Exploring the use of health communication in health policy implementation: response to the Ebola outbreak in Sierra Leone

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Declaration

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The thesis "Exploring the use of health communication in a health policy implementation: response to the Ebola outbreak in Sierra Leone" is my own work.

Signature:

Date: 2015/05/29

Abstract

Background: During 2014 and 2015, Sierra Leone suffered the worst Ebola outbreak registered, which also affected Guinea and Liberia. The Government of Sierra Leone, supported by the World Health Organization, issued an accelerated response plan to reduce morbidity and mortality due to Ebola. This plan was initially built on previous experiences in Ebola outbreaks in other countries, albeit much less severe than this current outbreak. The response plan included Communication and Social Mobilization as one of its pillars.

Aim: The aim of this degree project was to explore the use and contribution of health communication during the implementation of a health policy. This was achieved through identifying the health communications strategies used in Sierra Leone during the 2014-2015 Ebola outbreak, in the context of other implementation activities.

Methods: This is a qualitative exploratory single case study covering a timeframe from April 2014 to April 2015 using thematic content analysis. Data from high-profile key informants was collected using semi-structured interviews. Documents from UNICEF and UNMEER were also analysed.

Results: Health communication was used actively in the Ebola response in Sierra Leone, and its utilization changed over time in order to adapt to the outbreak situation and lessons learnt. The interviews highlighted moments and decision making during the response and jointly with the documents enabled identifying trends in strategies. It was possible to understand the rationale and context behind health communication decisions, studying communication styles changes over time and identifying particular lessons learned.

Conclusion: Five main phases were identified in health communication usage during the Ebola response in Sierra Leone, each one characterized by a unique communication style, specific messages according to the outbreak situation or a different approach in the implementation of the response plan. Some best practices from the studied Ebola response in Sierra Leone were also highlighted.

Keywords: Ebola, Sierra Leone, health communication, health policy implementation, qualitative research, social mobilization.

List of abbreviations

ARP	Accelerated Ebola Virus Disease Outbreak Response Plan
CDC	Centers for Disease Control
COMBI	Communication for Behavioural Impact
C4D	Communication for development
DRC	Democratic Republic of Congo
EVD	Ebola Virus Disease
GoSL	Government of Sierra Leone
HBM	Health Belief Model
IFRC	The International Federation of Red Cross and Red Crescent Societies
I(#)	Interviewee number (#)
KAP	Knowledge Attitudes and Behaviours survey
MoHS	Ministry of Health and Sanitation
MoSWGCA	The Ministry of Social Welfare, Gender and Children's Affairs
NECS	National Ebola Communication Strategy
RE-AIM	Reach, Effectiveness, Adoptability, Implementation and Maintenance
SDB	Safe and dignified burials
UNDP	United Nations Development Progrram
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNMEER	United Nations Mission for Ebola Emergency Response
WFP	United Nations World Food Program
WHO	World Health Organization

Table of contents

Ebola entered Sierra Leone from the farthest east district of Kailahun to the economic and political heart of the country using a similar path as the rebel war in 1991. It followed the same roads and routes as the rebels from the Revolutionary United Front, finally storming into the Western District and the capital, Freetown (1).

Background

Ebola Virus Disease in Sierra Leone

Ebola Virus Disease (EVD) is a severe illness caused by the Ebola virus, which is transmitted by direct contact with body fluids. It was formerly known as Ebola Haemorrhagic Fever and can reach a fatality rate up to 90% (2).

The first Ebola outbreak in the history of West Africa, and the largest recorded in the world was declared on 21 March 2014 (week 12[1]). The index case was traced to south Guinea in late December 2013. Three countries in this region, Guinea, Liberia and Sierra Leone, had widespread and intense disease transmission during the current outbreak. Nigeria and Mali had a small number of cases while Senegal had one but these foci were contained and the spread was stopped in those territories (3). At the end of this thesis project Liberia had not had a new case in 4 weeks and a steep decline in number of cases had occurred also in Guinea and Sierra Leone, the other two mainly affected countries.

The government of Sierra Leone (GoSL) confirmed the first case of EVD in the country on 26 May 2014 (week 22). In December 2014 (week 49) Sierra Leone had the worst outlook in this epidemic in the West African region showing little signs to decrease.

Sierra Leone is currently classified under the low income countries group by the World Bank (4).It is still recovering from the unrest of the civil war, which ended in 2002, when its health infrastructures were severely damaged or destroyed (3). The health system was fragmented as a result, in part, of traditional vertically-structured donor initiatives in Sub Saharan Africa focused in fighting specific diseases instead of building a strong health system (5).

The Ebola outbreak diverted the health system's attention from formerly prevalent diseases such as malaria, tuberculosis and HIV/AIDS. The whole population of Sierra Leone lives in areas with high malaria transmission, which is one of the main causes of deaths from infectious diseases (3,6). During the outbreak, 80% of the institutions offering services for women with HIV closed (7) and, also, the access to prenatal care, immunization and inpatient and outpatient health services, among other, were affected (8,9).

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[1] Week numbers refer to the number of week of the year, each new week starting on a Monday as in WHO Ebola situation reports.

The Ministry of Health and Sanitation of Sierra Leone (MoHS), developed an Accelerated Ebola Virus Disease Outbreak Response Plan (ARP) (10), covering the period between July and December 2014 (weeks 31 to 52). The goal of this plan was to reduce morbidity and mortality due to Ebola through prompt identification, notification and effective management of cases, effective social mobilization and coordination of the outbreak response activities.

The aforementioned response plan included established activities and budgeting for four thematic areas, later known as pillars:

1. Coordination, finance and logistics
2. Epidemiology and laboratory
3. Case management and infection prevention and control; psychosocial support
4. Social mobilization/ Public Information

Policy, health policy and health policy implementation

The ARP can be considered a policy according to the characteristics proposed by Matland. According to this author a policy can be defined as the "programmatic activities formulated in response to an authoritative decision" (11). It consists of the plans required to carry out the wishes expressed by that legitimating organization: the GoSL and the MoHS.

The ARP can also be considered a health policy, as it covers "courses of action and inaction that affect the set of institutions, organizations, services and funding arrangements of the health care system (both public and private)" (12).

