

Effectiveness of SMS appointment reminder and defaulter tracking system in Lagos State, Nigeria

Submission date 03/05/2020	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 19/05/2020	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 02/12/2020	Condition category Other	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and study aims

Most of the essential health services are not one-time services but required regular follow-ups. These follow-ups have been a major issue affecting the coverages of some health services in the Lagos State, Nigeria.

The Primary Health Care Board (PHCB) under the auspices of Lagos State Ministry of Health collaborated with Japan International Cooperation Agency (JICA) developed an SMS reminder system to the clients who are required to return health facility and to complete a full course of service/regimen.

The purpose of this study is to assess the effectiveness of short text reminder messages (SMSs) to clients through mobile technology in their continuous return for ANC, FP and child immunization including routine Vitamin A supplementation.

Who can participate?

All clients who have appointments at the 33 PHCs in Lagos state for antenatal care (ANC), family planning, and child immunization including routine Vitamin A supplementation during the study period.

What does the study involve?

All clients who visited the 33 PHCs for antenatal care (ANC), family planning, and child immunization including routine Vitamin A supplementation are registered for the study with verbal consent. They are randomly allocated to intervention and control groups. The intervention group receives a short text reminder message two days before their appointment while the control group do not receive an SMS reminder message. If clients in the intervention group do not return to the health facility, they receive another reminder message seven days after the appointment day. As part of the standard of care, nurses will inform the clients in both intervention and control groups of the next appointment dates.

What are the possible benefits and risks of participating?

The benefit of participating in this study is receiving the SMS reminder on their appointments only. There is no risk of participating in this study since as part of the standard of care, nurses

informed the clients in both intervention and control groups of the next appointment dates at the service provision

Where is the study run from?
Lagos State (Nigeria)

When is the study starting and how long is it expected to run for?
October 2018 to November 2019

Who is funding the study?
Japan International Cooperation Agency

Who is the main contact?
Dr Hirotsugu Aiga, hirotsugu.aiga@nagasaki-u.ac.jp
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Contact information

Type(s)
Scientific

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Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

LSMH/4168/VII

Study information

Scientific Title

Effectiveness of SMS appointment reminder and defaulter tracking system in Lagos State, Nigeria: A randomized controlled trial

Study objectives

SMS reminder would improve health facility attendance by reminding the appointments of vaccines, antenatal care, and family planning

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 13/12/2016, Health Research and Ethics Committee at Lagos State University Teaching hospital (1-5, OBA AKINJOBI ROAD, IKEJA, LAGOS, P.M.B. 21005, Nigeria; +234 - 1 - 471-0670; dcst@lasuth.org), ref: LREC /06/10/766

Study design

Randomized controlled trial

Primary study design

Interventional

Secondary study design

Randomised controlled trial

Study setting(s)

Hospital

Study type(s)

Other

Participant information sheet

Not available in web format, please use contact details to request a participant information sheet.

Health condition(s) or problem(s) studied

Attendance at appointments at local health centre for vaccination, ANC, and family planning

Interventions

A client in the intervention group received a short text reminder message two days before the scheduled appointment day (appointment reminder) while a client with an appointment under the control group (service as usual) did not receive an SMS reminder message. Clients in the intervention group who did not show up for their appointments received another reminder message seven days after the appointment day (patient-tracking message). As part of the standard of care, nurses informed the clients in both intervention and control groups of the next appointment dates.

The duration of the intervention was 6 months, with 4 months of follow up.

Randomization of participants was performed daily for all appointments two days hence, with groups matched in terms of the dates that the appointments were created.

Intervention Type

Behavioural

Primary outcome measure

The return status of the appointments for the three health services (i.e. ANC, FP, and child immunization including routine Vitamin A supplementation) measured for the duration of the study using patient records. If a client returns to a health facility for her appointment, they were categorized as returned cases, while if do not return, they were categorized as a defaulter

Secondary outcome measures

Timing of receiving vaccination, ANC and FP measured for the duration of the study using patient records

Overall study start date

01/10/2018

Completion date

30/11/2019

Eligibility

Key inclusion criteria

1. All clients who visited the 33 PHCs in Lagos state for antenatal care (ANC), family planning, and child immunization including routine Vitamin A supplementation

Participant type(s)

Patient

Age group

Adult

Sex

Both

Target number of participants

Since we planned to conduct a stratified analysis for each service, the target sample size for ANC, FP and child immunization were 2,492, 580, and 7,630 respectively. Assumptions used for the sample size calculation were power at 0.9, an alpha error at .05, and the increased return rate from 70% to 75% in ANC, from 70% to 80% in FP and from 80% to 82.5% in immunization.

