

# Does a door-to-door delivery strategy increase the utilisation of insecticide-treated bed nets in the Maniema province, Democratic Republic of Congo?

|                                        |                                                   |                                                                                                   |
|----------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Submission date</b><br>30/08/2018   | <b>Recruitment status</b><br>No longer recruiting | <input type="checkbox"/> Prospectively registered<br><input type="checkbox"/> Protocol            |
| <b>Registration date</b><br>18/02/2019 | <b>Overall study status</b><br>Completed          | <input type="checkbox"/> Statistical analysis plan<br><input checked="" type="checkbox"/> Results |
| <b>Last Edited</b><br>22/03/2023       | <b>Condition category</b><br>Other                | <input type="checkbox"/> Individual participant data                                              |

## Plain English summary of protocol

### Background and study aims

Malaria remains a major public health problem in the world, although significant progress has been made in recent decades. In the World Health Organization African Region countries, more than 40% of malaria-attributed deaths occur in the Democratic Republic of Congo (DRC) and Nigeria. There is a huge gap between possession and effective use of insecticide-treated bed nets (ITNs) in DRC. The difference between possession and use of ITNs and the risk of household loss can be corrected by using the "door to door" strategy combined with the "hang up" method, which is done by installing ITNs on the beneficiaries' beds. We aim to investigate the effect of the door to door distribution strategy of ITNs combined with the "hang up" method in the context of mass ITNs distribution campaigns in DR Congo.

### Who can participate?

Children aged under 5, pregnant mothers or family members of either of these, living in the Maniema province

### What does the study involve?

Participants will be randomly allocated to either the intervention or the control group. Households in the intervention group will receive insecticide-treated bed nets, delivered to their door and hung up outside their house. Households in the control group will be given a token and informed of a specific place within their community where they can collect a net from.

### What are the possible benefits and risks of participating?

The possible benefit to participants taking part is that they could be protected from malaria. There are no known risks to participants taking part in this study.

### Where is the study run from?

School of Public Health, Kinshasa University (Democratic Republic of Congo)

When is the study starting and how long is it expected to run for?  
March 2013 to December 2018

Who is funding the study?  
The Episcopal Church Center (USA)

Who is the main contact?  
Professor Yan Jin  
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## Contact information

**Type(s)**  
Scientific

**Contact name**  
Prof Yan Jin

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## Additional identifiers

**Protocol serial number**  
NMPC112015

## Study information

**Scientific Title**  
Effect of long lasting insecticide-treated nets distribution with door-to-door delivery strategy combined with hang-up method on the utilisation of nets in the Maniema province, Democratic Republic of Congo

**Study objectives**  
We expect that the long lasting insecticide treated nets (LLINs) utilisation rate will be significantly higher among those who received the door-to-door distribution of nets combined with hang-up methods.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**  
Kinshasa University, 09/09/2013, ESP/CE/071/13

## **Primary study design**

Interventional

## **Study design**

Interventional single-centre repeated cross-sectional experimental cluster randomised controlled trial

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

Health behaviours, attitude, and knowledge about malaria prevention, particularly mosquito net utilisation

## **Interventions**

Health areas will be randomly allocated into either the intervention or the control group in a 1:1 ratio using a computer-generated block randomisation list. In intervention communities, all households receive one visit by members of the village health team. The team deliver long lasting insecticide treated bed nets (LLINs) to every household, door-to-door. The nets will be hung-up inside their house. In control communities, the village health team notify the community of the availability of LLINs from one place in the community, and provide them with tokens. LLINs are then distributed to those who visit this specific place.

## **Intervention Type**

Behavioural

## **Primary outcome(s)**

Under 5 children's utilisation of the LLINs during the previous night, assessed by a cross-sectional household survey at the baseline and 12 months after the distribution of LLINs

For the evaluation of the interventions, two cross-sectional household surveys were carried out. The baseline survey was done before the mass distribution in 2013. The end-line survey was conducted 12 months after the distribution of mosquito nets in 2015. The primary outcome is the utilization of insecticide-treated mosquito nets of under-five children at the time of the survey. The measurement was done through direct observation.

## **Key secondary outcome(s)**

The following are assessed by a cross-sectional household survey at the baseline and 12 months after the distribution of LLINs:

1. Pregnant women's utilisation of the LLINs during the previous night
2. Family member's utilisation of the LLINs during the previous night

## **Completion date**

31/12/2018

## **Eligibility**

### **Key inclusion criteria**

Anyone who fits any of the following criteria may participate in this study:

1. Children aged under 5

2. Pregnant mothers
3. Family members of the above

**Participant type(s)**

All

**Healthy volunteers allowed**

No

**Age group**

All

**Sex**

All

**Key exclusion criteria**

N/A

**Date of first enrolment**

20/09/2013

**Date of final enrolment**

30/08/2015

## **Locations**

**Countries of recruitment**

Congo, Democratic Republic

**Study participating centre**

School of Public Health, Kinshasa University

Avenue de l'Université

Kinshasa

Congo, Democratic Republic

BP 127 Kinshasa XI

## **Sponsor information**

**Organisation**

Dongguk University

**ROR**

<https://ror.org/057q6n778>

# Funder(s)

## Funder type

Other

## Funder Name

The Episcopal Church Center

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are not expected to be made available.

## IPD sharing plan summary

Not expected to be made available

## Study outputs

| Output type                     | Details | Date created | Date added | Peer reviewed? | Patient-facing? |
|---------------------------------|---------|--------------|------------|----------------|-----------------|
| <a href="#">Results article</a> |         | 27/08/2021   | 22/03/2023 | Yes            | No              |