aware of the nature of the research. The interviews were transcribed to allow the researcher to code and analyze the information received. The research analyzed data by using open, axial and selective coding. Grounding basic theories and principles from the literature review part, the data gathered from documents, in-depth interview and focus group discussion were interpreted and analyzed using qualitative method.

Data Analysis and Interpretation

Risk Communication Practice of Amhara National Regional State Health Bureau

The Amhara National Regional State Health Bureau has a department which mainly works with public health emergency management. This department is responsible for forecasting, preventing and controlling public health emergency risks. The department exchanges information with all parts of the region regarding public health emergency. When disease outbreaks occur the department investigates the case and releases early warning messages to the community. The respondent from the Amhara National State Regional Health Bureau explained it as follows:

> *We have four case teams in our department (public health emergency department). Public Health Emergency Communication Case Team is one of four teams within the department and which is responsible for the communication activity. The public health emergency communication case team receives weekly information from every part of the region. When the department gets a new information regarding public health emergency we start to investigate the case and disseminate early warning messages. The messages are sent to health professionals and the public.*

The public health emergency department then tries to communicate with the Bureau and health professionals grounding on the information collected by the public health emergency communication team. The task force comprises different concerned governmental and non-governmental organisations. When the cholera outbreak occurred in the region in 2016, the responsible task force was organised. One of my respondents in the Amhara National Regional State Health Bureau said,

> *"When the outbreak occurred we organised a task force which was called Rapid Response Team. This team includes governmental and nongovernmental organisations. Rapid Response Team had four sub teams, one of which was Social Mobilisation and Public Relations team. This team mainly worked in awareness creation and information giving. To achieve its mission the team mainly worked with the mass media. Each team evaluates its activity. I was leading the whole team and we controlled the outbreak that way."*

Rapid Response Team was primarily directed by the public relations department. Therefore the public relations department was the member of the task force. This means the communication process was under the command of the public relations department. Though the public relations department has a very limited number of personnel (only two public relation officers and one audio visual technician are working in the department), they included the participation of stake holders (World Health Organization and United Nations Children's Fund) in message mapping and awareness creation process. According to one of the respondent from the public relations department:

> *"The Regional Health Bureau organised a task force. The task force includes a social mobilisation team. Our department played a coordination role for the social mobilisation team. We also included non-governmental organisations to play their stakeholder role in our team. When we start the communication task we prepared a plan. For the outbreak had occurred in Andassa holy water we mainly focused on giving information and educating people at the holy water area."*

As mentioned by the above respondent, the Rapid Response Team directly started to inform the people about the outbreak and its treatment. However, one key factor was forgotten. The perception of the people at the outbreak area was not taken in to consideration. According to Ejiugwo (2013), based on the cultural and geographical differences seen around the world, perception of risk differs from region to region, person to person, and culture to culture respectively. Therefore before starting informing the public they were expected to understand the perception and culture of the outbreak area. Unable to understand the perception and culture of the risk area exacerbated the situation and the communication process failed. During the epidemic outbreaks at Andassa holy water area, the society was very disturbed and some residents left the area. On the other hand,

some of the holy water users were reluctant to move out or to stop defecating in the area. The scenario when the outbreak occurred was expressed by the focused group 1 discussants:

FGD 1 Discussant 2:

> *Before AWD happened we didn't have any awareness about the case. When we see people dying and we felt that some poisonous fluid was added to the holy water.*

FGD 2 Discussant 3:

> *Because of AWD outbreak, we lost people in our village and those who came for holy water have also died. That was devastating. People living in our village were exiled from the area observing the death caused by AWD. A mother has died breastfeeding her child and the child was sent to her relatives. Everybody in the village was traumatised by the deaths. We lost our trust between us, fearing the disease transmission.*

Oltedal, Moen, Klempe, and Rundmo (2004) also noted that understanding the basics of risk perception may give a clue about efficient countermeasures to reduce the extent of the damage. Then attempting to understand the feeling and perception of the society about the risk was a way which leads to success in the communication process.

