








# **Sudan Weekly AFP Surveillance Report**

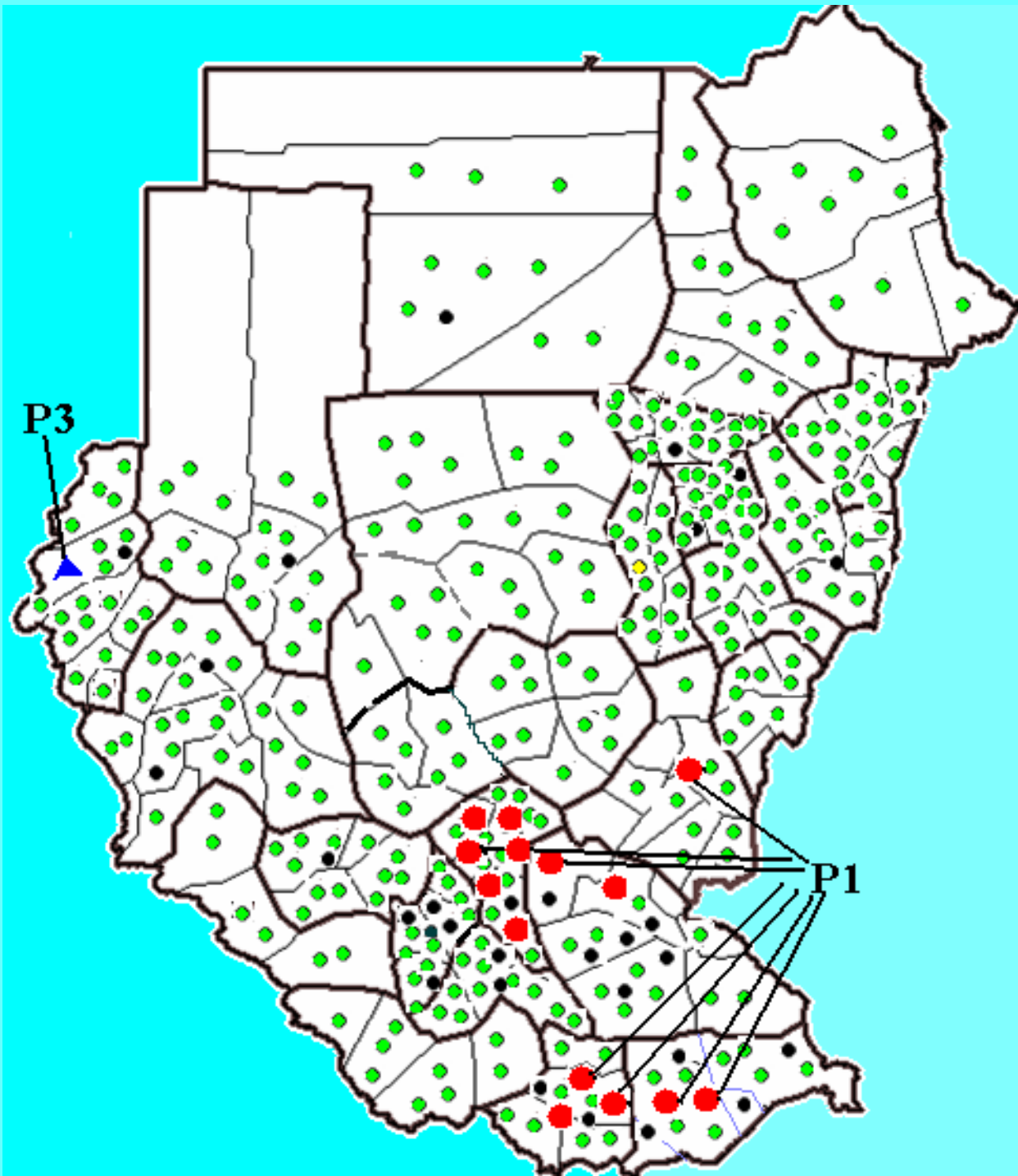
**Week 49**

**(Ending on 7 December 2008)**

**National AFP  
Surveillance system  
Sudan**

**Map 1.  
Distribution of  
AFP cases by  
classification  
Sudan 2008\***

-  P1 polio case
-  P3 polio case
-  Pending AFP case
-  Non-polio AFP case
-  Compatible case



