



Strengthening CORE Group Polio Project Impact:  
Community-Based Surveillance (CBS) Activities in South Sudan

FY2018 PROGRESS REPORT

The Bill and Melinda Gates Foundation

Reporting period: October 1, 2017 - September 30, 2018



SOUTH SUDANESE CHILDREN POSING IN UPPER NILE STATE'S MAIWUT COUNTY.

## BACKGROUND

Since reporting its last wild poliovirus case in 2001, South Sudan has experienced repeated vaccine-derived polio virus outbreaks. Three cases of circulating vaccine-derived polio virus (cVDPV2) in 2014 and 2015 in Unity State exposed South Sudan's high vulnerability to another polio outbreak. A national outbreak response assessment in 2015 revealed that half of all counties (18 of 33) in the most conflict-ravaged northern states of Jonglei, Upper Nile and Unity were silent - indicating an AFP surveillance system not sensitive enough to detect existing poliovirus cases. As a result, the South Sudan Technical Committee for Polio Eradication requested the CORE Group Polio Project re-direct its focus to community-based surveillance in the northern states. In October 2015, the CGPP designed and implemented a radically new AFP surveillance system based on the use of unpaid community informants rather than health workers or Community Health Volunteers to cover all 33 counties in the conflict-affected states of Jonglei, Upper Nile and Unity in addition to the hard-to-reach state of Eastern Equatoria (Kapoeta County and newly added Magwi County) that shares its international southern border with Kenya. Prior to this, CGPP had pioneered a similar strategy in Ethiopia and South Sudan using the project's Community Mobilizers (CMs or CHWs) to promote routine and campaign vaccination and conduct AFP surveillance using a cadre of volunteer community mobilizers in eight counties along South Sudan's Southern border.

The new strategy combined components of active facility-based AFP case surveillance and behavior change education using community health volunteers to create a new system of AFP surveillance that could cover a much larger area at a reasonable cost by relying on unpaid community informants to identify and report suspected AFP cases in their communities. These informants were all community members such as birth attendants, teachers, elders, community leaders and church officials who, in the course of their daily lives, were likely to observe or be informed of unusual health events such as a newly paralyzed child. The project identified these key informants and trained them on the symptoms of AFP and gave them the names and numbers of contact persons to notify in case they identified a suspected case. These unpaid community informants were trained and monitored by a cadre of paid supervisors and county and payam surveillance officers. The strategy has worked remarkably well identifying the majority of AFP cases in the project areas, reducing the number of silent counties from 18 to one and raising the levels of Non-polio AFP surveillance to an average of over four per 100,000 children under 15.

Since 2010, the Bill and Melinda Gates Foundation has supported the CORE Group's Polio eradication efforts in South Sudan. The Foundation's consistent commitment has been vital for a country struggling with protracted challenges. In FY18, the deteriorating humanitarian situation in South Sudan persisted with elevated levels of violence and escalating unrest between government and opposition forces, violence-driven inaccessibility, a frail health infrastructure and large population movements of vulnerable women and children. Health facilities have been destroyed; many health workers, who were primarily responsible for treating children brought to the clinic with AFP symptoms, have fled for security reasons. The numbers of unvaccinated or minimally vaccinated children have increased, as has the threat of vaccine-preventable outbreaks, including polio, measles and neo-natal tetanus.

The conflict has resulted in the internal displacement of 1.96 million people and the exodus of more than 2.5 million people (UNOCHA 2018) to the neighboring countries of Uganda, Ethiopia, Sudan, Kenya, the Democratic Republic of Congo and Central African Republic. These critical factors, plus the recent vaccine derived outbreaks in Kenya and Somalia, underscore the continued need for a strong community-based surveillance network.