Several shaping factors have been identified when talking about policies and health policies in particular. Those are reflected in the analytical model proposed by Walt and Gilson (13) and referred in the health policy literature as the policy triangle (12) (Figure 1, Table 1). The processes component in the policy triangle has been referred to as the policy cycle and involves the following sub components: agenda setting, policy formulation, decision-making, policy implementation and policy evaluation (12). Policy implementation, the fourth stage of the foresaid policy cycle, could be described as the group of activities and operations intended to achieve the goals of a policy and performed by various stakeholders (14).
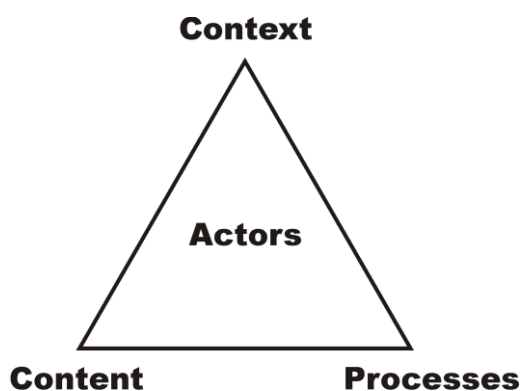
Figure 1: The policy triangle

Table 1: Description of the components of the policy triangle

Component	Description	Detail
Content	The actual text of the policy's documents or the 'spirit' of the policy (if not written)	
Context	Systemic factors which may have an effect on health policy	Situational, structural, cultural, international or exogenous factors
Processes	The way in which policies are initiated, developed or formulated, negotiated, communicated, implemented and evaluated	Agenda setting, policy formulation, decision-making, policy implementation, policy evaluation.
Actors		Individuals, organizations, states or governments

There have been two traditional thought schools on policy implementation: for the top-down theorists, the central actors are the policy designers and they focus on factors that can be manipulated at the central level. On the other hand, bottom-up theorists argue that policy is, in fact, created at the local level, meaning that they concentrate on target groups and service delivery (11).

Health communication

It is important to highlight that both policy implementation approaches are focused around the actors. In that sense, studying their interactions and specific communication characteristics during a health policy implementation would be a relevant field of study. One of the ways of studying those interactions could be using health communication.

The Centers for Disease Control and Prevention in the United States use the following definition of health communication: "The study and use of communication strategies to inform and influence individual and community decisions that enhance health" (15). It is possible to find many different definitions for health communication. According to Schiavo, each one of them emphasizes one of several of the following topics or attributes: informing and influencing decisions; motivating individuals and key groups; changing behaviour; increasing knowledge and understanding of health-related issues; empowering people; exchanging, interchanging information, two-way dialogue; engaging (16). All of them concern actors and their interactions. Schiavo also mentioned several key characteristics of health communication. One of them is that health communication must be aimed at behavioural and social results so every intervention in health communication must have clear behavioural objectives at individual, group, community, social and political levels.

Health communication can be seen as a cyclical process, as Schiavo and Parvanta have stressed. Parvanta uses the cycle stated by the National Cancer Institute including 4 stages: 1) Planning and strategy development; 2) Developing & testing concepts messages and materials; 3) Implementation and 4) Evaluation and improvements (17).

Capacity building on other countries' experiences

Since the first identified outbreak in 1976, EVD containment activities have allowed some lessons learnt from each one of them including evidence-based best practices from the applied interventions, including social mobilization and behavioural interventions.

Simultaneously as the EVD outbreak continued to spread in West Africa, on 24 August 2014 (week 34), an EVD outbreak was declared in the Boende district in the Democratic Republic of Congo (DRC), caused by a variant of Ebola virus unrelated to the strain in West Africa. This outbreak was declared to be over on 21 November 2014 (week 47). Successful practices in containing this outbreak included the availability of quick laboratory test confirmations, strict triage and contact tracing as well as the mobilization of communities and their traditional and religious leaders (18). The response in Sierra Leone would, eventually, used similar practices.

In 2000, Uganda had the largest EVD outbreak before the current epidemic, and the first occurring in this country making it, somehow, a similar case to the one under study in this work. The main lesson learned from this outbreak relates to the availability of field laboratory, active surveillance, resource mobilization, management of the dead, coordination and media management, case management, infection control, public information and effective communication and, also, the leadership and commitment from the government (19,20).

Another well studied Ebola outbreak is the one which took place in the district of Yambio, Sudan, in 2004. It has been reported how communication and social mobilization strategies contributed to control this outbreak, specifically double way communication in order to reach behavioural changes. Other important interventions were related to epidemiological surveillance, more humane management in isolation units and ensuring safe burial but, importantly, according to local traditions and holding genuine funeral ceremonies. These activities were developed with the help of the experience gained in previous and recent EVD outbreaks in Gabon, DRC and Uganda. A rather new behavioural model developed by the World Health Organization (WHO) was used during this outbreak: Communication for Behavioural Impact (COMBI) (21,22).

These are a few examples on how the previous Ebola outbreaks are the foundation for actions in future ones. Experiences from the management of other diseases such as HIV/AIDS, tuberculosis and malaria are probably also relevant for this case (23,24). Recommendations from the management of theses disease pointed in the same direction as the ones from previous Ebola outbreaks: community engagement, rapid and accessible tests, surveillance and interventions to reduce stigma.

Aim and specific objectives

The aim of this thesis is to explore the use and contribution of health communication during the implementation of a health policy through identifying the health communications strategies used in Sierra Leone during the 2014 Ebola outbreak, in the context of other implementation activities.

The specific objectives of this thesis are:

- To understand the rationale and context behind health communication decisions in Sierra Leone during the Ebola outbreak
- To study communication trends changes over time, and how the strategy was adapted accordingly
- To identify particular lessons learned and contributions to policy and practice from this specific case

It is important to bring the attention how the Ebola outbreak in Sierra Leone became relevant in the agenda setting, how the plan was designed and tested, how the interventions were implemented and how the policy makers defined a course of action.

Methods

This is an exploratory single case study using individual semi-structured interviews to high-profile key informants involved in policy making and response plans development. It also used documents as units of analysis (Table 2). In both kind of sources, it was performed a thematic analysis for both manifest and latent content (25,26).

The thematic content analysis was applied to both primary and secondary sources using applicable steps from the methodology proposed by Burnard (27). Coding process had both inductive and deductive approach. The first was based on terms from the policy triangle framework when related to policy implementation and the WHO Outbreak Communication Planning Guide and health communication terms. The latter used open coding.

NVivo® 10 software was used for tracking of interview coding. For the weekly reports analysis, an Excel table was used as it allowed a more efficient time-tracking.

Table 2: Summary of sources and timeframes

Source	Number	Dates range covering	Weeks
Interviews to High profile informants	4	July December 2014	27/2014-52/2014
Written communication (e-mail message)	1	July 2014 – March 2015	27/2014-14/2015
National Ebola Communication Strategy	1	October 2014 – April 2015	40/2014-15/2015
Ebola Communication plan	1	April – September 2014	17/2014-39/2014
Weekly reports UNICEF	38	21 July 2014 – 8 April 2014	30/2014-15/2015
Weekly reports UNMEER, MoHS, UK*	22	20 October 2014 –12 April 2015	43/2014-15-2015
Cultural Anthropology contributions	1	October 7 2014	

*UNMEER was created in September 2014. From March 16 2015 the reports were issued every other week

Sierra Leone was selected as the setting for this study due to several reasons: 1) At the time of developing the agenda for this thesis, Sierra Leone was most severely hit by the outbreak, showing little signs for improvement. 2) Use of English as official language enabled more comprehensive data collection. 3) This thesis could benefit from the currently ongoing projects on this country at the Centre for Research on Healthcare in Disasters at the Department of Public Health Sciences at Karolinska Institutet.

