

## Ebola Virus Disease Outbreak Prevention and Response Preparedness in Ethiopia: Lesson Learnt

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**Introduction:** Ebola virus disease (EVD) is caused by a virus of the family Filoviridae, genus Ebola virus. The first EVD species was discovered in 1976 in Zaire what is now the DRC near the Ebola river. Since then outbreaks have been sporadically reported from central and eastern African countries. The 2014 western Africa EVD Outbreak began in a small village in Guinea on 26 December 2013 and further expanded to Liberia, Sierra Leon and many other countries. Ended, as of 6<sup>th</sup> March 2015. The disease affected 28,639 and killed 11,316 people. WHO alert member countries to develop prevention and response preparedness capacity and enhance surveillance activities.

**Methods:** The Ethiopian Public Health Institute (EPHI) established EVD Technical taskforce and working groups. Higher command posts set up at the Prime Minister Office and Ministry of Health. The national preparedness and response plan was prepared and resources were mobilized. Technical working documents were prepared. Ebola treatment units (ETU) established and equipped with trained staff, as well as infection prevention (IPC) materials and medical-supplies. Screening sites were established at point of entries. State of the art thermal-screening cameras installed at Bole Airport. Health workers were trained and assigned 24/7 at ETU for case isolation and management, at Bole-airport for screening and quarantine, at EOC on hotline to receive community report and follow-up of passengers from affected countries. Continuous drill exercises held at ETU and airports to build confidence among health workers. Bio-safety level 3 laboratory was established and referral linkage was also made to WHO reference laboratory.

**Results:** The TWGs developed Ebola guidelines, SOPs and risk communication materials. More than hundreds of millions birr mobilized in cash and in kind from government and partners. Different life saving drugs and personal protective equipments used to treat a minimum of 50 patients were stockpiled. About 25,773 health workers were trained and oriented. Hundreds of thousands different communication materials ( brochures, leaflets, posters, ID card and roll ups) prepared in different languages and distributed widely. All passengers were screened and 3,238 passengers having travel history to affected countries within 21 days were identified and followed for 21 days. Seven alert and one suspected EVD cases were identified and tested for Ebola. Two ETUs were established with 72 beds and fully equipped. We also received 12,725 calls from community through hotline at EOC. The preparedness activities involved different partners and government line ministries.

**Conclusion:** Ethiopia has built strong surveillance system that can detect EVD cases. The capacity to identify, transport to ETU, diagnose and treat the EVD patient is also maintained. The emergency operation plan, ETU functions, risk communication, contact tracing and follow up of passengers were tested in real situation during the preparedness activities. Because of globalization specially the fast transportation system, we are always at risk for any types of health emergencies, hence, it is a time to think globally and prepare for multi-hazards to maximize our health security. The Ebola preparedness is cost intensive and we learnt it is not only a responsibility of health-sector and it needs multi-sectoral collaboration using a one health approach initiatives for better preparedness and response in the future.

**Key Words:** Ebola, Virus, Personal Protective equipment, Contact, Ebola Treatment Unit, Screening