**PROGRESS FROM OCTOBER 1, 2017 TO SEPTEMBER 30, 2018**

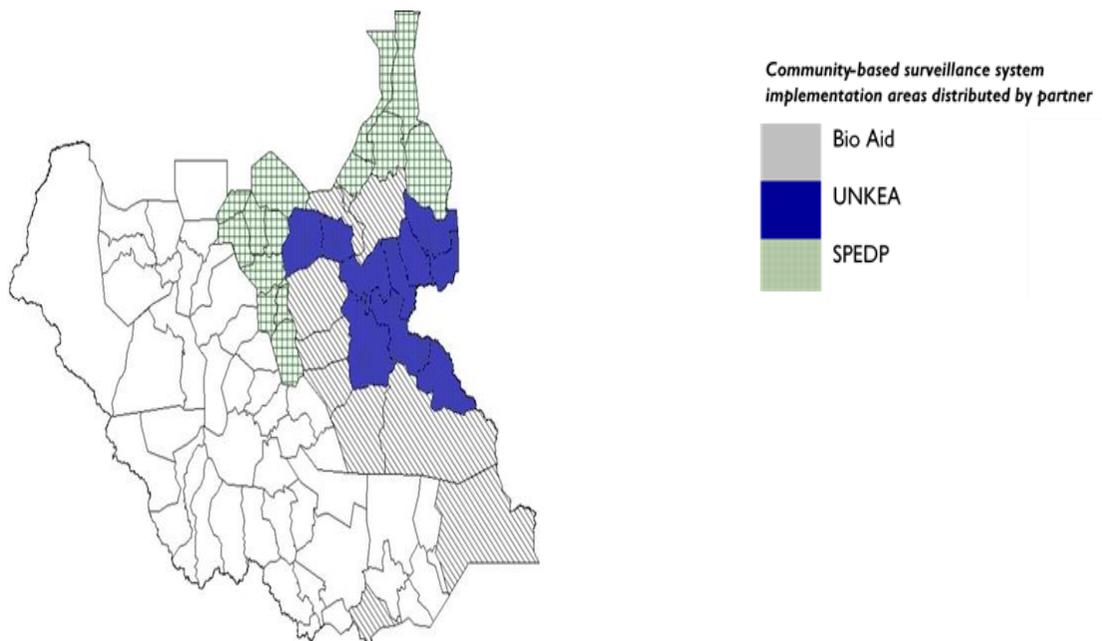
State	Population under 15
Upper Nile	982,693
Jonglei	864,151
Unity	895,541
Eastern Equatoria	148,775
<b>Total</b>	<b>1,995,619</b>

This report addresses the period from October 1, 2017 through September 30, 2018. The CORE Group conducted surveillance activities across 37 counties in three conflicted-affected and infrastructure-poor northern states of Jonglei, Unity and Upper Nile, and in two counties in Eastern Equatoria State due to its significant population movement and proximity to refugee routes. With a population of 3.7 million people within the catchment areas, the project targeted nearly 2 million children under the age of fifteen years with the aim of halting the potential spread of wild polio and vaccine-derived polio viruses.

*During the 2018 reporting period, a dedicated network of 3,464 volunteer community informants worked to detect and report suspected polio cases in areas under the control of both the opposition and the government. Through CGPP community-based surveillance efforts, CGPP volunteers reported 79.1 % of true AFP cases detected in the CGPP project areas and a total of 398 non-polio AFP cases from October 1, 2017 to September 30, 2018.*

**IMPLEMENTING PARTNERS**

The CGPP collaborates closely with WHO, Unicef and the Ministry of Health (MOH). In FY18, CORE Group South Sudan directed the work of six national NGOs: Support for Peace and Education Development Program (SPEDP), Universal Network for Knowledge and Empowerment Agency (UNKEA), Children Aid South Sudan (CASS), LiveWell, Christian Mission for Development (CMD) and Bio Aid in 37 counties. These implementing partners worked in the conflict-prone and hard-to-reach border areas that were also impacted by flooding, cattle rustling, and interclan and tribal conflicts. On June 30, 2018, the CGPP terminated its contract with Bio Aid due to issues of corruption.