The selection of participants was made by a convenience sampling method during the very interview process but based in a preliminary list of potentially important contributors (26). It was based on availability of interviewees, responses to invitation and on the need of specific information or background. The ultimate list had seven potential interviewees including one in Nigeria as this country was reported as a successful case in containing the spread of EVD even after having reached the capital city, Lagos (3). The list included two persons from the GoSL, three people working or having worked in the Ebola response for international organizations in this country, one NGO founder, born in Sierra Leone and with deep roots in the country and with experience working in the health system during the outbreak and one person in Nigeria, founder of an organization advising and working with the government in development and implementation of communication strategies. At the end four interviews were performed on Skype or mobile phone including one with the key informant in Nigeria.

It was not possible to get an interview with the spokespersons in the GoSL. One person contacted explained that they were not able to allocate time for the interview due to being occupied with the still ongoing outbreak control effort. However, this person responded by email. The point of view and intended objectives from the GoSL were complemented with the National Ebola Communication Strategy (NECS) (28) issued in September 30 2014 (week 40) as part of the implementation of the ARP.

For this project, the secondary sources selected for analysis were the ARP and the NECS as official documents from the government as well as two kinds of periodic reports. These were the weekly reports issued by the United Nations Children's Fund (UNICEF) in Sierra Leone and the ones produced by United Nations Mission for Ebola Emergency Response (UNMEER) and the National Emergency Response Centre, in collaboration with the United Kingdom, and United Nations response partners. Regarding those reports the aim was to analyse the following sections: highlights, summary analysis of programme response, progress overview and social mobilization and communications. Some additional examples of rumours were extracted from one article in Cultural Anthropology.

This project covers documents issued between April 2014 (week 17) and April 2015 (week 15). The interviews covered experiences from July to December 2014 (weeks 27 to 52).

There were two kinds of documents issued by the National Ebola Response Centre which were not included in the complete analysis. These were the Information Management Working Group meeting minutes and the National Ebola Response Centre weekly situation newsletter. These were excluded from the complete analysis since they lacked a specific focus on health communication and, instead, focused mostly on numeric results. They did not provide, either, so much information or they were published after the week 1, 2015. However they provided some useful contextual information.

The chosen methods provided some specific benefits for this project. It was considered that interviewing different kinds of key contacts would provide an insight to the use of health communication and how it was perceived by different stakeholders, including the GoSL. A semi-structured interview approach enabled comparable information in common topics and also had specific insights from each personal point of view. The standard interview questionnaire was developed based on concepts from a literature review as to the different components of a successful health communication program. The selected secondary sources allowed to contrast the thoughts from interviewees against documents and had the additional benefit of providing an overview of evolution of Ebola response over time.

Ethical Considerations

All key informants who contributed to this project were afforded anonymity so as to not jeopardize their professional reputation or work. They were also somehow protected by the extensive use of published reports as the burden of supporting conclusions was not only in the participants' contributions but also distributed to public documents. This also contributed to the reliability of the results and conclusions making worthy their support to this project.

Interview recordings and transcriptions were kept in the researcher's personal password protected computer. After finishing these work files were removed from those location and remain in an external hard disk kept by the author.

No ethical approval was requested for this project as it was not considered posing potential harm for participants in its current design.

Results

The data compilation can be divided into three sections: interviews, weekly reports and other documents. Four interview transcripts and one email compose the first section, the latter sent by a representative of the GoSL. The second one, corresponding to weekly reports included 38 reports issued by UNICEF and 21 by UNMEER (Table 2). Each one of the reports series covers a different timeframe although both finish in the week 15 of 2015, when the data collection and analysis was completed. These documents allowed the identification of themes in the reports and the organization of them according to specific categories over time. The third section comprises other kinds of documents including: the ARP, the NECS, as well as additional published documents. These documents allowed identifying strategic decisions from the government of Sierra Leone and contextual consideration regarding to them as well as the communication goals and styles expected to achieve.

Narrative over time

At the beginning

Data from interviews highlighted the importance of understanding the socio-cultural context both when implementing a health policy and when developing health communication initiatives in support of that implementation. In the specific Sierra Leonean case the context include a recent civil war, a country in reconstruction, an extremely weak health system caused by the war and poverty condition, government inefficiencies and corruption, among other possible causes, and a profound mistrust against the government and the international community represented by international organizations, as stated by three of the participants.

The data from the interviews suggested that at the beginning of the outbreak people rejected going to the Ebola treatment centres. Non-attendance at the Ebola centres can be attributed to several different reasons. In some instances this could be caused by disbelief as to the existence of Ebola. Avoidance of treatment centres was also recorded premised on the belief that it was unnecessary as Ebola was deadly and incurable. Rumours about the theft of organs from dead bodies were also a reason for not visiting the Ebola treatment centres. The same sources also said that people started going to get care because it was proved that Ebola was

killing traditional healers and local health workers, not because an increased level of trust on the government but because they did not have any other places to go.

"People do not trust the state and then they didn't trust the information that the state put out either. So, when they started talk about Ebola from the beginning people didn't believe it .... At least not- in Sierra Leone, but also they did not trust the government when they said you need to behave in a certain way... But the second point when it comes to trust is that they don't trust the international community either."(I1).

"Until they saw the number of people dying that's when they realized that by doing the right thing and following the message they would survive. But the mistrust was there, it was there because people didn't understand what was among them." (I1).

Sierra Leone was not prepared to handle an outbreak of this scale. However, as stated in the background section, the international community had previous experience in handling Ebola events and that experience was applied in early stages of this case.

"I know that even in the capital city there are a lot of facilities that do not have access to water and it's essential in ensuring you have sanitation which it's essential in controlling Ebola. A lot of facilities don't have protective equipment like gloves" (I2)

"Go to the hospital is still very expensive and difficult and also quite often quite dangerous. So just like Ebola but also many other diseases that are spread through hospitals... the health capacity is not there." (I1)

"Lack of experience among health care workers and limited capacities for rapid response" (NECS)

There is evidence that already in April 2014 (week 17), before the first case was confirmed in Sierra Leone, some actions were taken to prepare the country in the health communication field given the already identified cases in the neighbour Guinea. It can be found a communication plan dated in that month (29). But one of the interviewees, involved in the response plan development, stated that at the beginning it was placed in a hurry. There was no mention of the first step of the implementation or the communication cycles: planning.

"So in terms of communication strategies ... so whatever strategy was in place was more or less something that was put together in a hurry" (I2)

The first weekly report from UNICEF dates from first week of July (week 30) and it already spoke of the draft version of the ARP. In the ARP itself it says it was prepared in the first week of July (week 22) in a Health Ministries meeting promoted by WHO regional office for Africa. Guinea and Liberia were also present and they also issued accelerated response plans. In the ARP it is where it is mentioned for the first time the use of experiences from previous outbreaks. In this case, the experiences from Uganda and DRC.

Around September

From the interviews, it was learnt that during September 2014 (weeks 36 to 40), a perceived improvement in the response plan occurred, a new phase was starting and people perceived that the government was finally acting. It was just a couple of days before the start of this month, on August 29th (week 35), when the Minister of Health and Sanitation was removed from her position and replaced by her deputy (30). Also in September, the NECS was issued and the House to House campaign ('Ose to Ose Ebola Tok'), also known as the lockdown, took place.

