

# POLIO SUPPLEMENTARY IMMUNIZATION CAMPAIGN EVALUATION: THE MABAN EXPERIENCE, SOUTH SUDAN, AUGUST 2013

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## Abstract

The recent polio outbreak in Somalia, Kenya and Ethiopia demanded a safety net Sub-National Immunization Days (SNIDs) for four bordering States, including Upper Nile. Aiming to reach children aged 0-59 months, a house-to-house strategy was employed from 20-23 of August 2013 to vaccinate all children in Maban County. The post Campaign evaluation is conducted to assess coverage by finger mark (quality by proxy) and help to ensure improvements for subsequent campaigns.

The main objective of the evaluation was to assess the quality of the campaign to learn lessons for subsequent plans.

A total of 31 clusters were covered from both host and refugee areas for this evaluation. Hence, 310 households have been visited by the evaluators. A total of 802 <5 children were enrolled for this evaluation purpose.

According to the finding, 97.5% of the children living in the surveyed households have been vaccinated for this round of polio SNIDs, as reported by families; i.e., coverage by history. On the other hand, 87.7% of the children have been vaccinated based on the finger mark; i.e., coverage by finger marks. One hundred and nine children have been missed out of 802 children living in the surveyed households. Besides, 46 children have been identified as first doses of OPV in this campaign, which is 5.9% of the total surveyed children. In addition, 52.3% of families had been investigated for AFP by the vaccination teams. Besides, more than three-fourth of the families knew the campaign before the vaccination team visited their houses.

It is recommended to strengthen basic/refresher training of vaccinators, improving supportive supervision, proper estimation of target population and improving social mobilization activities.

## Introduction

Although there are no confirmed polio cases in South Sudan since June 2009, vital indicators for polio eradication activities are not satisfactory [1.]. Hence, the recent huge polio outbreak in Somalia, Kenya and Ethiopia demanded a safety net SNIDs for four States, including Upper Nile.

Maban is one of the 13 Counties in Upper Nile State, with an estimated target population (<5years) of 60,160. The County has five Payams (the smallest administrative unit) and is home for both host and refugee communities. The fact that the County is very close to Ethiopia prompted it to be considered for SNIDs.

According to a polio Supplementary Immunization Activities (SIAs) monitoring guideline, evaluation of each campaign after the exercise is essential to ensure all children are vaccinated and to take lessons for subsequent plans [2.].

## Objective of the post-campaign evaluation

To collect critical information on quality of campaign implementation and social mobilization activities for corrective actions in next rounds.

## Methods of evaluation

The evaluation was conducted house-to-house in selected clusters [3.].

For this SNIDs evaluation, evaluators were deployed to four Payams and to all four refugee camps. Six external evaluators were trained on the standard monitoring tool and deployed in the selected areas. For this evaluation purpose, finger mark is the only valid proof for a child's vaccination status.

The villages for evaluation were selected conveniently based on accessibility; however, all the four refugee camps were included. Hence, Bunj, Banashoa, Jinkuota and Jemekida Payams for the host community; Doro, Kaya, Batil and Gendrassa for the refugee community were covered.

## Results and Discussion

### Sampled Payams, Villages and Children

A total of 31 clusters were covered from all the four Payams and four refugee camps for this evaluation (15 from host and 16 from refugee). From these clusters, 310 households have been visited by the post-campaign evaluators.

According to the finding, 790 <5 children were seen by the evaluators in the selected villages for this evaluation

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Figure 1. Community health worker gives vaccination, Jombu PHCU in Yei County, South Sudan (Credit: AAHI/Christena Dowsett)

purpose (420 host, 370 refugee). However, the total numbers of <5 children living in all of the households visited were 802 (426 host, 376 refugee).

#### Vaccination Coverage by History and Finger-mark

As depicted in table 1, 97.5% of the children living in the surveyed households have been vaccinated for this round, as reported by families; i.e., coverage by history. On the other hand, 87.7% of the children have been vaccinated based on the finger marks; i.e., coverage by finger marks. Practice of finger marking was better in the refugee camps than in the host community (Table 1).

So in general, the coverage by history is higher than coverage by finger marks. This result shows us that very few children were missed in this SNIDs campaign out of the covered areas. However, this finding may not be generalized to the entire County as clusters were taken conveniently due to accessibility and sampling was not systematic.