**National NGO partners and distribution of counties through June 30, 2018.**

NATIONAL NGO PARTNER	# OF COUNTIES	STATES	DISTRIBUTION OF COUNTIES
Bio Aid	12	Jonglei	Duk, Ayod, Twic East, Bor South, Pibor, and Boma
		Upper Nile	Malakal, Balieta, Akoka and Panyikang*
		Eastern Equatoria	Kapoeta East and Magwi
UNKEA	10	Jonglei	Pochalla, Akobo, Uror, Nyirol, Fangak, and Piggi
		Upper Nile	Ulang, Nasir, Maiwut and Longochuk
SPEDP	15	Upper Nile	Fashoda, Maban, Renk, Manyo, and Melut
		Unity	Rubkona, Guit, Koch, Panyijar, Manyo, Mayendit, Leer, Abiemnhem Mayom and Pariang
Total	37	4	37 *denotes conflict-affected and hard-to-reach county

**Redistribution of counties per partner as of July 1, 2018 in CGPP catchment areas**

The table below depicts the re-organization of local NGOs and their geographic assignments as of July 1, 2018. The CGPP conducted an orientation workshop for the five partners on June 27 and June 28, 2018 to discuss the re-alignments. The workshop was facilitated by the three State Surveillance Coordinators and the finance team from World Vision South Sudan. In all, 32 project and M&E officers and project and finance managers reviewed the CBS situation in South Sudan, standard operating procedures, monitoring and evaluation and financial and assets management.

NATIONAL NGO PARTNER	# OF COUNTIES per partner	STATES	DISTRIBUTION OF COUNTIES
LIVEWELL	7	Jonglei	Duk, Twic East, Bor South, Pibor, and Boma
		Eastern Equatoria	Kapoeta East, Magwi
CASS	6	Upper Nile	Maban, Melut, Malakal, Balieta, Akoka and Panyikang*
CMD	5	Jonglei	Piggi, Fangak, Nyirol, Ayod and Uror
UNKEA	6	Jonglei	Pochalla, Akobo
		Upper Nile	Ulang, Nasir, Maiwut and Longochuk
SPEDP	13	Upper Nile	Fashoda, Renk, and Manyo,
		Unity	Rubkona, Guit, Koch, Panyijar, Manyo, Mayendit, Leer, Abiemnhem, Mayom and Pariang
Total	37	4	37 *denotes conflict-affected and hard-to-reach county

## CONTINUOUS EFFORTS TO IMPROVE PARTNER COLLABORATION AND COOPERATION

### Technical working group meetings

During the reporting period, CGPP South Sudan worked closely with the MOH, WHO, Unicef, McKing senior and field consultants, JSI and CDC-Afenet through the national EPI Technical Working Group (EPI-TWG). On a bi-monthly basis, participants addressed technical matters related to EPI activities in South Sudan, including a review of monthly performance, preparation for NIDs and outbreak emergency response, and follow up on policy-related issues to foster joint accountability. The Deputy Secretariat Director and the Secretariat Director contributed towards the successful implementation of the activities set by the MOH.

### Monthly partners meetings

The Secretariat Director or his deputy conducted a total of 12 monthly meetings in Juba to discuss lessons learned, best practices, challenges in the field, and plan future actions. All implementing partners and the McKing senior and field consultants attended the monthly forums with a primary focus on correcting any deviations promptly. The CGPP developed and distributed meeting minutes for immediate implementation of action points.

### Monthly partners cluster meetings

Bio Aid, LiveWell, CMD, CASS, SPEDP and UNKEA conducted 25 of 30 planned cluster meetings. CGPP Surveillance Coordinators, McKing field consultants assigned to each implementing partner, key staff members and partner project officers reviewed action points raised during the previous month's meeting, inspected field supervision findings, addressed implementation challenges and examined monthly support supervision plans. The CGPP developed and shared meeting minutes to encourage prompt action.

### ICC meetings

CGPP South Sudan is a member of the Inter-Agency Coordination Committee and contributed to the quarterly meetings.

### Horn of Africa Technical Advisory Group meeting

CORE Group South Sudan attended the 17th Horn of Africa Technical Advisory Group meeting from May 2 to May 4 in Nairobi. The meeting focused on the context of the HOA regional outbreak and the need for a strong, coordinated outbreak response. South Sudan is among four access-compromised countries in the HOA due to the "ongoing presence of children unreached with polio vaccine in pockets of inaccessible areas," according to the meeting report.