\*Up to 7/12/08

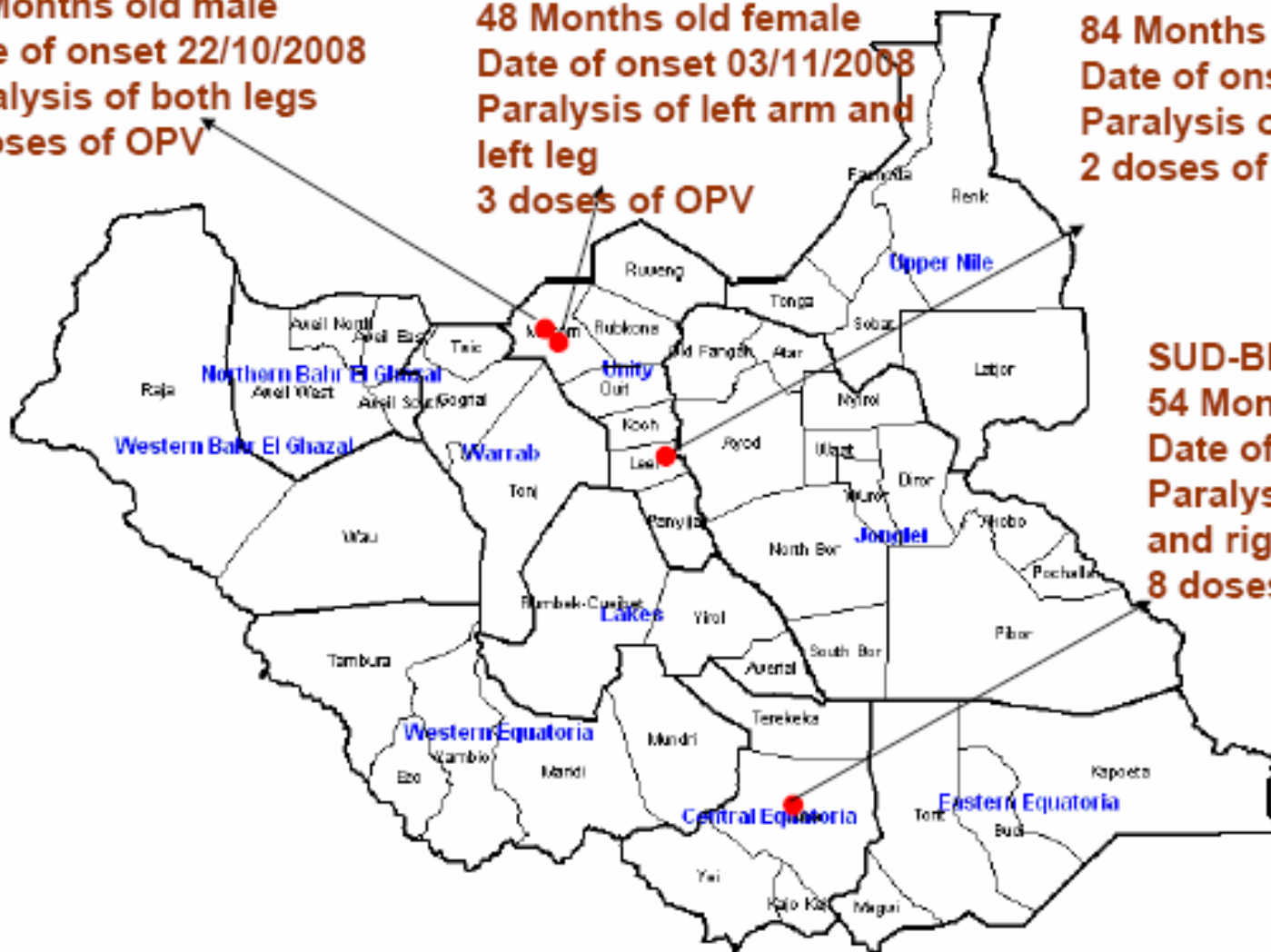
# Newly Confirmed Polio Cases in Southern Sudan 2008

**SUD-UNI-MAY-2008-001**  
 36 Months old male  
 Date of onset 22/10/2008  
 Paralysis of both legs  
 7 doses of OPV

**SUD-UNI-MAY-2008-002**  
 48 Months old female  
 Date of onset 03/11/2008  
 Paralysis of left arm and  
 left leg  
 3 doses of OPV

**SUD-UNI-LER-2008-008**  
 84 Months old female  
 Date of onset 11/10/2008  
 Paralysis of both legs  
 2 doses of OPV

**SUD-BEJ-JUB-2008-008**  
 54 Months old male  
 Date of onset 26/10/2008  
 Paralysis of both arms  
 and right leg  
 8 doses of OPV



