Comparative Overview of Strategies to Deal with Ebola Outbreak in Liberia and Nigeria

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Abstract: The emergence of the Ebola outbreak in 2014 was a threat to health systems of the West Africa. This study reviewed the strategies of Nigeria and Liberia formulated to deal with the Ebola Virus Disease outbreak in 2014 and aimed to identify effective strategies which would be helpful in future outbreaks. The study was carried out as a literature-based research on data generated from other related studies and from official reports. Findings showed that the both countries health systems implemented similar strategies based on guidelines provided by the WHO and CDC. Although both countries had similar strategies, difference in the implementation of the strategies was seen. Nigeria was highly successful in fighting against the virus; but, Liberia faced difficulties in achieving this outcome. The difference in the implementation phase was a product of some limitations such as lack of community participation faced by the Liberian health system. Based on the findings of this comparative overview, Nigerian strategies could provide an initial basis for adaptation by similar situations of viral outbreak.

Keywords: Ebola Outbreak, Nigeria, Liberia

1. Introduction

The Ebola virus (EV) infection outbreak in March 2014 has been the largest outbreak of EV in history by killing more people than previous Ebola epidemics. WHO declared the epidemic to be a “public health emergency of international concern” and in September 2014, a total of 4507 probable and confirmed cases, including 2296 deaths from Ebola virus disease (EVD) were reported from Guinea, Liberia, Nigeria, Senegal, and Sierra Leone [2].

With the emergence and spread of EVD across some West African countries with disintegrated health systems, a number of strategies were established by the governments of countries to limit the spread of the outbreak. Although the profile of demographic characteristics and symptoms are similar in each country, the most important determinant of outbreak size seems to be the drastic improvements in control measurements [10].

This research overviewed the strategies undertaken by the ministries of health of both countries during the outbreak, the aim of which is to evaluate the effectiveness of the strategies followed on limiting the spread of EVD and identifying the handicaps faced with implementing these strategies. Highlighting the most effective strategies in this respect would facilitate the formulation of an efficient strategic model for handling Ebola outbreaks or any other viral outbreaks in similar situations.

2. METHODOLOGY

In this study, the period of 2005-2015 timeline literature databases was scanned. The databases used to search the relevant literature in this study were EBSCO, PsyINFO, JSTOR, PUBMED, Science Direct, and Google/Google Scholar.

3. RESULTS

3.1. Strategies Adopted For Ebola Outbreak in Nigeria

After first case of Nigeria in July 2014, the Federal Ministry of Health and Nigerian Center for Disease Control (NCDC) declared Ebola as a public health emergency. The Emergency Operation Centre (EOC) was responsible for surveillance including alert investigation and response, contact tracing and monitoring, logistics coordination, data management and operational research. The Nigerian government moved quickly to enforce coordination of the national and local Ebola response efforts using the IMS/EOC structures and drew from its successful experiences. Laboratory services were in charge of diagnostics, sample transportation, coordination and clinical support [9].

Before the Nigerian Ebola crisis, specialists of Centers for Disease Control and Prevention (CDC) (GA, USA) had already been training one hundred physicians on epidemiology. This training gave chance to immediately identify EVD [6]. The Nigerian National Council of Health announced transportation prohibition to infected-dead bodies and seriously-ill persons both locally and internationally. The Federal Ministry of Health (FMH) permitted transportation of Ebola-free dead
bodies with waivers granted by the FMH accompanied by death certificates and stipulates carriage of bodies by ambulances. Based on the FMH, seriously-ill persons are expected to present medical reports before acceptance to any kind of transportation. The Government used mass communication to stop misinformation and panic-leading rumours. Communities were informed so that people would not see Ebola as a death sentence and it was also emphasised that those who report early to the hospital to show have higher chance of survival. These interventions caused as a source of comfort and helped the government to gain the people’s confidence to it. Liberia, unlike other countries, left its borders open.