#### Missed Children

A missed child by definition is: a child without a finger mark; it could be because the children have not been vaccinated, or children were reported to have been vaccinated but without a finger mark [SSMOH, 2010]. According to the monitoring guideline: if a child is said to be vaccinated but has no finger marks, it should be recorded as missed and indicated reason as "Team did not come".

According to the finding, 13.6% (109) children have been missed out of the total 802 children living in the households. This finding is slightly more than the global target of <10% [1.]. Most of the children, 80.7%, were missed because team did not go to the houses, 18.3%

children were missed because the children were not at home when the vaccination team went to the house and one child was missed because the child was either sleeping/sick or newborn by the time the vaccination team went to the houses. However, more children were missed from host community than from refugees.

Most of those children who were missed because they were "not at home" were in the playground.

#### Zero Dose (First dose of Oral Polio Virus)

Children who are vaccinated for the very first time in this round polio vaccination campaign are called Zero doses [3.].

In this post-campaign evaluation, 46 children have been vaccinated for the first time during this campaign. Therefore, 5.9% of children were zero doses. The most common reason for

zero doses was newborns (40) followed by team never came and child not home when vaccination teams visited houses during previous campaigns. According to previous reports, proportion of zero doses for South Sudan is around 5.5% [1.], which seems consistent with the finding in this survey.

#### AFP Case Search

AFP surveillance is the gold standard for detecting cases of poliomyelitis [4.]. Polio immunizing teams are trained to enquire families for Acute Flaccid Paralysis (AFP) cases while visiting households. In this survey, out of the surveyed 310 households, 162(52.3%) families have reported as being enquired for AFP by the vaccination teams. Hence, nearly half of the families were not enquired for AFP by the vaccination teams, which can be an indication of low quality of basic vaccinators training.

#### Social Mobilization

According to UNICEF, social mobilization for polio SIAs is the process of sharing information with the community about polio eradication activities, the polio immunization campaign and why it is important [5.].

In this evaluation, more than three-fourth of the families knew the campaign before the vaccination team visited their houses. Meaning that, majority of the community is aware of the campaign.

#### Conclusion

The findings in this PCE indicated that, the polio SNIDs campaign for the County needs boosting. Practice of finger marking was not optimal. Some children were missed while vaccinators were in the villages. Proportion of zero doses was to the expectation of the national figure. Social

**Table 1. Total number of <5 children living in the evaluated households and vaccination coverage, Maban County, Upper Nile State, South Sudan, August 2013.**

| Payam/Camp   | Total <5 children living in the visited HHs | Total <5 children reported as vaccinated by care takers | Total <5 children seen by the monitors |              | How many <5 have marked fingers |              |
|--------------|---|---|--|--------------|---------------------------------|--------------|
|              |   |   | 0 - 11 months                          | 12-59 months | 0-11 months                     | 12-59 months |
| Bunj         | 146   | 146   | 45                                     | 101          | 41                              | 76           |
| Jemekida     | 111   | 107   | 40                                     | 69           | 38                              | 59           |
| Jinkoata     | 122   | 117   | 38                                     | 84           | 34                              | 60           |
| Banashoa     | 47  | 46  | 10                                     | 33           | 9                               | 30           |
| Kaya         | 85  | 85  | 32                                     | 53           | 32                              | 48           |
| Batil        | 126   | 126   | 31                                     | 95           | 29                              | 84           |
| Gendrassa    | 93  | 89  | 34                                     | 59           | 32                              | 55           |
| Doro         | 72  | 66  | 21                                     | 45           | 21                              | 45           |
| <b>Total</b> | <b>802</b>                                  | <b>782</b>  | <b>251</b>                             | <b>539</b>   | <b>236</b>                      | <b>457</b>   |

mobilization seems to have covered most areas before the campaign periods.

### Recommendations

- Strengthening of quality of basic vaccinators' training should be emphasised.
- Improving social mobilization activities during each exercise of polio SIAs.
- Proper estimation of target population is needed, to avoid vaccine shortages.

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### Authors' contributions

Author designed the study, coordinated, supervised, analyzed the data and wrote the manuscript.

### Competing interest

I declare that I have no competing interests.

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