The other portrayal of the risk perception failure is the hesitancy of the holy water users to stop defecating in the holy water area. They believed that defecating at the open field (not in the toilet) gave them the opportunity to see their disease extracted through their excreta. This cultural belief challenged the communication practice of the Bureau. In an article regarding the 2016 AWD outbreak *Bekur* (2016) newspaper reported the challenge the people in the holy water area were experiencing: not willing to use toilets for defecation, the preference for using fields around the holy water, and expecting to see their disease extracted. One of my respondents from the Amhara National Regional State Health Bureau had the following to say pertaining to this problem:

> *"People were not willing to use toilets to defecate because they expected to see their disease extracted through their excreta"*

FGD 3 discussant 6:

> *"The holy water users were defecating and vomiting at the area. They were deliberately doing it to see some insects/ disease extracted from their body. Then when we taught them to use toilet they were not accepting our advice. But AWD contamination was very high because they vomit and defecate in the area."*

Therefore, there was an opportunity to understand the risk perception of the society before starting the communication. This means assessing the feeling and perception by using different mechanisms. European Centre for Disease Prevention and Control (2013) recommended that risk communicators can overcome the challenges of perceptions of risk by implementing specific activities such as obtaining information through surveys, focus groups and interviews on public judgments and perceptions of risk for particular scenarios, and supporting an interactive exchange of information with stakeholders about the identified areas of concern.

Planning Risk Communication

Missing the risk perception of the society was related to planning. Basically, risk communication is unthinkable without planning. According to World Health Organization (2005) effective risk communication plan allows for a practical, quick and effective response during an emergency since many of the necessary communication decisions are predetermined. Centre for Disease Control and Prevention (2002) also mentioned that the planning

should systematically address all of the roles, lines of responsibility, and resources one is sure to meet as one provides information to the public, media and partners during a public health emergency. One of the respondents from the public relations department of the Bureau admitted that there was a limitation in risk planning:

> *"Understanding risk communication and preparing a risk plan was our weak part. But as soon as it outbreaks, the Bureau organised a taskforce which was led by deputy head of the Bureau and together we prepared a plan to stop the problem."*

The respondent admitted that there was no proper understanding of risk communication; therefore the Bureau was unable to prepare an appropriate risk communication plan. The Bureau tried to prepare a response action plan hastily having an intention to control the outbreak sooner. This failed. The task force tried to prepare the response action plan after the outbreak has occurred and its most part was about treatment and health care provision. Certain parts of the response action plan included basic things to be done regarding communication and awareness creation, but the plan was not prepared based on principles of risk communication.

Another respondent from the Bureau also believed that trying to control the risk after the outbreak has already happened is all about risk communication. He understood that each steps of risk communication should be applied after the risk is identified. But risk communication planning entails more factors. In order to have an effective risk communication plan, it is important to form a risk management team that will create and be able to implement the plan, inspires the team to not only think about what could happen to the society, but also to plan what will be done if those risks do occur (Fry, 2012). A respondent explained risk communication as follows:

> *"We register expected health risks every time. First we base on rumours. Then experts move to the area and investigate the case and when they suspect the danger they immediately report it. This is risk communication. Then the Bureau starts to assure the case and moves for action."*

Therefore, the public relations department overlooked preparing risk plans. This oversight was related to misunderstanding and ignorance about the notion of risk communication.

Health Workers' Quick Guide for Public Health Emergency Management (2014) is a publication by the Amhara National Regional State Health Bureau. This publication listed the expected disease outbreaks in the region, Cholera is number one. The publication included brief explanation about the disease and recommends the basic things that are needed to be applied by health professionals. The issue of risk communication is totally missing. There is no risk communication plan in the publication. It reveals that the people who prepared the book had no any understanding and knowledge about risk communications. As far as the guide book is concerned, it is expected to be used as a reference by the public health emergency management in which the issue of risk communication was expected to be a major theme.

Communication Channels Used During Risk Time

The Bureau ordered a task force to control the Cholera outbreak, believing the outbreak was affecting the lives of the people. Therefore, the task force attempted to communicate with the public to tackle the problem, however this response had started after the outbreak had occurred. According to most of interviewees from the Bureau they have tried to communicate with the society by using different approaches. Several public discussions were conducted, messages were disseminated via Amhara Regional radio and Amhara TV and FM Bahir Dar. The regional Radio and TV channels reported the case starting from the occurrence of the cholera outbreak. Members of the task force were their sources of information for the reports of those regional media. Amhara TV has a live show which connects health professionals with the public to create awareness on different health issues. This program broadcast the issue of AWD outbreak twice. The outbreak was also reported by news and other programs. FM Bahir dar also did the same as Amhara TV. Radio and TV spots were presented to the public frequently.

