The 2014 Ebola outbreak in West Africa was of an unprecedented scale. Between January 2014 and January 2016, over 11,300 lives were lost to Ebola in Guinea, Liberia and Sierra Leone[1]. The outbreak devastated affected populations and caused massive socioeconomic disruption across the region.

eboDAC

EBOla vaccine Deployment, Acceptance and Compliance

Ebola will keep returning unless we develop the tools to prevent future outbreaks, such as the development of successful vaccines. In order to address the complex social and cultural hurdles and sensitivities which may challenge acceptance of an Ebola vaccine, the European Union's Innovative Medicines Initiative (IMI) funded the Ebola vaccine Deployment, Acceptance & Compliance (EBODAC) project.

The aim of the EBODAC project is to develop tools and strategies to maximize the impact of Ebola vaccination programmes. EBODAC is supporting clinical trials of Ebola vaccines in Sierra Leone, while simultaneously preparing for the future deployment of a licensed vaccine through a series of linked projects focused on communications, community engagement, and enabling technologies.

EBODAC is a consortium of organisations comprising the London School of Hygiene & Tropical Medicine, Janssen Pharmaceutica NV, World Vision Ireland and Grameen Foundation.

Supporting Ebola vaccine trials in Sierra Leone

EBODAC communications and engagement strategies and tools are being used to support Ebola vaccine trials, while building capacity in Sierra Leone to use these resources in the future. All components of the EBODAC platform are designed and developed to allow rapid and efficient scale-up should there be a need to deploy a licensed vaccine.

1. Developing and implementing a Community Engagement Strategy

Local community liaison officers have been recruited and trained to work closely with the local authorities and communities to build awareness, listen to community perceptions and concerns, and address potential rumours related to the vaccine studies. **Visual aids have been used to engage the community** and explain clinical trial protocols to potential study volunteers who may be less literate.

2. Developing and implementing identification tools

To ensure that the right study volunteer receives the right dose of vaccine at the right time, innovative **identification technolog**y has been implemented. The identification tool has evolved from a tabletop kit using finger printing and iris scan, to a **mobile tablet using iris scanning** which has undergone a clinical trial in young children.

3. Implementing Mobile Technology

To ensure the clinical trial volunteers remain engaged throughout the study and attend clinic visits, EBODAC uses MOTECH – an mHealth open source software - **to send customized messages** to consenting volunteers that have a mobile phone. They receive voice reminders in the local language of their choice as well as targeted vaccine related messages.

Preparing for the future deployment of a licensed vaccine

EBODAC is delivering a series of projects to build local knowledge and capacity and strengthen health systems, in preparation for the potential future use of a licensed Ebola vaccine in several deployment scenarios.

1. Sharing learnings

EBODAC is producing resources based on the project's **lessons learned**, to support others working in the fields of communication, community engagement and enabling technologies related to Ebola vaccine clinical trials and potential deployment. These resources are available online at *www.ebovac.org/ebodac*.

2. Piloting a Mobile Training and Support Service

EBODAC is piloting a service which provides **training via mobile phones** to remotely-located Community Health Workers (CHW), the backbone of the healthcare system at the household level in Sierra Leone. The project delivers Ministry of Health-approved training, via voice messaging in local languages, to **strengthen the CHW network** and increase its preparedness to support future Ebola vaccination campaigns, as well as respond to outbreaks.

3. Developing a Gap Analysis Tool for Ebola vaccine deployment

EBODAC is developing an evidence-based Gap Analysis Tool to **enable governments to assess their own readiness**, from a demand-side perspective, to deploy a licensed Ebola vaccine in an emergency or non-emergency setting. This tool aims to increase the success of Ebola vaccine deployment by improving community acceptance, uptake and compliance in the targeted populations, and therefore, to contribute to the effective prevention and control of Ebola outbreaks.

1 WHO Ebola Situation Report, 10th June 2016 *http://apps.who.int/iris/bitstream/10665/208883/1/ebolasitrep_10Jun2016_eng.pdf?ua=1*

2 Larson HJ *et al.* **Addressing the Vaccine Confidence Gap.** *The Lancet.* 2011; 378(9790): p526-535. Larson HJ *et al.* **Understanding vaccine hesitancy around vaccines and vaccination from a global perspective: A systematic review of published literature.** *Vaccine.* 2014; 32: p2150–2159.

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