

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

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

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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**

1F–6F Ninbancho Building Center  
Chiyoda  
Tokyo  
Japan

102-0084  
+81 (0)3-5226-6660  
mptpr@jica.go.jp

**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?
<a href="#">Results article</a>	results	29/09/2020	02/12/2020	Yes	No