Total final enrolment

9368

Key exclusion criteria

1. Clients with the appointments of other services (e.g., HIV/TB care)
2. Clients without a mobile phone or accessible phone number

Date of first enrolment

14/01/2019

Date of final enrolment

30/06/2019

Locations

Countries of recruitment

Nigeria

Study participating centre

Adeniyi Jones PHC

Lagos

Nigeria

N/A

Study participating centre

Ajeabo PHC

Lagos

Nigeria

N/A

Study participating centre

Ajibulu / Mafoluku PHC

Lagos

Nigeria

N/A

Study participating centre
Akinwunmi Ambode PHC
Lagos
Nigeria
N/A

Study participating centre
Akowonjo PHC
Lagos
Nigeria
N/A

Study participating centre
Alapere PHC
Lagos
Nigeria
N/A

Study participating centre
Alausa PHC
Lagos
Nigeria
N/A

Study participating centre
Ashogbon PHC
Lagos
Nigeria
N/A

Study participating centre
Ayantuga PHC
Lagos
Nigeria
N/A

Study participating centre
Ejire Phc
Lagos

Nigeria
N/A

Study participating centre
Festac PHC
Lagos
Nigeria
N/A

Study participating centre
Ifako Ijaye PHC
Lagos
Nigeria
N/A

Study participating centre
Ijora Oloye PHC
Lagos
Nigeria
N/A

Study participating centre
Ikate PHC
Lagos
Nigeria
N/A

Study participating centre
Ikosi PHC
Lagos
Nigeria
N/A

Study participating centre
Ilasa PHC
Lagos
Nigeria
N/A

Study participating centre

Ipaja PHC

Lagos

Nigeria

N/A

Study participating centre

Ipinlerere PHC

Lagos

Nigeria

N/A

Study participating centre

Iwaya PHC

Lagos

Nigeria

N/A

Study participating centre

IYANA EJIGBO PHC

Lagos

Nigeria

N/A

Study participating centre

Ketu (Mascara) PHC

Lagos

Nigeria

N/A

Study participating centre

Layeni PHC

Lagos

Nigeria

N/A

Study participating centre

Ogudu PHC

Lagos
Nigeria
N/A

Study participating centre

Ojodu PHC

Lagos
Nigeria
N/A

Study participating centre

Ojokoro PHC

Lagos
Nigeria
N/A

Study participating centre

Ondo St West PHC

Lagos
Nigeria
N/A

Study participating centre

Orisunbare PHC

Lagos
Nigeria
N/A

Study participating centre

Palm Avenue PHC

Lagos
Nigeria
N/A

Study participating centre

Rauf Aregbesola PHC

Lagos
Nigeria
N/A

Study participating centre**Simpson PHC**

Lagos
Nigeria
N/A

Study participating centre**Sura PHC**

Lagos
Nigeria
N/A

Study participating centre**Ogba PHC**

Lagos
Nigeria
N/A

Study participating centre**Ohekenu PHC**

Lagos
Nigeria
N/A

Sponsor information

Organisation

Japan International Cooperation Agency

Sponsor details

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Sponsor type
Government

Website
<http://www.jica.go.jp/english/>

ROR
<https://ror.org/022es3t03>

Funder(s)

Funder type
Government

Funder Name
Japan International Cooperation Agency

Alternative Name(s)
Agence Japonaise de Coopération Internationale, Agencia de Cooperación Internacional del Japón, JICA

Funding Body Type
Government organisation

Funding Body Subtype
Local government

Location
Japan

Results and Publications

Publication and dissemination plan
We will publish this research in an international journal with close collaboration with PHCB.

Intention to publish date
01/08/2020

Individual participant data (IPD) sharing plan
The datasets generated during and/or analysed during the current study are not expected to be made available due to the ownership of the data. The dataset used in this study belongs to the

Lagos State Ministry of Health. Without permission from the Ministry, we cannot share raw data with anybody.

IPD sharing plan summary

Available on request

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	29/09/2020	02/12/2020	Yes	No