● Confirmed Polio Cases  
 Type P1

\*Up to 7/12/08

Source: southern Sudan

# Total AFP cases, 2006-2008\*

Fig 1. Total SUDAN AFP cases reported

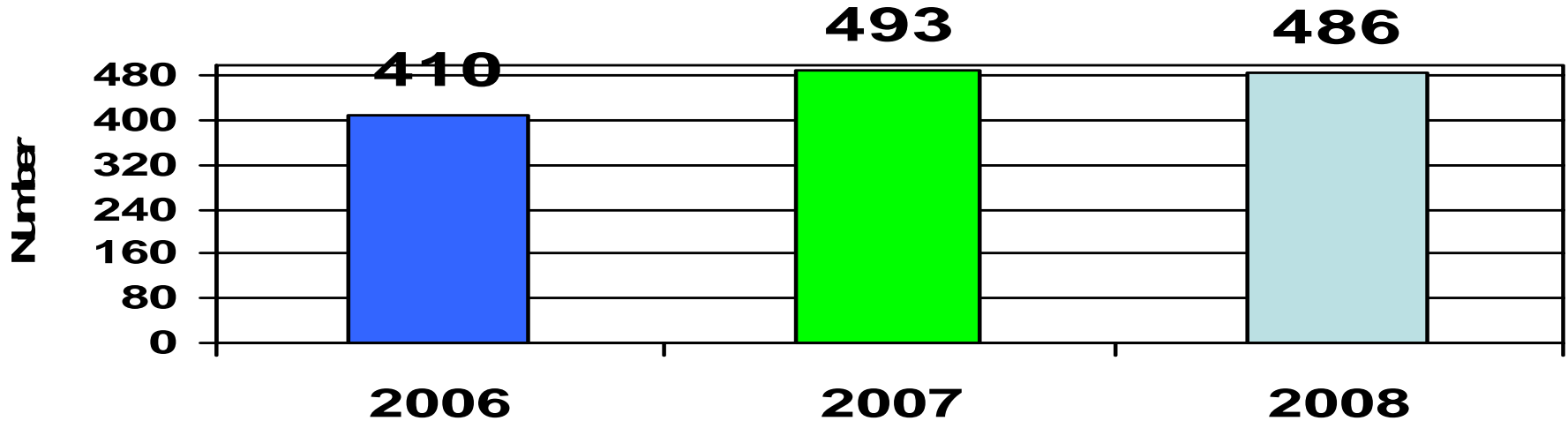


Fig 2. North Sudan AFP cases reported

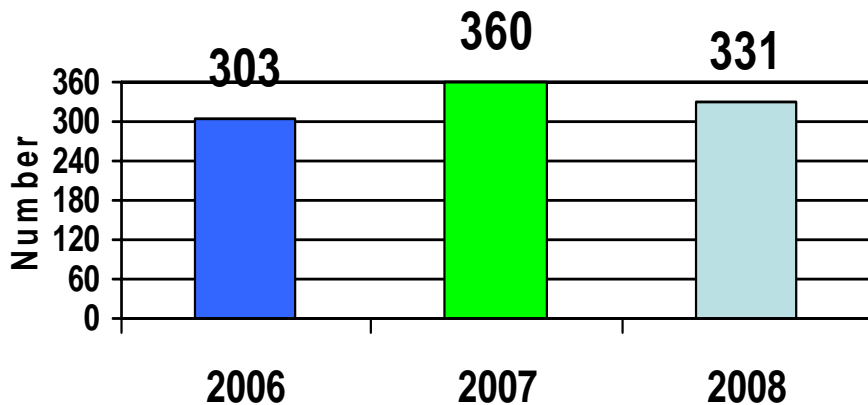
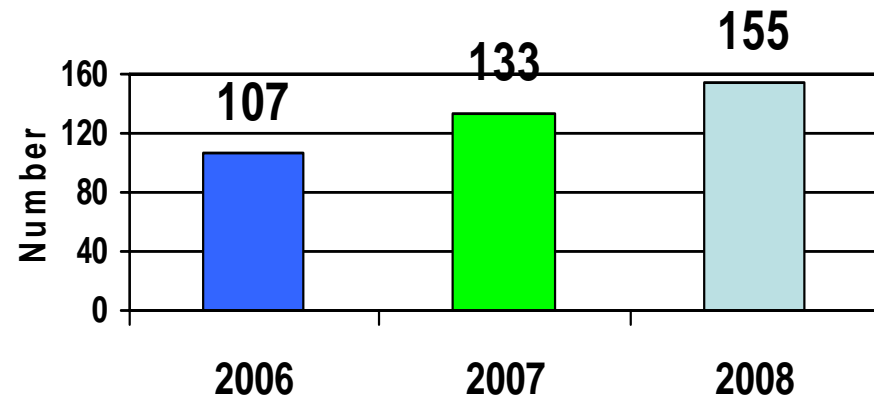
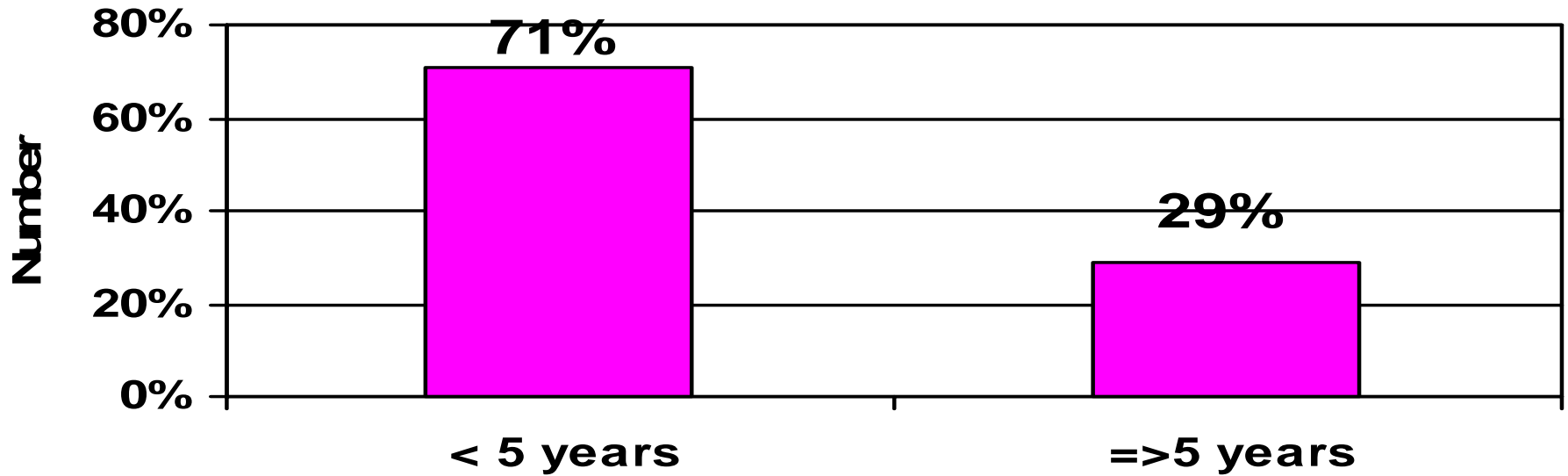


Fig 3. Southern Sudan AFP cases reported

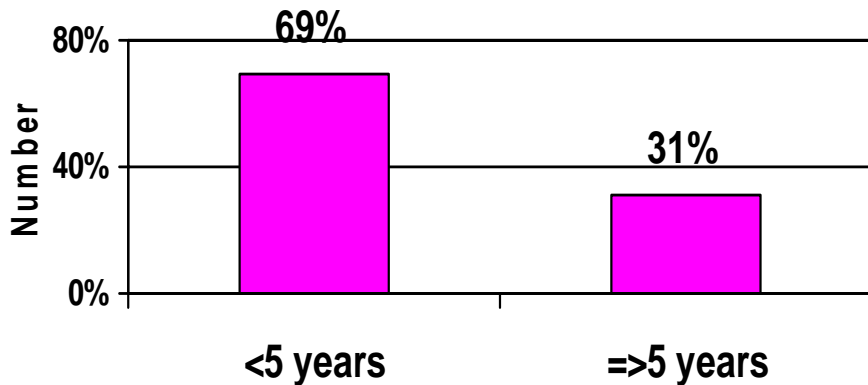


\*Up to 7/12/08

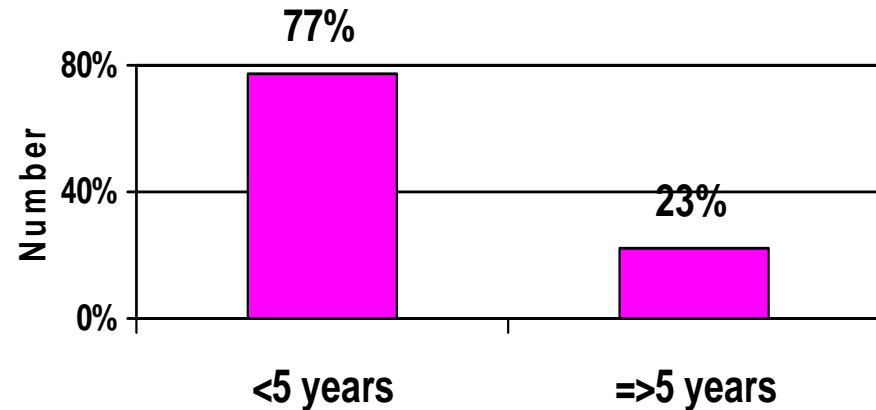
**Fig 4. Total SUDAN AFP cases by age group, up to week 49, 2008**