> *"Came out one of the positives thing that came out from that exercise was a revision of the social mobilization approaches, revision of the communication approaches." (I2)*

In this unique situation the leadership from the authorities was especially important. In some way the government's own leadership produced a turning point in the outbreak response.

> *"And I thought that really made the difference because when we went out (…) to the communities. There were no people in the streets, no because of the police but because the people said what the president said. And I thought that that was very good, political leadership and commitment" (I2)*

> *"But it still say, still say, I mean that's a good example I mean at the end it didn't help much for-- It didn't help much to curve the Ebola crisis but in the other hand it showed people that we have a government that is actually ready to act for us" (I1).*

The data from interviews and documents show that during the initial stage the communication efforts were placed in mass media communication and only after September it appears more frequently the door-to-door communication and interpersonal communication. Also in September, the first results of the Knowledge, Attitudes and Perceptions (KAP) survey were revealed (week 38). The national government performed this survey in order to fully understand the population and its beliefs about EVD as well as to identify the most appropriate mode of communication. Results from this survey were used as evidence-based foundations for the NECS.

> *"There is a high level of awareness about Ebola but misconceptions also remain high. It was highlighted that attitudes towards Ebola survivors may face high levels of stigma, shame and discrimination from communities, which is undermining their ability to recover their livelihoods and continue their lives – including children who have been affected. The survey also underlined the importance of providing information via radio broadcast messaging…" UNICEF Sierra Leone Humanitarian Situation Report – Reporting Period 15-21 September 2014*

In September 30 2014 (week 40), the GoSL issued the NECS as a guiding document for the Social Mobilization pillar. The strategy was aimed to "contribute to end transmission to social mobilization and public education that supported desired behaviour changes" (28). The NECS mentions several frameworks or models. The first relates to the WHO outbreak communication planning guide. From this document the GoSL adapted the Quality Principles of communications in emergencies. The principles for WHO are: trust, announcing early, transparency, listening and planning. In the NECS the GoSL did not include the first original principle: trust. It also added some others as the mention to rumour banks, the quality control of messages and practicing positive communication.

The second model is related to health communication in the sense that is a well-known behavioural model, the Health Belief Model (HBM), also with some adaptation. From the standard model, the GoSL included the dimensions susceptibility, benefits and barriers and excluded the perceived severity and including the self-efficacy concept. Finally, it also included the cues to action, which was not originally one of the dimensions but considered as stimulus to trigger the decision making process (31,32).

The third model is the RE-AIM framework for evaluation and assessment purposes in this policy. RE-AIM stands for reach, effectiveness, adoptability, implementation and maintenance. Reach relates to the number of individuals willing to be involved in an initiative. Effectiveness is the impact of an intervention on outcomes. Adoption talks on the absolute number of settings and intervention agents willing to initiate a program. Implementation is about the agents' fidelity to the elements of an intervention's protocol. Maintenance is how a policy or intervention becomes institutionalized or part of the routine (33).

The NECS was published four months after the first case confirmation but included communication practices which were identified as already in use in older weekly reports. KAP was used in NECS to define the baseline on misconceptions and inaccurate knowledge in order to measure advances in the communication objectives stated in the document. Those objectives were defined as a percentage of people having specific knowledge. There was no mention of desired behaviours in the first two communicational objectives. The remaining two went beyond the social mobilization and communication pillar and proposed specific objectives in avoiding stigma of survivors and number and rate of safe burials. Although these two corresponds to desired behaviours they required participation of the other pillars to be achieved with communication practices, especially the one related to safe burials.

The national House to House campaign ('Ose to Ose Ebola Tok') occurred between September 19th and 21st 2014 (weeks 38 and 39) and reached around 95% of households (34).

There were five objectives during this lockdown, one of them specifically related with health communication: to reach 100% of households with correct information on Ebola. The other was related with other pillars but took advantage of health communication interventions. Details on the House to house campaign are in the UNICEF weekly report of September 7th 2014 (week 36) (35).

From the interviews it was perceived that the general perception was that this national lockdown was a success and a turning point in Ebola response and also contributed to showing that the government was doing something for the population.

> *"The three home days, that in order was-- the ministry did that to have health workers be able to go to the homes and share information about Ebola in every single home. That was definitely helpful but there's a mix feedback about that, so some people think it took away from the productivity"—(I4)*

> *"I think this lockdown in Freetown was really important because it symbolized a new way and a new trust for the government um-- and partly because of the spread of the virus became so massive so people needed, I mean, they couldn't do anything other than, than-- accept it" (I1).*

Six months after the first House to House campaign, the GoSL prepared a new campaign which occurred between March 28th and 30th 2015 (weeks 13 and 14). This is a sign of how useful the government perceived the first lockdown was. No conclusive results of this lockdown were presented in the reports until the week 15 of 2015.

At the end of 2014 and during 2015

During the last quarter of 2014 (weeks 40 to 52), the time when EVD transmission was the most severe and number of cases the highest, the weekly reports showed a more intense use of door to door and interpersonal activities. In the same way it appears that the local leaders (religious leaders, paramount leaders, women and young leaders) played a more important role in the health communication strategy. At the beginning of the response, religious leaders were seen as a channel to deliver standard messages but during this time they participated more actively in developing local strategies and contributing to mobilize the population and to help authorities and international organizations to understand its concerns and fears. The response teams improved their ability to listen to the people and collecting feedback when using this approach.

> *"Because the other thing is, people rushing to develop messages and were pushing messages to the community, right? But their leaders were not adequately engaged so there was mistrust. The link between the government and the community is the community leader" (I2)*

The end of 2014 and the first quarter of 2015 (weeks 49/2014 to 12/2015) brought the use of more customized messages, directed to specific parts of the population during specific timeframes and included also the term 'safe and dignified burials'. The first UNICEF report mentioning the 'dignified' word is the report from November 12th 2014 (week 46) and the "big idea of the week" (from week 46/2014 to 15/2015) initiative started to mention the dignified burials in the week 47 (although mixing it with the simplest "safe burials" message). The first UNMEER report, from Oct 27 2014 (week 44) included the pillar Safe and Dignified burials. This pillar was not included in the original response plan.

"The Messaging and Dissemination subcommittee and Capacity Building subcommittee are working to develop messages to inform and engage communities and burial teams on safe burial practices" UNICEF Sierra Leone Humanitarian Situation Report – Reporting Period 9-15 October 2014.

"Topics included: safe and dignified burials; early referrals of suspected cases to health facilities; proper isolation/home-based care while waiting for a referral; and the importance of quarantine" UNICEF Sierra Leone Humanitarian Situation Report – Reporting Period 20-26 November 2014

It was also during this time that the intention to involve social mobilization pillar in the activities of the other ones was reported after the Social Mobilization Implementing Partners Forum held on 30 of January 2015.