Pamphlets from the Ministry of Health and by the Bureau were disseminated; billboards were also other ways of communication. According to one of my respondents from the Health Bureau:

> *"We used different methods to reach the community. We tried to use the media broadly. First we announced the case via Amhara Radio, FM Bahir Dar and Amhara TV. And we arranged group discussions with the community and disseminated pamphlets for those who can read. We also used billboards. For those who were affected by the outbreak and their families health professionals were teaching face to face."*

Most of the discussants of the FGD (inhabitants of Andassa Kebele) expressed that their major sources of information were health professionals. This ensures that group discussion and face to face communication better addressed the local area. Some of the respondents also said radio was their source of information during the outbreak. One of the discussants from FGD 1 had the following to say:

Discussant 6:

> *"In different public gatherings, we have been learning about hygiene and sanitation to be free from the outbreak. Radios have also been teaching us about the basic things we should do to be free from the outbreak."*

Health professionals of Andassa Health Center (discussants of FGD 3) said that they were teaching the society about AWD and hygiene and sanitation. The first thing they did was treating people who were affected by the outbreak. One of the FGD discussants had the following to say regarding the efforts they were trying to exert so as to curve the magnitude of the problem:

Discussant 7:

> *"For the first time two men who were affected by AWD came to our health centre. They came from the holy water area. Before that time, we didn't experience such scenario. After the coming of two patients a lot of people came to Andassa Health Centre. The Health Centre became full of AWD patients. It was very challenging to treat such a large number of people. We asked the Bureau to send us additional man power and medication, then immediately the Bureau responded. After we got additional man power, we started to treat and teach people. We have been teaching them to drink clean water. We taught them how to treat water. After two weeks the outbreak became reduced. We also tried to teach the people in the holy water area."*

The Bureau was not prepared for such risk. Health professionals were busy treating patients. Therefore, no one was there to communicate to the society about the risk. When the situation stabilised, the organised health professionals themselves started to teach the society about AWD and mechanisms to protect the society. These professionals are not specialists of risk communications. Hence they do not have the knowledge and the experience on communication in risk situations. This shows that the Bureau did not understand the role of risk communication. Health professionals in the area tried to communicate face to face with the public, though it was not professional in the field of communication.

The Issue of Trust and Public's Perception

The messages disseminated through the mass media and face to face communications were majorly focused on prevention and control. Most of the discussants of the FGD said that the messages presented by health professionals were clear and understandable. According to one of the discussants:

> *"When someone starts to observe the symptoms of AWD it was advised to go to health centres sooner. Till he/she arrives to health centre we were taught how to prepare homemade liquid to*

substitute the extracted fluid from the patient. By doing so, some patients were rescued. Public gatherings were the best places to learn about AWD."

There were indicators for the failure of communication. For example one of the discussants expressed the outbreak as *Tesibo* (Epidemic Typhus). The disease called *Tesibo* is not AWD. According to Health Workers' Quick Guide to Public Health Emergency Management (2014) *tesibo* is a disease called *epidemic typhus*. When the discussants were asked about AWD before the outbreak one of the discussant from FGD 2 expressed her understanding as follows:

Discussant 5:

"Of course I know about the issue before. It is called Tesibo. It is related with inappropriate hygiene and sanitation. So I didn't feel anxious."

The discussant misunderstood the outbreak. She thought the disease as *epidemic typhus*. This shows that the communication was not handled properly. Some parts of the society are still having a wrong attitude about the cholera outbreak.

The other indicator of the failure of communication is the understanding of the respondents from the Health Bureau. Most of the respondents expressed that convincing the people around the holy water site of proper hygiene was a challenge. For example, one of the respondents had the following to say:

"The basic challenge of the communication was that the people were not applying our advice. The information was easily understandable, but they were not applying our advice. They started to apply what we have said after the outbreak made them suffer, losing their siblings and falling ill. Of course it may be related with the way we tried to communicate. But we tried to make our messages easy and understandable."

The upper respondent misunderstood what risk communication is about. Instead of trying to understand the feeling, attitude and perception of the society, he simply judged them as change resistant. He even said that the messages were easy and understandable without trying to understand the reaction of the community about the messages. What he believed as simple and understandable may not be as simple as he thinks for the society.

The other respondent from the Bureau said that people in the holy water area were unwilling to use toilets; rather they used fields around the holy water to defecate. This is because they wanted to see their disease removed from their body. He said that they prepared a convincing message for those people. A discussant from FGD 1 mentioned that the people inside the holy water were expelled by the police forcefully, for the holy water cite was to be cleaned and closed for a month. The discussant expressed the case as follows:

Discussant 2:

"There was a debate between the people who came for the holy water and health professionals. They were reluctant to get out of the holy water area. But after a strong disagreement they were forced by the police to move out."

Discussants of FGD 3 also mentioned that holy water users and religious leaders at the holy water site were the main challenges to the communication process.