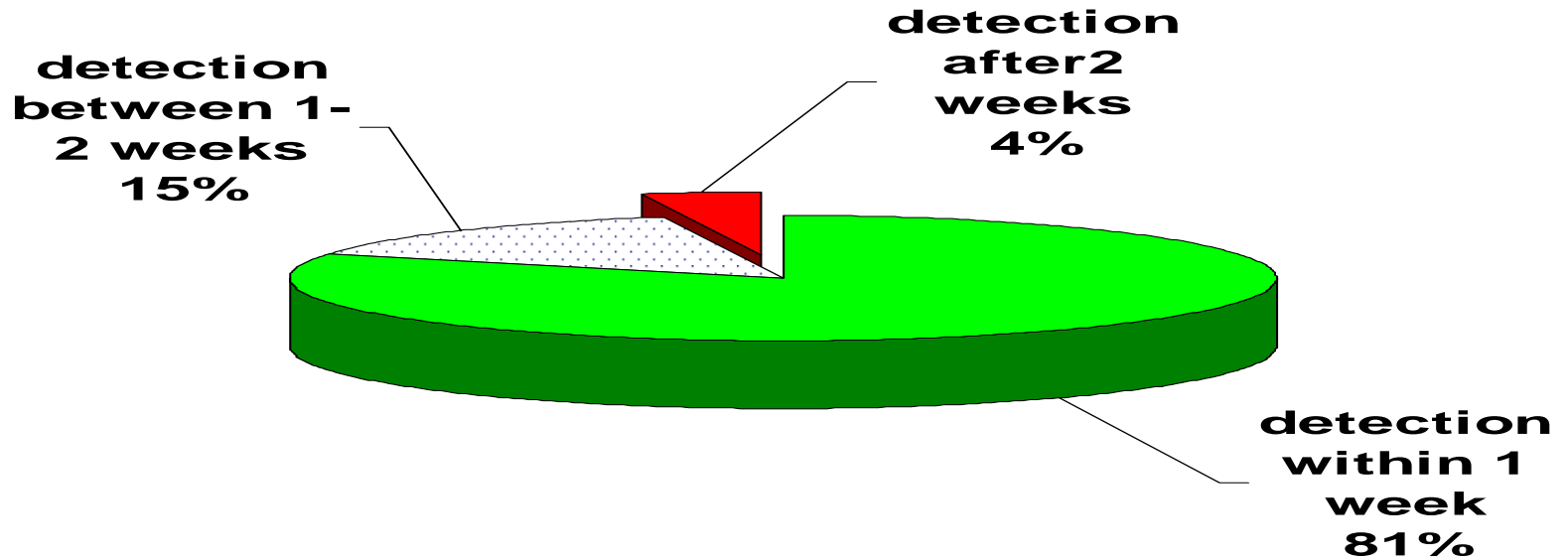
**Fig 5. North SUDAN AFP cases by age group, up to week 49, 2008**



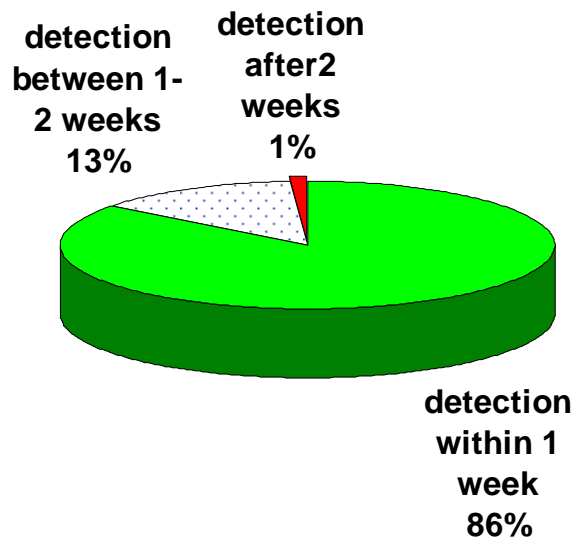
**Fig 6. South SUDAN AFP cases by age group, up to week 49, 2008**



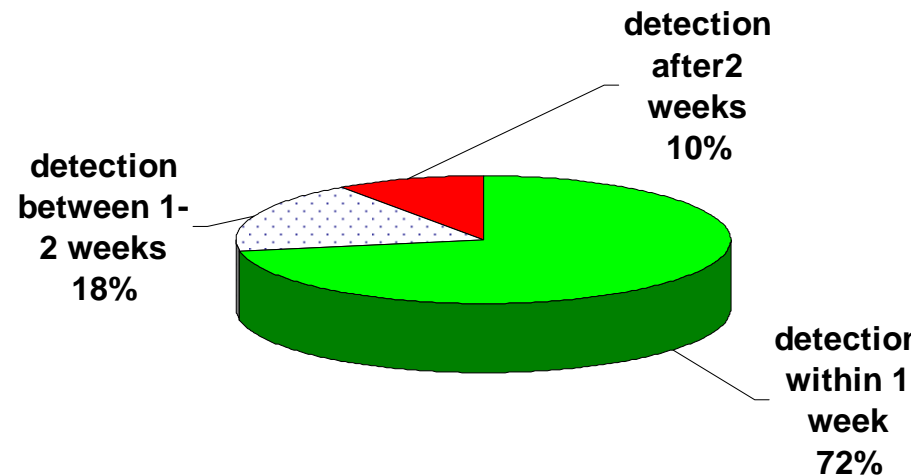
**Figure 7. Percent distribution of AFP cases by time of detection, Sudan, up to week 49 2008**