### Coordination with Gates Consultants in South Sudan

The CGPP convened several meetings with WHO and senior consultants at McKing to address variances in the AFP line list compared to total AFP cases reported, and specimens collected and transported to the Public Health laboratory in Juba.

### CGPP South Sudan representation

The CGPP Secretariat Director for South Sudan, represented the project at regional and international forums to promote the value of community-based surveillance and its impact in the conflict-prone and hard-to-reach areas of South Sudan. He spoke of the need for replicating the CBS model in similar contexts and in other regions, and for application to other public health interventions, at the CORE Group Health Practitioners meeting in Maryland, the Gavi CSO meeting in Nairobi as well as the social and behavior communication summit in Nusa Dua, Indonesia.

External project evaluation

CGPP headquarters in Washington, DC hired external consultant HIGH PSI 9114 LTD to assess South Sudan’s project activities between January 2016 and June 2017. The evaluation, carried out between August 3, 2017 and September 8, 2017, assessed the adequacy, timeliness, reliability, and stability of the community-based surveillance system, with particular attention to the three conflict-affected states of Jonglie, Upper Nile and Unity and Kapoeta East county in Eastern Equatoria state. The evaluation also assessed the quality, adequacy, reliability, and accuracy of the nationwide independent campaign monitoring data, procedures, and activities implemented by CORE South Sudan.

**TRAINING AND SUPERVISION OF COMMUNITY-BASED SURVEILLANCE ACTORS**

In FY18, the project field team consisted of three Juba-based State Surveillance Coordinators, who spent the majority of their time in the field supporting teams at the county level; six Project Officers; 36 County Supervisors, 236 payam Assistants and 3,464 volunteer community Key Informants.

Participant	Numbers Trained	% Trained
County Supervisors	34/36	94.4%
Payam Assistants	226/236	95.8%
Community Informants	2852/3464	82.3%

Refresher training for County Supervisors

Thirty-four County Supervisors attended a technical training in Juba from November 25-28, 2017. Facilitated by teams from McKing consultants, the CGPP, and the WHO, the overarching goal of the training was to improve the quality of community AFP surveillance across the project catchment areas. County Supervisors work together with WHO field supervisors to facilitate timely reporting and investigation of suspected AFP cases reported by Payam Assistants. Other issues discussed during the training included the impact of hyper-inflation

and proposed local solutions, the development of guiding principle for the new proposal to the Gates Foundation, and review of the M&E framework.

Refresher training for Payam Assistants and Key Informants

The County Supervisors, in collaboration with WHO field supervisors and county health department officials, trained 226 of 236 Payam Assistants. The review covered basic information on community-based surveillance, including the reporting of cases, use of interpersonal communication, supervision of community key informants and improved reporting skills. Each Payam Assistant identifies, trains and supervises about 15 community key informants. Payam assistants conduct social mapping and ensure timely reporting of cases from the payam level up to the county levels and provide laboratory results to the households.

The CORE Group trained 2,852 of 3,464 key informants on the basics of proper identification and reporting of AFP cases in children under 15 years old. The key informants are well-respected community members and typically work as traditional birth attendants, traditional healers, church leaders, chiefs or headmen, local clinic owners, teachers, and women and youth leaders. Families reach out to the trusted community informants when a child is showing AFP symptoms.

