Planning for and response to Ebola Virus Disease (EVD): Are we ready?

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Summary

Acknowledging that Ebola Virus Disease (EVD) is frightening invokes concern over the slow progress the Government of Malawi is making towards the planning for, and response to Ebola Virus Disease. Since the first cases of Ebola were notified in March 2014 in Guinea, it has been unclear whether Malawi is ready to deploy its plan to respond to the threats of Ebola Virus Disease. While it is acceptable that planning is a continuous process, the public are yet to see the finalised proposal of the Preparedness Plan or be notified of any Ebola drills, exercises and simulations. Preparedness and responses to the avian H5N1 in 2006 and pandemic influenza H1N1 in 2009 in Malawi were not as slow, but they were clumsy and incomplete, raising serious concerns whether Malawi is able to be prepared for the current Ebola outbreak. There is a great deal more to preparedness than just acquiring resources. Planning should be about responding effectively in preventing and mitigating the disease threat with the means available. The effectiveness of preparedness is not just a matter of having a plan, but of having one that maps out core issues and finds legitimate solutions in their own context. Such plans need to be fully supported by political and social structures. If Malawi is to respond effectively, the “know-do gap” between what gets planned and gets done must be connected with evidence of what works effectively. To fight Ebola in the event an outbreak occurring, and in order to bend the “epi curve” in the right direction, we need to strengthen the health operation systems. Ebola outbreak will make additional demands on health facilities and any response actions in the implementation plans must provide the best ways to minimize costs and maximize health service benefits. The practical elements, such as shortage of doctors, nurses and volunteers to work at the frontline, must be addressed. Communicating the response plan prior to the outbreak is not only good public health practice but also helps overcome the problem of social order, panic, fear, myths and staff absenteeism. If Ebola preparedness plans are to illicit successful responses it will be necessary to delve more into participatory approaches that address cultural problems associated with increased risk of Ebola transmission. National and local decisions ought to be well informed with epidemiological and public health information so as to address practical difficulties, such as ethical problems, priority setting hiccups and collaboration riddles. All
Ebola actors should play a key role at the community level in providing essential services to ensure business continuity and public order. The National EVD Preparedness Plan needs to consolidate and identify the alternative care sites for the delivery of health care in the event that hospitals are overwhelmed with scores of patients.

**Background**

The effects of Ebola upon rates of mortality are clear, as gathered from the ongoing outbreak in West Africa. As of 25 October, a total of 4922 deaths and 10141 suspected cases have been reported in Guinea, Liberia, Nigeria and Sierra Leone [1]. The case-fatality rate (i.e. the number of infected people who die) from the disease in West Africa is about 64% [2]. The rate of transmission has overwhelmed West Africa with cases climbing at an unexpected pace, making the disease the largest ever reported epidemic in the region. The outbreak is moving faster than it is being controlled with new reports showing that the USA, Spain and Mali are affected [1]. The geographical distribution of Ebola Virus Disease in three continents, and a further involvement of human cases on a larger scale cannot be understated. With increasing globalization and ease of international travel, it appears to be inevitable that we will eventually see cases in Malawi. The threats of Ebola to Malawi are real and the control of the disease would be equally difficult to manage due to an inadequate public health infrastructure, overcrowding, poor sanitation, cultural practices and living conditions. Without a fully functional health system, limited capacity in surveillance and weak disease control strategies most needed to prevent and mitigate the Ebola outbreak raise serious concerns for Malawi. The purpose of this paper is to assist in highlighting some of the key areas of preparedness needed to prevent the disease from occurring in the country by keeping it out (border management) and addressing the consequences and effects of the disease by stamping it out (cluster control). This paper also serves as an impetus for action and it is intended to complement the preparedness efforts currently being prepared by the Ministry of Health.

**Ebola preparedness situation in Malawi**

A brief historical context of planning for, and responses to, avian and pandemic influenza in Malawi suggests the country may still be unprepared to handle an Ebola outbreak. There is plenty of evidence suggesting that very little has been done to enhance initiatives and mobilisation of activities that would be more important priorities for managing and
addressing the consequences of the Ebola Virus Disease. Doctors, nurses and health-care assistants are yet to be adequately informed of the disease. Coordination on roles and responsibilities to identify risks and implement mitigation strategies among stakeholder groups are yet to be announced in many priority areas. Previously, the response plans have operated at national level in the proposal draft form without the full participation of sectors at the regional, district and community levels. The lack of involvement of local communities in the MoH is not new and will only be a setback to the epidemic roles and responsibilities that ensure advanced preparations are timely and consistent in safeguarding population health.

