

# Real World Longitudinal Data Workflows for ODK

## Contact Tracing / Followups

Contact tracing and followups is a typical strategy used when fighting an infectious disease; it was the single most important technique in the West African Ebola outbreak of 2013-16, and is an important method in the current DRC outbreak.

**Contact Tracing** involves tracking down every person who came into close contact with an infected person in the X days before the infection became apparent and they entered quarantine. Health workers then carry out regular **followups** on the contacts for a period of X days (where X is dependent on the disease; for Ebola the value is 21).

In this case, each contact is an entity, and each followup is a piece of longitudinal data. In the 2013-16 outbreak, eHealth Africa created a custom mobile app for this purpose; in the current DRC outbreak, another similar app is in use; in the past, the process has always been paper-based.

## Tracking Vaccine Stocks

For an effective vaccine logistics process, it is important that health facilities submit regular and accurate reports of their current vaccine stocks, in order to avoid (a) stockouts and (b) overstocking (which leads to spoilage). Typically a health facility will report its current stock level of a fixed number (perhaps 10 - 15) of vaccines. Ideally this can be submitted online, rather than waiting for an in-person report via a delivery driver.

In this case, each health facility is an entity, and each regular stock level report is a piece of longitudinal data.

## Call Centre

eHA began operating a call center in Sierra Leone during the 2013-16 Ebola outbreak. Subsequently it has become the national death reporting hotline. Callers report a death to the phone operators in the call center. These death

reports are then analysed, and in some cases (usually when there is the suspicion of an infectious disease being the cause of death), additional actions must take place. The initiation and results of these actions is recorded by the analysts.

Currently this is handled by a custom application, but as we hand the operation over to the Ministry of Health and Sanitation, we are trying to transition to an ODK-based solution. In an ideal world, this would use a longitudinal system, whereby the initial call is the entity and the forms recording additional activity would be pieces of longitudinal data.