**Figure 8. Percent distribution of AFP cases by time of detection, North Sudan, up to week 49 2008**



**Figure 9. Percent distribution of AFP cases by time of detection, Southern Sudan, up to week 49 2008**



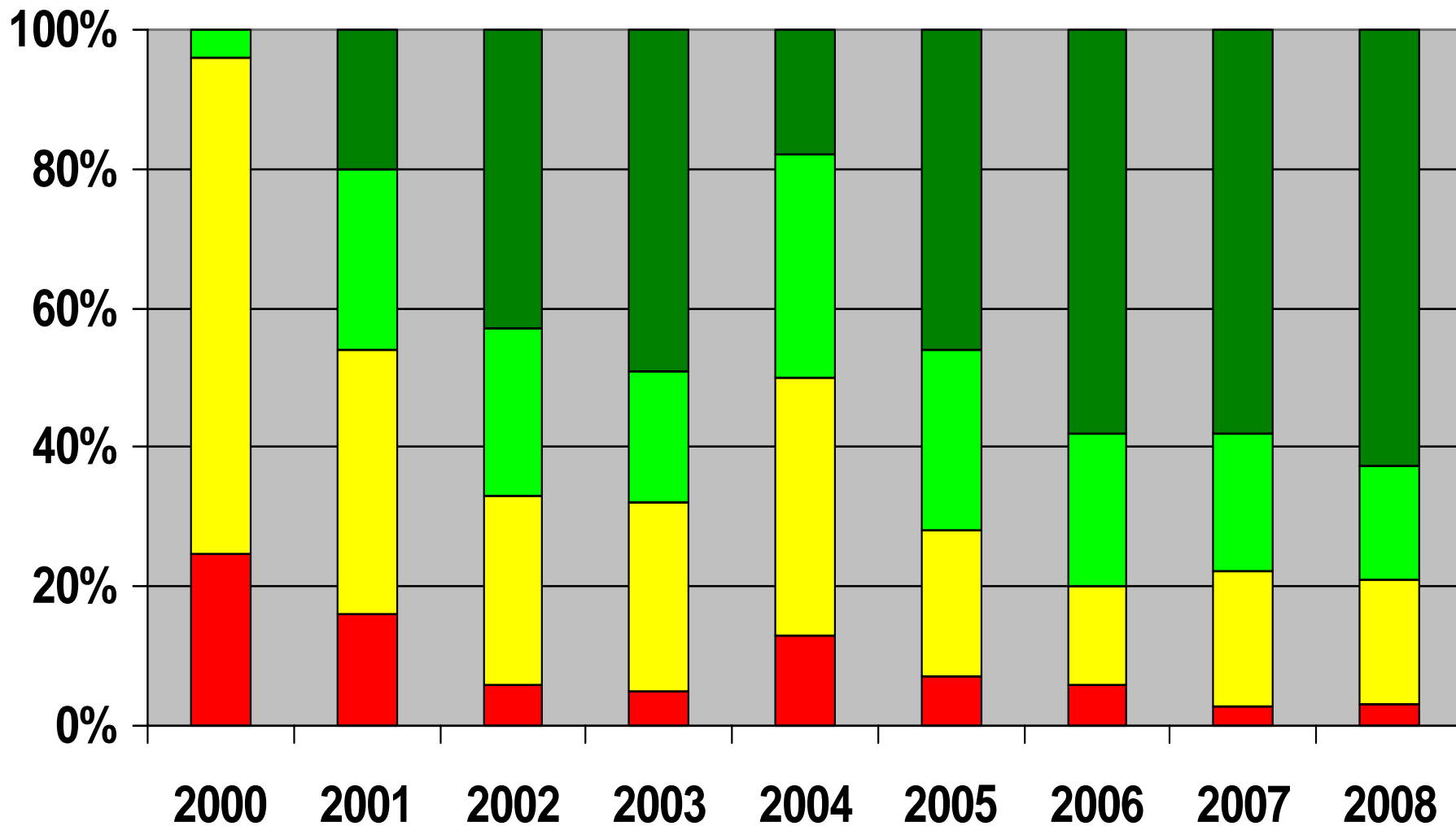
**Table 1. Major AFP surveillance performance indicators, Northern States, week 49, 2008**

State	U 15 yrs population	Total reported AFP cases	Non-polio AFP cases	Pending classification	Polio cases	Compatible cases	% Adequate stools	Annualized AFP rate	% NPEV
B. Nile	335,349	11	11	0	0	0	100%	3.5	18%
Gedarif	783,014	18	17	1	0	0	100%	2.4	12%
Gezira	1,768,855	40	37	2	0	1	98%	2.4	11%
Kasala	776,264	20	20	0	0	0	100%	2.7	15%
Khartom	2,154,959	48	47	1	0	0	100%	2.4	15%
N.Darf	786,139	20	19	1	0	0	95%	2.7	16%
N.Kord	1,206,410	28	28	0	0	0	100%	2.5	11%
Northern	254,978	10	9	1	0	0	80%	4.2	13%
Red Sea	327,066	11	11	0	0	0	100%	3.6	18%
River Nile	437,544	16	16	0	0	0	100%	3.9	13%
Sennar	665,628	15	15	0	0	0	93%	2.4	13%
S.Darfur	1,579,911	34	32	2	0	0	100%	2.3	9%
S. Kord	922,086	21	21	0	0	0	100%	2.4	14%
W.Darfur	884,736	20	18	1	1	0	95%	2.3	16%
W. Nile	775,659	19	18	0	0	1	79%	2.6	17%
<b>Total</b>	<b>13,658,598</b>	<b>331</b>	<b>319</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>97%</b>	<b>2.6</b>	<b>14%</b>

