



**West Kasai, DRC**

**Post-Distribution Check-Up (PDCU)  
at 12 months**

**November 2015**

**AMF TECHNICAL ANALYSIS  
AND RECOMMENDATIONS**

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## 1. Executive Summary

A post-distribution check-up (PDCU) takes place at six monthly intervals after a universal coverage distribution to monitor net presence, use and condition.

We have broad confidence that the West Kasai PDCU-12 indicates that, of the nets distributed in the universal coverage campaign (UCC) in October and November 2014, 64-69% were still hung and protecting people.

A number of lessons have been learned from this, and we are very pleased to note that the team at our in country partner IMA has made significant efforts to bring in enhanced processes for the next PDCU.

1) The comprehensiveness and reliability of the data collected in PDCU 12 was less than hoped for. The final validated results figures were arrived at after needing to discard approximately half of the PDCU data collected as it was internally inconsistent within the household.

2) We had hoped to see above ~80% coverage 12 months after distribution.

IMA is working to understand the factors driving the net use in West Kasai, and the actions that may be taken to increase effective coverage levels.

These data underline the importance of carrying out PDCUs to understand what coverage levels are being achieved and use data to assist in deciding on further actions.

## 2. Background

630,532 long-lasting insecticidal nets (LLINs) were distributed in West Kasai Province, DRC, in October and November 2014 to achieve universal coverage (coverage of all sleeping spaces). The first PDCU was carried out eight months after the distribution with 7% of the households that received nets during the distribution visited.

The following was agreed with IMA:

The PDCU would be carried out in all eight Health Zones: Banga Lubaka, Kalonda West, Kamonia, Kamuesha, Kanzala, Kitangwa, Mutena and Tshikapa.

5% of households that originally received nets would be visited.

### **3. Operational stages**

There were five stages: Questionnaire preparation, data collection, data management, data transfer and data analysis.

#### **1) Questionnaire preparation**

AMF worked closely with IMA's new technical lead to revise the specific questions to be asked in the PDCU given lessons learned from the previous PDCU, PDCU-06. IMA incorporated the questions in an ODK-based registration form.

##### Comments

This work took place with the IMA technical lead in London and several other colleagues in DRC. All agreed changes were made.

A delay in the IMA technical lead travelling to DRC due to visa delays led to the changes agreed not being implemented on the final ODK forms that were loaded onto the smartphones being used by data collectors.

#### **2) Data collection**

Data collectors were selected and trained on the use of the smartphones, the structure of the ODK-based registration form and on data entry and the procedures to be followed in collecting data at each household.

5% of HHs were targeted to be visited.

##### Comments

As with PDCU-06, data collectors did not have a consistent approach to categorising nets, specifically: 'Present but not hung' vs 'worn out' vs 'missing'. Poor wording of questions contributed to this as the question said (translated from the French) 'Is the net available?' which was interpreted differently by the data collectors.

No distinction was made between the recently distributed nets and pre-existing nets when establishing which nets were present in the household and when recording the condition of the nets.

Data was collected broadly in the quantities per village agreed with some villages having more households visited than required, some fewer.

#### **3) Data management**

As well as the data lead at IMA, a number of individuals were involved in aggregating data collected in the field and passing it to a central point. There were also a number of individuals within the NMCP's data team who received information before it was passed to the IMA team.

##### Comments

The IMA technical lead was not in-country before or during most of the data collection phase.

As with PDCU-06, the IMA technical team experienced problems including receiving data in different formats and partially cleaned that required raw data and back-up copies to be requested which delayed data aggregation and led to additional manual formatting and cleaning of data.

#### **4) Data transfer**

Data was received by IMA in-country from the field, aggregated, part cleaned and emailed to AMF within four weeks of the end of the PDCU and in our agreed timeframe. Unfortunately, the data was not usable and usable data was only received six weeks later.

For the initial data sent, due to differences in format between many of the 300+ spreadsheets sent across, which had been cleaned and formatted by many different people in the field, some of the data was missing and was not in a useable form.

It was necessary to wait for laptops with original raw data to return from the field, be collated by IMA and then sent through in a convenient format and as three files. This process took a further six weeks.

#### **5) Data analysis**

No data analysis was done at IMA.

## 4. Results

The aim of the PDCU is to establish:

1. The % of the recently distributed (AMF-funded) nets present:

**Above 64%** (potentially up to 80%)

2. The % of the recently distributed nets hung:

**Between 64% and 69%** (potentially up to 75% but we doubt this)

3. The condition of the recently distributed nets (those found)

**Very good - 49%, Good - 22%, Viable -29%**

Very good = <2 holes 0.5 to 2cms

Good = Any hole bigger than 2cms OR >2 holes 0.5 to 2cms

Viable = If has hole bigger than 10cms

The condition of the nets was assessed by direct observation of the data collectors and we assume this is reliable. However, these results are similar to the results from the previous PDCU and while it is possible a similar set of net conditions could be seen (within likely error limits) we would expect there to have been a deterioration. This means we will wait to see what net condition profile we see at PDCU-18 to understand better if these results can be considered reliable.

