



## LLIN POST DISTRIBUTION SURVEY

APRIL 2012

### INTRODUCTION

Concern Universal (CU) with support from Irish Aid is implementing a five years project called Local Development Support Programme (LDSP) in TA Makwangwala in Ntcheu and Chafumbwa EPA in Dedza. Among other areas of intervention, the project is also addressing the malaria problems in these impact areas in order to reduce the current malaria associated mortality and morbidity by 50% at the end of the programme.

Specifically the project aims to:

- i) Increase community awareness and knowledge on malaria prevention, treatment and case management.
- ii) Promote correct and consistent use and treatment of Insecticide-Treated Nets (ITNs).
- iii) Increase access to Intermittent Preventive Treatment among pregnant women.
- iv) Build capacity of indigenous organizations in malaria management

It is against this background that Against malaria foundation provided a donation of 20, 000 nets to be distributed in Makwangwala (12,450 nets) and Chafumbwa EPA (7,500 nets) in order to contribute to the reduction of malaria associated mortality and morbidity in these two areas.

The nets were distributed to Chafumbwa and Makwangwala in four sub-locations namely; Kafere, Chimoto/Kalinde, Chikande and Bilira.

A six month post-distribution survey was conducted to examine household Long Lasting Insecticide treated Nets (LLINs) correct usage, hung up percentage of LLINs and condition of LLINs in 50 households at each (total of 200 households) of the 4 sub-locations (Kafere, Chimoto/Kalinde, Chikande and Bilira).

### SAMPLE SIZE AND SAMPLING DESIGN

A sample size of 50 households in each sub location was used. Therefore, a total of 200 households that previously received the LLINs were sampled in the two impact areas in TA Makwangwala in Ntcheu and Chafumbwa EPA in Dedza. There were five villages per sub location and 10 households per village that was selected.

The first stage involved selection of villages using simple random sampling technique by listing all the villages in each sub location. The first village was sampled using a randomly selected number and subsequent four villages were sampled by adding the sampling interval to the random number selected until all the 5 villages were selected in each sub location.

In the second stage, the first household to start interviews was randomly selected by letting a child to pick out a page of the village register and point a house hold where to start. Subsequent households were selected by going to the following households in order of numbers in the village register until the required sample size of ten households per village was reached.

The survey was conducted from 09<sup>th</sup> to 12<sup>nd</sup> April, 2012, seven months after a mass distribution of Long Lasting Insecticide treated Nets which took place in August 2012 to September 2012.

## RESULTS

The survey targeted the houses that received the long lasting insecticide treated nets from Against Malaria Foundation. There were 414 LLINs that were given by Against Malaria Foundation of the 450 sleeping spaces therefore there were 26 sleeping spaces with other LLINs and 10 sleeping spaces without LLIN.

**TABLE 1: HOUSEHOLD SUMMARY**

| Sub location | Total number of LLIN | Number of Sleeping Spaces | Number of Sleeping spaces with AMF LLIN | Number of Sleeping spaces with other LLIN | Number of Sleeping spaces without LLIN |
|--------------|----------------------|---------------------------|---|---|--|
| KAFERE       | 99                   | 109                       | 99                                      | 8   | 2                                      |
| CHIMOTO      | 98                   | 115                       | 98                                      | 12  | 5                                      |
| BILIRA       | 105                  | 107                       | 105                                     | 0   | 2                                      |
| CHIKANDE     | 112                  | 119                       | 112                                     | 6   | 1                                      |
| <b>TOTAL</b> | <b>414</b>           | <b>450</b>                | <b>414</b>                              | <b>26</b>                                 | <b>10</b>                              |

## HOUSEHOLD LLIN CORRECT USAGE

The survey showed that all 200 households (100%) visited had one or more nets. (197) 98.5% of households were using the nets correctly. This was verified by asking the household head or any adult occupant of the household to explain how an LLIN is being used at night to demonstrate the correct usage of the net.

**TABLE 2: CORRECT USE OF LLIN BY SUB LOCATION**

| SUB-LOCATION | # OF HOUSE HOLDS | SLEEPING SPACES | # OF LLINS | CORRECT USE |             |
|--------------|------------------|-----------------|------------|-------------|-------------|
|              |                  |                 |            | # of H/HOLD | %           |
| KAFERE       | 50               | 109             | 99         | 49          | 98          |
| CHIMOTO      | 50               | 115             | 98         | 50          | 100         |
| BILIRA       | 50               | 107             | 105        | 48          | 96          |
| CHIKANDE     | 50               | 119             | 112        | 50          | 100         |
| <b>TOTAL</b> | <b>200</b>       | <b>450</b>      | <b>414</b> | <b>197</b>  | <b>98.5</b> |

## BED NET CONDITION

The 200 sampled households had a total of 414 nets during the day of visit/survey. 398 nets (96.14%) were in very good condition (i.e. with less than two holes of less than 2cm), whilst 9 nets (2.17%) were OK (with fewer than 10 small holes) and the remaining 7 nets (1.69%) were found to be in a poor condition (more than 10 small holes or 1 big hole).

In summary, the survey has indicated that the condition of the nets which were distributed was still very good in the majority of households (96.14 %).