**Table 2. Major AFP surveillance performance indicators, Southern States, week 49, 2008**

State	U 15 yrs population	Total reported AFP cases	Non-polio AFP cases	Pending classification	Polio cases	Compatible cases	% Adequate stools	Annualized AFP rate	% NPEV
Bahr Elgabal	217,555	14	8	3	3	0	79%	5.4	10%
E. Equatoria	214,239	14	8	4	2	0	79%	5.9	30%
Lakes	218,533	15	13	2	0	0	100%	7.3	15%
Jongli	431,881	22	14	6	2	0	100%	4.9	19%
N.Bahr Elgazal	328,795	15	14	1	0	0	100%	4.8	0%
Unity	107,203	25	18	1	6	0	92%	18.8	9%
Upper Nile	215,941	9	8	0	1	0	89%	3.9	22%
Warap	431,884	26	21	5	0	0	81%	6.4	24%
W.Bahr Elgazal	109,597	6	6	0	0	0	83%	5.8	0%
W. Equatoria	201,500	9	9	0	0	0	100%	4.7	11%
<b>Total</b>	<b>2,477,128</b>	<b>155</b>	<b>119</b>	<b>22</b>	<b>14</b>	<b>0</b>	<b>90%</b>	<b>6.0</b>	<b>15%</b>

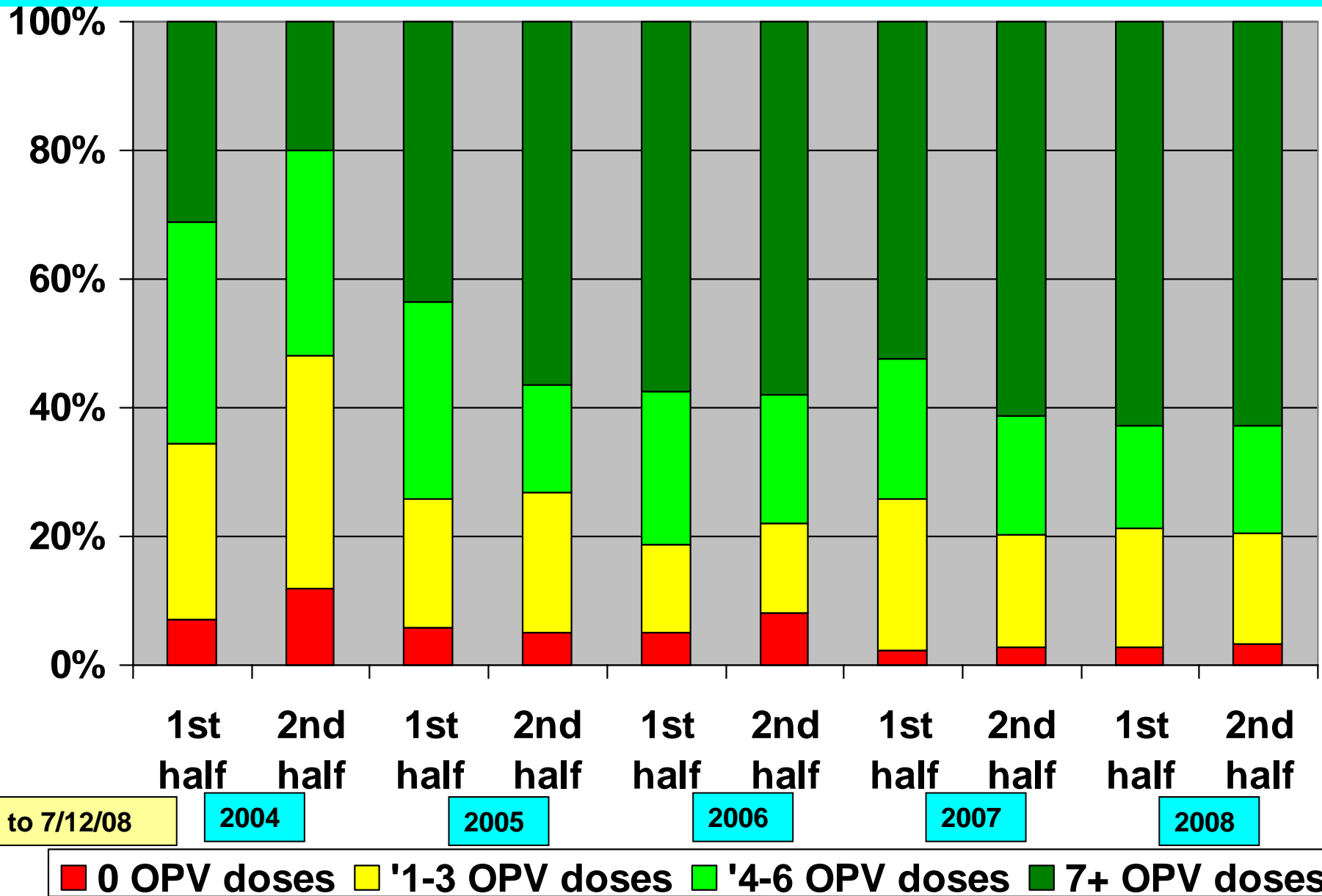
# Fig 10. Percent distribution of AFP cases < 60 months by number of OPV doses, Sudan 2000-2008\*