"The Forum agreed on three key commitments, (i) included intense integration of Social Mobilization across other pillars to focus on cases, contacts and burials, (ii) targeting at chiefdom level to improve quality and rapid results, and (iii) harmonization and increased utilization of strategic information." UNICEF Sierra Leone Humanitarian Situation Report – 4 February 2015

Communication materials (posters, banners, Frequently Asked Questions brochures, Key messages pamphlets, etc.) were used during all the response plan implementation time but it appears that the focus was changed from distributing materials as the main activity itself to using them as a tool for other approaches. Along the outbreak timeline it was also perceived a change in communication strategy regarding text use in the pieces. In the initial materials it was more frequent to find pieces with long text in paragraphs and at the end visual messages were found more often (36,37).

Actors

During the whole outbreak intervention the participation of several international organizations was clear. One of the interviewees suggested that, at the beginning, the GoSL defaulted to the Ebola patients care to Médecins Sans Frontièrs. Along the reports and interviews it is possible

to perceive the deep involvement of international organizations. In the case of the social mobilization pillar, UNICEF took a leading role that was formalized in the NECS, since week 27/2014.

> "At the national level, the Social Mobilisation (SM) Pillar chaired by Programme Manager, Health Education Division at Ministry of Health and Sanitation and co-chaired by UNICEF Sierra Leone will lead and coordinate programme communications activities, the use of mass media, interpersonal communication approaches and social media to enhance understanding of the disease, risks and risk mitigation measures, putting people at the centre of the response." NECS

The NECS defined that the GoSL would be the coordinator of the communication activities and that the messaging and communication subcommittee would assure that messages and communication materials are evidence-based. This role is not really evident in the different reports but it was clear the participation of a diverse group of organizations in different health communication campaigns.

UNICEF is not the only international organization leading a pillar. The GoSL has assigned at least one of international organizations to co-chair the remaining pillars (38):

- Case Management - Pillar leads: MoHS, WHO
- Surveillance - Pillar leads: MoHS, WHO, UNFPA, CDC
- Safe and Dignified Burials (SDB) - Pillar leads: IFRC, MoHS
- Social Mobilization & Communications - Pillar leads: MoHS, UNICEF
- Psycho-Social Support, Gender, Children - Pillar leads: MoSWGCA, UNICEF
- Enabling Services - Leads: UNICEF, MoHS, UNMEER, WFP, UNDP, WHO

It is important to notice at this point that the term pillar has changed from its first use in the ARP where they were called "Thematic Areas". Later, in the NECS, those thematic areas are called pillars and they remained the same four. In the first weekly report from UNMEER, the last week of October 2014 (week 44) they mentioned five pillars, two of which were not included in the July ARP: "Safe and dignified burials" and "Psycho-Social Support, Gender, Children". From the initial ones, the thematic area "Coordination" was not a pillar anymore.

In the response plan, several governmental agencies or ministries were involved. Regarding the pillar under study in this project, it can be found direct participation of the MoHS and the Presidency of Sierra Leone. New bodies were also created as the Ebola Operations Centre and later The National Ebola Response Centre which responsibilities covered all pillars.

Several sources highlighted the importance of community participation and the change in outbreak trend when the community was really involved. Within the community, several different roles can be identified, for instance the common people at risk of getting the disease,

the families of sick or dead people, traditional healers, local leaders, survivors and health care workers and social mobilizers from the community. It was possible that one person could play several roles.

"At the time was went on-- people I think really understood the community far much better especially that through those surveys [...] aim was to engage the community-- now when you go to Sierra Leone you find that the communities are actively involved in the Ebola response..."(I2)

From the local private sector there was participation of transportation, food market and trade, radio and TV, mobile network operators, schools and teachers, printed material providers and many others. One of the interviewees remarked the importance of working with mass media.

"Because I think, for me, I thought-- the engagement of the media, adequate engagement of the media making sure that media is getting the right information and passing on the right information to the communities at all time was also very critical" (I2).

Rumours and rumour bank

Throughout the outbreak response, the health communicators had to face an informal persistent opposition from rumours, beliefs and misunderstandings. In order to tackle them, a rumour bank was created to allow identifying the spreading of rumours and designing responses to counteract them. This kind of communication, informal, and most of the time lacking scientific evidence, intended to improve the health of the population and to create awareness to avoid contagion or treat the disease. In that sense it could be considered another kind of health communication. Rumours could also use some of the communication channels which were used by the official messages, for example the SMS message talking about witchcraft as the cause of the outbreak, the conversation about Ebola transmission by phone or the message on Whatsapp providing a supposed protection with salt dissolved in water in Nigeria (39). The data from interviews showed the importance of those rumours informing people (in a wrong way, however) and how health officials had to struggle with its jeopardizing effects. Data suggests that the influence of rumours was less important during the last stage of the outbreak however, it is clear it was present and had a continuous impact.

"So, a lot of people have Facebook and Whatsapp, whatsapp is very, very big. In fact a lot of the stigma with victims was transmitted through Whatsapp, so people would, would send pictures" (I4)

"Another friend had taken a position coordinating public outreach for the Ministry of Health and had fielded disturbing questions during a long information session in a remote village recently hit by the virus. The one he found most troubling was the man who asked repeatedly if he could catch Ebola through phone conversations with his cousin, who was quarantined. My friend

explained transmission several different ways, emphasizing the impossibility of contagion through sound waves. Unconvinced, the man muttered that the Ministry did not know anything". 'Articulating the invisible' in Cultural Anthropology

"In several towns where the WHO reported an upswing in Ebola deaths, text messages circulated that these deaths were not due to a virus but to the fact that multiple witch airplanes crashed into densely populated neighbourhoods. All the witches onboard were killed, as well as some unlucky souls on the ground. According to my contact in the north, "This gives new meaning to the phrase 'airborne transmission!'" 'Articulating the invisible' in Cultural Anthropology

"One lady in Nigeria shared that salt in water, you drunk. If you drink salty water and you use it to take your bath you will be protected from Ebola. That kind of message is like having a pin in and you have a balloon that it is already blown to its maximum and you applied the pin on it." (I3).

During the outbreak in Nigeria, rumours also played a role. They also created mechanisms to tackle them.

"So now we have to set up a protocol for rumour management, so that's another health communications practice especially during the outbreak because rumours spring…" (I3).

Lessons learnt identified by interviewees

When asked about lessons learnt, the participants expressed different opinions about what had been learned, what should have been learnt and, sometimes, what has not been learnt.

"I think the lesson learnt from the outbreak is… from the very beginning when there is an outbreak I think information flow to the community is very important. And we are talking about factual information getting thru the community…" (I2)

"Making sure that the media is getting the right kind of information and they are transmitting the right information thru the communities also was another lesson learned." (I2)

"Yeah, I think very specific with the lessons: Communication, so, communication among the health workers and the various districts with the ministry of health, so that has been put in place that if there is a case that looks like Ebola or looks very suspicious that need to be reported" (I4)

"But of course the main thing they need to learn is they actually need to invest money into health services. It is dangerous not to do so, it is dangerous for everybody and they can't-- the elite can't run away so the government can't run away when something happened" (I1)

"That they need to work with local leadership. That is something that it is often forgotten. And it is also part of the power game that you, coming from the capital you have. You see yourself as superior and people in the countryside are supposed to work for you."(27)

"The government should have learned a lot and the leadership should have learned a lot from what happened during the war and when it comes to include a larger part of the population but it seems they have not done that" (I1)

"I would advise that you carefully scrutinize the messages and ensure that you factor the cultural and religious beliefs, and also make sure those who communicate with the people are important figures that people can listen to." (I5)

Discussion

This project aimed to explore how the implementation of National Ebola Response plan in Sierra Leone can be understood using health communication activities as a proxy. In the context of the, so far, largest EVD outbreak it is important to understand how previous knowledge and approaches contributed to face the disease and how adaptations were needed in a country with a weak health system and no experience treating this disease. The EVD response in Sierra Leone has been characterized by quick and continuous learning processes in the context of an engaged and informed community. A graphic timeline of the Ebola response in Sierra Leone showing the five phases identified of the health communication was developed Figure 2.