Annual review meeting

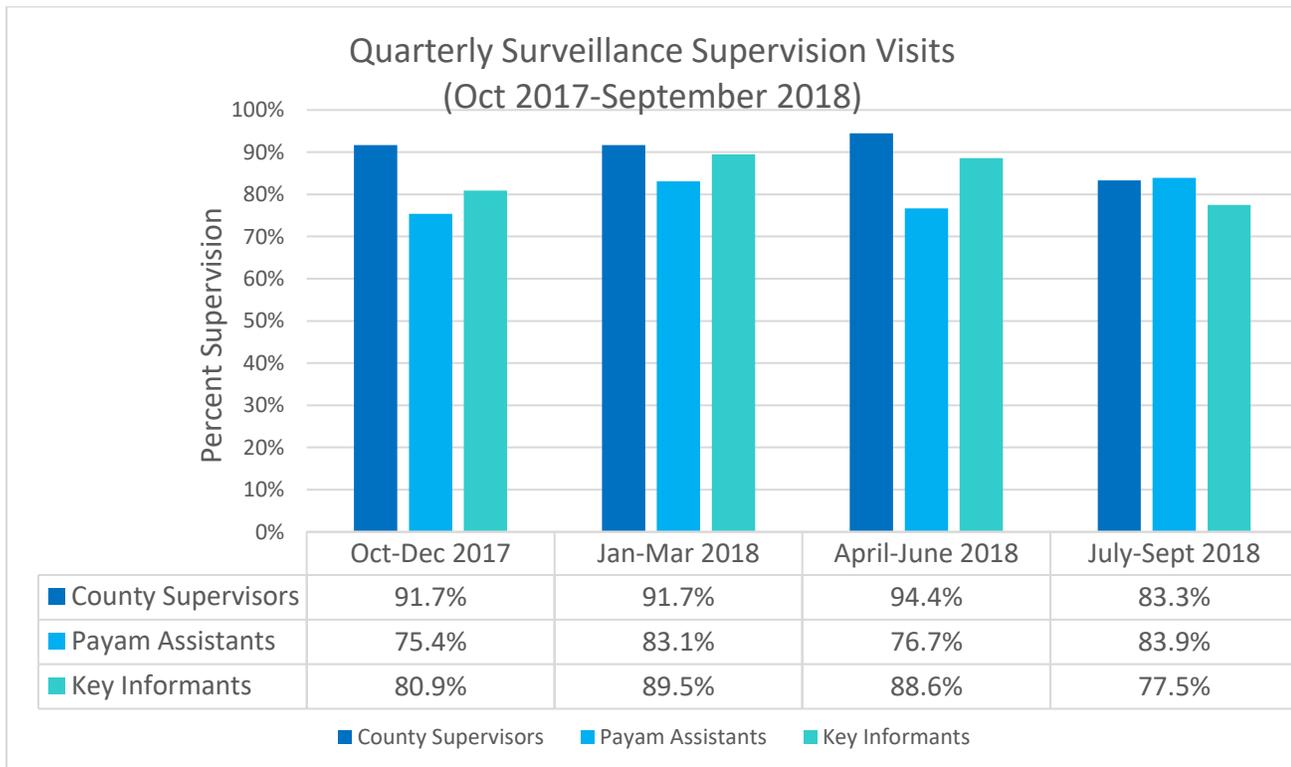
The CORE Group evaluated each partner’s progress during separate three-day meetings in September 2018. CGPP organized meetings for 36 County Supervisors and 23 partner staff, including M&E officers, project managers, and project and finance officers from LiveWell, UNKEA, SPEDP, CMD and CASS. State Surveillance Coordinators and senior and field consultants from McKing facilitated the meetings, which incorporated presentations by the County Supervisors, discussions on challenges, lessons learned and proposed solutions for FY19.

