



South Sudan Polio Update



World Health Organization



NID; Up to the last Child



State of helplessness



Investigating AFP



Training on AFP Surveillance



Surveillance Week 20

Ended on 22nd May 2016

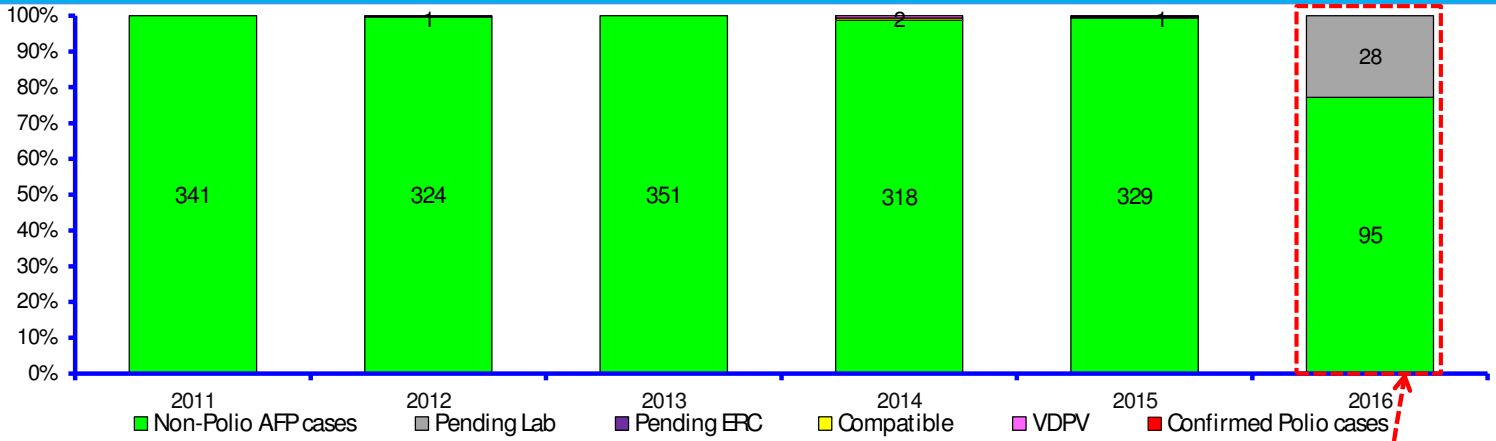
Data as of week 20/2016

BILL & MELINDA GATES foundation

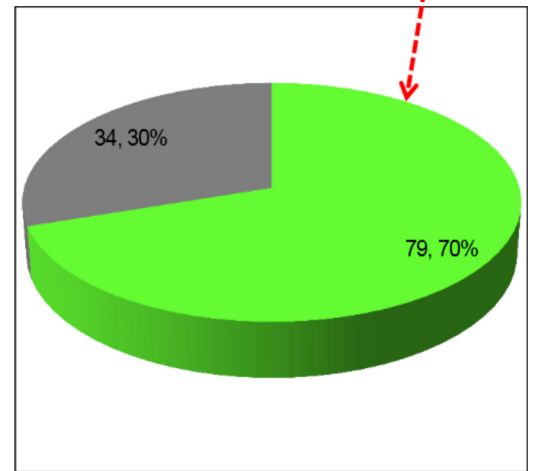


Reported AFP Cases by Classification South Sudan 2011-2016*

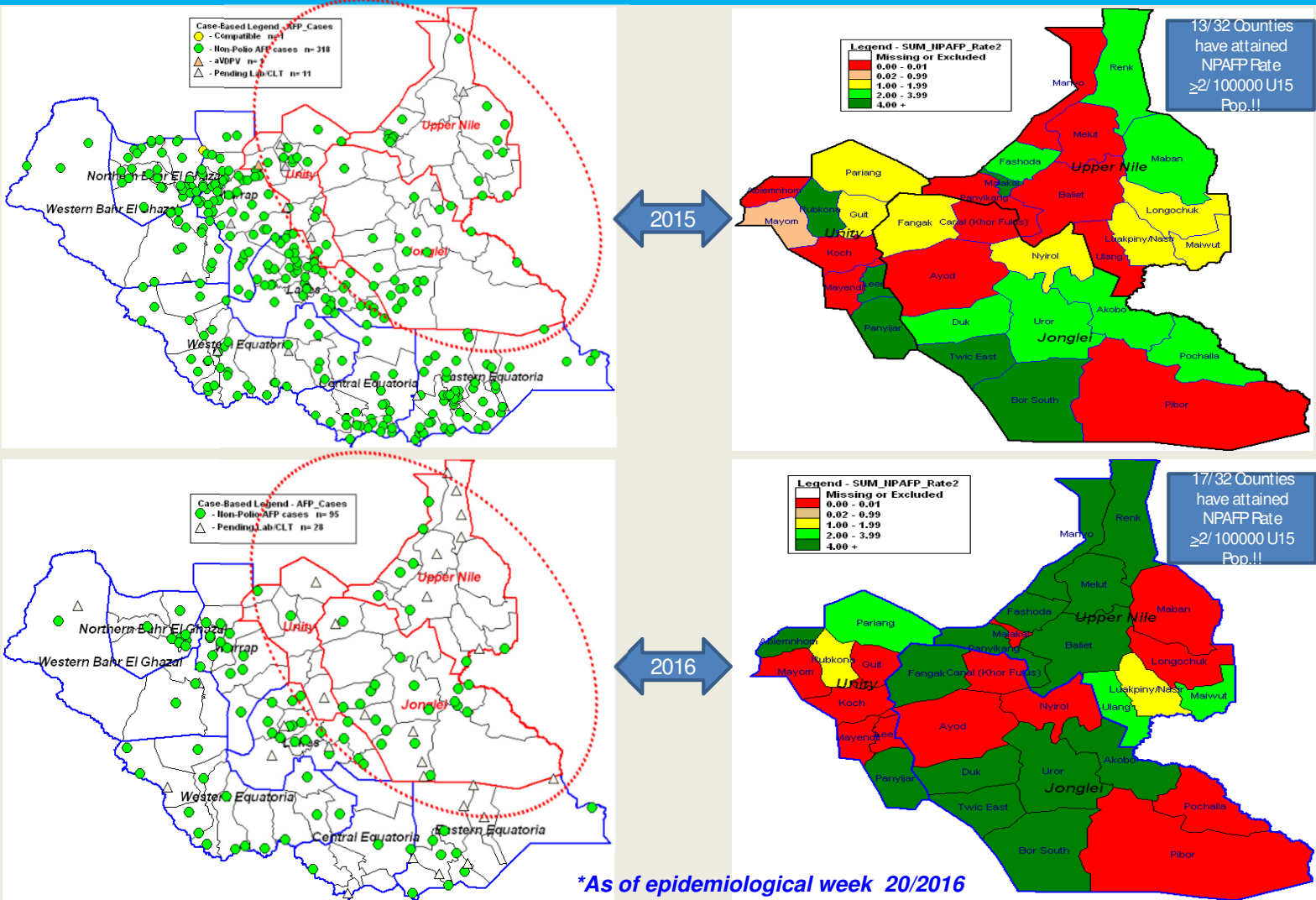
*As of epidemiological week 20/2016



Classification	Total				Date Most recent
	2013	2014	2015	2016*	
AFP cases	351	322	331	123	15-May-2016
WPV	0	0	0	0	27-Jun-2009
VDPV	c	0	2	0	9 & 12-Sep-2014
	a	0	0	1	19-April-2015
Compatible	0	2	1	0	03-Aug-2015

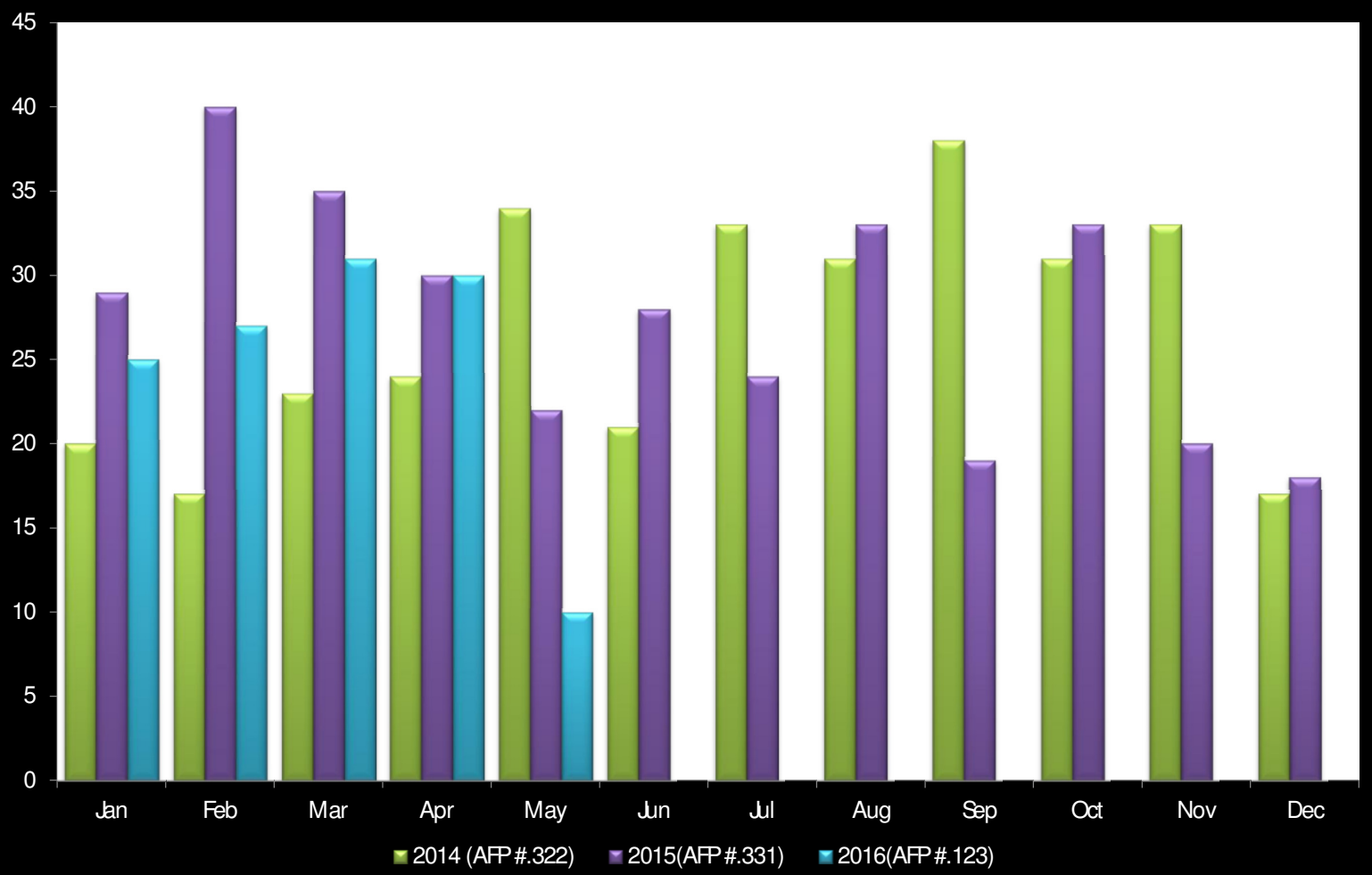


Distribution of AFP cases by Classification Status & Non-Polio AFP Rate in the Conflict affected States (Upper Nile, Jonglei & Unity):2015 & 2016



AFP Cases Distribution by Month, Comparison of 3 years - South Sudan 2014-2016

**As of epidemiological week 20/2016*



AFP Cases Distribution by Month and States

South Sudan 2015-2016*

*As of epidemiological week 20/2016

States	2015													2016*													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total 2015	Exp # cases/ Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total 2016
CENTRAL EQUATORIA	6	4	2	0	2	1	1	0	0	5	1	1	23	1.2	2	0	0	0	1								3
EASTERN EQUATORIA	6	5	6	4	4	6	5	3	6	2	3	3	53	1.1	1	5	2	4	4								16
JONGLE	3	2	2	2	1	1	2	1	1	4	1	3	23	1.	3	7	8	4	1								23
LAKES	3	5	6	7	7	8	3	4	2	2	2	2	51	1.3	6	3	3	5	3								20
NORTHERN BAHR EL-GHAZAL	2	9	6	3	3	2	0	2	0	6	1	1	35	1.6	2	2	2	2	0								8
UNITY	1	3	2	1	0	2	2	1	0	1	2	3	18	1.4	1	0	2	1	0								4
UPPER NILE	2	1	2	2	0	1	0	3	0	4	1	0	16	1.4	5	1	4	4	1								15
WARRAP	2	6	4	4	2	2	4	8	7	6	6	3	54	2.4	3	5	1	4	0								13
WESTERN BAHR EL-GHAZAL	0	3	0	2	1	2	4	4	1	1	1	1	20	0.5	0	0	4	1	0								5
WESTERN EQUATORIA	4	2	5	5	2	3	3	7	2	2	2	1	38	0.9	2	4	5	5	0								16
TOTAL	29	40	35	30	22	28	24	33	19	33	20	18	331	13.6	25	27	31	30	10								123

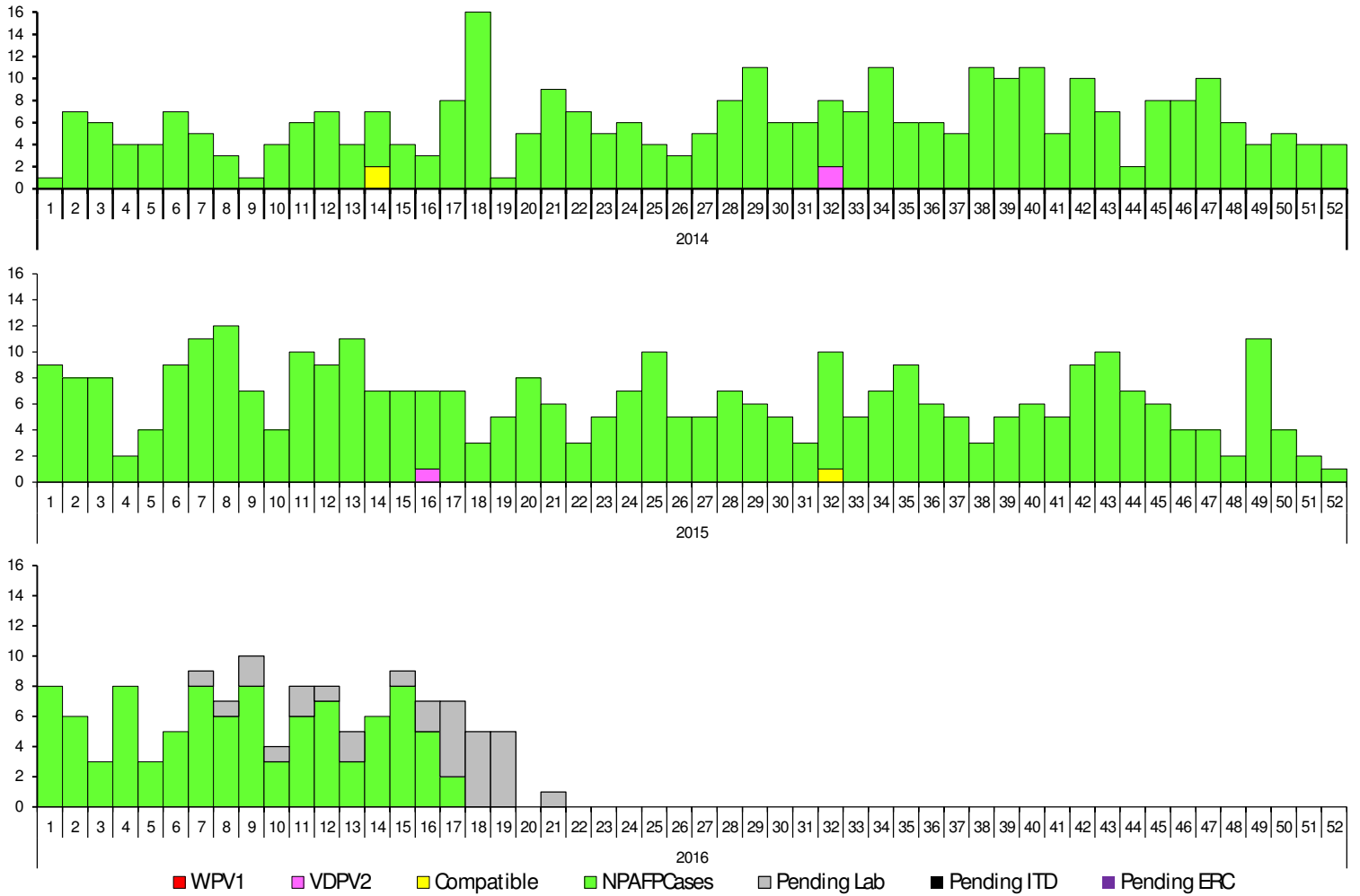
Expected # of Cases

States with no reported Cases/Month

AFP Cases Classification by Week of Onset

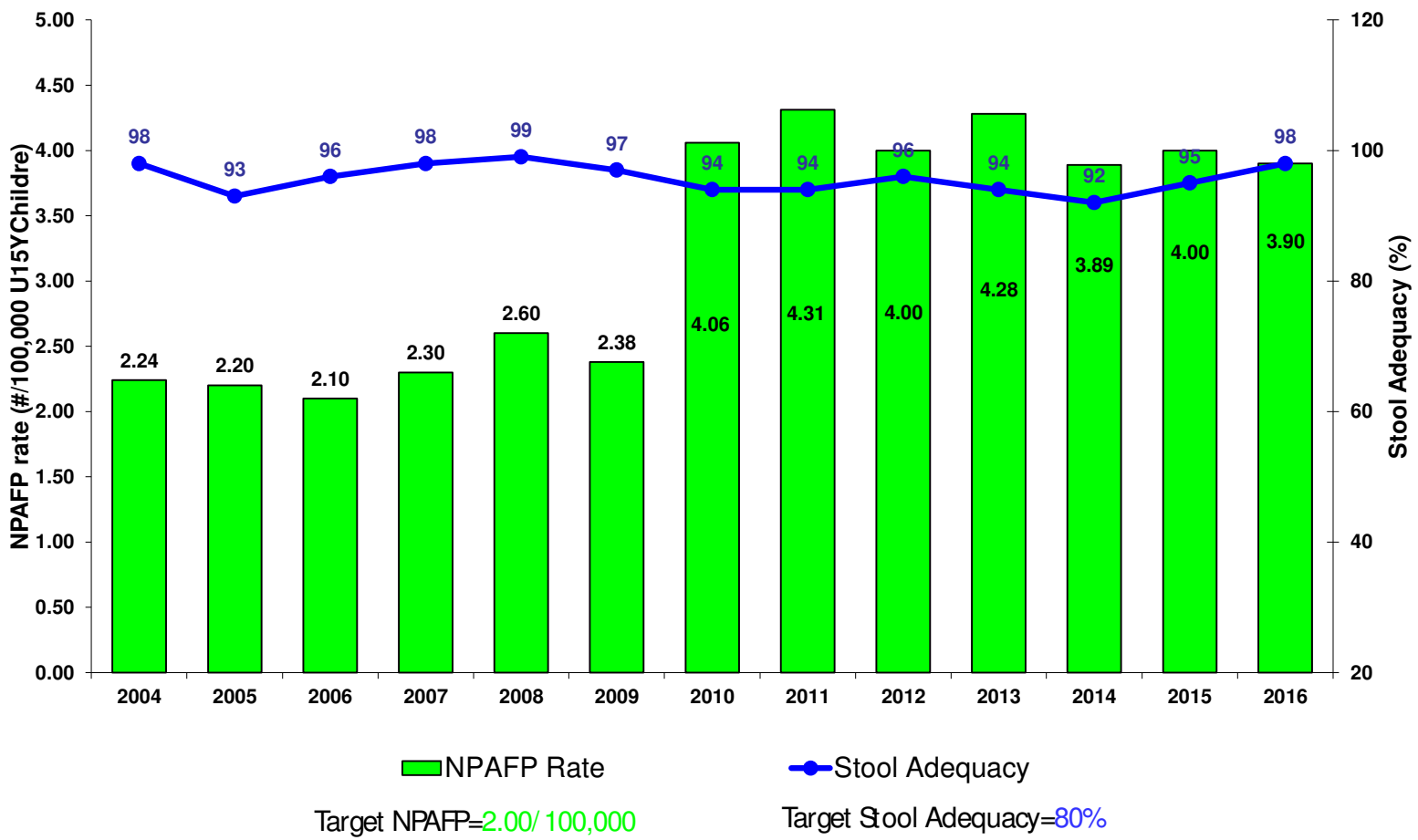
South Sudan 2014-2016*

*As of epidemiological week 20/2016



Non-Polio AFP Rate and Percent AFP Cases with Adequate Specimens by Year / 2004-2016*

*As of epidemiological week 20/2016



Non-Polio AFP Rate by year (at 1st and 2nd Administrative level), 2015-2016*

By State

Legend - IIPAFP_Rate

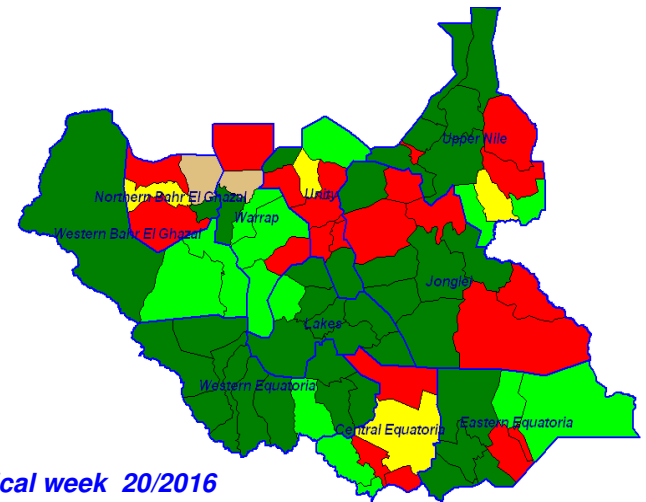
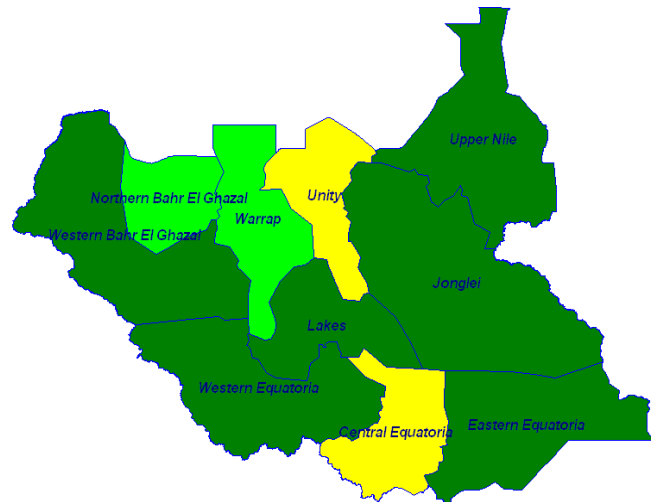
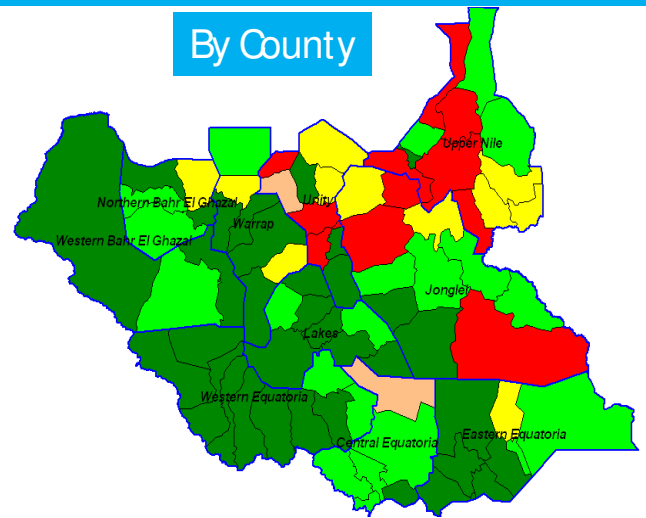
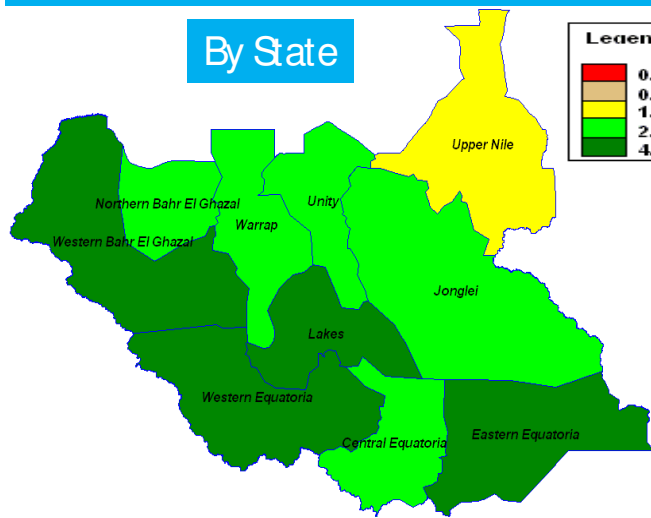


By County

2015

2016*

*As of epidemiological week 20/2016



Non-Polio AFP Rate by year (2nd Administrative level), 2014-2016*

*As of epidemiological week 20/2016

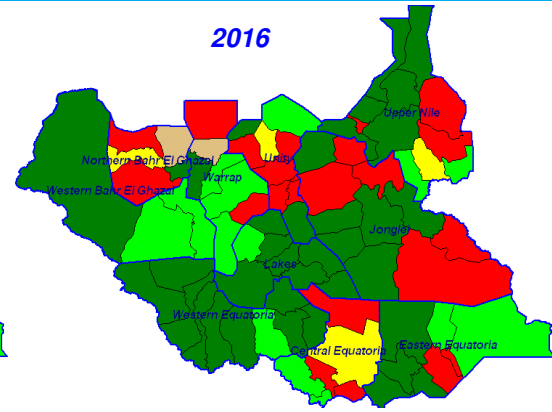
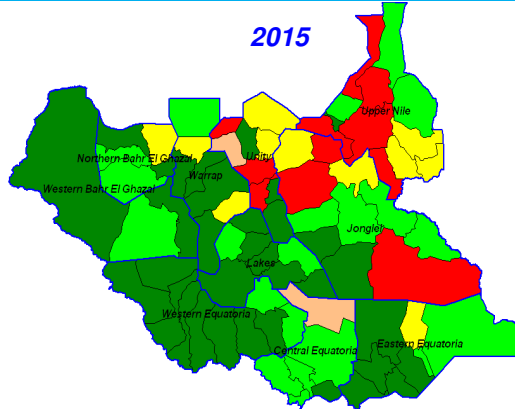
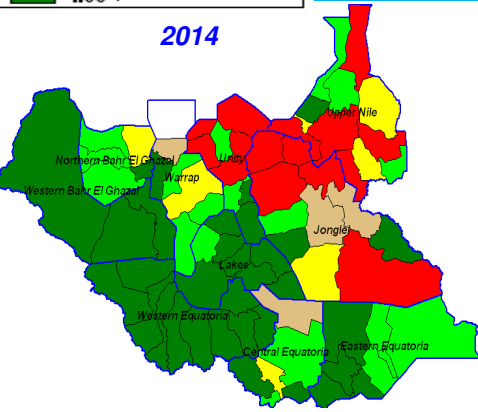
Legend - NPAPF_Rate



2014

2015

2016



Number & Percentage of Counties by categories of NPAPF rates: Summary from above thematic maps

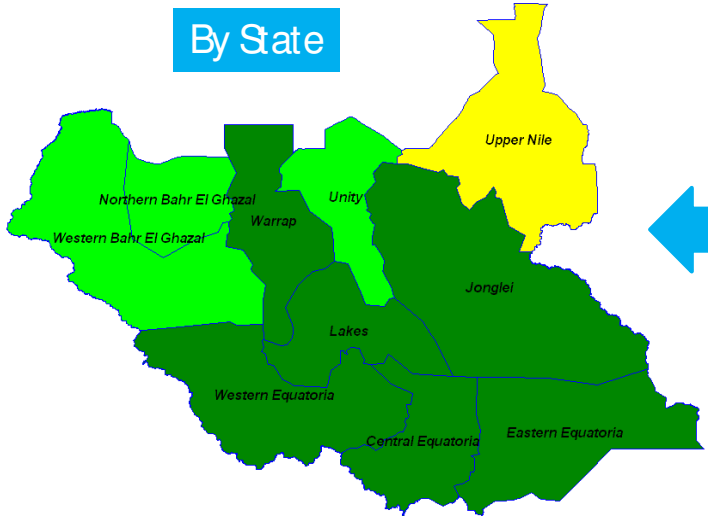
States	Counties / NPAPF rates in 2014						Counties / NPAPF rates in 2015						Counties / NPAPF rates in 2016*						
	=0	>0<1	≥1<2	≥2<4	≥4	Total	=0	>0<1	≥1<2	≥2<4	≥4	Total	=0	>0<1	≥1<2	≥2<4	≥4	Total	
Central Equatoria	0	1	1	2	5	6	0	1	0	4	6	6	3	0	1	2	0	6	
Eastern Equatoria	0	0	0	3	8	8	0	0	1	2	7	8	2	0	0	2	4	8	
Jonglei	5	2	1	1	6	11	3	0	2	4	6	11	5	0	0	0	6	11	
Lakes	0	0	0	1	8	8	0	0	0	2	8	8	0	0	0	1	7	8	
Northern Bahr El Ghazal	0	0	0	3	5	5	0	0	1	2	4	5	2	1	1	0	1	5	
Unity	5	0	0	2	4	9	3	1	2	0	3	9	5	0	1	1	2	9	
Upper Nile	5	0	1	3	7	12	5	0	3	3	4	12	3	0	1	2	6	12	
Warrap	0	1	1	3	6	7	0	0	2	1	5	7	2	1	0	3	1	7	
Western Bahr El Ghazal	0	0	0	0	3	3	0	0	0	1	3	3	0	0	1	2	0	3	
Western Equatoria	0	0	0	0	10	10	0	0	0	2	10	10	0	0	0	1	9	10	
National rating	Total	15	4	4	18	38	79	11	2	11	21	56	79	22	2	5	14	36	79
	%	19%	5%	5%	23%	48%	100%	14%	3%	14%	27%	71%	100%	28%	3%	6%	18%	46%	100%

Percent AFP Cases with Adequate Specimens (at 1st and 2nd Administrative level), by year, 2015-2016*

Legend - SUM_AdequateStoolRate

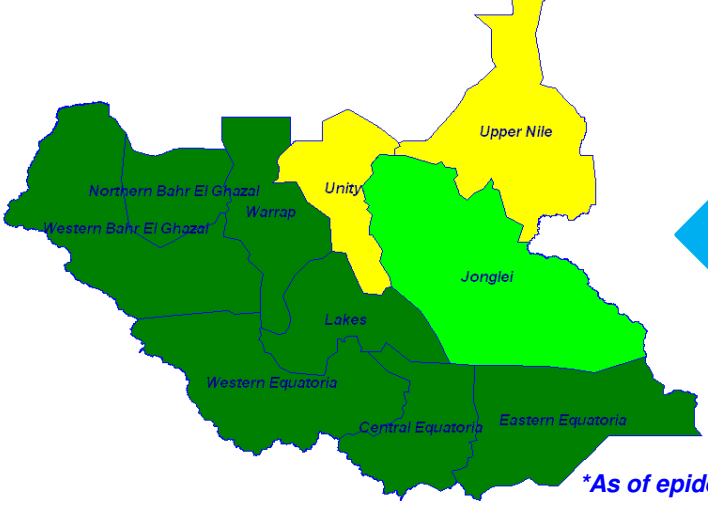
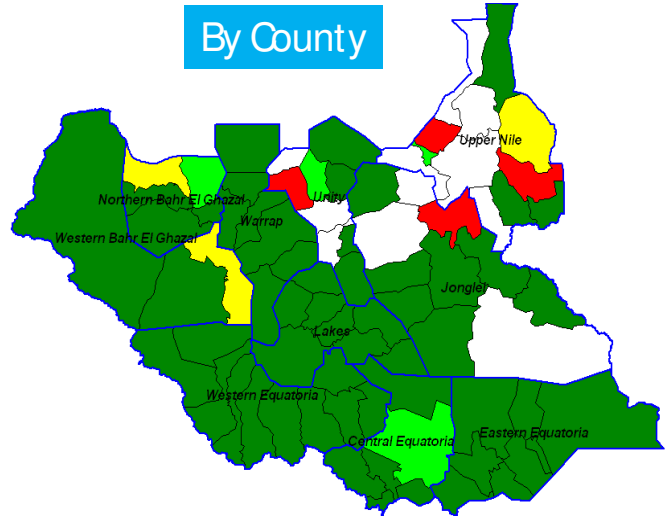
- 0.00 - 59.99
- 60.00 - 79.99
- 80.00 - 89.99
- 90.00 +

By State

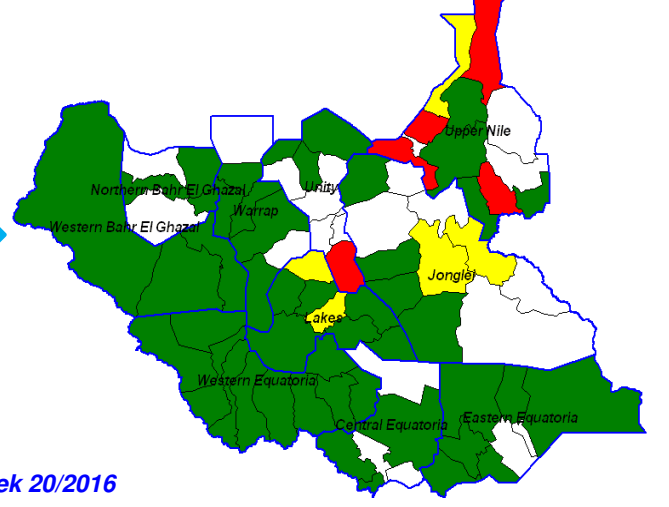


2015

By County

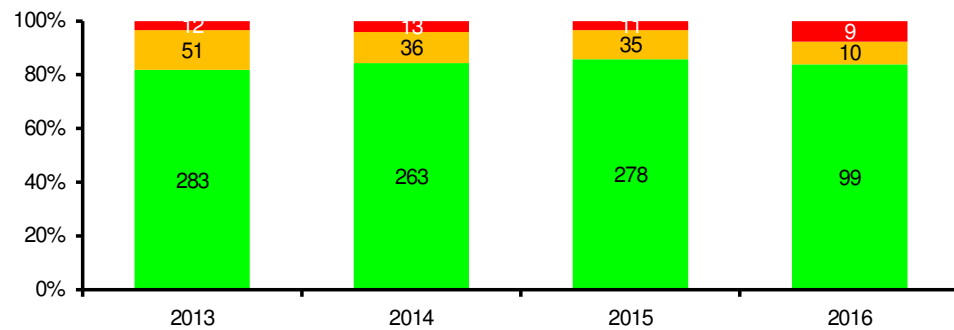


2016*



*As of epidemiological week 20/2016

Distribution of AFP Cases by time of Detection South Sudan 2013-2016* & Case Based Maps by County 2015-2016*

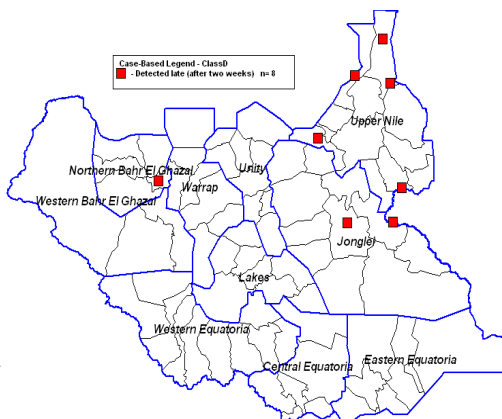
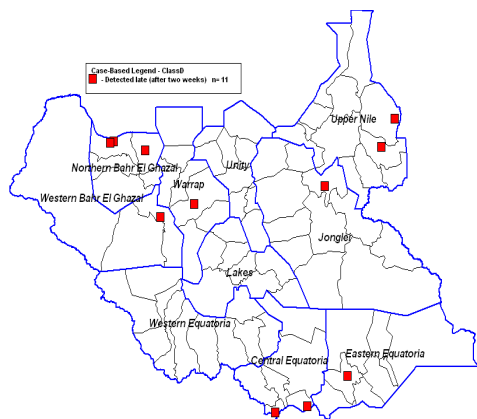


■ Detection within the 1st Week ■ Detection within the 2nd week

Case based maps of delayed detection

2015:
n=11/323

2016:
n=9/118



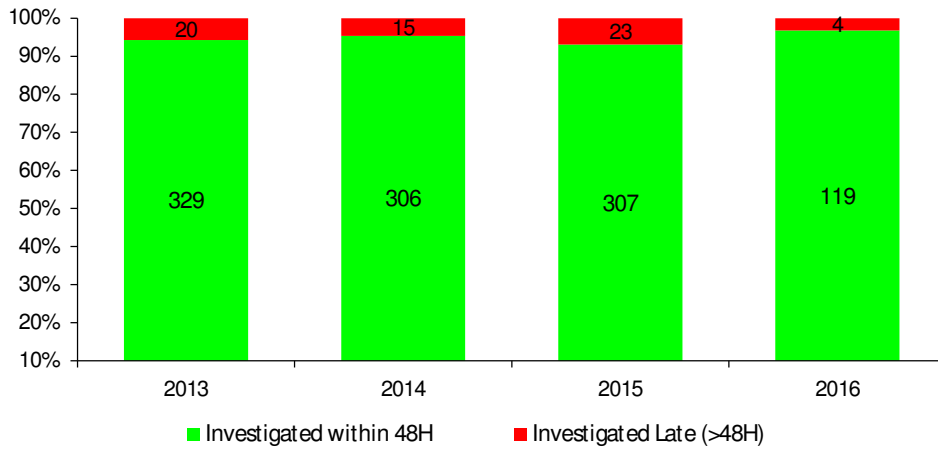
State	2015			2016*		
	Cases	# Detected late	%	Cases	# Detected late	%
CENTRAL EQUATORIA	22	2	9%	3	0	0%
EASTERN EQUATORIA	53	1	2%	16	0	0%
JONGLEI	23	1	5%	22	2	9%
LAKES	50	0	0%	19	0	0%
NORTHERN BAHREL GHAZAL	35	3	9%	8	1	13%
UNITY	16	0	0%	4	1	25%
UPPERNILE	13	2	15%	14	5	36%
WARRAP	54	1	2%	11	0	0%
WESTERN BAHREL GHAZAL	19	1	5%	5	0	0%
WESTERN EQUATORIA	38	0	0%	16	0	0%
TOTAL	323	11	3%	118	9	8%

Remark #1: Cases missing the date of notification are excluded in the calculation

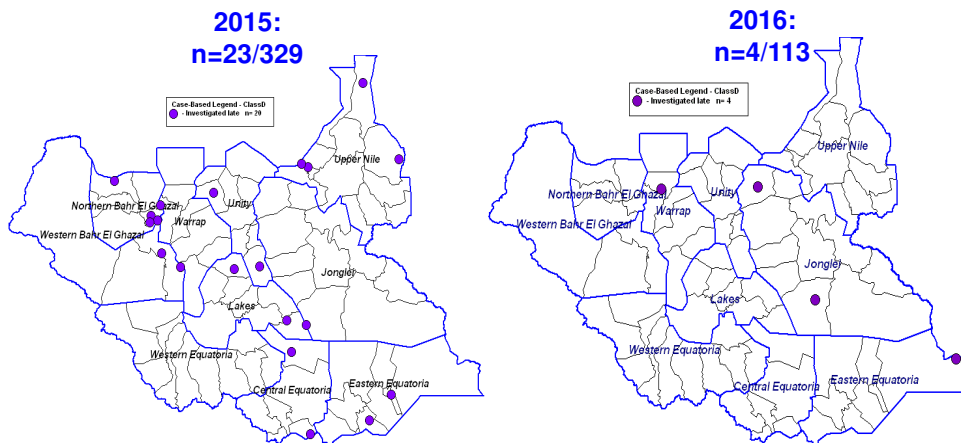
*As of epidemiological week 20/2016

Distribution of AFP Cases by Time of Investigation and by Year / 2013-2016*

Case Based Maps by County 2015-2016*



Case based maps of delayed investigation



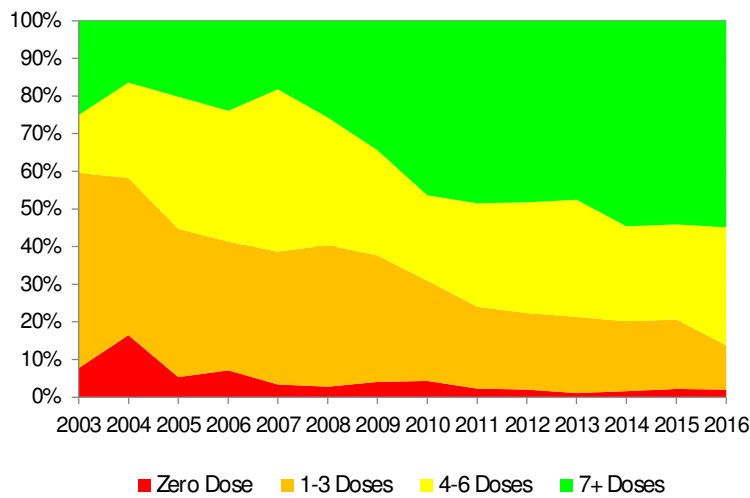
State	2015			2016*		
	Cases	# Investigated late	%	Cases	# Investigated late	%
CENTRAL EQUATORIA	23	2	9%	3	0	0%
EASTERN EQUATORIA	53	3	6%	16	1	6%
JONGLEI	23	0	0%	23	2	9%
LAKES	51	3	6%	20	0	0%
NORTHERN BAHR EL GHAZAL	35	6	17%	8	0	0%
UNITY	17	3	18%	4	0	0%
UPPERNILE	15	4	27%	15	0	0%
WARRAP	54	0	0%	13	1	8%
WESTERN BAHR EL GHAZAL	20	2	10%	5	0	0%
WESTERN EQUATORIA	38	0	0%	16	0	0%
TOTAL	329	23	7%	123	4	3%

Remark #2: Cases missing the date of investigation are excluded in the calculation

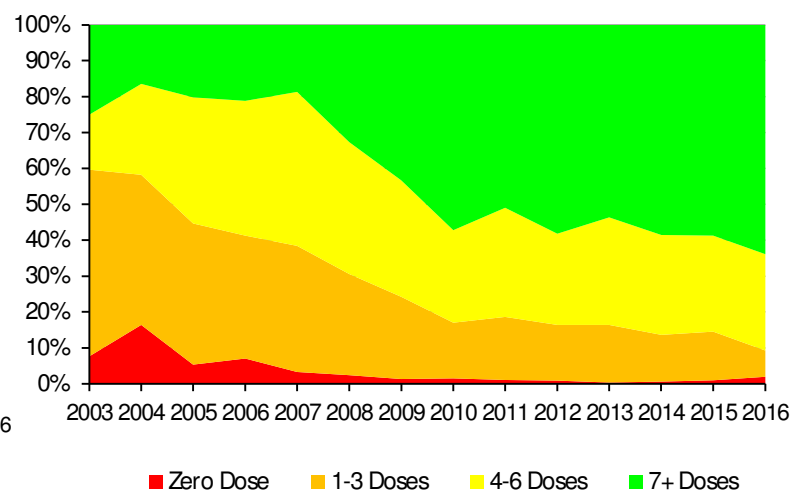
*As of epidemiological week 20/2016

IMMUNITY PROFILE BY YEAR (2003-2016) / *Number and Percentage by OPV doses*

Non-polio AFP cases (6-59months)



Contact (6-59months)



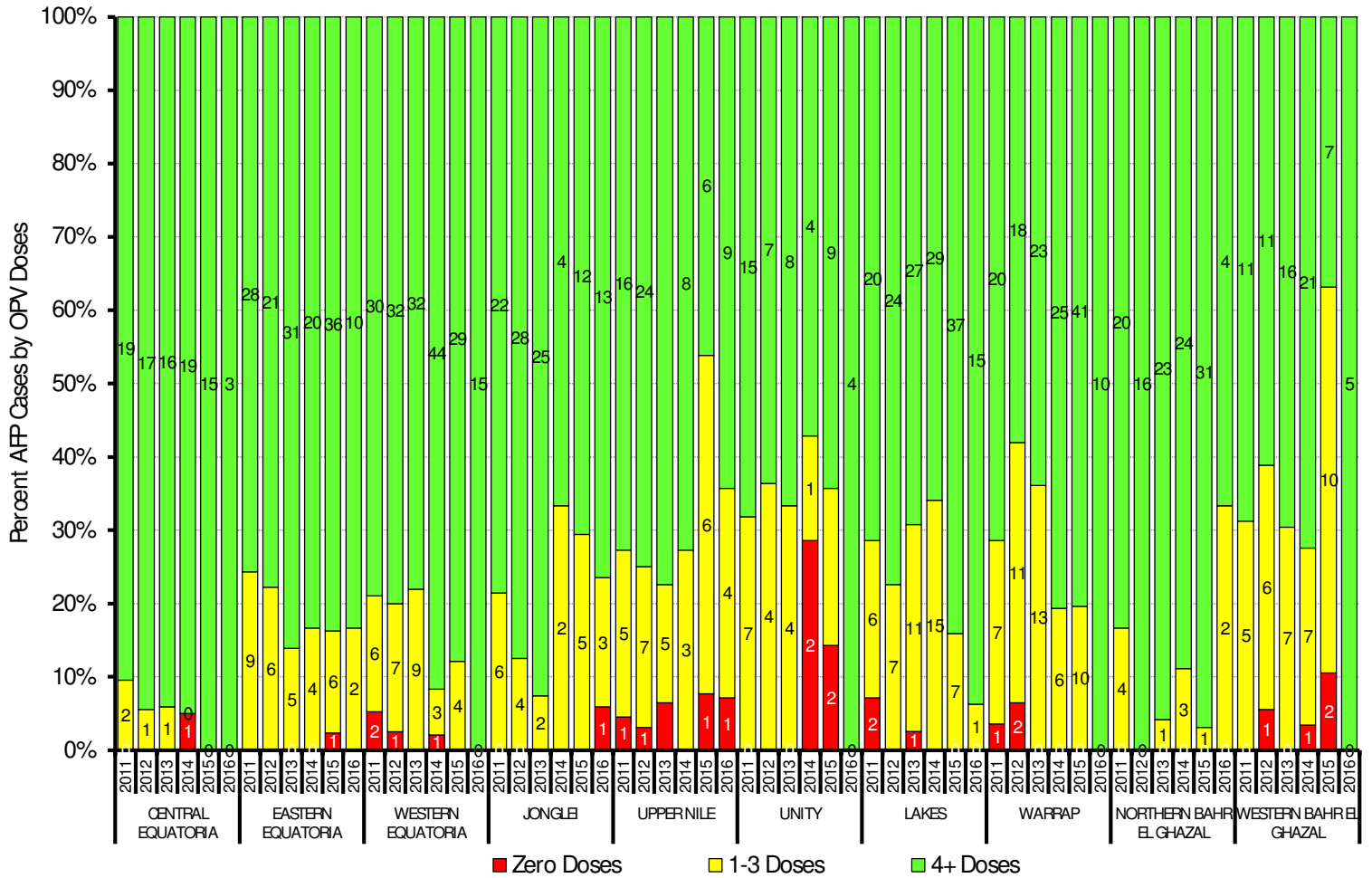
IMMUNITY PROFILE BY Categorization (2016) / *Number by OPV doses Non-polio AFP cases and Contact (6-59months)*

	0 Dose	1-3Doses	4-6Doses	7+	TOTAL
NPAFP Cases	2	12	32	56	102
Contacts	5	20	71	192	288

**As of epidemiological week 20/2016*

IMMUNITY PROFILE BY STATES IN SOUTH SUDAN 2011-2015

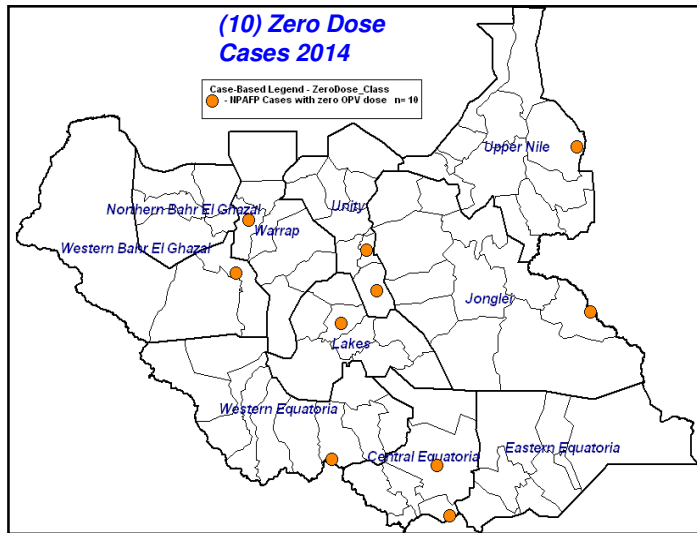
Number and Percentage of Non-Polio AFP Cases (6-59 months of age) by OPV doses by year



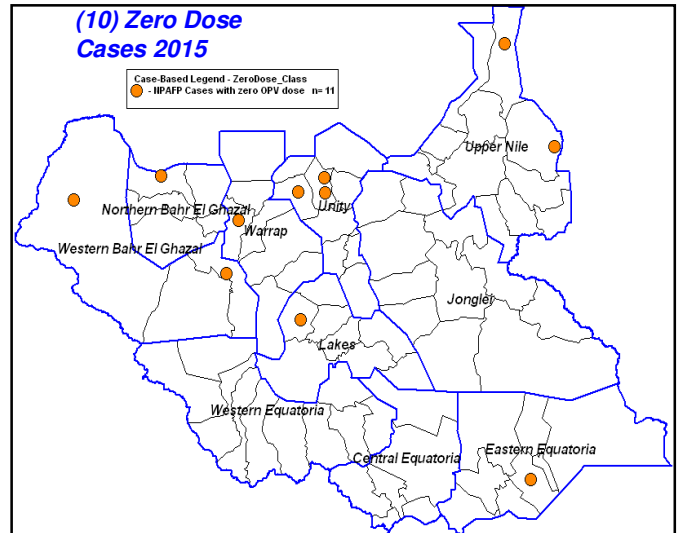
*As of epidemiological week 20/2016

AFP Cases With Zero Dose / South Sudan 2014-2016

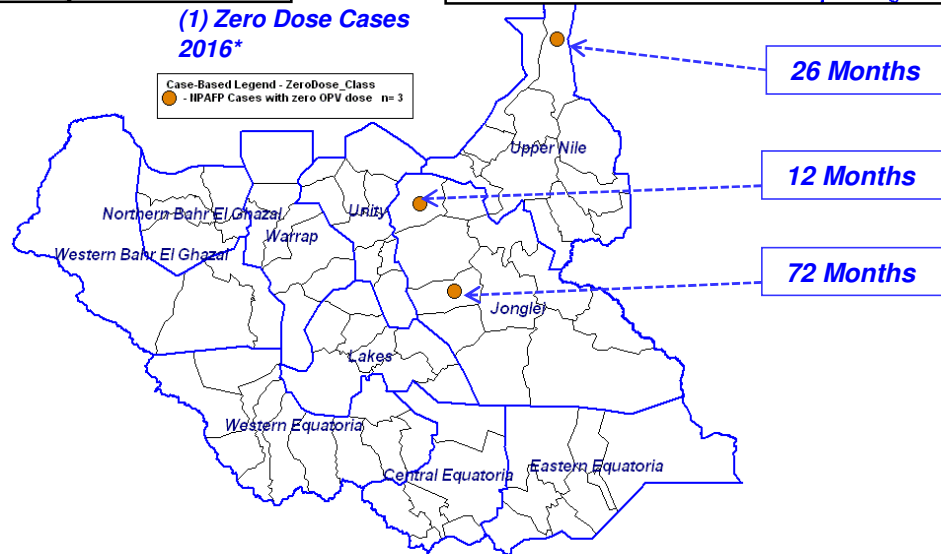
(10) Zero Dose Cases 2014



(10) Zero Dose Cases 2015

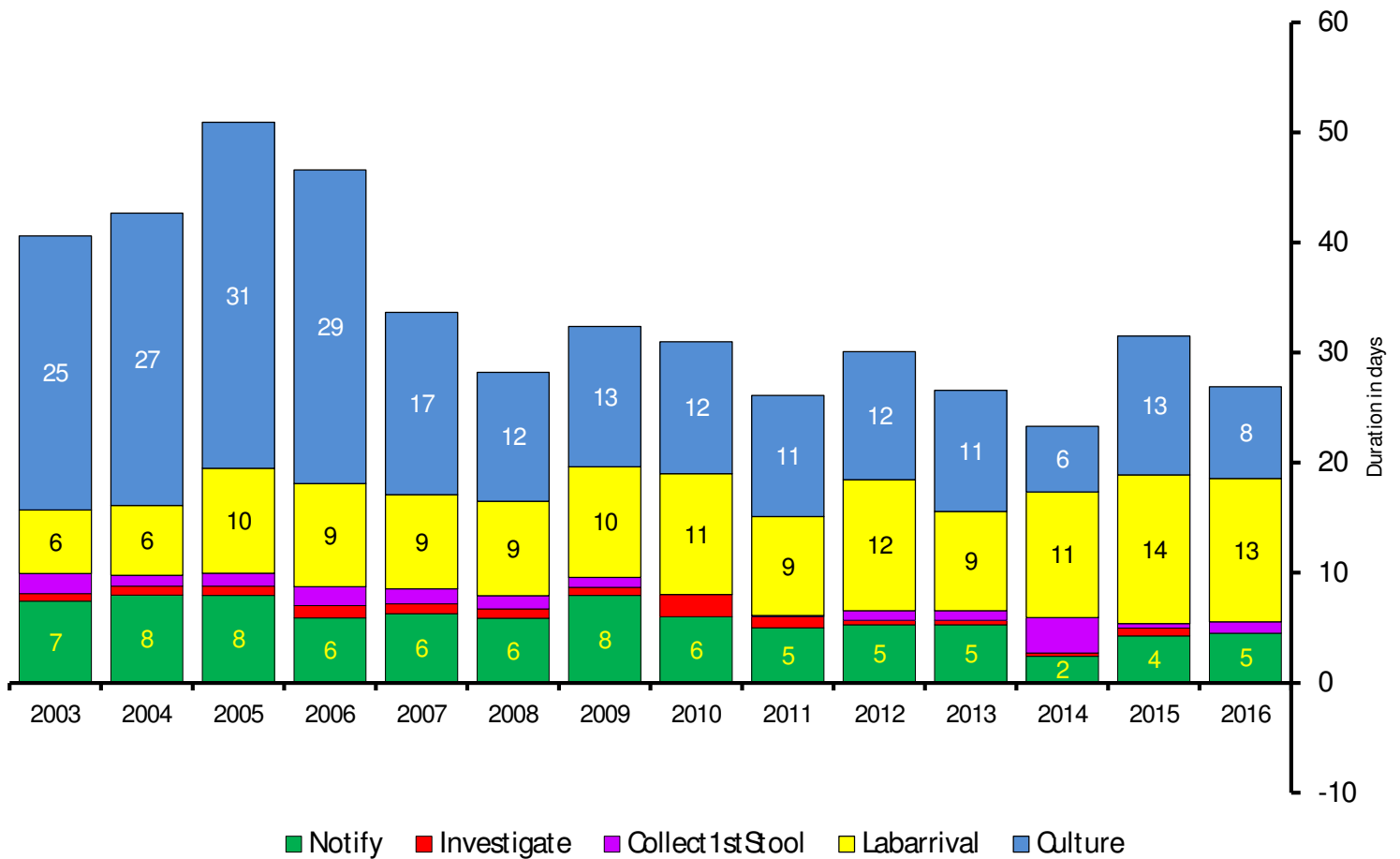


(1) Zero Dose Cases 2016*



*As of epidemiological week 20/2015

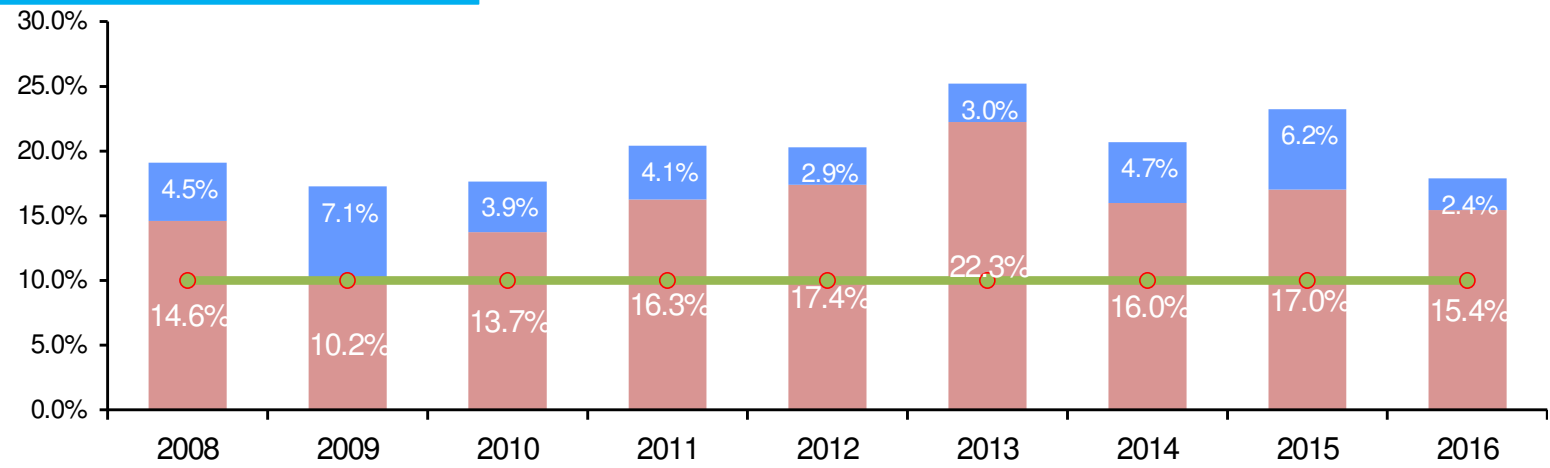
Average Duration of AFP Surveillance Activities in South Sudan 2003-2016



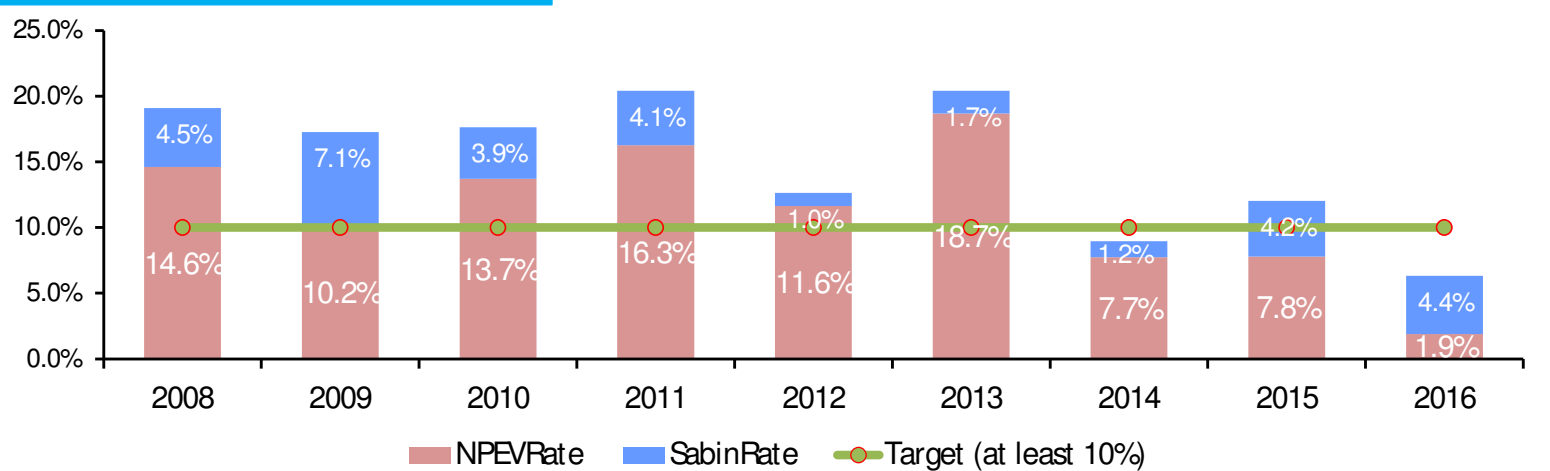
*As of epidemiological week 20/2015

Percent Non-Polio enterovirus and Sabine like isolates by Year/ 2008-2015

Specimens from AFP cases



Specimens from Contact cases



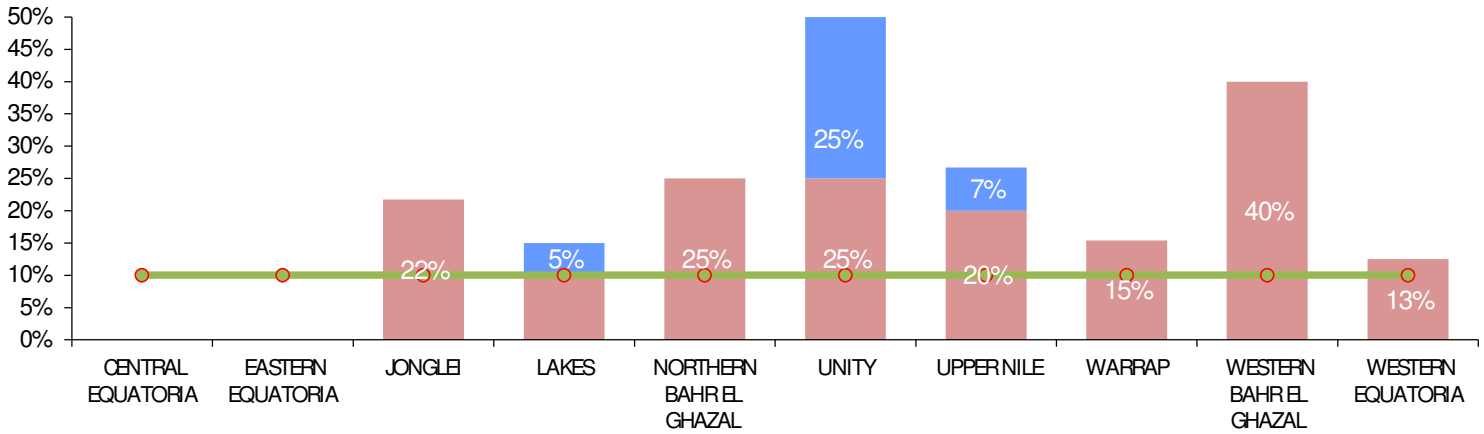
■ NPEVRate ■ SabinRate ● Target (at least 10%)

**As of epidemiological week 20/2016*

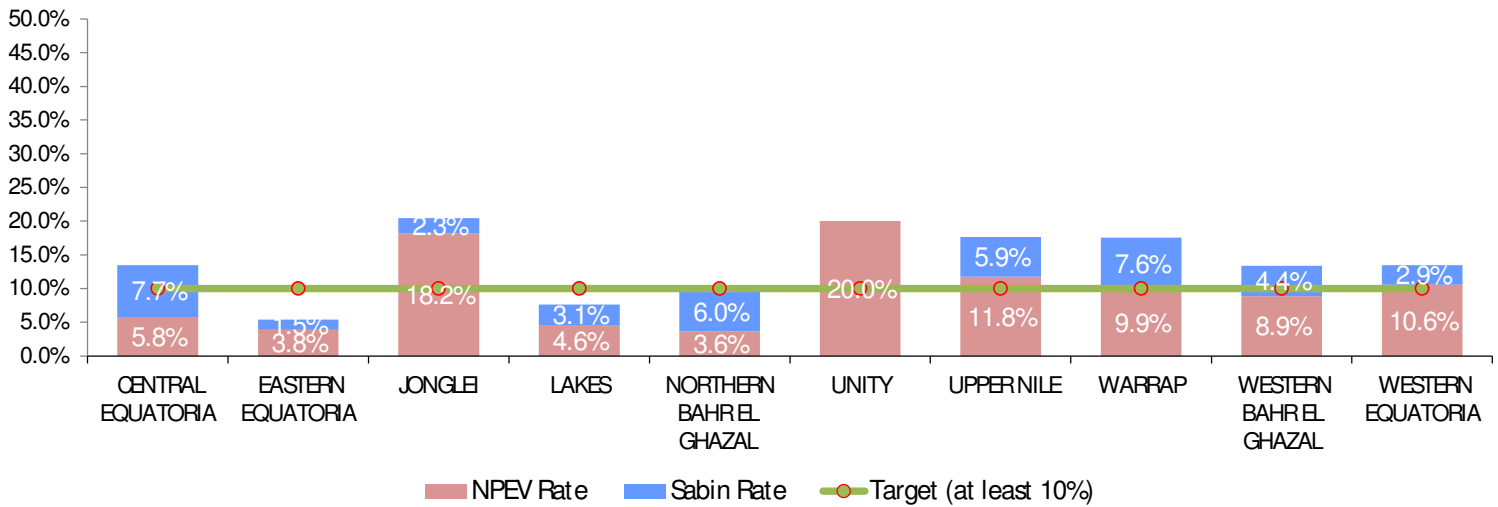
Percent Non-Polio enterovirus and Sabine like isolates by State / 2015

Specimens from AFP cases

**As of epidemiological week 20/2016*



Specimens from Contact cases



■ NPEV Rate ■ Sabin Rate ● Target (at least 10%)

AFP Contact Sample Indicators South Sudan 2015-2016*

*As of epidemiological week 20/2016

Year	State	Total AFP cases	AFP Index cases		Total Contacts	AFP Index cases with at least 3 contacts**		Contacts Samples Collected within 7 days of index case Notification		Contacts under 5 yrs of age		Laboratory Indicators* (Pending contact lab excluded)						
			#	%		#	%	#	%	#	%	Contacts with Lab results	Contacts with NPEV isolates		Contacts with Sabin isolates		Contacts with Good Stool Condition	
													#	%	#	%	#	%
2015	CENTRAL EQUATORIA	23	23	100%	60	14	61%	60	98%	46	77%	52	3	6%	4	8%	52	100%
	EASTERN EQUATORIA	53	48	91%	151	41	85%	151	94%	125	83%	130	5	4%	2	2%	130	100%
	JONGLEI	23	21	91%	59	17	81%	59	97%	45	76%	44	8	18%	1	2%	44	100%
	LAKES	51	46	90%	142	40	87%	142	84%	124	87%	131	6	5%	4	3%	130	99%
	NORTHERN BAHR EL GHAZAL	35	33	94%	97	31	94%	97	94%	94	97%	83	3	4%	5	6%	83	100%
	UNITY	18	13	72%	39	10	77%	39	54%	30	77%	20	4	20%	0	0%	20	100%
	UPPERNILE	16	9	56%	24	6	67%	24	75%	21	88%	17	2	12%	1	6%	17	100%
	WARRAP	54	51	94%	167	46	90%	167	97%	167	100%	131	13	10%	10	8%	131	100%
	WESTERN BAHR EL GHAZAL	20	17	85%	48	14	82%	48	85%	48	100%	45	4	9%	2	4%	45	100%
	WESTERN EQUATORIA	38	36	95%	110	31	86%	110	98%	96	87%	104	11	11%	3	3%	104	100%
SOUTH SUDAN	331	297	90%	897	250	84%	897	91%	796	89%	757	59	8%	32	4%	756	100%	
2016*	CENTRAL EQUATORIA	3	1	33%	3	1	100%	3	100%	3	100%	3	1	33%	0	0%	3	100%
	EASTERN EQUATORIA	16	10	63%	30	9	90%	29	97%	27	90%	6	0	0%	0	0%	12	100%
	JONGLEI	23	14	61%	46	10	71%	43	93%	39	85%	25	0	0%	4	12%	34	100%
	LAKES	20	12	60%	36	10	83%	29	81%	33	92%	25	0	0%	0	0%	30	100%
	NORTHERN BAHR EL GHAZAL	8	8	100%	27	8	100%	27	100%	24	89%	10	0	0%	0	0%	18	100%
	UNITY	4	3	75%	7	1	33%	7	100%	7	100%	0	2	100%	0	0%	2	100%
	UPPERNILE	15	7	47%	18	5	71%	18	100%	18	100%	12	0	0%	3	20%	15	100%
	WARRAP	13	12	92%	35	9	75%	34	97%	29	83%	10	0	0%	0	0%	23	96%
	WESTERN BAHR EL GHAZAL	5	3	60%	9	3	100%	8	89%	9	100%	0	0	0	0	0	0	0%
	WESTERN EQUATORIA	16	12	75%	35	11	92%	35	100%	35	100%	0	0	0%	0	0%	20	100%
SOUTH SUDAN	123	82	67%	246	67	82%	233	95%	224	91%	91	3	2%	7	4%	157	99%	

**At least three contacts are collected from each AFP case. Some AFP cases may have more than three contact samples collected

2015-2016* SUMMARY by States (Using NID figures for population estimates)

State	Population <15 years	Cumulative AFP Cases	Non-Polio Cases	Cases of the Week	Polio cases		Pending			NIPAPP Rate	Stool Adequacy			Lab indicators (Pending lab cases excluded)				
					Polio Compatible	VDPV	Pending Lab/OLT	Pending Lab/ITD	Pending ECR		Specimens (#)	Adequate Specimens	Stool adequacy	NPEV		Sabin like		
														Number	Percent	Number	Percent	
2015	CENTRAL EQUATORIA	737148	23	23	-	0	0	0	0	0	3.2	23	22	96%	1	4%	2	9%
	EASTERN EQUATORIA	674008	53	53	-	0	0	0	0	0	7.9	53	51	96%	12	23%	1	2%
	JONGLE	982693	23	23	-	0	0	0	0	0	2.2	23	22	96%	8	35%	3	13%
	LAKES	791864	51	51	-	0	0	0	0	0	6.6	51	51	100%	6	12%	3	6%
	NORTHERN BAHR EL GHAZAL	987309	35	34	-	1	0	0	0	0	3.5	35	31	89%	4	11%	2	6%
	UNITY	864151	18	17	-	0	1	0	0	0	1.8	18	16	89%	3	17%	1	6%
	UPPERNILE	895541	16	16	-	0	0	0	0	0	1.9	16	12	75%	5	31%	2	13%
	WARRAP	1456973	54	54	-	0	0	0	0	0	3.5	54	54	100%	12	22%	4	7%
	WESTERN BAHR EL GHAZAL	316372	20	20	-	0	0	0	0	0	6.0	20	17	85%	5	25%	0	0%
	WESTERN EQUATORIA	516397	38	38	-	0	0	0	0	0	7.4	38	38	100%	4	11%	3	8%
SOUTH SUDAN	8222455	331	329	-	1	1	0	0	0	4.0	331	314	95%	60	18%	21	6%	
2016*	CENTRAL EQUATORIA	737148	3	2	1	0	0	1	0	0	1.1	3	3	100%	0	0%	0	0%
	EASTERN EQUATORIA	674008	16	9	3	0	0	7	0	0	6.2	16	16	100%	0	0%	0	0%
	JONGLE	982693	23	18	0	0	0	5	0	0	6.1	23	23	100%	5	22%	0	0%
	LAKES	791864	20	17	3	0	0	3	0	0	6.6	20	19	95%	2	10%	1	5%
	NORTHERN BAHR EL GHAZAL	987309	8	8	0	0	0	0	0	0	2.1	8	8	100%	2	25%	0	0%
	UNITY	864151	4	2	1	0	0	2	0	0	1.2	4	4	100%	1	25%	1	25%
	UPPERNILE	895541	15	8	1	0	0	7	0	0	4.4	15	14	93%	3	20%	1	7%
	WARRAP	1456973	13	13	0	0	0	0	0	0	2.3	13	13	100%	2	15%	0	0%
	WESTERN BAHR EL GHAZAL	316372	5	3	1	0	0	2	0	0	4.1	5	5	100%	2	40%	0	0%
	WESTERN EQUATORIA	516397	16	15	0	0	0	1	0	0	8.1	16	16	100%	2	13%	0	0%
SOUTH SUDAN	8222455	123	95	10	0	0	28	0	0	3.9	123	121	98%	19	15%	3	2%	

*As of epidemiological week 20/2016

Summary

Ten new AFP Cases were reported in the week, Two from Central Equatoria (*Morrobo-1*), Four from Eastern Equatoria (*Kapoeta North-1, Lapon-2, Torit-1*), three from Lakes(*Rumbek Center-1, Wulu-1, Yirol West-1*), One from unity(*Panyijar-1*), One from Upper Nile(*Balliet-1*), One from Western Bahr El Ghazal(*Jur river-1*).

□ So far, a Total of **123** AFP Cases are reported in 2016 as of the reporting epi week. (below details by classification):

- Pending for Lab culture=**28**
- Discarded as NP/AFP=**95**

□ **AFP Surveillance indicators:**

- Early detection within 7 days of onset of cases in 2015=**89%**
- NP/AFP rate=**3.9/100,000 U15 Years children**
- Counties that attained NP/AFP Rate(**$\geq 2=50$ (63)%**)
- Stool Adequacy = **90%**
- NPEV=**15%**, Target $\geq 10\%$)
- Sabin=**2%**, Target $\geq 10\%$)
- Immunity profile 4+ Doses (6-59Yrs) =**86%**