Components of the policy triangle

Context: The geographic context of the outbreak quickly evolved from being a local issue to a regional one and finally to become a global threat. Adaptation to the development of the outbreak caused changes and adjustments also in the cultural context in Sierra Leone: the schools were closed, population gatherings were restricted and mobilization across the country was in some cases limited or prohibited. The economy and the productive sector were highly impacted with consequences, for instance, in food supply in the forthcoming years. Many health interventions as immunization programs, prenatal care and, in general, access to health care were affected. The transformation in the health system was very quick. When the outbreak started there was only one physician for each 33000 inhabitants and very quickly the disease took the lives of several hundred of the available health staff.

Actors: New actors or new types of interactions among them came to this policy during the different policy cycle stages. Although in the "policy triangle framework", the component actors is apparently showed as a monolithic element or at least treating actors as a single element, from the experience in this case it is clear that it is by itself a complex subsystem of interactions, conflicting interests, message transmission and reception and, maybe, many misunderstandings. In this context of uncertainty, the relations among the actors created a challenging environment for policy implementation. It was shown how a proper health communication process contributed to ease tensions and helped to achieve a smoother EVD control.

Content: The policy content was also continuously evolving. The initial response to a threat present in other countries was based on international experience and current knowledge about EVD. The initial response was implemented given the previous experiences from the, so far, largest outbreak case in Uganda. Health communication was included in the content of the Sierra Leone Ebola response policy from the beginning, even when the policy was not yet formally issued as the ARP in July of 2014 (week 31). This acquired experience during the 'non-written' phase of this policy played an important role during the wording of the written and final version. Despite this experience, it can be said that the policy formulation stage in this case was done in a context of an escalating emergency in a country with no experience in this specific disease, in a topic forcibly included in the policy agenda in a totally unexpected moment and in a low income setting not prepared to handle a situation of this scale. It can also be said that, very soon, the policy document became only a general framework as the disease context was changing in a rapid way and the real response needed to be updated also quickly.

Processes: this project focused on processes, the remaining component of the policy triangle. However, if zooming in from the triangle overview to this corner it is apparent that it rapidly transforms again into another policy triangle. This shows that processes cannot be separated from the other three elements in the framework and they must take in account the specific involved actors, the contextual moment like snapshot in a specific time, and the content also specific for that particular phase of the outbreak response. In that sense, the study of the use of health communication during the implementation process of the Ebola National Response plan is required to include all the different components of the framework

The Ebola response in Sierra Leone could be seen as a number of iterative policy cycles. In order to reach these very quick and frequent changes, strong leadership from the government was required. This was confirmed in the interviews. In a context of historical mistrust against the government, this is an important characteristic to highlight. It is also important to clarify that at the beginning of the outbreak, that leadership was not perceived to be present. It became more evident in August or September 2014 (weeks 35 to 40), when decisive actions were taken by the GoSL, i.e. change of Ministry of Health, country-wide lock down, KAP survey and changes in how to approach and involve the community. This can be identified as an inflexion point in the response. Those changes in the approach to the communities were only possible when the organizations implementing the communication activities gained a better understanding of community cultural contexts and learned how to correctly behave.

Changes in health communication approaches

Health communication can also reflects that evolution, for instance, when there is a change in focus from mentioning printed materials and channels in the weekly reports to a more frequent involvement of local leaders as facilitators of change. This is a shift of focus from message to messenger and showed that both are equally important (40). The data suggest that the first approach was to leave the materials to talk for themselves and being more important than the interpersonal communication. Later, it was a change in the sense that the materials were only tools to support other kind of interaction: human to human. At this moment the role of local leaders seemed to change from mere channels for the repetition of official messages to advisors developing the right messages and facilitators of change in their communities as trusted members. This phase of communication strategy can be summarized as containing enough awareness content, creating a favourable environment, and being an invitation to a behavioural change with a rooted deep community engagement. Influencers can arise in unexpected places and its power, trust and influence can bring unforeseen results (40). It appears that at this moment of the response activities there were also improvements in the process of providing on-the-ground feedback to the authorities or the International Organizations in charge of social mobilization activities. This change in approach was also mentioned by the interviewees and it is possible that it may have caused a small change in population's attitudes to the government and NGOs. This could mean that communication strategies, duly applied, appear to have a favourable influence on the context. The advantage of this case is to propose that the capacity of Health Communication is the quickly evolving and effects of intervention can be detected very soon.

Those changes in the approach to the communities were only possible when the organizations implementing the communication activities gained a better understanding of community and cultural context and learned how to behave. One example of such an understanding is outlined in the document detailing how to greet the chiefs in the communities (41). Greeting the chiefs when visiting a community is a very old tradition aimed to acknowledge the role that person plays in the community and the importance he or she has for the population. It is also a way to get permission from the leadership making easier to get behavioural responses from the population. In the opposite way, a conflict with the leadership can cause a total rejection of the intervention by the community, as it was mentioned in the interviews. In this point it is important to understand that those formal approaches were valuable not only from the communication and social mobilization perspective but also when taking about the delivery care,

dignified burials and surveillance of probable cases. Behavioural messages must meet the right people in the right places through proper messengers and channels.

Changes in messages

Adaptation of communication messages is also a consequence of a better understanding of community's needs. During the first months of the outbreak one of the key messages was related to 'safe burials', as this was identified as one of the main causes of transmission based on experiences from previous outbreaks. In the last quarter of 2014 (weeks 40 to 52), the key messages highlighted in the weekly reports changed to 'safe and dignified burials'. The inclusion of the concept 'dignified' reflects the intention to address one of the main concerns of the population about providing proper funeral to dead relatives. The participation of religious leaders in the communication activities and in the process of feedback transmission from the communities allowed the realization that some cultural behaviours are flexible but the fundamental worries and cause of those behaviours should be duly understood and specific interventions must be designed. A valuable response in that way is the creation of a new pillar in the response plan.

