

Frequently Asked Questions

1. Is it possible to reconstruct the disease timeline files from the patient records?

The patient records report only traced contacts, and ETU/hospital admitted cases with a definitive outcome. Thus it misses cases that are not admitted into the health care system etc. In addition patient records may contain missing information, errors etc. The same is for the epidemic timelines that may include cases for which the full patient record is not yet released etc. In summary, disease timeline and patient records should be handled as separate datasets.

2. What population data have been used in generating the epidemic and what if they are different from those integrated in the model used for the prediction challenge?

Liberia socio-demographic data are not always consistent across databases. It is very hard to assess the accuracy of population maps across different databases. Updating is another major issue as official census data are not very recent. It has been pointed out during the discussion aimed at preparing the challenge that the use of one data set over another in the generation of the disease timelines could penalize extremely detailed models (example: what if the predicting model uses Landsat data and the model generating the data uses OSM data). For this reason we have opted for the construction of a synthetic population that reproduces the population and capital cities of each county according to the 2008 official census. At finer level (district, villages etc.) the population is statistically equivalent to available data but not identical to any of the available datasets. *Please note that no prediction is requested at the level of district or village.*

3. What mobility data are used in generating the data?

We followed the approach summarized in the paper by Merler et al. Lancet Infectious Diseases, vol. 15, 204 (2015). This model considers only the mobility related to extended family and health-care seeking.

4. What kind of noise shall we expect in the data?

There are different types of noise that simulate the fog of war inherent to real-world situations. Data are intrinsically affected by errors in reporting, missing information, and case underreporting (see below).

5. Is there any level of underreporting in the disease timeline?

A level of case underreporting is present in all scenarios. It may be variable according to various factors including the level of contact tracing, the rate of admission to hospital/ETUs etc.

6. Is it possible to obtain samples of the epidemic transmission trees?

In the case of scenario 1 (data rich scenario), large section of the transmission tree can be reconstructed from the patient records. For other scenarios specific transmission trees will be released during the course of the challenge.

7. Does the data include case importation from other countries?

All the scenarios consider an epidemic occurring only in Liberia. No case importation from other countries is considered.

8. What location and capacity for hospitals has been used?

Location of hospitals and their capacity will be provided (for all scenarios at different points in time of the challenge). The location will be the same, while the capacity is randomized in order to separate scenarios.

9. What exactly is the ETU occupancy?

ETU occupancy refers to the number of beds occupied during a given time interval. If the timeline is in weeks each ETU bed will contribute for the number of days it has been occupied (up to 7).

10. What will be made available about ETUs construction?

Information about ETU construction, location, planned capacity etc. will be provided for each scenario with different time delay (or time-lead) and accuracy.

11. What will be made available about safe burial, contact tracing and change in the population behavior?

Information about containment measures will be made available for each scenario at different times and with different level of accuracy. All the information will be provided in the supplementary material available for each scenario on the web page <http://www.ebola-challenge.org/database.html>