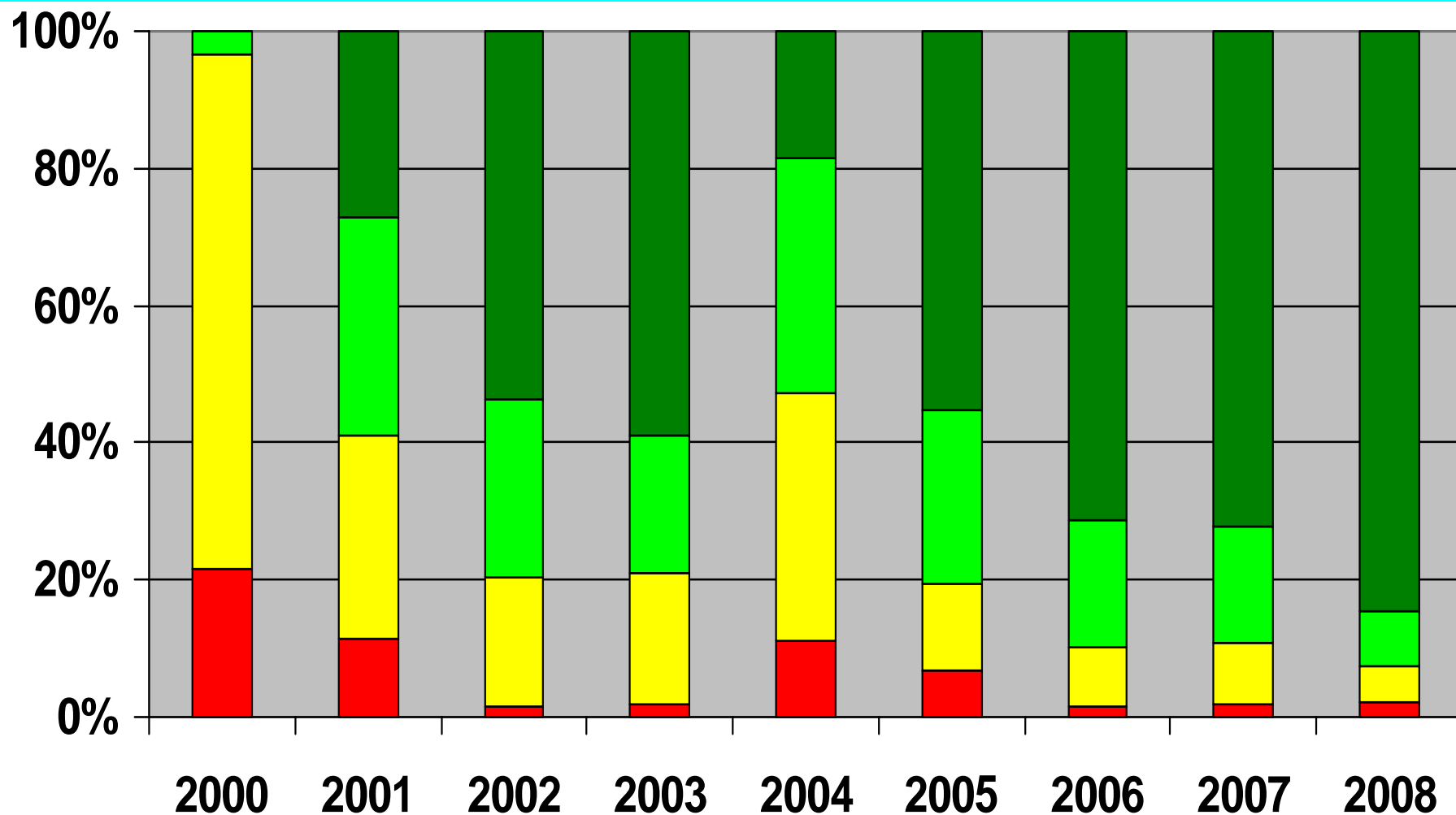
■ 0 OPV doses ■ '1-3 OPV doses ■ '4-6 OPV doses ■ 7+ OPV doses

\*Up to 7/12/08

**Fig 11. Percent distribution of AFP cases < 60 months by 6 months period and number of OPV doses, Sudan 2004-08\***



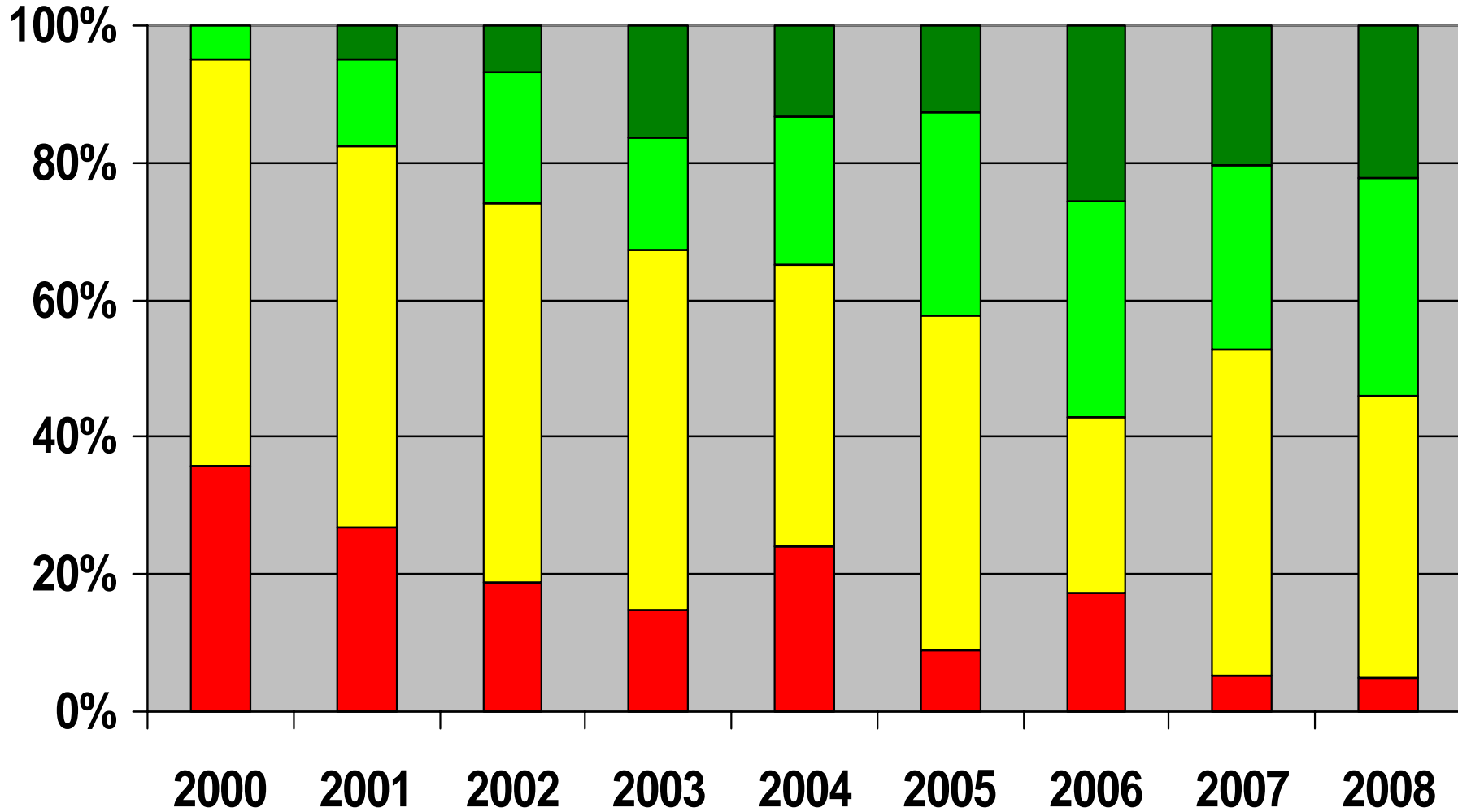
**Fig 12. Percent distribution of AFP cases < 60 months by number of OPV doses, North Sudan 2000-08\***



