Zimbabwe Ministry of Health and Child Care
National Malaria Control Program

Communication Guide for the Introduction of Rectangular LLINs in Zimbabwe

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A. Situation Analysis

For the 2017 mass and routine distribution of long-lasting insecticidal nets (LLIN), the National Malaria Control Program (NMCP) procured rectangular nets because they cost much less than conical nets. This allowed the NMCP to purchase more nets and increase ownership and access levels. However, because there is a long history and high level of stated preference for conical nets, the NMCP seeks to ensure that rectangular LLINs will be accepted and used.

There is no hard data to show that rectangular nets would not be used in Zimbabwe. The 2016 Malaria Indicator Survey (MIS) shows that over 80% of households prefer conical nets. However, determining net preference is difficult since most nets distributed over the past seven years have been conical nets. In addition, there is no survey data on questions that compare net shape experiences within Zimbabwe. For example, the 2016 MIS did not collect data on what shape of net was used the previous night; therefore, it is not possible to compare the use of rectangular nets to conical nets. Although rectangular nets were distributed intermittently before 2008, it can be inferred that the vast majority of the population is more recently familiar with, and owns, only conical nets.

In a 2012 study involving focus groups with senior matriarchs in Chipinge District, participants said rectangular LLINs were inconvenient to use since they had to hang and put them away every day. Many participants used sleeping spaces for multiple purposes, including cooking. They found rectangular nets more difficult to hang because they required more nails and string. Participants hinted at the role of observability in adopting rectangular nets: “we are waiting to see how the cumbersomeness of hanging them have been resolved by those who have started using it” (Sande et al, 2012). A literature review found that in other countries, such as Ethiopia, Liberia, and Zanzibar, some households prefer conical nets because they are easier to hang and fit the shape of the room or sleeping area better (Koenker and Yukich, 2016).

Anecdotal evidence from LLIN distribution reports during the 2016 campaign shows that some individuals refused to accept nets that were mistakenly labelled as rectangular (the photos showed rectangular nets). Staff had to remove nets from packaging to convince recipients that the nets inside were actually conical.

Where data is available to compare the use of nets by shape (in Mozambique, Malawi, Rwanda, and Senegal), rectangular and conical nets are used at similar rates, except in Rwanda. In the 2010 Malawi MIS, conical nets were used more, but this difference disappeared by 2014 (Koenker and Yukich, 2016).

Existing evidence suggest that the most likely barrier to acceptance and use of rectangular LLINs is not being familiar with or not knowing how to hang them or adapt them to sleeping space needs We assume that over time, households in Zimbabwe will become familiar with rectangular LLINs and that the main barrier to consistent net use will be low levels of perceived risk during the dry season, not a preference for conical nets.

Other countries, like Guinea and Senegal, have introduced rectangular LLINs by teaching households the importance of using nets and how to change a rectangular net into a conical net (net transformation). Key activities have included radio and TV spots and hang-up visits by community-based volunteers.

B. Communication Strategy

Program Theory

The Diffusion of Innovations Theory will be used to guide the introduction of rectangular nets. According to this theory, an innovation is more likely to be adopted if the following questions can be answered:

- Is the innovation simple? (*Is a rectangular net easy to hang? Is it easy to convert a rectangular net into a conical net if I prefer a conical net?*)
- Does it work for me? (*Can I easily put the net away and back when I need to use the room for cooking or other chores? Is the net effective at keeping mosquitoes away when I am under it?*)
- Can I see it? (*Can I see how a rectangular net can be hung to suit my lifestyle? Can I see how I can adapt it to the shape I prefer?*) [Observability]
- Can I try it? (*Is adopting this practice irrevocable? Or, can I change my mind and try another way of doing it?*) [Trialability]

Behavioural Objective

Increase the acceptance and use of rectangular nets.

Primary Audience

Household heads who own and use mosquito LLINs, with a focus on women, as they tend to be in charge of nets.

Secondary Audience

Community leaders

Primary Communication Objective

To increase the proportion of the population who feels confident in using a rectangular net

Key Benefit

Flexibility—rectangular LLINs can be used indoors or outdoors and for any type of home or sleeping space. There are many ways to set it up, enabling anyone to use a net.

Support Points

- The government will provide rectangular LLINs beginning in 2017
- This LLIN is equally effective at preventing mosquito bites and protecting you from malaria
- The rectangular LLIN can be hung from four points, which many people find more spacious and comfortable. It can easily be changed to a conical net.
- There are different ways to hang a rectangular LLIN—experiment and see which method works for you.
- If you prefer to hang it from one point, like the conical LLINs distributed in the past, you can easily do so by putting a circular shape in the middle of the roof of the net (like a bucket lid or *rusero (winnowing tray)* —a flat circular tray for processing wheat) and hanging the net through the circle

(demonstrate through illustrations, videos, animated Graphics Interface Format (GIFs), or real-life demonstrations).

- You can use a rectangular LLIN in different sleeping places, including:
    - a circular hut
    - a modern house
    - a room used for multiple purposes, like sleeping and cooking
    - outdoors
    - in temporary shelters used for guarding fields
- Help your neighbours hang and use their LLINs.

Channels and Activities

Pre-distribution	**During**	**Post-distribution**
Rural areas: • Advocacy meetings with community leaders • Training of trainers for village health workers and health workers • Radio spots and discussions • Community meetings • Roadshows (selected towns and "growth points" only) Cities: • TV spots • Shareable mobile phone videos or animated GIFs • Radio spots and discussions	• Demonstrations at distribution points • Shareable mobile phone videos or animated GIFs	Rural areas: • Door-to-door visits by village health workers • Community meetings Cities • Radio spots and discussions • Shareable mobile phone videos or animated GIFs

Approaches

- Discuss and demonstrate the different ways to hang the rectangular net and put it away in the morning, including for difficult locations like multipurpose rooms and outdoor settings (observability).
- Discuss and demonstrate the different ways to transform the net. Give audience members opportunities to try simple net transformations (observability and trialability).
- Provide testimonials by people who have found it easy to hang, use, and transform a net.
- Encourage people to share what they know with relatives and friends in the village.
- Provide recognition for creativity and initiative.

C. Creative Brief: Illustrated Guide for Home Visits and Community Meetings

Purpose

Village health workers, health workers, and school health personnel can use this illustrated guide as a reference during community meetings and household visits. It can also be distributed to households.

Call To Action

Hang your net and use it every night.

Format

Illustrations featuring different ways to hang and transform the net will be accompanied by text.

The vast majority of women of reproductive age in Zimbabwe are functionally literate. The literacy level of the material should not exceed grade 6.

Discussion Points

Objective 1: Inform households that they will receive a rectangular net and why.

- A rectangular net will be provided beginning in 2017. These nets hang from four points. Many people find them more spacious and comfortable. Some people prefer conical nets because they can hang them from one point. You can easily turn a rectangular net into a conical net.
- Because rectangular nets cost less than conical nets, funders were able to buy more nets for the population. This allows us to protect more people from malaria.
- Conical and rectangular nets are equally effective at preventing mosquito bites.
- All family members must sleep under LLINs every day. Use LLINs throughout the year in all seasons. A single bite can transmit malaria. Households without enough LLINs should prioritize the most vulnerable members. These include pregnant women, children under 5, the undernourished, people living with HIV/AIDS, and the elderly.
- LLINs are highly effective when used properly and consistently.
- These nets are free. Families can obtain them from distribution points for mass campaigns and for continuous distribution.

Objective 2: Increase the proportion of the population who know how to hang a rectangular net for different types of sleeping spaces.

Discussion Points:

- Before using a new LLIN, hang it outside under the shade for a whole day to air it out and remove excess chemicals.
- To hang a rectangular LLIN, locate the four loops on each corner. Connect each loop to a string and connect the string to a nail or loop it around a beam.
- To hang a rectangular LLIN outdoors, place four poles in large buckets. Fill the bucket with sand and attach the four corners of the net to each pole. One can also bury the poles in the ground.
- Another way to hang a rectangular net outdoors is to turn it into a conical net. Find the central point of the roof of the net. Knot it, and affix the knot to a central pole (if sleeping while completely exposed to the outdoors) or to the roof of a temporary shelter.
- Rectangular nets can be used in different sleeping places, including a circular hut; a modern house; a room used for multiple purposes, like sleeping and cooking; outdoors; and in temporary shelters used for guarding fields
- Ensure that the LLIN completely covers the sleeping area. Tuck it under the mattress or sleeping mat to prevent mosquitoes from entering.
- Roll and tie up the LLIN every morning to protect it from damage. This will also allow you to use the area for other purposes.

A rectangular net hung outdoors.

Nets can be used in all types of sleeping areas, including in temporary shelters.

Tie up nets to protect them from damage and to use the area for other purposes.

Activity: Present the photographs and ask participants to describe what they see. Do live demonstrations, or show a short video or animated GIF.

Q&A Session:

- Invite the audience to share other ideas about how to hang and put away a net. Ask how a net can be hung in different types of homes, such as a circular hut or a modern house. Ask how a net can be hung outdoors and inside multipurpose rooms.
- Ask people to share testimonies about how they hung their rectangular nets. Ask them if it was easy and how they overcame any challenges.

Objective 3: Increase the proportion of the population who believes that transforming a net is easy and affordable.

Discussion Points:

- It is possible to change the net from a rectangular shape to a conical shape.
- Anyone can do it. The best method is the one that allows you to hang your net as soon as possible so you can be protected from malaria.

- Method 1—Easy:
  1) Locate a *rusero*, a bucket lid, or any rigid circular shape. Puncture two holes in the middle if the circle does not have any holes.
  2) Place it over the centre of the roof of the net.
  3) Loop a string from inside the net through both holes. Tie a knot. Use this central loop to hang your net from the ceiling.
  4) To wash the net, remove the circle and replace it when the net is dry and ready to be hung again.

Using a bucket lid to transform a rectangular net into a conical net

- Method 2 —Moderate:
  1) Take a wire or hose and fashion it into a circle. Lay the circle on the centre of the net.
  2) Tie two lengths of string to four points in the circle to form a cross in the middle of the circle. At each point, make sure to pass the string through the mesh of the net and around the wire or hose so the net becomes attached to the circle. If your string is too wide for the mesh, pinch some of the netting material and use it to create a knot that will be tied to the circle.
  3) Attach string to the cross to hang the net from the ceiling.
  4) To wash the net, remove the circle and replace it when the net is dry and ready to be hung again.

Using tubing and string to transform a rectangular net into a conical net

- Method 3 —Advanced:
  1) Take a wire or hose and fashion it into a circle.
  2) Sew a circular cloth as large as the circle. Attach some strings to the edges.
  3) Use the strings to attach the net and the circle to the cloth.
  4) Fasten a loop to the middle of the circular cloth and use that to hang the net from the ceiling.

A circular piece of cloth can be used to turn a rectangular net into a circular net

- To further protect nets from damage:
  1) Wrap rough areas (like the surface of the *rusero* or any exposed wire edges) in cloth or string.
  2) Add cloth to the bottom to protect it from mats.

- Making a net larger: The best way to make a net bigger is to add a length of cloth to the bottom. This also protects the net from damage from mats.

Adding cloth to the bottom can lengthen, strengthen, and personalize a net.

- Transformed nets can hang anywhere, including outdoors, just like a regular rectangular or conical net.

Transformed nets can be used anywhere, just like regular rectangular and conical nets.

Activity: Present the photographs, do live demonstrations, or show a short video or animated GIF. Invite a member of the audience to participate in the demonstrations.

Q&A sessions:

- Invite the audience to share other ideas for how to transform a net.
- Provide audience members with opportunities to practice Method 1, the simplest method of transforming a net. Provide examples of nets created using Method 2 and 3 if available, and discuss them or provide demonstrations, if time allows.
- Ask participants to share testimonies about how they transformed their nets. Ask volunteers to demonstrate how they did it or to show their nets to the group. Provide recognition and encouragement to those who have adopted and shared these innovations.
- Solicit and answer questions.

Objective 4: Discuss the role of community members and household heads on net hanging and the use of LLINs. Remind households what to do if someone develops a fever.

Discussion Points:

- Call on your neighbours and see if they would like some help with hanging their nets. Share what you have learned.
- Everyone is at risk for malaria, including adults and teenagers, and the risk remains all year round. Encourage friends and family to use a net throughout the year.
- LLINs should be used for preventing mosquito bites. Every community member has a role to play in ensuring that there is no misuse of LLINs. Community leaders should enforce the correct use of LLINs.
- If you develop a fever, seek testing and treatment within 24 hours of fever to prevent transmitting malaria to other members in your community. This will also prevent prolonged illness, which may lead to significant inconveniences and costs.

All community members can help prevent malaria.

Q&A sessions:

- Ask the audience to turn to the person on their right and ask them if their nets have been hung.
- Ask participants if they have used a net during the dry season and why. Discuss motivations for using a net during the dry season.
- Review the photograph. Who are the different types of people in the picture (e.g. young boy, young woman, older woman, adult man, etc.)? What can each of these people do to help protect their friends and family from malaria?

D. References

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