**TABLE 3: CONDITION OF THE LLINs BY SUB LOCATION**

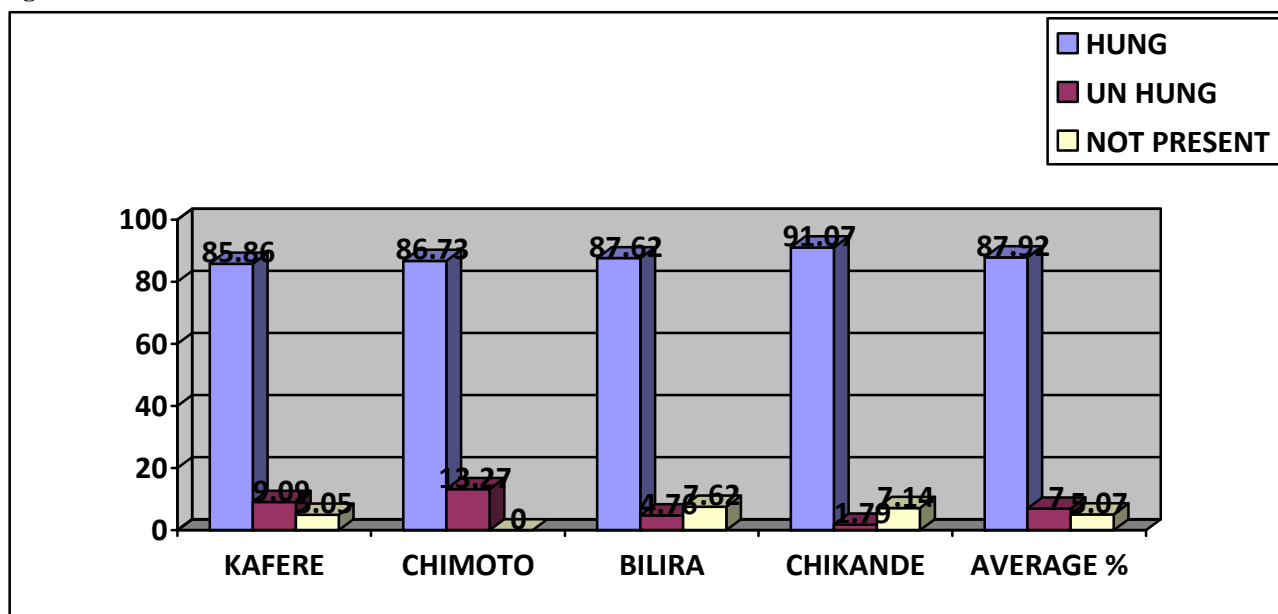
| SUB-LOCATION | # Of LLINs IN HOUSE HOLDS | VERY GOOD LLINs |              | OK LLINs |             | POOR LLINs |             |
|--------------|---------------------------|-----------------|--------------|----------|-------------|------------|-------------|
|              |                           | #               | %            | #        | %           | #          | %           |
| KAFERE       | 99                        | 96              | 96.97        | 2        | 2.02        | 1          | 1.01        |
| CHIMOTO      | 98                        | 95              | 96.94        | 1        | 1.02        | 2          | 2.04        |
| BILIRA       | 105                       | 105             | 100.00       | 0        | 0.00        | 0          | 0.00        |
| CHIKANDE     | 112                       | 102             | 91.07        | 6        | 5.36        | 4          | 3.57        |
| <b>TOTAL</b> | <b>414</b>                | <b>398</b>      | <b>96.14</b> | <b>9</b> | <b>2.17</b> | <b>7</b>   | <b>1.69</b> |

**HUNG UP PERCENTAGE OF LLINs**

The 87.92% of the Long Lasting Insecticide treated nets were found hung during the time of the survey. 7.00% of LLINs were found not hung during the time of the survey. These were the LLINs that were found in the house hold but not hung this could be verified by asking the household head or respondents to show the LLINs which were present but not hung. Some of the reasons for not hanging the LLINs were that they were using LLINs from other sources like received from health facilities, buying from shops.

While 5.07% of the LLNS were not found in the households the house hold head could not show the some of the LLINs that the household received. The major reason given for the LLINs that were not present was given to other house members to use it at another place like self boarding schools and changing of sleeping houses where one is sleeping with the grandmother. In all the sub locations there was no report of worn out LLINs.

**Figure 1 HUNG UP SITUATION BY SUB LOCATION**



**TABLE 4: HUNG UP PERCENTAGES BY SUB LOCATION**

| SUB LOCATION | SPACES     | LLINS IN HOUSE | HUNG       |              | NOT HUNG  |             | NOT PRESENT |             |
|--------------|------------|----------------|------------|--------------|-----------|-------------|-------------|-------------|
|              |            |                | #          | %            | #         | %           | #           | %           |
| KAFERE       | 109        | 99             | 85         | 85.86        | 9         | 9.09        | 5           | 5.05        |
| CHIMOTO      | 115        | 98             | 85         | 86.73        | 13        | 13.27       | 0           | 0.00        |
| BILIRA       | 107        | 105            | 92         | 87.62        | 5         | 4.76        | 8           | 7.62        |
| CHIKANDE     | 119        | 112            | 102        | 91.07        | 2         | 1.79        | 8           | 7.14        |
| <b>TOTAL</b> | <b>450</b> | <b>414</b>     | <b>364</b> | <b>87.92</b> | <b>29</b> | <b>7.00</b> | <b>21</b>   | <b>5.07</b> |

### Recommendations

- There is need to do some spot checks during household visit when conducting other activities like child follow up, door to door health talks (integration of LLINs survey with other activities).
- There is need to continue awareness campaigns on the importance of using LLIN every night through home visits so that demonstration on net hanging is done to avoid damaging the nets.
- There is need to effectively educate people on the correct use of LLINs especially for the 7% of available net stock which were not hung during the survey (refer table 1).
- The project should continue to educate people on the importance of LLIN usage and encourage people to purchase nets in order to cover the 2.2% (10 of 450) of sleeping spaces not currently covered by LLINs( refer table 1).
- There is need to empower the local leaders and volunteers to monitor the use of the LLINs apart from the survey as house hold head could refer to the local leaders and volunteers on the LLINs that were not present during the survey.