Here we can understand that there was a significant communication failure. Instead of convincing those people inside the holy water site, the expelling of them by force is a portrayal of failure of communication. According to Centre for Disease Control and prevention (2012) understanding the needs, cultural background, community history, location, and values of your audience is one of the most important factors in effective communication which allows you to match your message to audience characteristics.

The terminal report on outbreak response of AWD in Amhara region (2018) also stated that one of the major challenges in the intervention and control process was the reluctance of religious leaders to not fully engage in the operation of the cholera outbreak response. The task force misunderstood the role of religious leaders. The attitude and perception of the holy water users could be easily changed by using religious leaders, because religious leaders are the basic communication references for the beliefs and perceptions of holy water users. The religious leaders themselves were not agreeable to accepting the message from the Bureau, for the Bureau failed to understand their needs and perceptions. The bureau simply perceived those religious leaders to be change resistant. Since they ignored the messages from the Bureau, religious leaders needed a different kind of communication.

Evaluation of Communication

Without having a systematic plan for evaluating risk communication activities, it is impossible to know whether disease control information reached the intended audience, was communicated effectively, or inspired behaviour change or other outcomes (Agency for Toxic Substances and Disease Registry, 2001). Many respondents to the interview from the Bureau answered that there were frequent process evaluations, commencing with the task force that began working on its responsibility. The respondents said that they got feedback through telephone, from the media and from public discussions. Feedback is a the most important part of the communication process which creates an opportunity to understand how the message is received and how it is being interpreted, then the sender will have the ability to adjust the message and improve its effectiveness (Centers for Disease Control and Prevention, 2012). But one of my respondents from the Amhara National Regional State Health Bureau stated that the feedback receiving mechanism was not well organised. According to the respondent:

> *"To get organised and ample feedback, we had a very limited number of man power. We were very busy in mapping messages and addressing the society. There was no organised way of feedback reception practice."*

There are two basic points here. The first point: there was no proper and organised way of feedback reception. The second point: they had a very limited number of man power. The Bureau seems to misunderstand the role of communication during risk time. But World Health Organization (2005) said:

> *"…the difference between emergency and non-emergency communication is often one of staffing and workload in media communications leadership, media relations, message and materials development, partner and stakeholder outreach, web sites, administrative and technical support, studio and broadcast, research and media monitoring, hotlines, community health education, workforce communications, clinician communications, policy-maker and legislative communications, and information management."*

There are two public relations officers and one audio visual technician in the department of public relations. These employees were working in collaboration with the task force. Trying to achieve message development without having ample feedback is not effective. Feedback facilitates evaluation and improvement. Most of the misunderstandings between the people and the Bureau seemed to be related to the unavailability of effective feedback reception methods. The Health Workers' Quick Guide for Public Health Emergency Management (2014) does not mention feedback and evaluation. This Guide only presented basic actions to be undertaken for the prevention and control of emergency diseases. The report about the cholera outbreak also did not include how feedback was used in improving the communication process.

For the upper respondent, risk communication is all about telling the people what to do. This is also related with lack of proper evaluation. The evaluation could give them a chance to understand the result of their risk communication activity. The evaluation of the risk communication should base the basic principle of risk communication. The report about outbreak response by the task force showed that the evaluation was conducted mainly in relation to the establishment of treatment facilities and supplying of essential logistics.

Discussion

Based on the data gathered, the Amhara National Regional State Health Bureau has a very poor understanding of risk communication. It cannot differentiate risk communication from non-risk communication. As cited in Kelay and Fife-Schaw (2010), Breakwell (2007) stated that practising a proper risk communication is necessary in order to ensure that people and institutions behave in ways that support their wellbeing and safety, and it ensures people and institutions accept changes that others think necessary. Unable to respond quickly to a health emergency (by using basic principles of risk communication) meant that the Bureau failed to achieve successful communication. The first and major action that the Bureau missed when applying risk communication was starting the communication without having organised risk communication plan. According to World Health Organizations (2005) when carefully designed, a media communication plan can save precious time when an emergency occurs, it can enable leaders and spokespersons to focus on the quality, accuracy and speed of their response and, once completed, the communication plan should be evaluated, revised and updated regularly. Planning risk communication before the risk enables communicators move effective as soon as the risk occurs. This was the major thing the Bureau missed. The task force organised by the Bureau started working after the outbreak occurred. One of the responsibilities of the task force was managing the communication practice in relation to the disease outbreak. The public relations department was the part of the task force and coordinated the communication activity. The communication process started after the disease outbreak was investigated and confirmed. The task force attempted to prepare a general plan which includes communication and other control methods. The plan was not prepared based on basic principles and theories of risk communication and it was not timely.

