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Evaluating the response to suspected disease outbreaks using a short message service (SMS) model

Submission date
01/06/2013

Recruitment status
No longer recruiting

Registration date
07/06/2013

Overall study status
Completed

Last Edited
10/06/2013

Condition category
Infections and Infestations

[X] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[_] Record updated in last year

Plain English summary of protocol

Background and study aims
In partnership with the Division of Disease Surveillance and Response (DDSR) at the Ministry of Public Health and Sanitation (MOPHS) in Kenya, a study will be conducted to see how well the short message service (SMS)-based outbreak alert system works when compared to the standard practice currently in practice in Kenya. Health facility representatives will use this system to report suspected disease outbreaks for a period of 6 months.

Who can participate?
153 health facilities, that are run by the government, private and non-profit organisations, belonging to 12 districts in Kenya, can participate in this study.

What does the study involve?
The health facilities are randomly allocated to one of two groups. Health facility workers, who is in charge of surveillance, belonging to one group will use the SMS-based disease outbreak alert system and those in the other (control) group will use the standard system. The time spent on disease notification at the health facility, and the response by surveillance coordinators at national and district levels will be measured and compared.

What are the possible benefits and risks of participating?
The results will help to understand and consider the effectiveness of the SMS-based outbreak alert system in order to enhance the disease surveillance and response mechanisms in Kenya.

Where is the study run from?
The study sites will include the two counties, Busia and Kajiado in Kenya.

When is the study starting and how long is it expected to run for?
The study is starting in June 2013 and is expected to run till March 2014.

Who is funding the study?
JICA-JST SATREPS project, Japan and Kenya.

Who is the main contact?
Ms Mitsuru Toda
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Contact information

Type(s)
Scientific

Contact name
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Additional identifiers

Study information

Scientific Title
Evaluating the response to suspected disease outbreaks using a short message service (SMS) model: a cluster randomized controlled trial

Study objectives
To determine the feasibility of the implementation of an SMS based based outbreak alert model and evaluate the timeliness of disease notification and response in selected health facilities in Kenya.
Null hypothesis: Implementation of the SMS based outbreak alert system will not change the timeliness of notification and response of disease outbreaks in selected health facilities in Kenya.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Kenya Medical Research Institute (KEMRI) Ethical Review Committee (ERC) gave approval on 6th May 2013. [Scientific Steering Committee (SSC) reference number 2523]

Primary study design
Interventional

Study design
Interventional, single-center, pre-post cluster randomized controlled trial

Study type(s)
Prevention

Health condition(s) or problem(s) studied
14 priority diseases that require immediate reporting: adverse events following immunization, anthrax, cholera, Guinea worm, measles, neonatal tetanus, plague, Rift Valley fever, severe acute respiratory infections, viral hemorrhagic fever, yellow fever, and other (any public health event of national and international concerns).

Interventions
153 facilities in 12 districts will be randomized to two groups: intervention and control groups, to measure the effects of the SMS-based outbreak alert system before and after implementation.
The intervention will target health facility workers, a representative who is in-charge of surveillance, to utilise the SMS-based outbreak alert system. Surveillance coordinators at the national and district levels who are in charge of data management and outbreak response will be the ones who will manage, consume, and act upon the information that is sent through the SMS-based outbreak alert system.
Control: The standard disease notification and response systems (mostly paper-based) that are currently in place in Kenya.

Intervention Type
Other

Phase
Not Applicable

Primary outcome(s)
1. Percentage of health facilities that reported suspected outbreak cases within 24 hours to the next level
2. Percentage of health facilities that responded to suspected outbreak cases within 24 hours of notification

Key secondary outcome(s)
1. To assess the feasibility of implementing the SMS-based outbreak alert system
2. To determine the impact of the SMS-based outbreak alert system on the timeliness of disease outbreak notification
3. To determine the impact of the SMS-based outbreak alert system on the timeliness of disease outbreak response
4. To determine qualitatively the factors that influence performance on disease outbreak notification and response
Documents review, structured interview, and knowledge assessment questions will be conducted to collect quantitative information. Key informant interview will be conducted to collect qualitative information.

Completion date
31/03/2014

Eligibility

Key inclusion criteria
1. Health facilities that are listed on the Kenya Master Facility List (MFL)
2. Health facilities that offer curative services

3. Health facilities that are operational
4. Interviews will be conducted with health workers and disease surveillance coordinators who are literate and can comprehend English

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Other

Sex
All

Key exclusion criteria
1. Health facilities that are not listed on MFL
2. Health facilities that do not offer curative services
3. Health facility in-charges or a representative who cannot send SMS during training
4. Health facilities that do not have mobile phone network coverage in the area

Date of first enrolment
17/06/2013

Date of final enrolment
31/03/2014

Locations

Countries of recruitment
Kenya

Study participating centre
KEMRI-NUITM, PO Box 1993-00202
Nairobi
Kenya
00202

Sponsor information

Organisation
Nagasaki University (Japan)

ROR

https://ror.org/058h74p94

Funder(s)

Funder type
Other

Funder Name
JICA-JST SATREPS project (Partners include: Japan International Cooperation Agency (JICA), Japan Science and Technology Agency (JST), Nagasaki University, Ministry of Public Health and Sanitation in Kenya, and Kenya Medical Research Institute)

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration