



Republic of South Sudan
Ministry of Health



The 23rd International Review Meeting of Guinea Worm Eradication Program Managers

Atlanta – Georgia
USA

March 21st – 22nd 2019

Makoy Samuel Yibi –Director for Guinea Worm Eradication – MoH, RSS

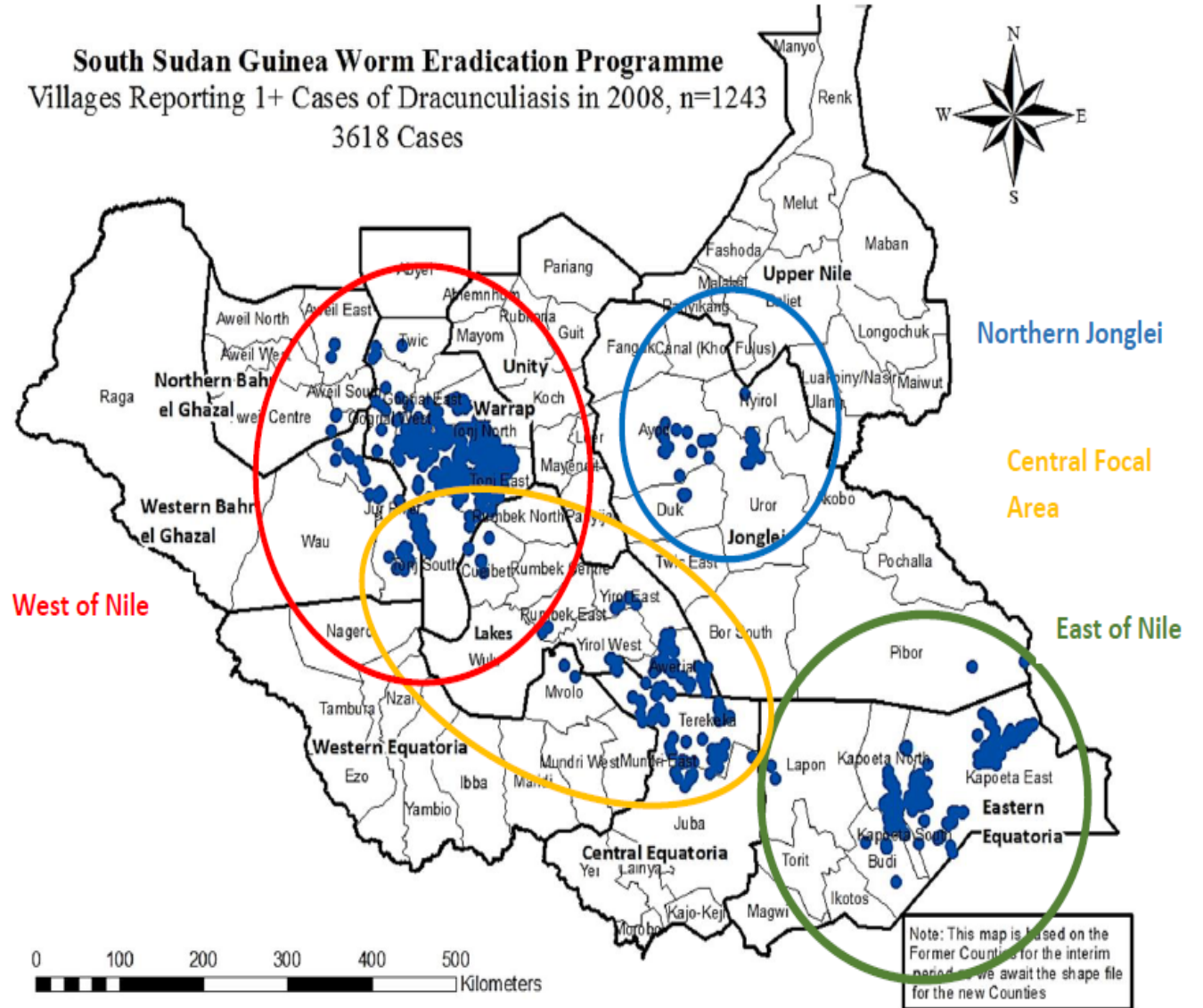
SECTION 1

Epidemiology

SSGWEP Background

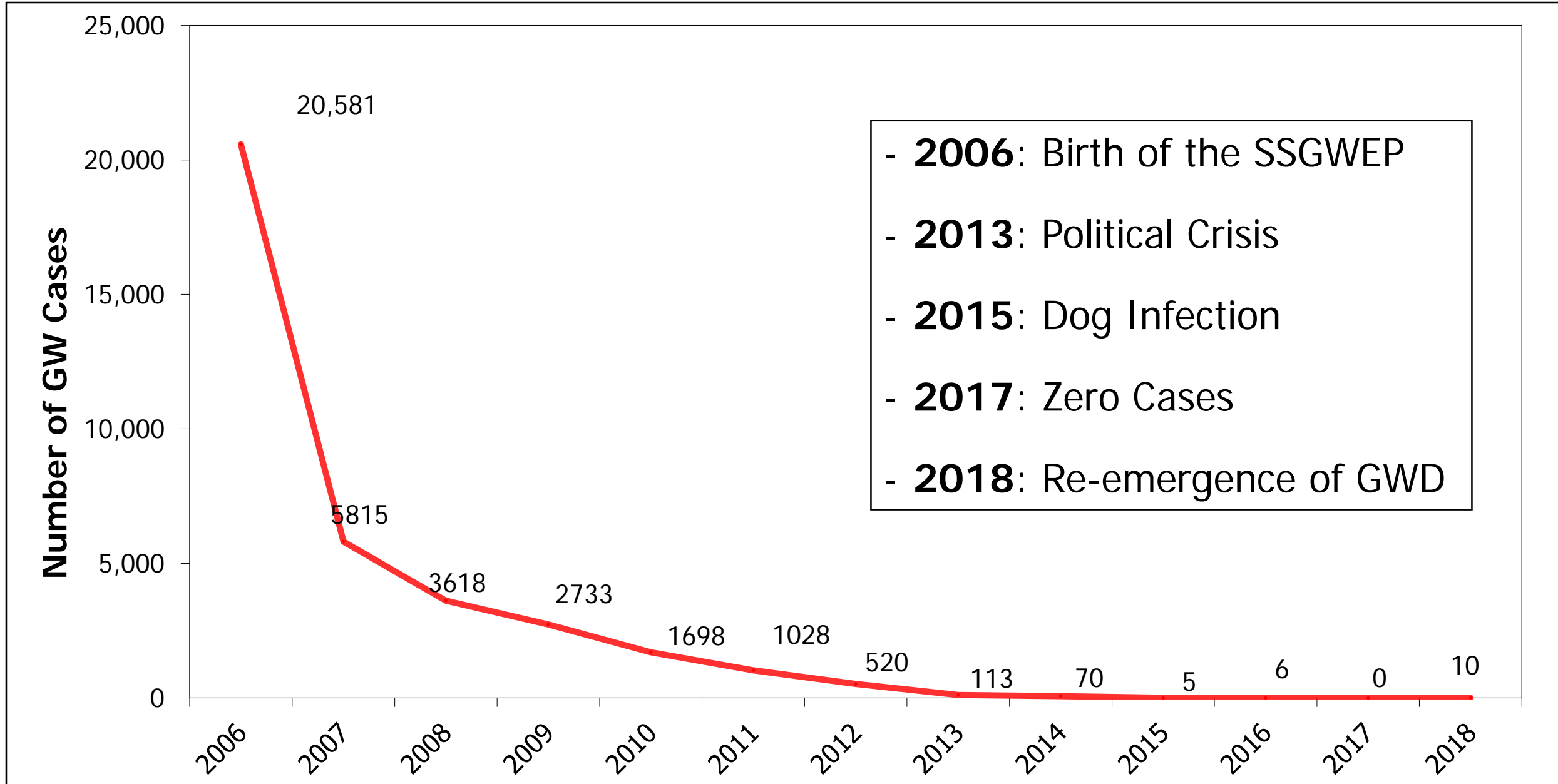
- Historically, South Sudan has reported cases of Guinea worm in four focal areas:

- Central** (Western & Central Equatoria, and Lakes States),
- East of Nile** (former Eastern Equatoria and former Pibor County in former Jonglei State),
- Northern Jonglei** and
- West of Nile** (former Warrap, Northern Bahr el Ghazal, and Western Bahr el Ghazal).



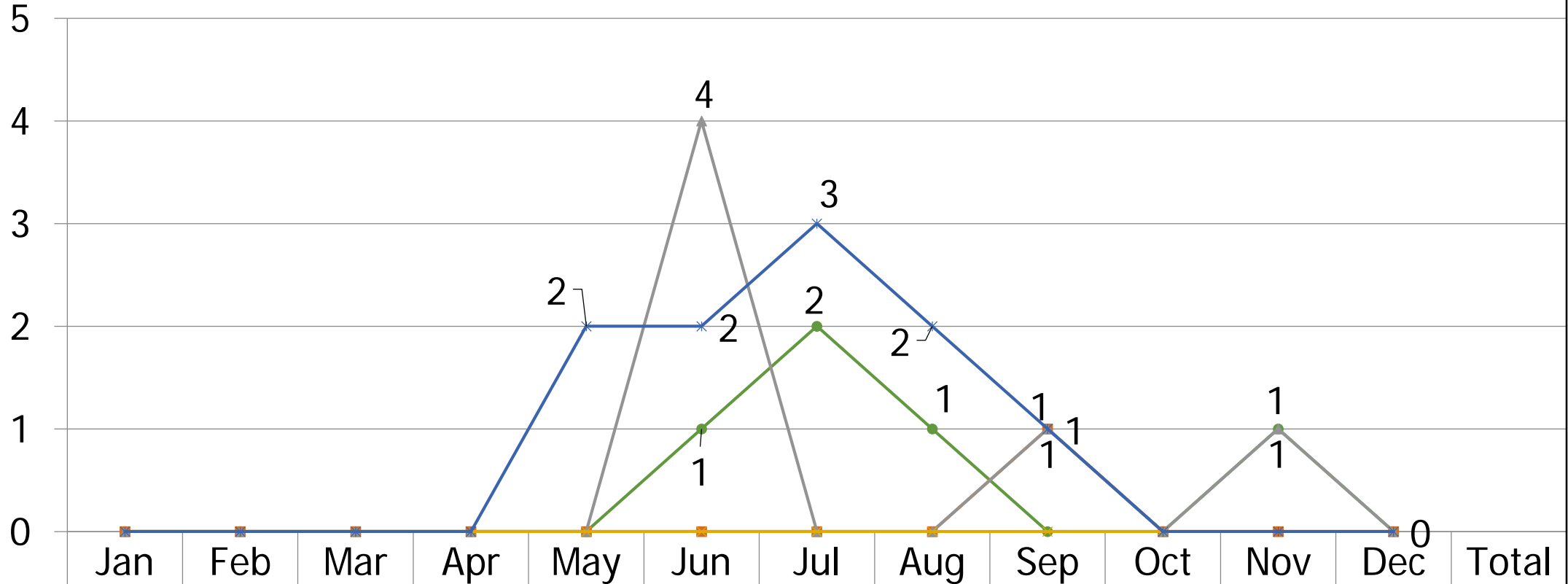
- Due to transmission dynamics and migratory patterns, focal areas can overlap.

Key Milestones 2006 – 2018



South Sudan Cases of Dracunculiasis and Animal Infection by Month 2015-2018

Cases and Animal Infection



2015

2015 (Dog)

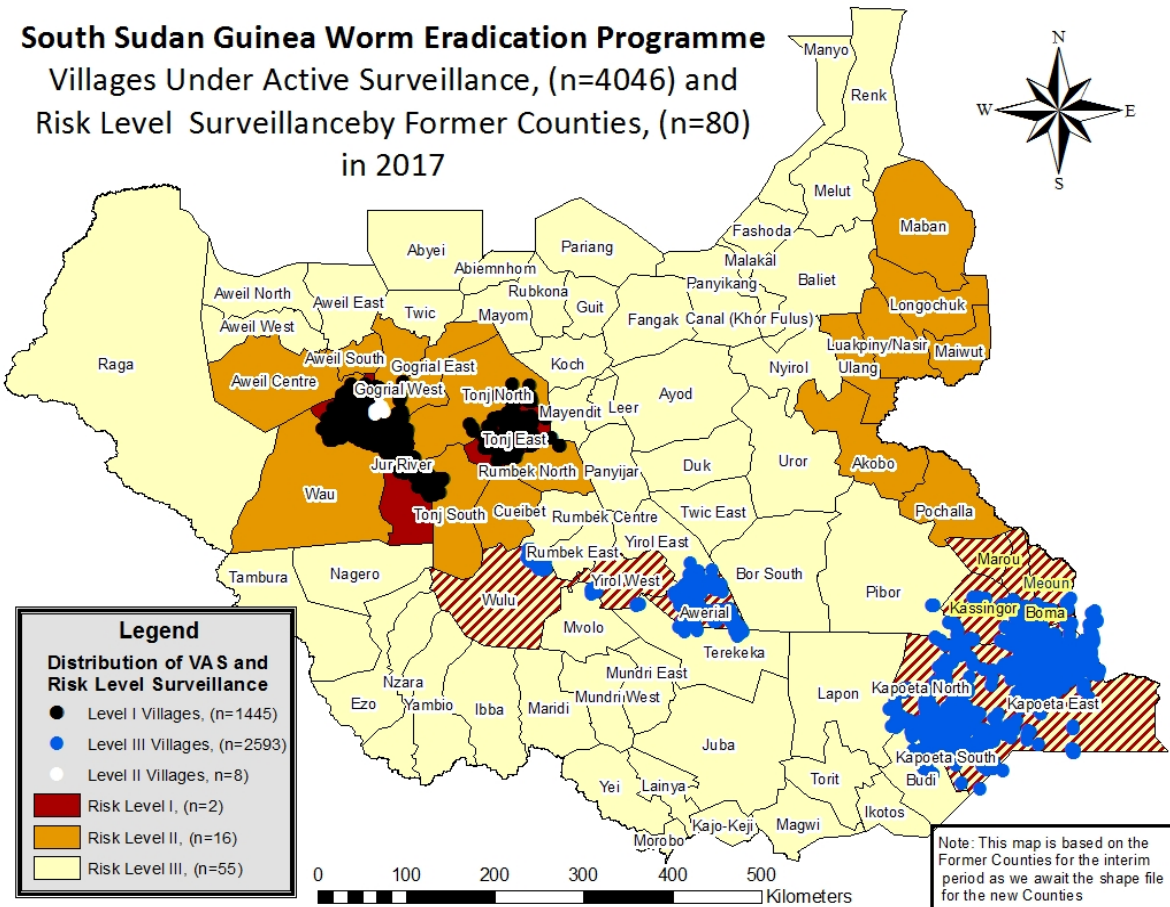
2016

2017

2018

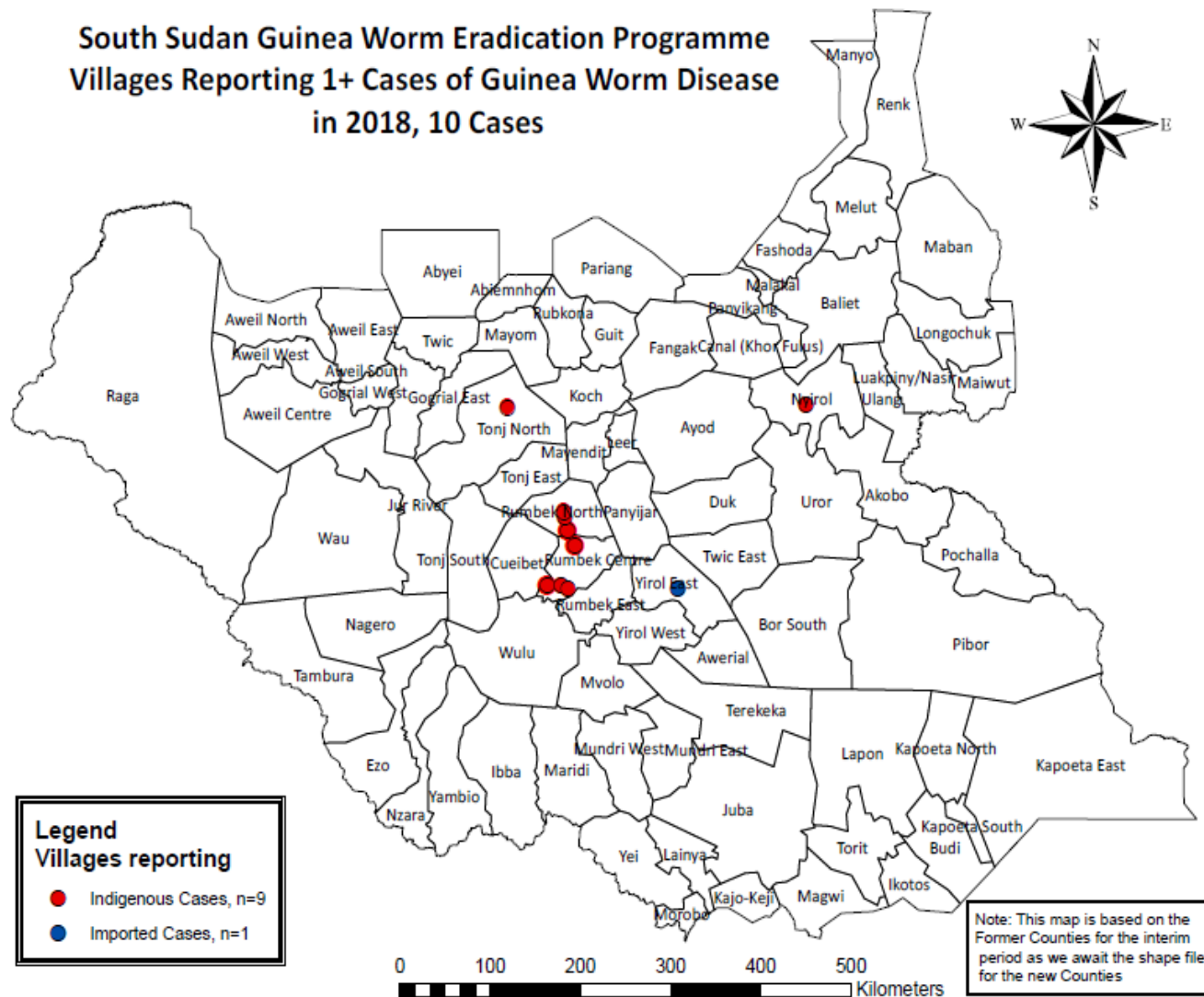
South Sudan Guinea Worm Eradication Programme

Villages Under Active Surveillance, (n=4046) and Risk Level Surveillance by Former Counties, (n=80) in 2017



South Sudan Guinea Worm Eradication Programme

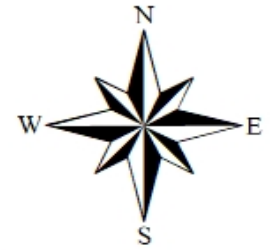
Villages Reporting 1+ Cases of Guinea Worm Disease in 2018, 10 Cases



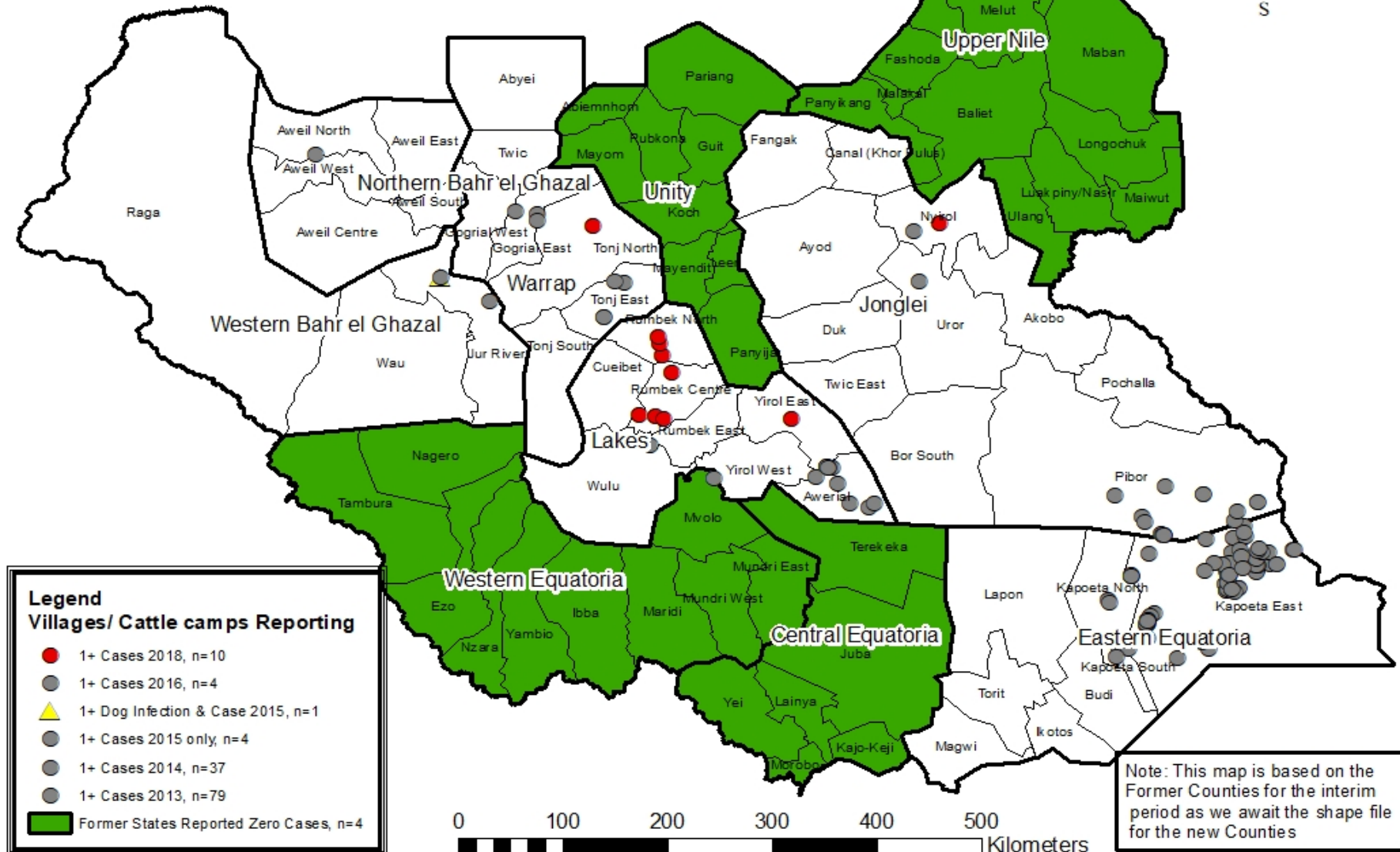
- In 2017, South Sudan reported zero cases of GWD.
- From May 2018, there was a resurgence of cases, overall 10 cases

South Sudan Guinea Worm Eradication Programme

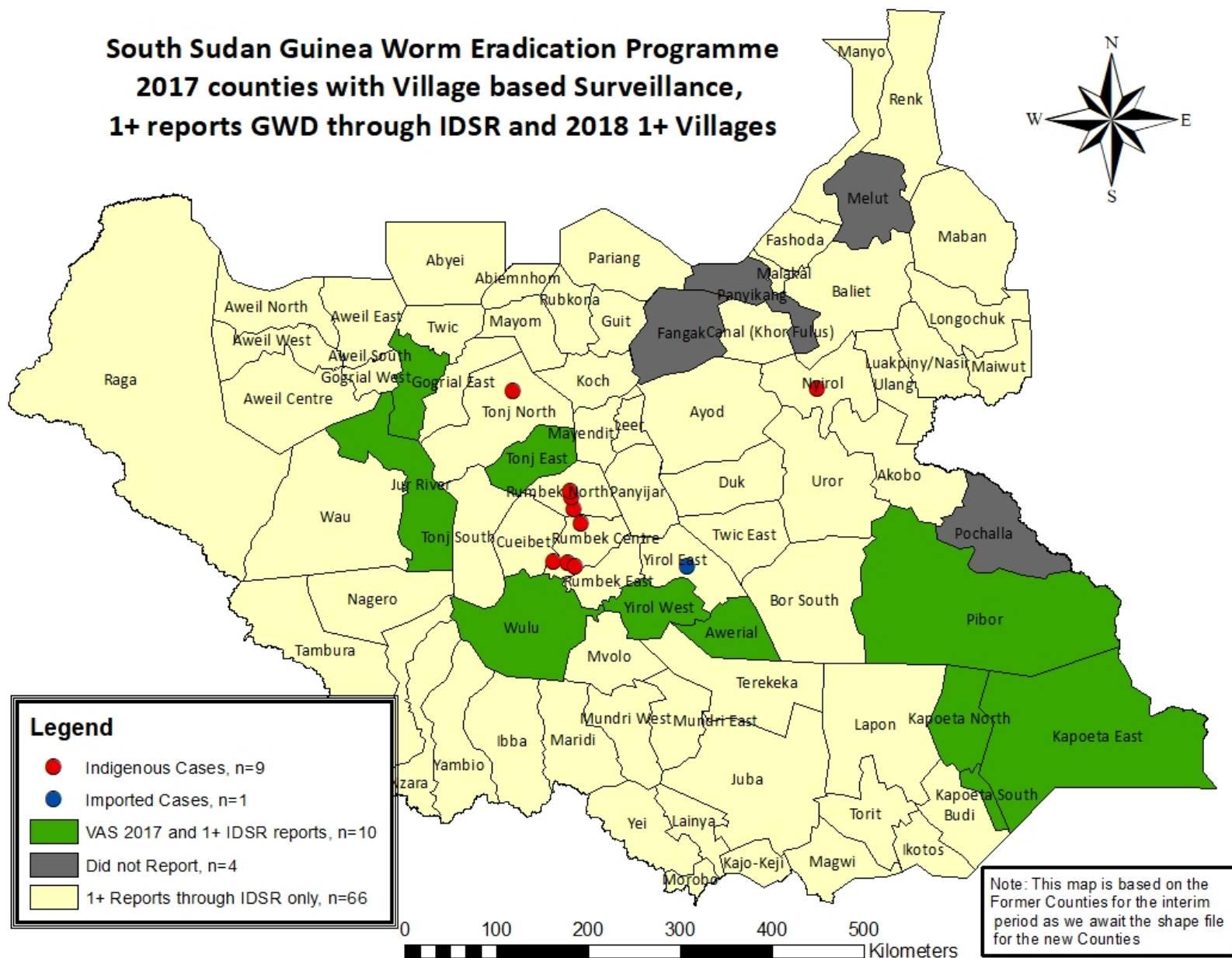
Villages and Cattle Camps Reporting 1+ Cases of Guinea Worm Disease and Animal Infection 2013-2018



2018 1+
villages in
relation to 1+
villages from
2013 – 2016



South Sudan Guinea Worm Eradication Programme
2017 counties with Village based Surveillance,
1+ reports GWD through IDSR and 2018 1+ Villages



2017 Numbers

- No. of Rumors=**25,188**
- No. of Suspects=**18,351**
- Dog Rumors=**7**
- No. of IDSR GWD Alerts=**93**
- Specimens sent to CDC=**25**

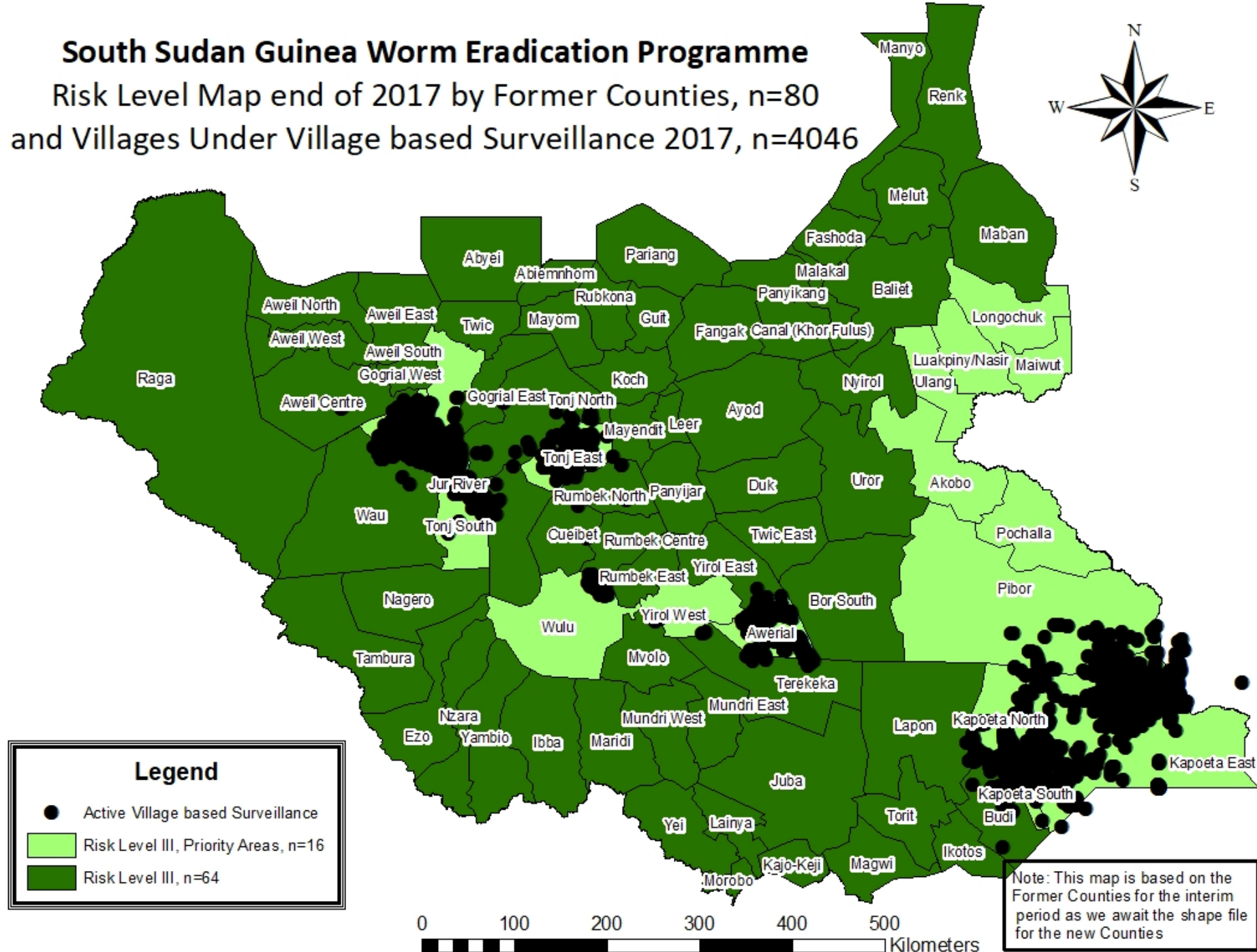
SECTION II

Surveillance

How did the Surveillance for Guinea Worm Disease look like in 2017 and 2018?

South Sudan Guinea Worm Eradication Programme

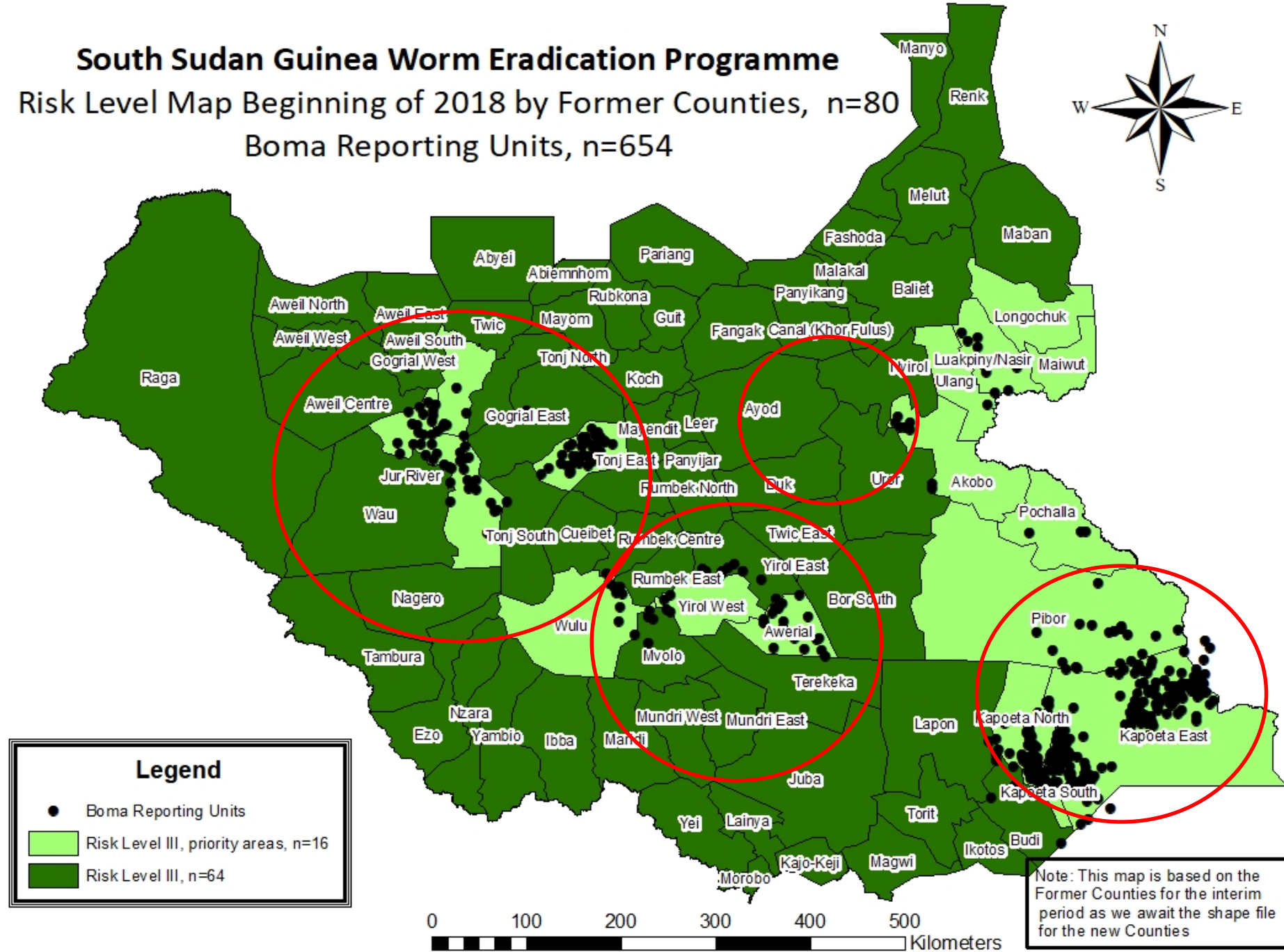
Risk Level Map end of 2017 by Former Counties, n=80
and Villages Under Village based Surveillance 2017, n=4046



South Sudan Guinea Worm Eradication Programme

Risk Level Map Beginning of 2018 by Former Counties, n=80

Boma Reporting Units, n=654

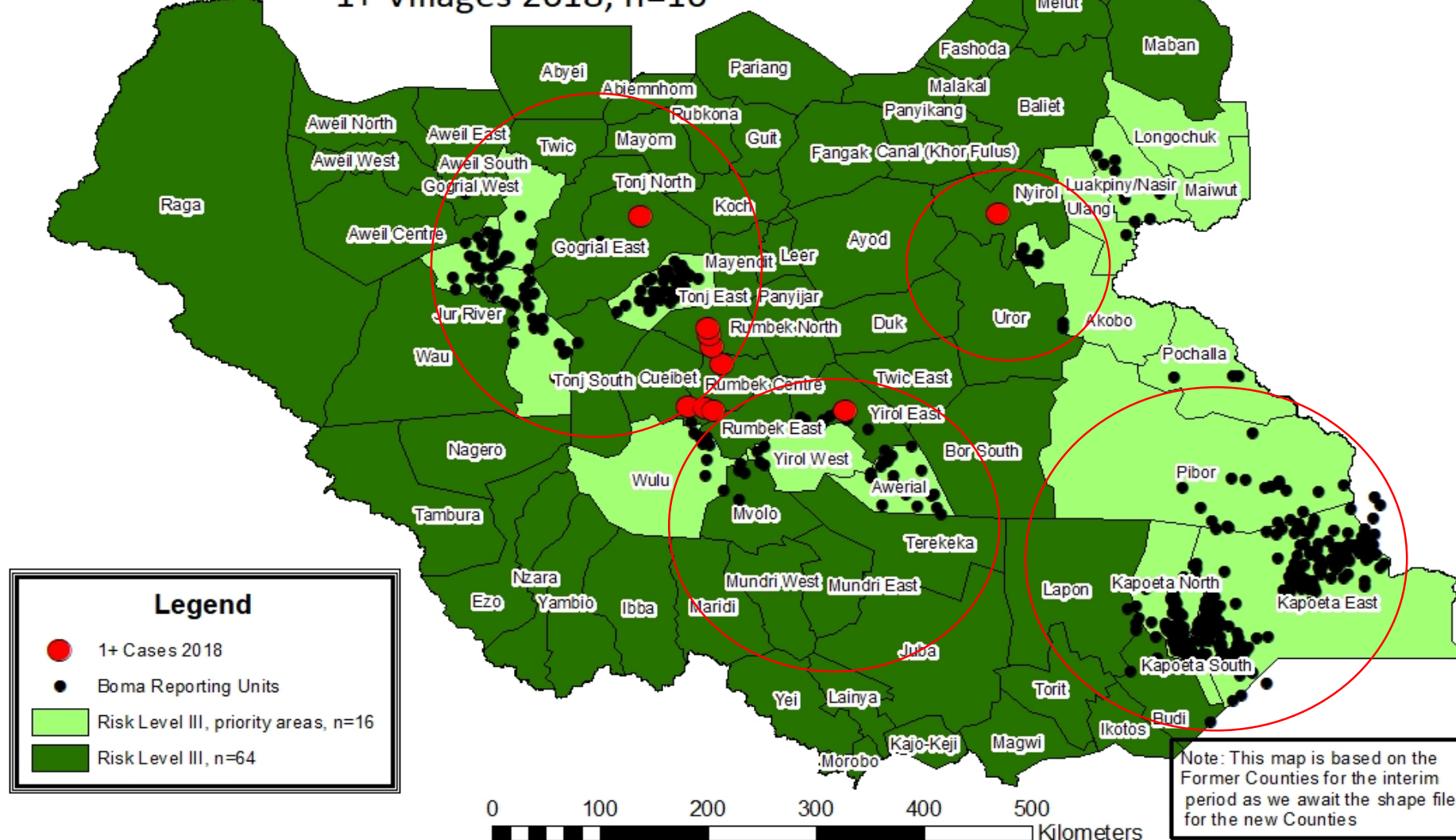
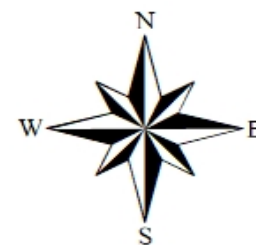


South Sudan Guinea Worm Eradication Programme

Risk Level Map Beginning of 2018 by Former Counties, n=80

Boma Reporting Units, n=654

1+ Villages 2018, n=10



Parameter	Surveillance Level	South Sudan
Number of rumors^ reported	I	5,248
	II	11,653
	III	19,338
	TOTAL	36,239
Number, and (%) of rumors^ investigated within 24 hours	I	5,200 (99.1%)
	II	11,540 (99.0%)
	III	19,174 (99.2%)
	TOTAL	35,914 (99.1%)
Number, and (%) of rumors^ with reports submitted to the National Secretariat	I	5,248 (100%)
	II	16,653 (100%)
	III	19,338 (100%)
	TOTAL	36,239 (100%)
Number, and (%) of rumors^ investigated within 24 hours and determined to be GWD	I	
	II	
	III	10 (100%)
	TOTAL	10 (100%)
Number of suspects (rumors^) seen at a fixed reporting unit (IDSR) and reported to the surveillance system: number of units reporting rumors and (%) of total rumors	I	2
	II	6
	III	16
	TOTAL	24
Cash reward awareness*: number of respondents surveyed, and (%) aware	I	1,324 (74.9%)
	II	370 (61.4%)
	III	NR
	TOTAL	1,694 (72.0%)
Cash reward awareness* for dogs: number of respondents surveyed, and (%) aware	I	1,324 (12.8%)
	II	370 (6.5%)
	III	NR
	TOTAL	1,694 (11.4%)

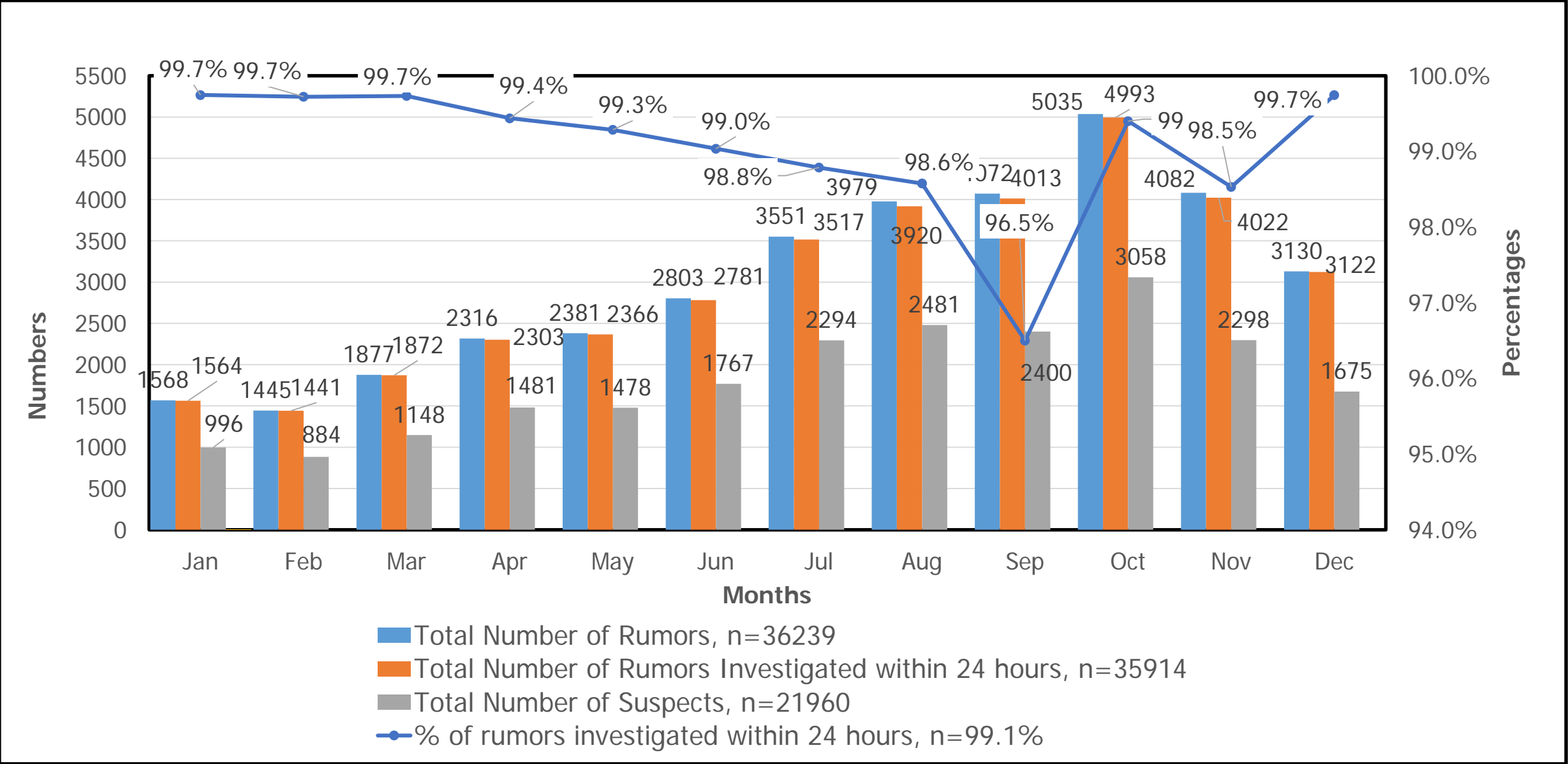
Surveillance and Cash Reward Awareness* Parameters in South Sudan 2018

36,239 Rumours Reported

Cash Reward Awareness by County Reporting Less than 80% Awareness

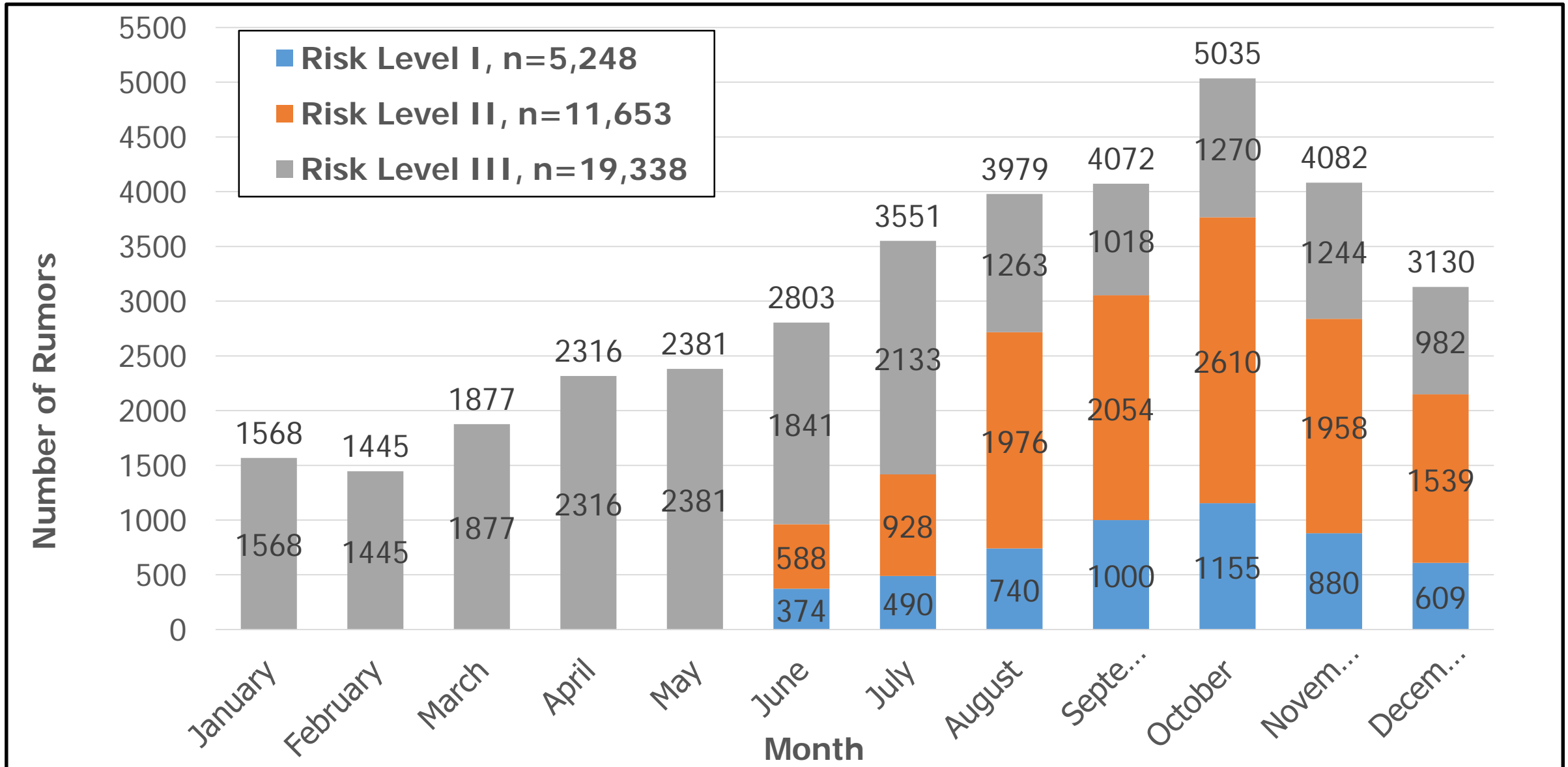
County	2018 Cash Reward Awareness		
	# Respondents Surveyed	Level 1	Level 2
		Number Aware (% Aware)	Number Aware (% Aware)
Tonj North	722	521 (72.2%)	N/A
Rumbek Centre	602	471 (78.2%)	N/A
Yirol East	370	N/A	227 (61.4%)
TOTAL	1,694	1,219 (72.0%)	

Total Number of Rumors Reported, Investigated within 24 hours and Suspects by Month

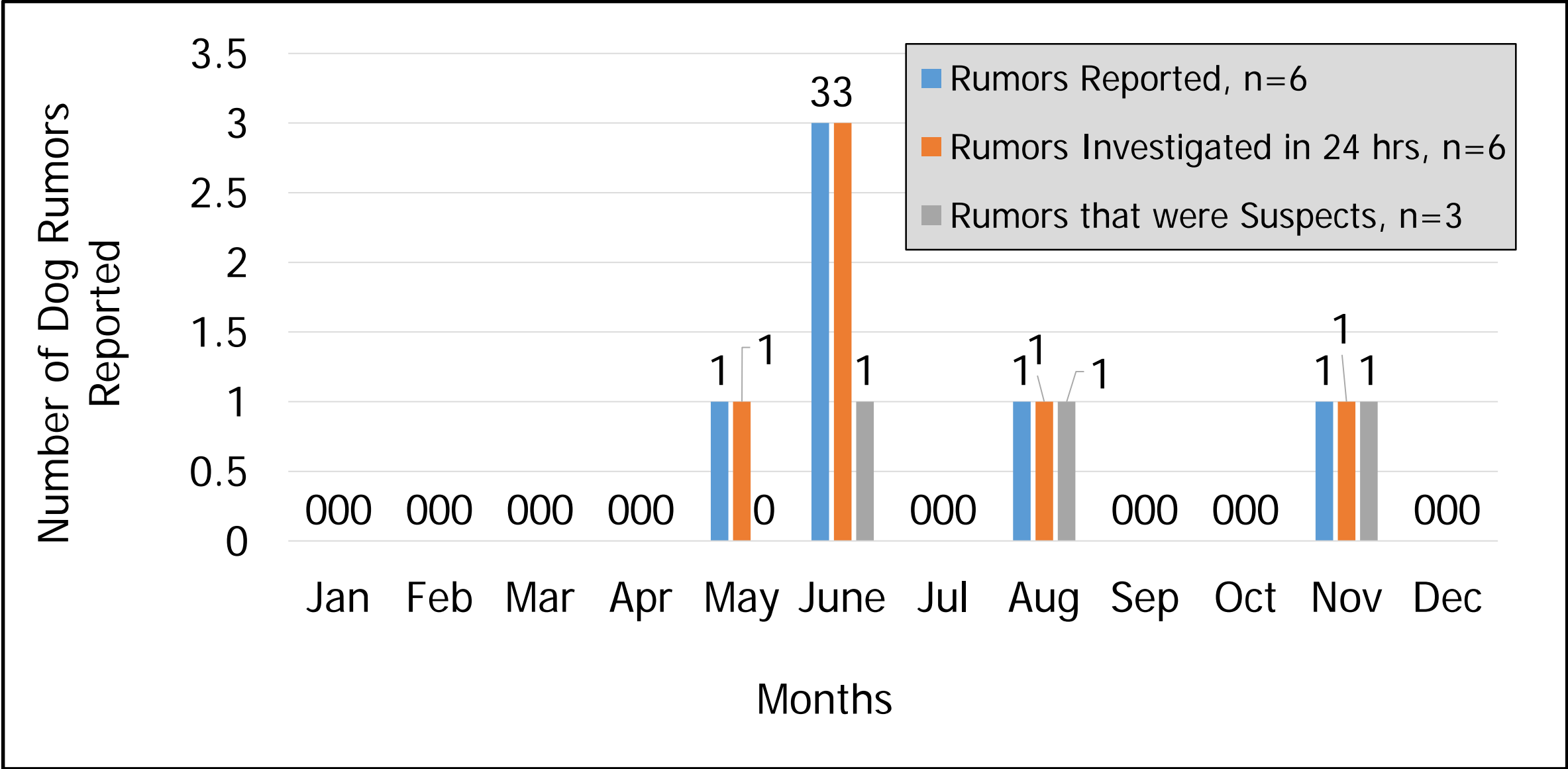


Number of Rumors Reported by Month by Surveillance Level

N=36,239



Number of Dog Rumors Reported, Investigated in 24 hrs. and Suspects by Month (n=6) 2018



Number of Volunteers and a Breakdown by Male/ Female in 2017 and 2018

County	Village Volunteers and Area Supervisors 2017		Grand Total	Village Volunteers and Area Supervisors 2018		Grand Total
	Male	Female		Male	Female	
Gogrial West	17	0	17	15	0	15
Jur River	833	28	861	780	118	898
Yirol West	13	10	23	209	72	281
Awerial	222	179	401	245	183	428
Wulu	31	18	49	65	16	81
Kapoeta East	726	961	1687	873	974	1847
Kapoeta North	227	144	371	264	74	338
Kapoeta South	185	43	228	85	15	100
Pibor	8	0	8	6	3	9
Tonj East	745	580	1325	1145	170	1315
Rumbek North	0	0	0	368	151	519
Rumbek Centre	0	0	0	335	76	411
Cueibet	0	0	0	583	167	750
Rumbek East	0	0	0	73	39	112
Yirol East	0	0	0	431	71	502
Tonj North	0	0	0	789	75	864
Boarder Areas	0	0	0	788	0	788
Grand Total	3007	1963	4970	7034	2204	9238

Integrated Cash Reward Activities, including MDAs and Cash Reward events (May-March'19)



Event	Timing	Reach
Kapoeta Trachoma MDA	Oct-Nov 2018	265,662
Kapoeta TT surgeries		980
Juba Oncho and LF MDA	Apr-Jul 2018	434,900
Rumbek Center, Rumbek North, Tonj North cash reward handover activities	Aug 2018	11,061
Jie, Tonj North and Terekeka Cash Reward sensitization	May, Sept and Nov 2018	17,613
Total:		730,216



Cash reward session in the garden (Kapoeta)

Kapoeta Trachoma MDA

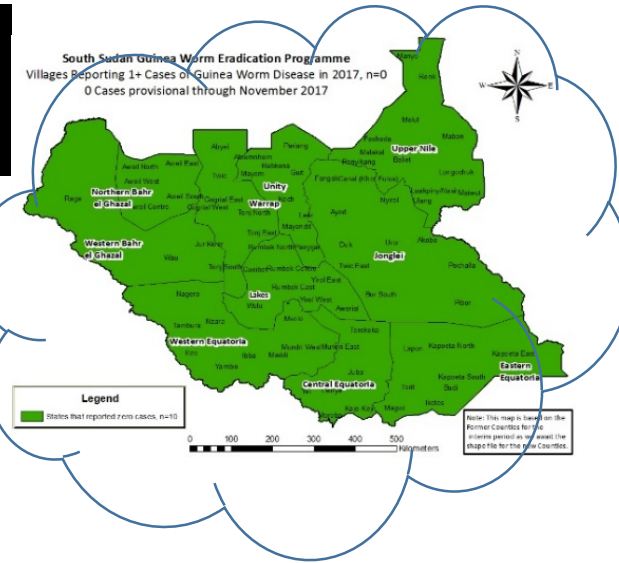
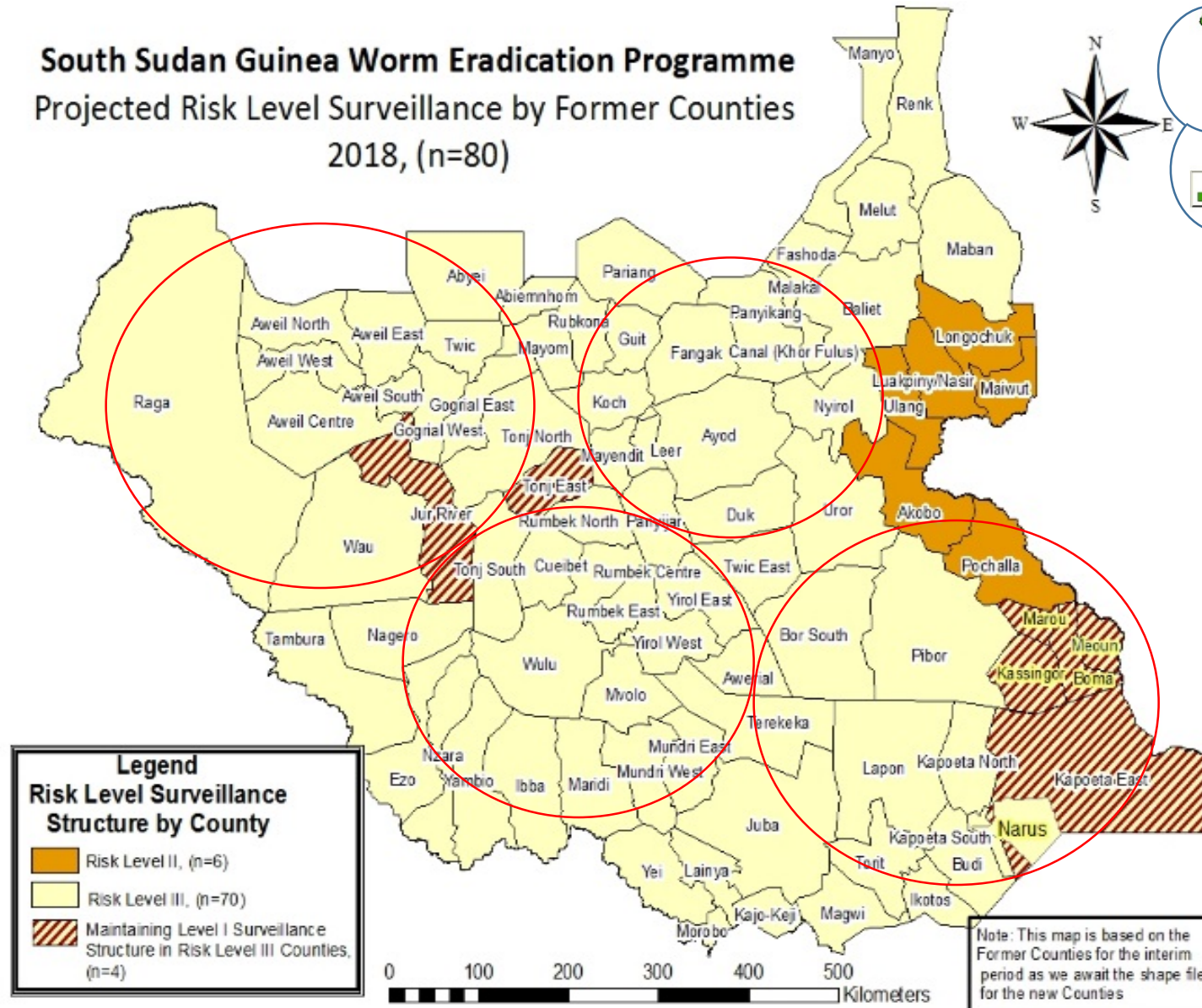
Surveillance Issues in 2017/2018

- 1. What is Unique about the current (2018) transmission dynamics?*
- 2. Why were cases not detected previously in the current endemic areas?*

At the End of 2017, We asked Ourselves these Questions:

*Are we
Missing cases
in Areas
affected by
the Conflict?
Or from the 4
focal Areas?*

South Sudan Guinea Worm Eradication Programme
Projected Risk Level Surveillance by Former Counties
2018, (n=80)



*Is there a
High risk of
importation of
cases from
Ethiopia into
South Sudan?*

Migratory Pattern/ Cattle Camp Movements



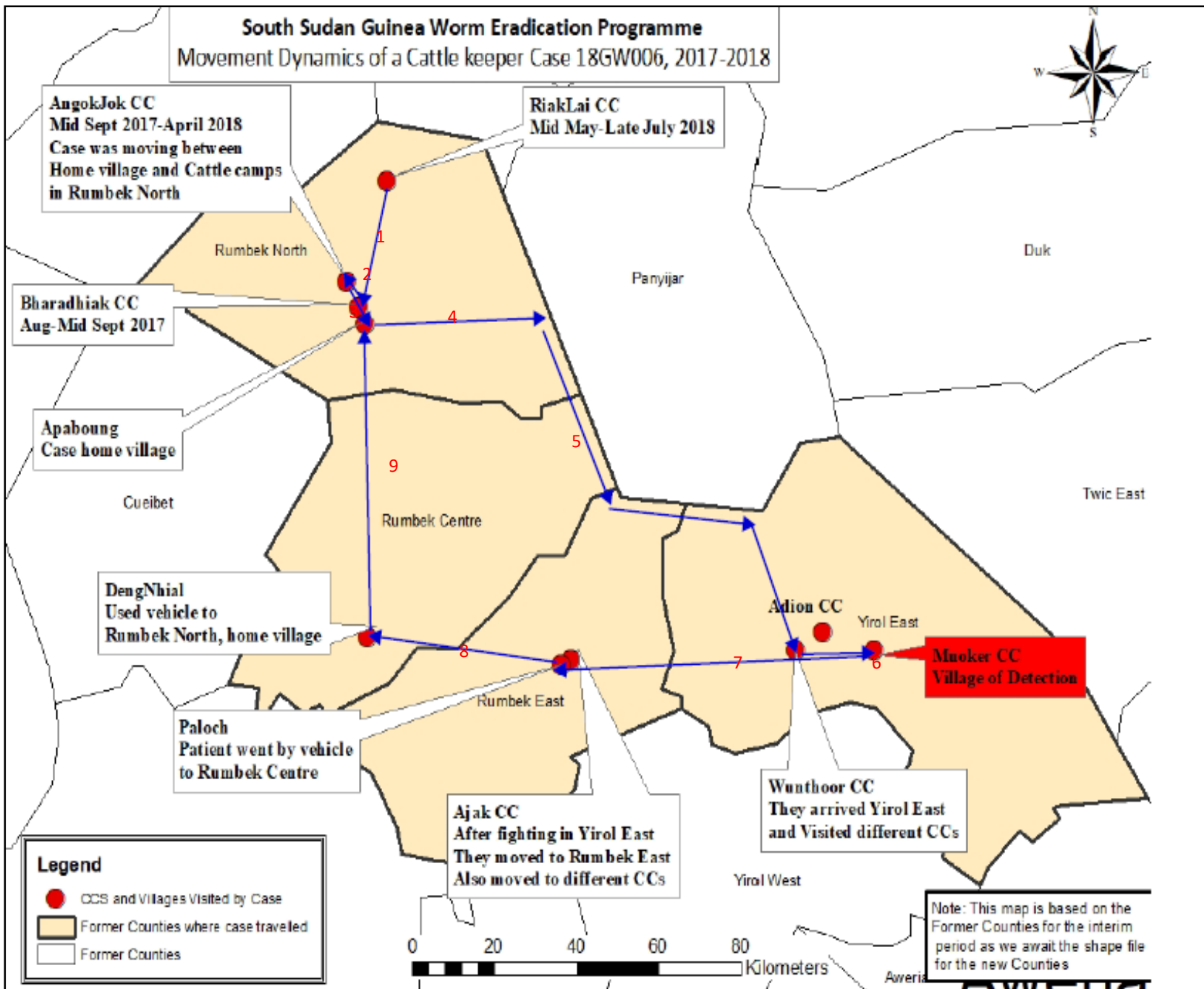
- Access and Surveillance Affected



- Insecurity due cattle raiding and sectional fighting.

- Re-infection of Areas free of GWD

South Sudan Guinea Worm Eradication Programme
Movement Dynamics of a Cattle keeper Case 18GW006, 2017-2018



2018 Case: Case 18GW006

Date of Detection: **7/25/2018**

Date worm emerged:
7/25/2018

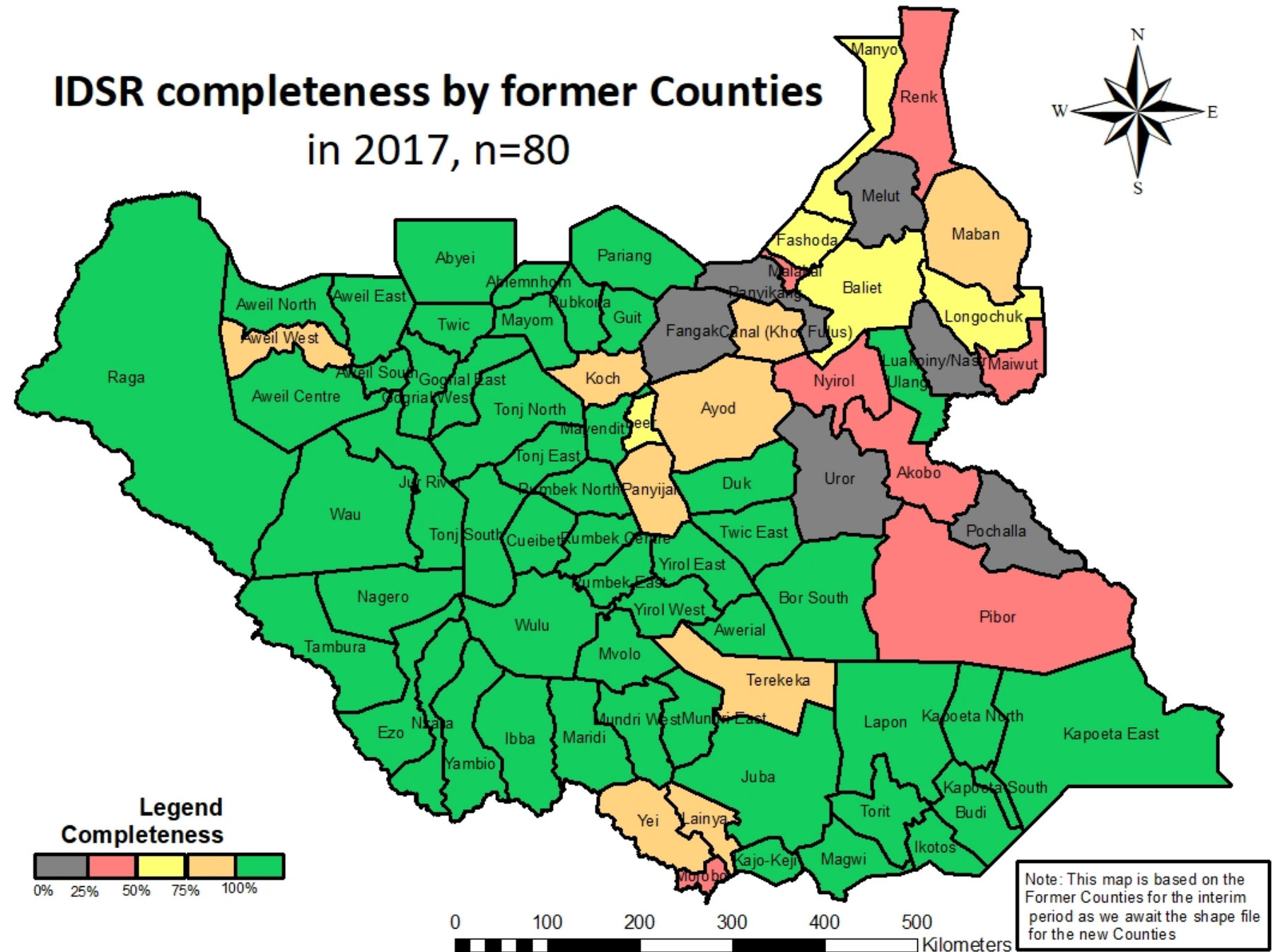
Place of Detection : **Muoker Cattle Camp (Yiol East)**

Home village : **Apabuong (Rumbek North)**

Number of Cattle Camp Visited During period of infection: >7 with repeated visits

Duration of Travel : > 4 **Months**

Poor surveillance in 2017 in Risk Level II and III areas not having Community-based surveillance structures.



SECTION 3

Interventions

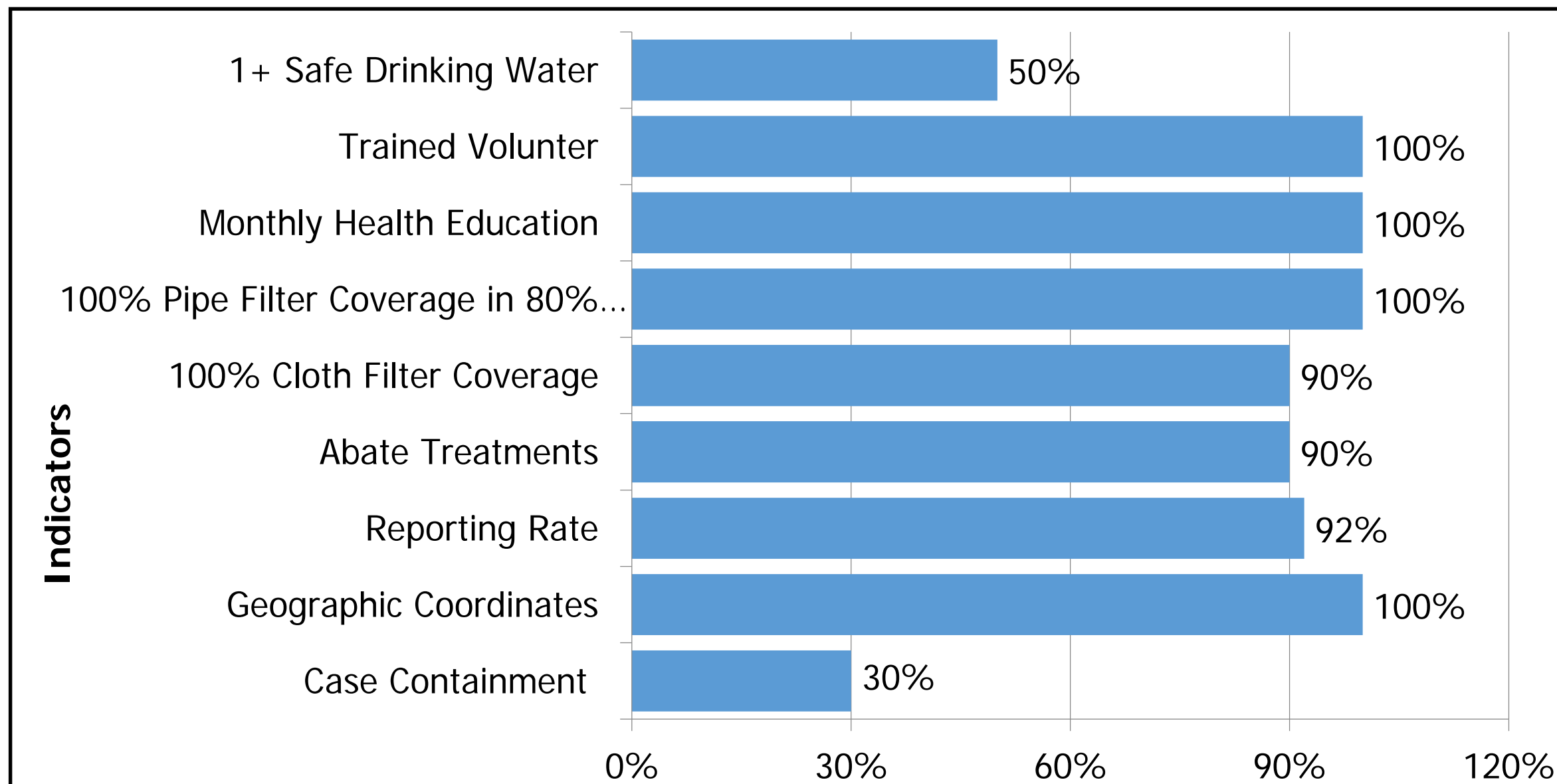
Number of Guinea Worms Contained (N=14) per Total Emerged (N=22) by Month

State	County	May		June		July		August		September		Grand Total	
		No. of Worms Emerged	No. of Worms Contained	No. of Worms Emerged	No. of Worms Contained	No. of Worms Emerged	No. of Worms Contained	No. of Worms Emerged	No. of Worms Contained	No. of Worms Emerged	No. of Worms Contained	No. of Worms Emerged	No. of Worms Contained
Eastern Lakes	Yirol East	0	0	0	0	1	0	0	0	0	0	1	0
Eastern Lakes Total		0	0	0	0	1	0	0	0	0	0	1	0
Western Lakes	Rumbek Centre	2	0	2	2	2	1	2	2	1	1	9	6
	Rumbek North	0	0	3	1	3	3	0	0	0	0	6	4
Western Lakes Total		2	0	5	3	5	4	2	2	1	1	15	10
Tonj	Tonj North	0	0	0	0	2	1	3	3	0	0	5	4
Tonj Total		0	0	0	0	2	1	3	3	0	0	5	4
Nyirol	Nyirol	0	0	0	0	0	0	1	0	0	0	1	0
Eastern Bieh Total		0	0	0	0	0	0	1	0	0	0	1	0
Grand total		2	0	5	3	8	5	6	5	1	1	22	14

Line Listing of Villages with Contamination Events in 2018

Village name	Former Payam	Former County	Contamination Event		(%) of contamination events with abate application within 7 days
			Date of contamination	Date abate started	
War Makoi	Mayom	Rumbek Centre	Unknown (worm emerged around Mid May)	20/July/2018 (Water Sources Had dried up at the time of detection)	0%
Malek	Malek	Rumbek Centre	Between 27/May-28/ May 2018	29/May/2018	100%
Cuei-adukan	Amonypiny	Rumbek Centre	Between 5/July-9/July when the thread appeared	11/July/2018	100%
Anyanyom	Mayen (Meen)	Rumbek North	Between June 1-June 2	7/June/2018	100%
Aliet	Malueth	Rumbek North	Between June 6-June 7	7/June/2018	100%
Wundiu	Akop	Tonj North	13/ July/2018	19/July/2018	100%
Mouker Cattle Camp	Malek	Yirol East	Detected with open wound on 13.July.2018 as a rumor	6/August/2018	0%
Lankien	Thol	Nyirol	22/August/2018	Water source had dried at the time of detection- Pending	0%

Status of Interventions in 1+ Villages/ Cattle Camps in 2018, (n=10)



• Out of the 10 1+ villages, 1 is a cattle camp

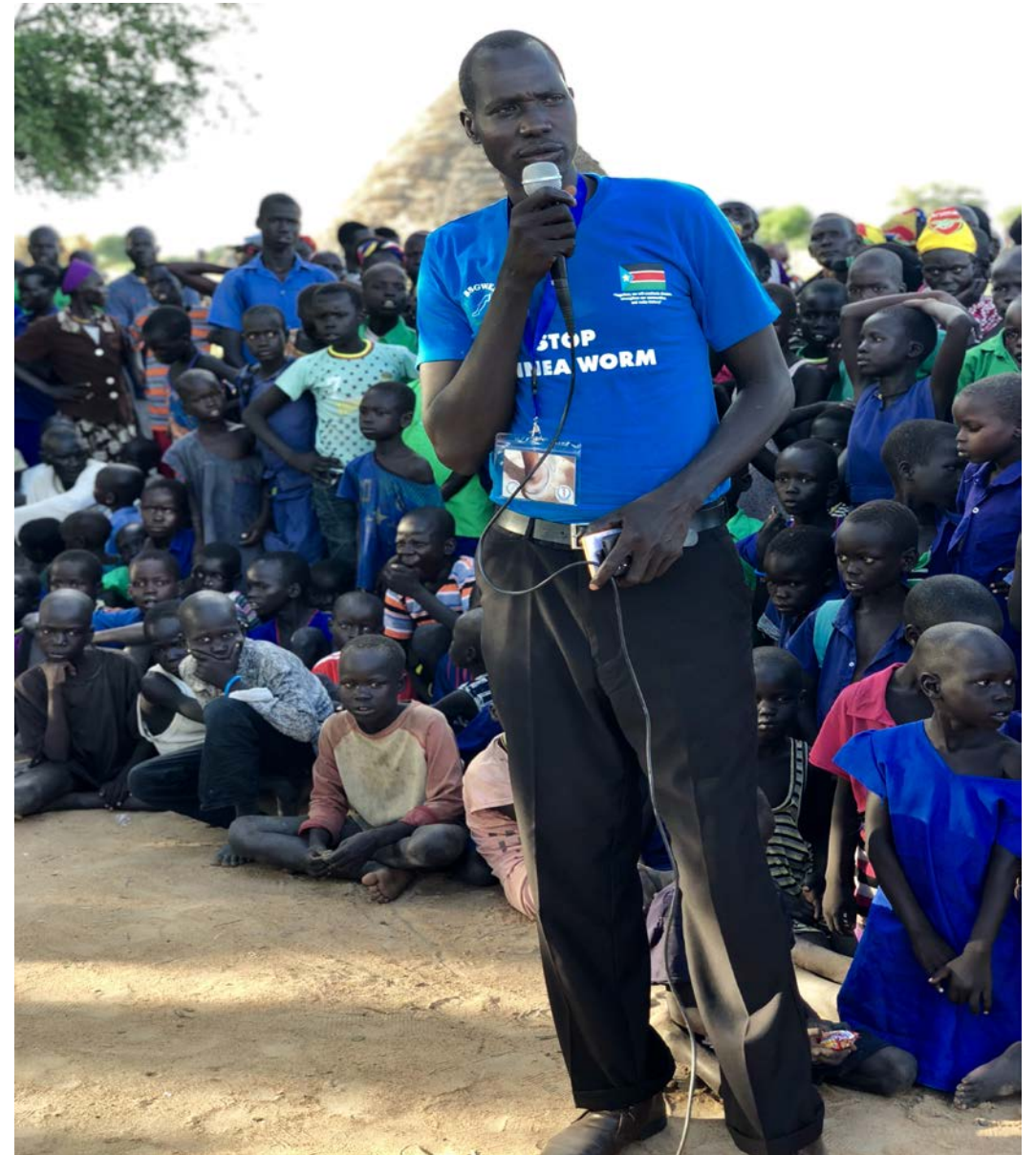
Number of Guinea Worm Cash Rewards Given in 2018

State	County	Total Number of Cases	Pending to be Paid: Case	Patient Reward		Informer	Health Worker	Grand Total
				50,000SSP (\$330)	25,000SSP (\$165)	10,000SSP (\$66)	10, 000SSP (\$66)	
Eastern lakes	Yirol East	1	1	0	0	0	0	0.00 SSP
Eastern Lakes Total		1	1	0	0	0	0	0.00 SSP
Western Lakes	Rumbek Centre	4	2	0	2	2	0	70,000 SSP
	Rumbek North	3	0	1	2	3	0	130,000 SSP
Western Lakes Total		7	2	1	4	5	0	200, 000 SSP
Tonj	Tonj North	1	0	0	1	0	1	35,000 SSP
Tonj Total		1	0	0	1	0	1	35,000 SSP
Bieh	Nyirol	1	0	0	1	1	0	35,000 SSP
Bieh Total		1	0	0		1	0	35,000 SSP
Grand Total		10	3	1	6	6	1	270,000 SSP (\$1777)

Patient Reward



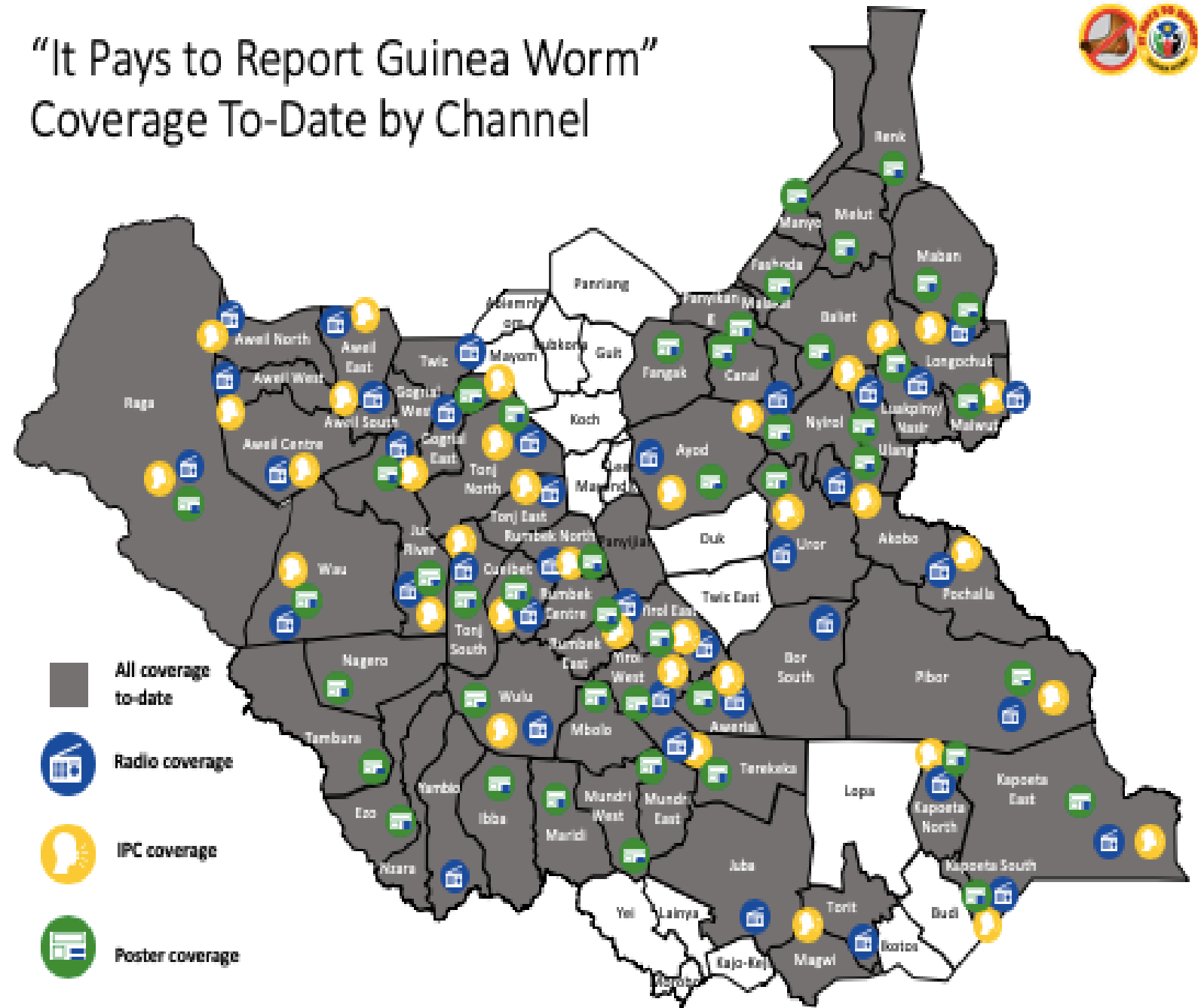
Informer Reward



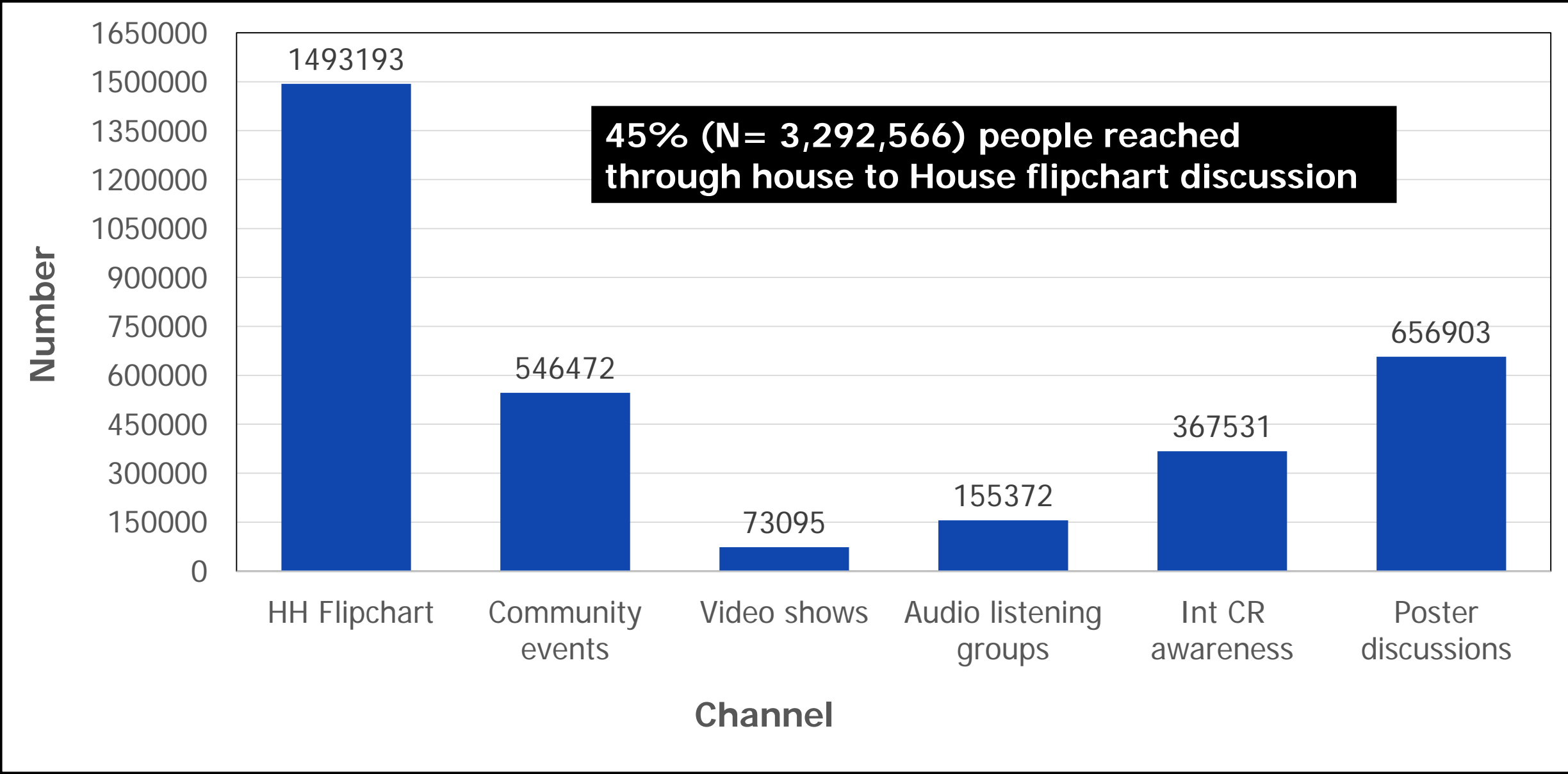


“It Pays to Report Guinea Worm” Coverage To-Date by Channel

- **7/10 former states through radio broadcast**
- **63/80 former counties reached**
- **3,292,566 through CR community engagement**
- **1,212,738 through CR/MDA integration**



Number of People Reached by Cash Reward Awareness Activities within SSGWEP areas by Channel (May- Oct'18)

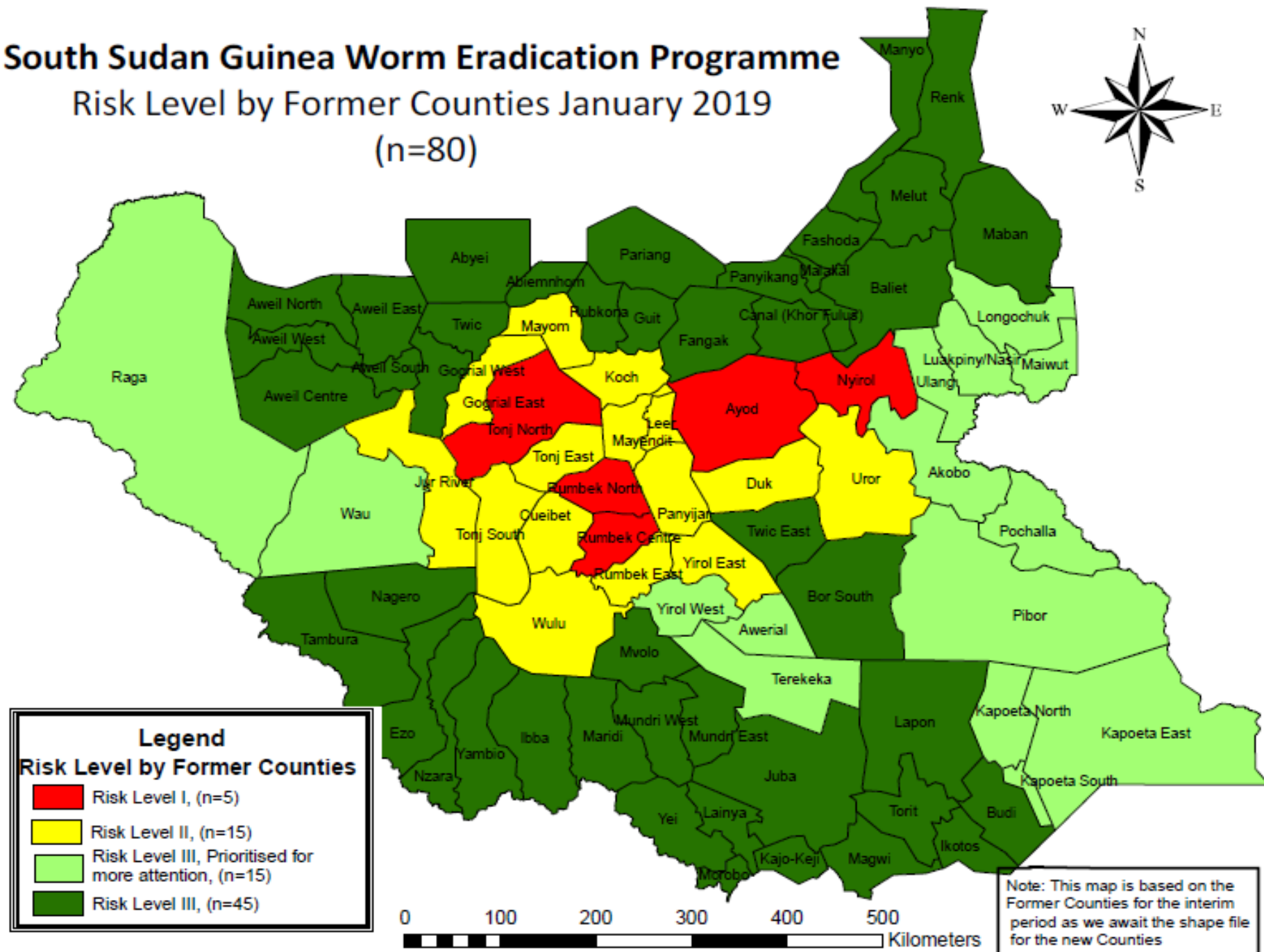


**When and Where does the
SSGWEF expect GW cases/animal
infections in 2019? Why?**

South Sudan Guinea Worm Eradication Programme

Risk Level by Former Counties January 2019

(n=80)



SECTION 4

Administration

Major Meetings 2018:

- Training of Trainers National Workshop (March)
- Raga Case Sweep and State Level Workshops (March – April)
- GW Task Force Meeting (May)
- Inaugural Meeting of the SSNCDDDE (May)
- Rumbek Center and Rumbek North Cash Reward Event (August)
- SSGWEP Annual Review Meeting (December)

SSNCDDE Established on April 10th, 2018

- Inaugural Meeting of the SSNCDDE (May 23rd, 2018)
- 2nd Meeting of the SSNCDDE (July 13th, 2018)
- Induction Workshop (August 22-23rd, 2018)
- Members of Committee attended the National Minister's visit to former Rumbek North and Rumbek Center (August 2nd- 3rd, 2018)
- Attendance of available members at weekly SSGWEP Secretariat Meetings



SSGWEP Staffing										
Expatriate Staff		National					County & Payam (Directly Supported by SSGWEP)			Total
Technical Advisor (TAs and Ops Mgr)	Secretariat (Country Rep & Deputy)	Secretariat (Director)	Programme Officers	Data	Field Officers	Volunteers	State Surveillance Officers	County Surveillance Officers	Payam Supervisors	
6	2	1	33	4	228	9238	8	25	118	9389

Way Forward for 2019



Strengthen Community-based Surveillance and Intervention Structures in endemic counties (Surveillance Level I Area):

- Maintain active, village based surveillance in all villages and cattle Camps.
- Ensure all rumors/suspects investigated within 24 hours of reporting and 100% follow up of all 2019 cases and their households on weekly basis
- Engender at least 80% national awareness of the cash reward – motivate self reporting.
- Enhance collaboration with other health programmes such as NIDs, IDSR, to integrate active case searches for GWD and Cash Reward awareness.
- Continue engaging partners (UNICEF, MEDIWR) in the water sector to provide access to safe drinking water for communities at higher risk of GWD.

Way Forward for 2019



Strengthen Surveillance in Guinea Worm non-endemic counties (level II and III areas):

- Strengthen surveillance capacity at the state, county, payam and village levels to ensure timely detection and reporting systems within the context of the Boma Health Initiative (BHI)
- Ensure collection of quality GWD data and enhance 100% investigation of rumours within 24 hours and follow up of all suspects reported.
- Increase collaboration with partners to create/raise awareness of the communities on Guinea-worm disease and on the cash reward system (>80% of population).
- Enhance collaboration with other health programmes such as NIDs, IDSR, to integrate active case searches for GWD and Cash Reward awareness.
- Continue engaging partners (UNICEF, MWRI) in the water sector to provide access to safe drinking water for communities at higher risk of GWD.

Acknowledgement

The Carter Center

WHO

UNICEF

Ministry of Water Resources and Irrigation – South Sudan

The Guinea Worm Warriors

DONORS