\*Caveat: These figures assume that all of the nets surveyed were AMF-funded nets. We do not believe that was the case because the PDCU questionnaire did not distinguish between nets that existed prior to the 2014 UCC distribution and those that were distributed in the 2014 UCC distribution (AMF-funded nets). As a result, we are not able to quantify the proportion of nets that were pre-existing. However, the pre-distribution registration survey indicated that the existing level of net coverage was low at 2.6% (average, range 0 to 20% by Health Area). This is consistent both with the anecdotal information from the field and the likely longevity of nets distributed during the previous (incomplete-coverage) mass distribution that took place in 2010/11.

The key data from the PDCU-06 are:

Households required to be visited (to achieve 5% target): **12,832**

Households visited: **12,872** (100% of agreed)

Households with clean data: **5,912** (46% of those visited)

Clean data:

Nets received: **10334**

Nets hung: **6,601 (64%)**

Nets present but not hung OR missing: add number **3,733 (36%)**

## 5. Analysis

The issues identified here are those identified in the previous PDCU and have occurred again due to the lack of implementation of the agreed changes prior to PDCU-12 being carried out.

### 1) Lack of clarity in the questions

A number of questions in the ODK survey form were unclear.

For example, the meaning of ‘# of nets available’ was variously interpreted as:

The number of nets ‘hung’ plus the number of nets ‘present but not hung’

The number of nets ‘hung’ i.e. available to use

The number of nets ‘present but not hung’ i.e. available to replace others

Recommendation: Ensure successful implementation of the agreed re-phrasing of questions and possible answers to ensure there can be no confusion.

### 2) Inconsistent data

The data entry process did not have i) adequate validation checks or ii) adequate data-accuracy prompts. The ODK registration form should be adapted to include them.

i) ‘Validation checks’

These help to eliminate data inconsistency errors.

Some data collected within the household are questions and possible responses need to be structured to ensure consistency. For example, the number of nets hung in the household and the number of nets for which the condition is collected should be the same. Warning messages can alert the data collector to inconsistencies to allow them to be corrected while in the household and before a household record is saved.

ii) ‘Data-accuracy prompts’

These help to avoid data entry errors.

Some data responses are logically possible but unlikely, or at a minimum deserve review by the data collector. For example: “# of children in the household =22”. A set of threshold criteria should be attached to a question which when not met or exceeded prompt review of the data entered.

Recommendation: Ensure successful implementation of the changes in the ODK survey form both in structure and phrasing of the questions

### 3) Inaccurate data

Some householders reported inaccurate information. This was possible because some questions were asked outside the household, without data accuracy being verified through observation within the household. Even though subsequent questions were asked inside the

household, data had already been saved and was not able to be edited. IMA also believes some householder may not have been truthful in the hope of obtaining more nets.

Examples of questions sometimes not answered accurately:

A lower number of nets present (hence more nets missing) than was the case

A higher number of sleeping spaces than was actually the case

A lower number of nets received than was the case

Recommendation: Ensure all questions are asked inside the household.

## 6. Recommendations

### 1. Previous recommendations

Recommendation from PDCU-06	Implementation in PDCU-12
Ensure there is a dedicated (for the term of the project) in-country technical lead/data manager.	A dedicated technology manager was allocated to the PDCU. <b>However, he arrived in country (due to visa delays) after the deadline for implementing changes to the PDCU questionnaire and the responsibility was not successfully passed to colleagues in country.</b>
Closer liaison between AMF and IMA with dual sign-off on the type and format of data to be collected, and the procedure used by the data collectors to obtain the data to ensure it meets the requirements of the PDCU agreement. This would include testing the software and examining test data generated.	Closer liaison occurred. <b>However, testing of the new questionnaire did not occur (see above).</b>
Rework the ODK survey form both in structure and phrasing of the questions	This occurred.
Ensure clear phrasing of all questions and possible answers to ensure data clarity.	This occurred.
Ensure the data is collected within the household with data collection observation and verification required for all data entered.	<b>This did not occur.</b>
Ensure the new questionnaire is upload to the smartphones being used by data collectors	<b>This did not occur.</b>

## 2. New recommendations

Ensure very close coordination between the IMA and AMF technical leads to ensure all lessons learned from PDCU-06 and PDCU-12 are implemented in PDCU-18 with IMA and AMF management oversight to ensure success. Review fortnightly.