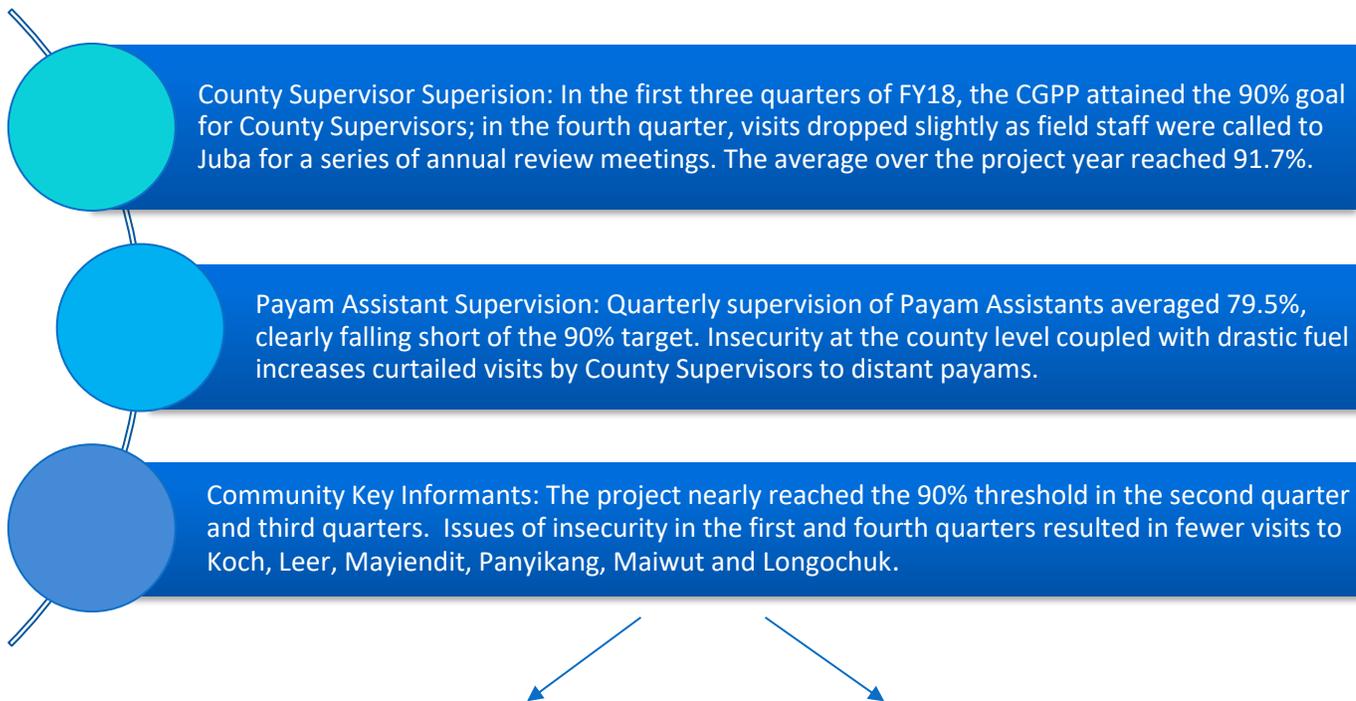
**Summary of the community-based surveillance network as of September 2018**

NGO partner	# of County Supervisors	# of Payam Assistants	# of key informants
LiveWell	8	41	493
CASS	5	30	499
CMD	5	42	635
UNKEA	6	40	570
SPEDP	12	83	1,267
<b>TOTAL</b>	<b>36</b>	<b>236</b>	<b>3,464</b>

**FIELD SUPPORT SUPERVISION**

Strengthening support supervision is a core component for measuring the quality of CBS activities. Project supervision indicators state that 90% of County Supervisors, Payam Assistants, and Key Informants receive quarterly supervisory visits. Secretariat staff, implementing partner project staff and Foundation field consultants supervise County Supervisors; County Supervisors visit Payam Assistants; and Payam Assistants review the work of Key Informants. Field supervision visits are guided by a standard supervision checklist containing standard operating procedures developed by the CORE Group in close partnership with the Gates consultants. The checklist and a standardized field report is shared with the Secretariat.





*Compared to last year's Quarterly Surveillance Supervision Visits, all areas experienced considerable gains in supervision visits. In FY17, the annual average visits for County Supervisors, Payam Assistants and Key Informants were 76%, 79% and 60%, respectively. In FY18, County Supervisor visits jumped to 91.5%, Payam Assistants remained flat at 79.5%, and Key Informants supervision visits catapulted to 84.1%.*

### IMPACT OF COMMUNITY-BASED SURVEILLANCE

During FY18, community volunteers reported 125 Non-polio AFP cases in the three states of Upper Nile, Jonglei, and Unity and Kapoeta East county in Eastern Equatoria State. Most of the states achieved the NPAFP rate target equal or more than 4 per 100,000 children under the age of 15 years old set by the project. Kapoeta East in Eastern Equatoria state and Upper Nile performed strongly while Jonglei hit the target and Unity state just missed the target.

