Out of Africa, Into Global Health Security Agenda

February 2014 witnessed the start of two remarkable public health events on Earth: The Ebola outbreak and the launch of Global Health Security Agenda (GHSA). Since the first case of the Ebola outbreak in West Africa was confirmed, the total number of suspected and confirmed cases in the Ebola hemorrhagic fever (EHF) outbreak has increased to 13,268, including 8168 laboratory-confirmed cases and 4960 deaths in Guinea, Sierra Leone, Liberia, Nigeria, Mali, Senegal, Spain, and the United States (data as of November 4, 2014) [1].

The Ebola outbreak in West Africa stresses the necessity for immediate action to establish global health security capacity to prevent, detect, and rapidly respond to biological threats like Ebola. The GHSA was launched on February 13, 2014, to secure the world from infectious disease threats and unite nations to make new, concrete commitments, and to elevate global health security as a national leaders-level priority [2]. The G7 endorsed the GHSA in June 2014, and Finland and Indonesia hosted commitment development meetings in May 2014 and August 2014. Ministers and senior officials from 44 countries and leading international organizations gathered in the White House, Washington DC to make specific commitments to implement the GHSA and to work toward a commitment to assist West Africa with the needed global health security capacity within 3 years.

The countries developed 11 action packages to support the GHSA. The action packages are designed to outline measurable steps required to prevent outbreaks, detect threats in real time, and rapidly respond to infectious disease threats that may occur naturally, as a result of laboratory accidents, or as an act of bioterrorism. The action packages include specific targets and indicators that can be used as a basis to measure how national, regional, and global capacities are developed and maintained over the long term. The United States has committed to assist at least 30 countries over 5 years to achieve the objectives of the GHSA and has placed a priority for actions on combating antibiotic-resistant bacteria, improving biosafety and biosecurity on a global basis, and preventing bioterrorism [3].

Ten countries have agreed to serve on the GHSA Steering Group, which will be chaired by Finland starting in 2015, with representation from countries around the world, including Canada, Chile, Finland, India, Indonesia, Italy, Kenya, the Kingdom of Saudi Arabia, the Republic of Korea, and the United States. The Steering Group is charged with tracking progress, identifying challenges, and overseeing implementation for achieving the objectives of the GHSA in support of international standards set by the World Health Organization, the Food and Agriculture Organization of the United Nations, and the World Organization for Animal Health. This includes the implementation of internationally agreed standards for core capacities, such as the World Health Organization International Health Regulations, the World Organization for Animal Health Performance of Veterinary Services Pathway, and other global health security frameworks. To provide accountability and drive progress toward GHSA goals, an independent, objective, and transparent assessment process is necessary. In this regard, independent evaluation conducted over the 5-year course of the GHSA will help to highlight gaps and needed course corrections to ensure the GHSA targets are reached.

EHF is one of the aggressive infectious pathogens that has no vaccine and prophylaxis. Preparedness including vaccine development, rapid treatment, and acute diagnostic methods will be helpful in decreasing and managing the infection as is the case with many other infectious diseases. Development of suitable vaccines is the best preparedness approach that can protect from the threat of high-risk infectious diseases.

In the current issue of the Osong Public Health and Research Perspectives, an article reports on the brief historical background on EHF and its vaccine development [4]. The authors mentioned that none of the vaccines tested have received regulatory approval so far; however, there is still an outbreak and spreading of EHF in Africa. The best preparedness strategy against a crisis

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generated by high-risk pathogens like Ebola or Marburg viruses is to stockpile vaccines after development. As a warning of the EHF outbreak, which has lethal fatality just after infection, immediate vaccination will be the most effective response against an outbreak and for controlling the spread of infection among people living in the most susceptible regions. Thus, developing effective vaccines is essential. Above the development of this kind of vaccine against high-risk pathogens such as Ebola virus, patient safety is much more important than the efficacy to prevent potential accidents. The authors conclude that the Ebola virus may be eradicated using a safe and efficient vaccine similar to the case of the smallpox virus, which was completely eliminated using the variola vaccine developed by Edward Jenner [4].

The authors’ conclusion is somewhat hackneyed, but it is true that until the development of a suitable vaccine, rapid detection, response, and control measures should be carried out on a global basis. The GHSA could support the countries in need until the development of such a vaccine.

References

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