Ebola Contact Tracing Study data

Data Description

The collection contains four datasets captured in the Ebola Contact Tracing Study:

1. 'summary_data_cases' contains details of on all 41 confirmed Ebola cases included in the study – 25 of whom were paper-based cases monitored using the standard paper-based form for contact tracing and 16 were Ebola Contact Tracing App (ECT app) smartphone monitored cases. No descriptive information was available for 2 unconfirmed cases that were secret burials.

2. 'app_data_contacts' contains details of the 646 Ebola contacts from 18 Ebola cases (16 confirmed and 2 that were unconfirmed “secret burials”) registered on the Ebola Contact Tracing App (ECT) smartphone app. Please note that not all of these contacts were monitored for contact tracing.

3. 'paper_data_contacts' describes 408 Ebola contacts who were identified from 25 Ebola cases for monitoring using the standard paper-based system for contact tracing. The dataset includes information on Ebola cases and their contacts whose paper-based daily reporting forms (DRFs) were returned (specific contact monitoring information available) and not returned (specific contact monitoring information not available) at the end of the study period.

4. 'main_analysis_dataset' is a combined dataset that contains information on 804 Ebola contacts and their contact tracing monitoring status collected using both the ECT app and paper-based system. This dataset excludes 250 contacts monitored using the paper-based approach whose forms were not returned at the end of the study period. Laboratory confirmation times are also featured in this dataset.

Data Collection Methods

Data on Ebola cases and their contacts were captured using two methods during the original randomised control trial. During the trial's control arm, paper-based 'Daily Reporting Forms' (DRFs) were used, on the basis that they were the most widely accepted collection method within the country during the 2015 study period. For the intervention arm, a smartphone app, 'Ebola Tracing Application' (ECT app) was developed and used for data collection in the field. The ECT app was subsequently used to monitor all Ebola cases and their contacts when the study design was changed to a proof-of-concept study and later scaled-up to cover Port Loko District in its entirety. The study design was changed due to the small number of Ebola cases.

Data Analysis and Preparation

Ebola cases and their identified contacts identified during the study period were recorded and entered into a study log for data tracking. During the control arm, information was stored on paper forms and transferred to a Microsoft Excel spreadsheet. During the intervention arm and subsequent collection period, cases were registered on the app before assignment to a contact tracing coordinator who subsequently assigned contacts to a contact tracer.

Data collected using paper-based DRFs were entered into MS Excel and exported to Stata for data management and analysis.

Data collected via the ECT app was stored on a central server on CommCareHQ, exported to MS Excel and checked before being transferred to Stata version 14 for data management.

Geographic regions

Sierra Leone, West Africa

Key dates

Data collection was performed from April 13th to August 31st 2015. The final version of the data was produced on March 13th 2019.

Quality Controls

Training on completion of the contact tracing daily reporting form was provided to organisation staff responsible for surveillance activities at the start of the study. The study team liaised closely with these organisations throughout the study to understand contact tracing procedures and information requirements.

Quality checks were performed on paper-based DRFs during transcription into Microsoft Excel. Data collectors were consulted in cases where quality issues occured. However, some information is missing as a result of illegible handwriting, uncompleted responses, and inaccurate information being recorded.

The smartphone app enabled the form designers to specify mandatory fields to be completed and limit the type of information to be provided (e.g. a number within a set range). ECT-collected data was checked regularly by the in-country and wider study team to ensure accuracy and any issues were followed up. During the time that the smartphone app was used, cases were registered on the app before assignment to a contact tracing coordinator who subsequently assigned contacts to a contact tracer. All

Population:

The population analysed in the datasets were Ebola cases and their contacts from the Port Loko District in northern Sierra Leone.

Privacy:

All paper forms for both app and paper-based cases were filed and stored securely at the Port Loko District Health Management Office.

Identifying information including name and address have been removed from the four datasets. Geographical information on Chiefdom (an administrative unit) has been numbered and names removed.

Ethics

The study received ethics approval and support from:

- London School of Hygiene & Tropical Medicine (ethics ID: 8749-01)
- Sierra Leone Ethics and Scientific and Review Committee (SLESRC)

In addition, clearance and support was provided by:

- The Republic of Sierra Leone Ministry of Health and Sanitation
- The National Ebola Response Centre Surveillance Pillar - responsible for Ebola contact tracing and monitoring activities nationally.

Keywords

Ebola, contact tracing and monitoring, mhealth, smartphone application

Language of written material

English

Project title

Reducing Ebola virus transmission: Improving contact identification and tracing in Sierra Leone

Funder/Sponsor

Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ)

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File Description

Filename	Description	Access status	Licence
app_data_contacts.csv	Data on 646 Ebola contacts registered on the ECT smartphone app	Request access	Data Sharing Agreement
main_analysis_dataset.csv	The main analysis dataset includes information on 804 ECT app and paper-based cases and their contacts.	Request access	Data Sharing Agreement
paper_data_contacts.csv	Data on 408 Ebola contacts who were identified from 25 Ebola cases for monitoring using the standard paper-based system for contact tracing	Request access	Data Sharing Agreement
summary_data_cases.csv	Summary data on 41 confirmed Ebola cases	Request access	Data Sharing Agreement
consentform.pdf	Consent form and information sheet	Open to all	Creative Commons Attribution (CCBY)
Codebook.html	Dataset codebook	Open to all	Creative Commons Attribution (CCBY)
UserGuide.html	This document	Open to all	Creative Commons Attribution (CCBY)