The delivered messages were also dealing with people's expectations and beliefs. At the beginning of the outbreak the general perception and also the official messages were that Ebola was a deadly disease; 'if you get Ebola, you will die'. That was combined with the fatalistic message on the absence of any treatment. If the situation was that, then what was the point of letting relatives go to the Ebola treatment centres when the health care workers could not do anything to save them? That was one of the reasons behind hiding sick relatives or bodies or kidnapping them from the Ebola treatment centres. Understanding those reasons for different behaviours allowed the GoSL to make changes in that kind of messages. From that point the messages "We can stop Ebola" were empowering the population, telling them that the successful results against the outbreak depended on the people's attitudes and it was not a fatal or irreversible destination. Messages and their targeted receivers were also updated according to the needs and the outbreak situation. This happened especially when the weekly case numbers started to decrease in December 2014 (weeks 49 to 52). While the western districts still had high number of cases, the eastern ones needed to move to a new phase. For instance, during the first quarter of 2015 (weeks 1 to 12), some Ebola Treatment Centres were in process of decommission (the process to change the use or dismantle of the locations used for Ebola care). The offer of service was higher than the demand and some centres which were formerly schools stopped working as health centres and were prepared to the schools restart scheduled

for March 2015 and later moved to the 14th of April (week 15) due to an unexpected increase in hot spots during January and February of 2015 (weeks 1 to 9). The messages delivered to the community were related with the effect of decommission of those centres and where the people should go if a probable case is detected during the surveillance activities (also reinforced). That change in focus for a post-Ebola phase also involved messages related the return of children to schools. At the same time, the main messages for the population in the whole country were reinforcing the idea of the possibility of end Ebola and also avoiding complacency, as the current Ebola outbreak is not over until there has been at least 42 days since the last case.

Coordination among actors

Communication with behavioural objectives can achieve the best results only if the rest of the response is ready to fulfil the requirements from people to lead to behavioural changes. After January 2015 (week 5), the interest of involving the activities of Communication and Social mobilization pillars with activities from other pillars was stated. The examples provided above show several situations when these activities coincide in time and place. This is a real big step in coordination of efforts during the implementation. It took five months or more to formalize this interaction but this have been happening before and this new policy content can be seen as making explicit the former implicit behaviours. It can be said that the formalization arrives quite late as the peak of number of weekly cases occurred in November 2014 (week 48) but it must be stated that the preparedness or readiness of each pillar has been a continuous learning process and it is likely that establishing this cooperation before could lead to deceptions. During the first months of the outbreak a call centre was settled as a unified contact point for people, health care workers, etc. in order to get directions on what to ask or if there was the need of reporting a sick person or a dead body. The call centre personnel were duly trained and the communication capacity was frequently upgraded. However, the low response capacity from the logistic teams in charge of transportation or burials resulting in some calls only being acted upon, by the call centre 72 hours later. The communication pillar and other pillars were not able to coordinate the response due to insufficient resources in both sides. At the moment of formalizing the involvement of communication and social mobilization activities with the other pillars interventions, the response time was around six hours before the call centre warning and the team going to the place.

Five phases identified

Figure 2 summarizes the findings in five different phases, namely:

- Phase 1, Latency: The disease was spreading without notice.

- Phase 2, Outbreak onset: The disease transmission and effects are clearly surpassing the unplanned response efforts.

- Phase 3, Taking control: perception is that actions taken are driven in the right direction to control the outbreak.

- Phase 4, Tuning: Standard response can now be customized to specific needs.

- Phase 5, Recovery: Efforts can now be placed in recovery of the country and health messages are tailored accordingly.

Communication cycle and policy implementation

As proposed above for the implementation process, there were numerous and short term communication cycles. However, it can be said that there were also activities which could
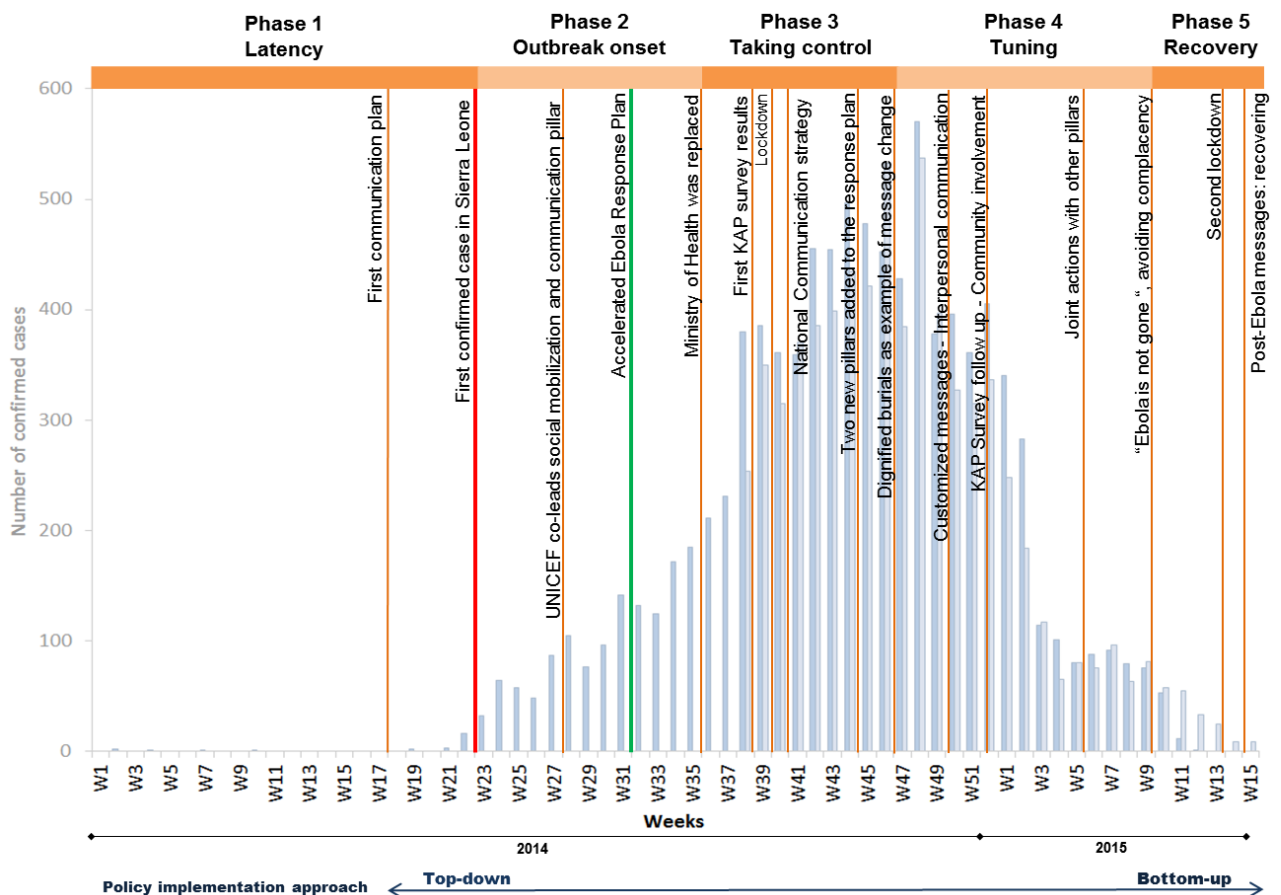

Figure 2: Health communication timeline – Ebola response in Sierra Leone

27

have a long term scope and other that are short term. The preparation of materials, training and building capacity and community leader engagements are activities of which the effect could be perceived several weeks or months later. Human to human interaction activities could be included in this same category although, depending of the specific message, activities and purpose, it could change among different moments. Delivering printed materials and radio or TV messages could be considered a short term activity that requires repetition in order to create an impression that can be permanent.