**Planning and coordination**

The purpose of the Ebola plan is to help with containment and mitigation of the disease through timely detection and prevention of outbreaks. Working with the general population in the villages and towns is an important endeavour without which we will have already lost the battle. You cannot mount strong surveillance strategies in human populations if you do not explain the strategies to the general population. The National EVD Preparedness Plan must explain how it is going to manage and meet the needs of patients and how it would reduce the consequences of the disease outbreak in the communities if it were to blow out of proportion. To achieve this imperative in a practical sense, different actors must be involved, such as households, chiefs, local companies, government departments and UN agencies, in the planning processes.

Preparedness response plans for Ebola will fall short on important aspects needed if they are not based on basic scenarios of preparations, such as how to increase service output in health facilities. Lessons must be learned from West Africa on the importance of ensuring that vital services are kept running, like how best to facilitate food security so that there are no food shortages during the outbreak, or ensure that the education system is continually sustained while water companies continue to work to provide clean water. It is important that plans’ overall goals are clarified in terms of how difficult decisions and choices would be made. Coordination among interested parties including health-care workers is essential if we are to win the battle. The authorities must demonstrate the extent to which these plans would be implemented.

**Ebola surveillance, situation monitoring and assessment**
While surveillance, situation monitoring and assessment are much needed to quickly detect and treat cases of Ebola to avoid deaths, the robustness of surveillance systems to send early signals for health service response are worrisome. The existing Integrated Disease Surveillance and Response (IDSR) is an important tool, but remains too weak to mount surveillance measures that are comprehensive enough to continuously detect the Ebola cases occurring in the human population. If contact tracing is really to work, we need to strengthen our surveillance so it is sensitive enough to pick up Ebola cases at borders and within the communities. The financial and human resources necessary to operate surveillance activities are inadequate to support regular diagnoses of Ebola while keeping track of all laboratory tests and people under contact tracing. Having enough effective and efficient referral laboratories in the country would improve surveillance activity and speed up situation monitoring, assessment and reporting. There is need for rapid test technology using a real-time reverse-transcriptase polymerase chain reaction (RT-PCR) test to be deployed in key areas.

**Prevention and containment**

Like surveillance, preventing and controlling EVD is important. Since there are no vaccines to fight Ebola virus, efforts must be directed towards implementing non-pharmaceutical interventions such as quarantine, travel restriction, closing schools and hygiene promotion. While institutional closure, forced treatment and isolation are useful measures, they lack the legal frameworks to support the enactments as required by the International Health Regulations of 2005. The Malawi Public Health Act (1948) is as inadequate as it is outdated and unable to support important enactments and current best practices in preventing and managing emerging challenges of Ebola outbreak. There is need to connect legal consistency between international (e.g. the International Health Regulations of 2005) and domestic laws (e.g. local public health laws).

Non-pharmaceutical interventions are common measures identified as efficient methods of mitigating Ebola outbreak, taking into account that these methods are cheaper although they require voluntary cooperation with patients. Quarantine and contact tracing have practical challenges associated with prevention and containment. For example, implementation of such interventions runs the risk of stigmatising the very population they are meant to protect. In the absence of sufficient hospital space and tents, community care may be encouraged by
providing households with “home-care kits” to reduce the risk of within-home transmission. Since people will be afraid of catching Ebola in hospital, it should be expected that non Ebola patients will dessert to their homes or suspected Ebola patients will decide to remain in their homes due to lack of medicines in hospitals. Households looking after sick patients must be encouraged to wear makeshift protecting clothing where latex gloves or protective gowns are not available. Care management of Ebola patients with rehydrating fluids must not be understated. Most importantly, hospitals must be provided with medicines, fuel and generators. Mortality management such as the role of mortuaries and safe disposal of bodies must be addressed. Ebola assessment centres, including camps, must be established.

Communication strategies relating to priority settings of limited resources should not be overlooked and indicator guidelines must be publicized to ensure people are informed and able to gain insight or a glimpse of what is expected of them in light of scarce resources. The failure to take into account the need for communication not only produces non-beneficial judgement on the part of the policies, but significantly increases errors that subsequently rob the public social reality of expectations.