#### **Non-Polio AFP rate from CGPP catchment areas from October 1, 2017 to September 30, 2018**

States	Total Population <15 years	NPAFP Cases	NPAFP Rate
Jonglei	982,693	40	4.07
Unity	864,151	31	3.59
Upper Nile	895,541	47	5.25
Eastern Equatoria (Kapoeta East)	148,775	7	4.71

Source: WHO Weekly Surveillance bulletin 2017-2018

## PROGRESS ON KEY COMMUNITY-BASED SURVEILLANCE INDICATORS

- ❖ **Percentage of true AFP cases reported through the CGPP community-based surveillance network with a target of 40%.**

The CGPP community-based surveillance network reported 79.1% of all AFP cases in the CGPP catchment areas from January through August 2018. This nine-month period follows WHO's calendar year (January through December.)

### Staffing Indicators

- ❖ **% of counties with County Supervisors**  
*The CGPP recruited 36 County Supervisors to cover 37 counties. A supervisor has not been recruited for Panyikang County in Upper Nile, which has remained silent since 2016 due to active conflict. To address the geographic vastness and inaccessibility of Akobo and Kapoeta East counties, each county was split into two and assigned a separate supervisor.*
- ❖ **% of counties with Payam Assistants**  
*CGPP recruited 236 of 255 targeted Payam Assistants, or 92%; no assistants could be recruited from security-compromised Panyikang County.*
- ❖ **% of payams with at least 10 key informants**  
*100% of payams exceeded the target by averaging 15 community key informants per payam. The CGPP network of community informants in 35 counties totaled 3,464.*

- ❖ **Percentage of suspected AFP cases reported by key informants within 7 days from onset of paralysis in each county.**

The CGPP reported a total of 398 suspected AFP cases between October 1, 2017 and September 30, 2018. Community key informants reported 148, or 37.1%, within 7 days. Several factors contributed to the number of days it took to identify cases: inaccessibility due to insecurity, vastness of the geographic areas, the continued belief in alternative measures for treating paralysis, hiding cases of paralysis in houses due to beliefs of curses or bewitchings and seeking traditional healing from other countries. A greater investment in behavior change communication is essential to counter traditional, cultural and religious beliefs and promote the need of timely AFP case reporting.

- ❖ **Percentage of suspected AFP cases referred to County Supervisor within 48 hours of reporting by Key Informant.**

Key informants referred 398 of 492 suspected cases, or 80.1% to County Supervisors within 48 hours of detection.

- ❖ **Percentage of suspected AFP cases referred to WHO for validation within 96 hours of reporting by key informant**

There has been a tremendous improvement in the working relationship between CGPP field staff, particularly Payam Assistants and County Supervisors, and WHO field

assistants and supervisors during the reporting period; County Supervisors referred 218 of 240 suspected AFP cases, or 90.8%, to WHO field staff within 96 hours of receiving information from community key informants.

- ❖ **Less than 10% of silent counties in the CGPP catchment areas.**

The CGPP achieved this target. Only Panyikang County in Upper Nile was silent due to ongoing active fighting; 36 of 37 (3%) counties reported suspected AFP cases in FY18, a significant improvement compared to four silent counties in FY17.