3.2. Strategies Adopted For Ebola Outbreak in Liberia
The first two Ebola cases in Liberia were identified in March 2014 [4]. However, initial Ebola cases were mistakenly recognized as Lassa fever which was caused the physicians to additionally be infected. Liberia had no laboratory infrastructure in capable of testing EV and so, the blood samples were sent to France which caused delays on getting results such in late March. The first two cases were confirmed as EV infection.

The first step of fighting against Liberia outbreak was the opening of treatment centres [6]. Liberia government opened Ebola treatment centres with 240 beds [12]. However, Monrovia was in desperately shortage of available beds. Liberia had external support from other countries as well. China, one of the first countries to send aid to fight EV in West Africa, opened a 100-bed treatment centre in Monrovia. The US Government opened 17 treatment centres with a 100-bed capacity in Tubmanburg [5].

Liberia hired over two thousand contact tracers to identify and isolate everyone with symptoms of EV infection, and those who had contact with EV victims such as close relatives, colleagues or friends who might have been exposed to the virus. The outbreak that began in Guinea and spread to Liberia and Sierra Leone resulted in Liberia closing most of its borders by the 28th of July 2014. This was an attempt to stop other Ebola cases to enter Liberia. Because the infected bodies are highly infectious for handling and touching, a bury-team was formed to collect and bury. The only way a family would be allowed to bury their deceased was to provide the death certificate showing that the corpse is Ebola free.

4. DISCUSSION
The limitations faced in the implementation of strategies that are discussed in this overview focuses more on Liberia since Nigeria being successful in limiting the spread of the EVD and these two countries were declared as Ebola free by WHO [11]. Both countries faced serious challenges as a result of a lack of health equipment, shortage of health workers, outdated medical technologies and a malfunctioning health information system and a low budget of the health system. All these factors greatly served as major limitations in attainment of the objectives based on Ebola containment strategies adopted.

Although Liberia has a better functioning healthcare system than Nigeria according to WHO ranking of health systems [7], findings show that Nigeria was more successful than Liberia in handling the EVD outbreak. Focusing at the strategies used by these countries, it can be realised that they both used guidelines from the WHO and CDC. However, the differences observed in the outcome which seems to lie in the implementation of these strategies. Bribery and corruption was one of limitations faced by the Liberian health system. The rapid spread of the infectious virus in Liberia was attributed to the exposure to infected dead-bodies, through body fluids, to the relatives and friends during traditional funeral procedures. Families were reported to bribe the retrieval team to let them keep their loved ones’ bodies and give them a befitting traditional burial [7].

Unregulated migration across borders, poor socioeconomic status, poor infrastructure support, inadequate involvement by members of the community can be considered as limitations faced by the government of Liberia [8]. Denial and fear seemed to be other important limitations in fighting against this outbreak, as many Liberians believed Ebola was a ploy by the government to get foreign aid. People believed that EVD does not exist and that people die after they receive vaccinations by the Red Cross, and others WHO and several other UN agencies and health organizations are responsible for the Ebola outbreak of 2014 in which they supposedly used the outbreak as a platform to test and promote their vaccines. Some Liberian newspaper posts refer to Ebola vaccines as “Dangerous chemicals” which, once injected, produces Ebola-like symptoms and makes victims into a coma state [1].

Timing was an important factor for the success in struggle against EVD. Once the diagnosis was confirmed after three days in Nigeria, the EOC was immediately created a rapid, effective and coordinated response, and Ebola was declared a state of emergency and funds were allocated to the outbreak [1]. Nigeria’s response benefited from the rapid use of its national public institution [9].

A key intervention to help in future outbreaks and future health system crisis appears to be to strengthen the healthcare systems. Health system strengthening is a process that concentrates on ensuring that people and institutions, both public...
and private, undertake core functions of the health system in a mutually enhancing way. So, the components of the strategy should be prevention wherever possible, rapid detection, and effective response to stop the EVD outbreak [3].

5. CONCLUSION

The effectiveness of strategies or interventions lies in the implementation phase. No matter how great these strategies appear, failure in the implementation phase substantially affects the health outcomes

REFERENCES