**Information education and communications (IEC)**

The success of planning for and response to Ebola rests clearly on three inter-related themes: information, education and communication. To stop the epidemic, people’s behaviour must change too. We have seen how cultural practices have contributed to the spread of the disease in West Africa. There is much theory on communication for change that authorities can tap into and apply to change some cultural behaviour. The communication strategy on EVD messages can be implemented using different media channels, such as newspapers, television and radio. The MoH must establish a telephone hotline to inform the general public on issues relating to Ebola, such as protocols and triage decisions about who gets the limited drugs in moderate and worst-case scenarios when all would be eligible. The EVD planners may consider adopting a call data records (CDR) system to provide real time notification about areas that are affected or to predict spread of the disease. CDRs definitely hold potential as a planning and evaluation tool if structures can be created for passing information smoothly and rapidly from providers to the general population, researchers and policymakers. Any decision making process on Ebola will rely very much on timely information made available from various sources and communicated as response actions through channels that are
equally effective. IEC strategies must attempt to address panic, rumours, fears and myths. In emergency situations there is no need for panic and stigmatisation. The national IEC strategy must maintain multi-sectoral communication capacity to respond to the needs of the Ebola patients with implementing stakeholders.

**Health system response**

The Ebola epidemic would place a significant burden on health-care systems due to increased rates of patient visits seeking care across the country. The current operational nature of everyday activities of the health services is already overwhelmed with scores of operational and logistic problems due to Malaria, HIV/AIDS and TB. Additional health services due to Ebola Virus Disease are more likely to mount extra burden on the already distressed health service operatives. Strengthening the health service’s capacity is necessary to enable it to continue with the routine handling of laboratory specimens, implementing its hospital infection control policies, and providing safe transport and pharmaceutical logistics. To ensure health professionals turn up for work every day in the event of Ebola outbreak, they need to be supported, assured and motivated.

Any preparedness, response strategies within the health-care systems requires money so it can acquire materials such as Personal Protective Equipments (PPEs) that protects the health professionals while coordinating their work during the Ebola outbreak. It is perfectly sensible for health workers to be scared of treating Ebola patients if they are not sufficiently protected with PPEs. Enough funding must be made available to maintain specific activities, such as raising awareness and strengthening the training of health-care workers and the communities on the best methods of avoiding and treating Ebola patients. Hospitals need to be properly coordinated, with enough staff, although many rural clinics lack much-needed resources such as patient beds, medicines and nursing staff. Hospital protocols must be in place upon which the health service can initiate the call to action. Alternative medical services must be clearly articulated, detailing what actions hospitals or clinics should take when overwhelmed with patients. It is also important to know whether the health sector would engage traditional healers, or simply engage volunteers from the non-health sector in reducing the demand and burden of patient care if they had a large influx of patients.

**Ethical planning and response**
There are a lot of ethical issues that will arise as a result of interventions that will be implemented to control Ebola spread. Ethical planning for, and emergency response to, Ebola is a relatively new challenge that the country must face, even in peacetime. The growing threat of Ebola demands the rapid reorganization of the health service operatives notwithstanding recalibration of the ethical issues that will be encountered. Medical practitioners and Ebola experts will be faced with decisions relating to resource prioritization and allocation. To make the best use of limited health-care resources available and achieve cumulative benefits in this under-resourced country, utility considerations must be fair and largely popular. Although the criteria to establish priorities that promote equitable access are important, prioritization protocols to ameliorate ethical problems in these circumstances must be developed.

Ethical problems are likely to originate from the particular tasks of public health and medicine. For example, ethical problems will arise if medical professionals decide not to work at the bedside due to fear of contracting the disease or if they feel obliged to stay at home and look after their families. Sometimes, lack of transport to ferry patients or health workers to locations, such as main hospitals, can cause ethical concerns. Ethical issues are likely to emerge as a result of irrational decision-making and failure to balance individual freedoms against the common good, fear for personal safety against the duty to treat sick people, and economic losses against the need to contain the spread of a deadly disease. To address a number of ethical issues raised in reference to the authorities’ failure to act, acting inappropriately, lack of cooperation and intrusive public health measures, I propose an ethical framework to be developed as part of National EVD policy.

**Conclusion**

While Malawi is in the process of developing its plan to respond to Ebola, progress remains slow. The developing plan must be consolidated quickly and shown to the public. All the assumptions within the National EVD Preparedness Plan must not take the position that planned interventions will address the Ebola outbreak in a straightforward manner. Discrepancies are expected in any planning at the local and national scene due to the uncertainty associated with the Ebola transmission dynamics. It is, however, important to have a consistent basis for planning, especially if it is to be applied at the local and national level alike. I acknowledge the existence of some disconnect between what is planned and
what is implemented. Planning assumptions are not the predictions of what exactly will happen during the Ebola epidemic, but there will be indicators of what could happen. I do not anticipate Ebola to be unpredictable; therefore Ebola scenarios in the plan should be flexible and adaptable to a wide range of potential scenarios based on three tiers: i.e. mild, modest, and severe.

References


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