In that sense it can be argued that approaches which aim is to engage the community and involve it in the communication process could be expected having a longer term effect than activities in a top-down approach. The effect of well planned and executed long term interventions could be found much time after their implementation. It means that they have a time span longer than the communication cycle duration. They would, also, be more capable of influencing and shaping the context in order to facilitate the achievement of behavioural goals. Once long reaching activities are settled, the communication and implementation cycles can be extended. However, surveillance activities should always be present in order to identify signals that lead to rapid reaction from authorities and community.

Top-Down or Bottom-Up?

The findings about the use of health communication in the implementation in the Sierra Leonean ARP suggest that the initial implementation strategy had a top-down approach and it overcame a transformation in the way of being more a bottom-up when more end-users and the community in general was involved in the delivery process. A more conclusive statement on these different approaches along the time can be confirmed after a more detailed and comprehensive study covering all pillars included in the response activities.

The GoSL assigned several international organizations to lead the response areas or pillars. Many of the available reports of advances and needs of the response were issued by these organizations and not by the government. In that sense, the agencies developing the reports could be focused not only on the global response results but also in their own achievements in order to show actions before their management, governments and donors. The rationale behind outsourcing those actions to other stakeholders could be interpreted as the government intention to keep only coordination and high politics roles and defaulting to the operation to the experts. The GoSL and its agencies issued daily situation reports mainly focused on the number of cases and location of those cases. However, the actions conducting to those results were not issued in those documents.

Behavioural models and frameworks in outbreak response in Sierra Leone

In the NECS, the GoSL used, at least, one of the most common behavioural models: the HBM to define how messages should be framed (28). HBM was developed to explain why people did not participate in programs helpful for their health status (16). As mentioned above, the GoSL included some of the original dimensions in the NECS and excluded the first one: the perceived severity. However, the already mentioned change of message from EVD being a deadly disease to a defeasible disease could have been trying to impact how the population perceived the severity of the disease. It could have been and unexpected desirable result.

UNICEF used a different communication framework: C4D or Communication for Development. For UNICEF, C4D promotes positive and measurable individual behaviour and social change. UNICEF's particular approach embraces human rights seeking to create equality of distribution of social benefits (42).

It would be important to understand how each one of the main actors applied the mentioned frameworks, including the Outbreak Communication Planning Guide from WHO mentioned in the NECS, and if they were strict in following guidelines or theoretical basis in each one of them. It would be important to know if the use of different frameworks provided a specific advantage, caused conflicts or had a neutral effect.

At this point of the outbreak when number of new cases has fallen to ten per week or less, after being almost 600 per week in November 2014 (week 48), it would be interesting to know how the RE-AIM model was applied to monitor advances and goal achievements. There was no information on an evaluation of that kind publicly available.

Summary of possible lessons learnt or achievements

Based on the discussion above, the author identified the following main lesson learnt, by the government and international organizations during the Ebola outbreak response:

- Understanding that the message and the messenger could be equally important
- Change in message styles and communication strategies based on better understanding of communities
- Achieving communication strategies mixing awareness, creating a favourable environment and an invitation to action
- Better understanding of the role of community leaders to well-designed health communication strategies contributing to a better outbreak control
- Changes in implementation approach allowing greater participation and feedback from communities

- A constant evaluation of implementation and the intention of a continuous improvement based on data results was perceived

It is important to highlight that recommendations or best practices from research on previous Ebola outbreaks and from other epidemics coincide with many of the ones just proposed. So, questions arise on why knowledge is not that easily transferable to other countries and why it took some time to implement it in a successful response. These questions remain unsolved in this project as they are out of the initial scope. However, some steps have been seized by several donors replacing their disease-specific initiatives to new horizontal approaches in order to build and strengthen the health system. Sierra Leoneans should build alliances allowing the country to build capacity to face the more prevalent threats assuring the continuous access to health care. In that way, it will be able to handle disasters or emergencies like the Ebola outbreak. In addition, the government and the local and national leadership could take advantage of the trust gained during the Ebola response engaging different stakeholders in the recovery phase.

Working in these themes, although demanding a large amount of resources and an exceptional political will, would contribute to increase preparedness for emergencies both in local and international levels.

Contribution to policy and practice

Health communication contributed significantly to prevention efforts during the Ebola outbreaks. In this disease more focus should be on prevention and avoiding transmission, rather than on treatment. Understanding experiences in a severe situation like this and interaction with the other components of response will help to build capacity for future cases.

The methods selected for this master thesis allowed extracting conclusions from diverse sources. This contributed to the confirmability and credibility on the findings. Reconstruction of events and decisions is based in alternative opinions and resources and allowed certain amount of triangulation and identification of differences in opinions or judgements among interviewees and documents.

The findings about community approach and coordinated work of different response fields could be transferable to other settings. However, caution should be exercised as they are context specific and space should be given for the identification of other approaches to enable appropriate engagement with the population and successful public health interventions.

Methodological considerations

The availability of information sources was, sometimes, limited. An easier access to sources within the GoSL could have provided additional documents containing more strategic information. The focus in one pillar, Communication and Social mobilization, could also have limited the overview of the policy implementation process. It would, however, be extremely ambitious to include all pillars for the scope of the thesis

Additionally the thematic content analysis was performed only by the author. A cross checking with a colleague would have improved reliability and could have avoided biased interpretation.

Another limitation is working quite far from the field, some contextual factors and rationale behind strategic decisions could be missed.

Suggested future research

The Ebola outbreak in West Africa presented an extraordinary challenge for the countries involved and the international community due to the rapid change of the situation and the spill-over effect on other systems. Further research in health systems and policy in those rapidly changing environments could provide additional insights about its complexity and the interaction among the different components of the policy triangle framework.

This exploratory project also provided enough insights for future research, on the same case deepening in some specific aspects of health communication during the Ebola response in Sierra Leone or in some other pillars from the experience and the succession of events and phases identified in this project.

The fulfilment of the goals stated in the NECS based on the theoretical frameworks proposed on behavioural model and RE-AIM can also be studied.

Conclusions

This project has explored the evolution of the health communication strategies within the response to the Ebola outbreak in Sierra Leone from April 2014 until April 2015 using thematic analysis of interview transcripts and documents. It was possible to identify five main phases in this health communication usage, each one characterized by a unique communication style, specific messages according to the outbreak situation or a different approach in the implementation of the response plan. Some best practices were also highlighted due to their utility in any future outbreak of Ebola or other epidemic outbreaks in low and middle income settings.

It seems that the worst phase of this outbreak has already passed but it remains a persistent incidence of a low number of cases with the threat of re-emerging hotspots of the disease. The

involvement of the community should remain strong in order to develop behaviours that prevent transmission and allow rapid suspected cases identification.

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