## COMMUNITY SURVEILLANCE MESSAGES

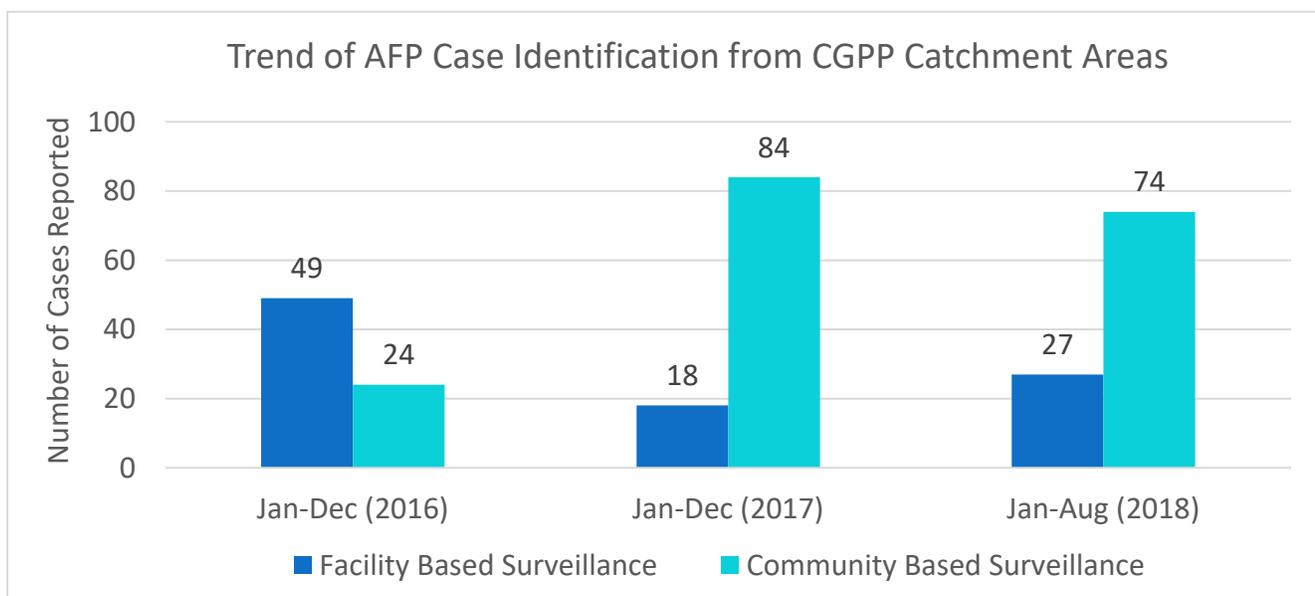
The CORE Group Polio Project South Sudan originally set out to reach 90% of 73,280 community leaders with key messages on community-based surveillance. Due to the large numbers of returning residents from other counties as security normalized in some areas, an additional 6,100 chiefs, headmen, women leaders, youth leaders, teachers, church leaders and government local authorities were reached during health sessions

*Quarterly health education sessions conducted, and community members reached, from October 1, 2017 to September 30, 2018*

Quarters	# of health sessions conducted	# of community members reached
Q1	1,694	21,074
Q2	1,403	26,903
Q3	1,580	20,290
Q4	867	11,104
TOTAL	5,544	79,376

## TREND OF AFP CASES REPORTED BY SITE (FACILITY AND COMMUNITY) 2016-2018

In October 2015, CORE Group South Sudan began its community-based surveillance activities to improve surveillance sensitivity in conflict-affected and hard-to-reach areas. Since 2016, there has been a strong increase in the proportion of AFP cases reported by community-based surveillance versus those reported by facilities. The first nine months of 2018 continues this positive trend and points to the strong return on the Gates Foundation's investment in areas affected by conflict, broken health systems and access issues for the hard to reach.



*Note: 2016 and 2017 include data from 12 months; 2018 includes data from only the first 9 months.*

*Source: WHO South Sudan Weekly Surveillance Report 2016-2018*

## NOTABLE CHALLENGES

Continued conflict in the counties of Maiwut, Longochuk, Koch, Panyikang, Mayiendit, Panyijar and Leer has destabilized surveillance efforts.

Spiking fuel prices, particularly in areas controlled by the opposition, have pushed costs to unsustainable amounts of 4 to 6 USD per liter.

A lack of network coverage has limited access to the internet in the states of Upper Nile, Jonglei and Unity. This has impacted timely communication by creating prolonged delays of reporting between County Supervisors and partner NGOs on the ground.

In some locations, WHO has not been responsive in validating suspected AFP cases or collecting stool samples. WHO field focal persons or WHO Supervisors are located too far from responding to a reported AFP cases; others are reluctant to handle the case and instead leave validation of suspected AFP cases to the CGPP County Supervisors. Additionally, WHO field supervisors have been late in collecting stool cases, or do not show up once a case has been reported. These supervisors are the focal person to investigate, collect stool samples and coordinate with WHO in Juba to arrange transport to the laboratory for testing.

WHO has chronically failed to provide feedback to the community on laboratory test results, leaving many community members distrustful of the system.