According to Ejiugwo (2013) based on the cultural, linguistic, ethnic/racial, gender, and geographical differences seen around the world, it should be understood that the perception of risk will differ from region to region, person to person, and culture to culture respectively. This notion emerged from the notion of risk perception model. When starting risk communication we should be concerned about the culture and perception of the target society. The Amhara National Regional State Health Bureau did not consider the perceptions and beliefs of the public concerning the risk. While practising communication during cholera outbreak, understanding the public is serious and it is usually difficult to change pre-existing beliefs unless those beliefs are clearly addressed, which means it is impossible to design successful messages that bridge the gap between the expert and the public without understanding what the public thinks (WHO, 2005).

The Bureau used mass media and non-mass mediated communication approaches. It is beneficial to use both communications platforms in a combined manner. The people from remote parts of the region could get a message and education from group discussions and face to face communication. It was effective to use different approaches to address such a broad audience.

As stated in the data analysis part of this discussion, there was a controversy between holy water users and the task force of the Amhara National Regional State Health Bureau. The Bureau wanted to clean the holy water area, and then needed holy water users to leave the place for a month. The holy water users were not willing to leave the place. Finally, the Bureau expelled the holy water users by using police force. This is the evidence that the communication itself was at risk. The Bureau could not convince the holy water users and religious leaders. The Bureau employees could not understand the pilgrims' perceptions and beliefs and force was used to evict pilgrims from the contaminated area.. In such situations CDC (2012) advised that it is good to express empathy and support and reduce emotional confusion. The Bureau ignored the perception, feeling and emotion of the community.

The local community was confused and misunderstood the real cause of the disease outbreak. According to Ng and Hamby (n.d.) to be a good risk communicator and build credibility it is good to make actions consistent with our words, and showing, over time, respect for the perspectives of others. The Bureau was simply releasing information believing that it was all about risk communication. The Bureau could not identify the miscommunication between the public and the organisation. As the feedback reception mechanism was poor, the Bureau as not receiving appropriate feedback and evaluation resulting in a failure of effective

communication. The Bureau ignored the public's perceptions and beliefs and chose only forceful top-down approaches.

Conclusion and Recommendations

Conclusion

This study attempted to see how the risk communication practice has been practiced in the Amhara National Regional State Health Bureau regarding the 2016 cholera outbreak. This study attempted to view the practice starting from the planning up to evaluation stages.

Failing to prepare proper risk plan, unable to get ample feedback and perception of the community, unable to address clear and non-confusing messages, lack of proper evaluation of the communication process made the risk communication of Amhara National Regional State Health Bureau ineffective. As evidence, the outbreak response report stated that the outbreak recovered after it was stopped. According to the terminal report on AWD outbreak in Amhara region (2018) the disease outbreak ceased in November 2016, and it occurred again in February 2017. When the cholera outbreak occurred for the second time it affected 4,917 people and killed 71 people. This showed the failure of risk communication. The fear that the outbreak will recur is also another portrayal of the failure of communication. There is still fear and anxiety in the area because the communication was not based on basic principles of risk communication. Especially important: the recovery phase communication was not handled. The people working in the Bureau are also sceptical about the stoppage of the outbreak.

People of Andassa *kebele* are not yet secured from cholera outbreaks. Though the disease outbreak has stopped, there is still a fear that it may recur. The recovery phase communication was not well practised.
The research concludes that the marginalisation of risk communication and its poor practice contributes the re-emergence of cholera outbreak.

Recommendations

Based on the findings of the research the following recommendations can be made. Most of the problems that have emerged are the result of misunderstanding of the notion of risk communication. Therefore, professionals working in the public relations department should get adequate training on the area of risk communication. Employees in the public relations department should improve their understanding and knowledge about risk communication through reading. Organising risk plan and anticipating that a risk will happen should be implemented. Every activity of the risk communication should base the risk plan.

The Bureau should release clear and non-confusing messages to sustain its effectiveness and to gain the trust of the target community. The Bureau should be honest to its target audience. Before addressing messages about the risk, there must be a culture of researching the perception of the target society about the risk and mapping the message based on their perception. Proper feedback and evaluation in the risk communication process is also advisable. At the recovery phase, people should be treated well based on principles of risk communication, to make the risk area stable and enable a return to normal life.

Acknowledgement

We would like to express our gratitude to the research participants for their unreserved support of providing the data and precious time. Without their collaboration, the research would not be complete.

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