■ 0 OPV doses 
 ■ '1-3 OPV doses 
 ■ '4-6 OPV doses 
 ■ 7+ OPV doses

\*Up to 7/12/08

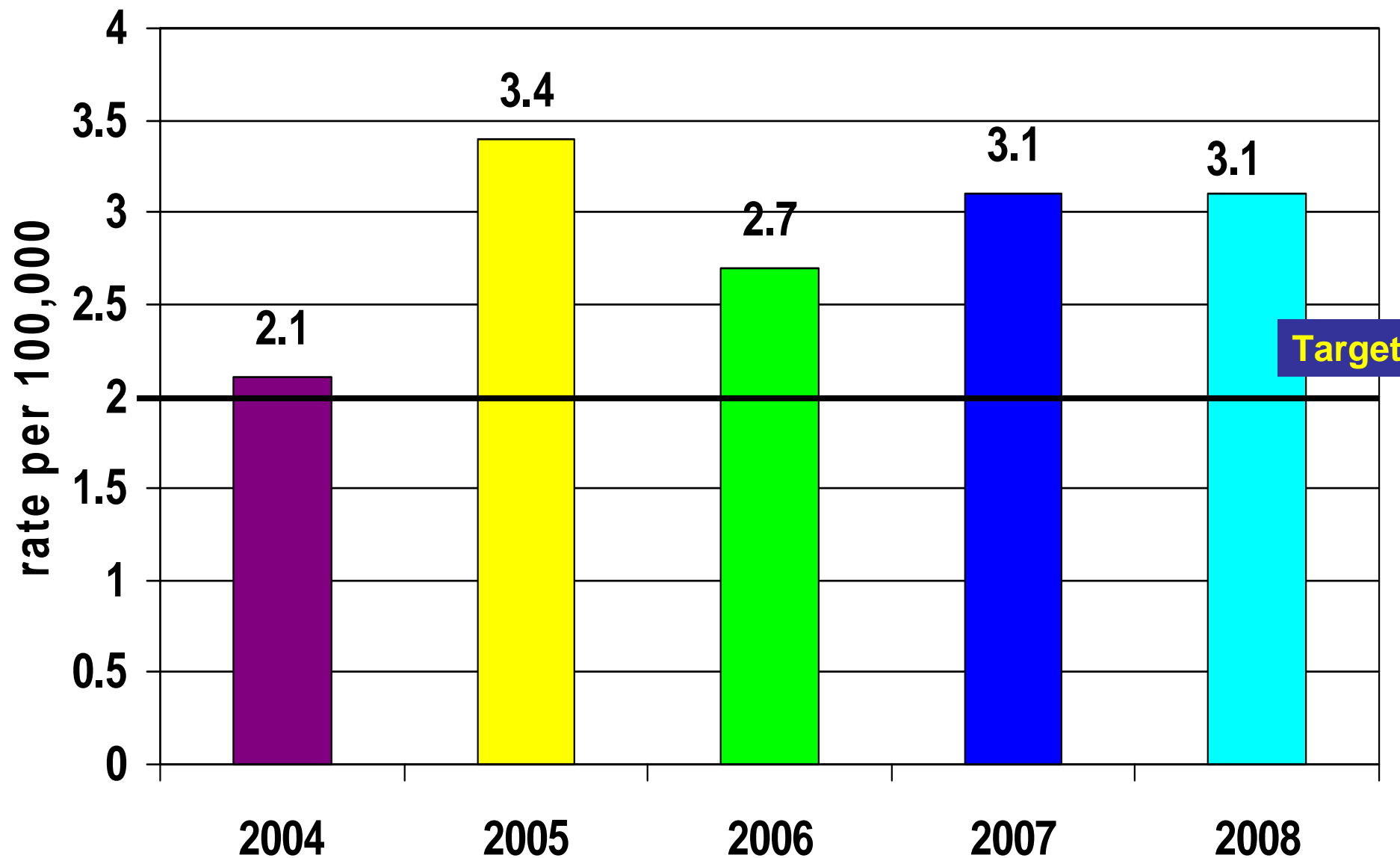
**Fig 13. Percent distribution of AFP cases <60 months by number of OPV doses, South Sudan 2000-2008\***



■ 0 OPV doses ■ '1-3 OPV doses ■ '4-6 OPV doses ■ 7+ OPV doses

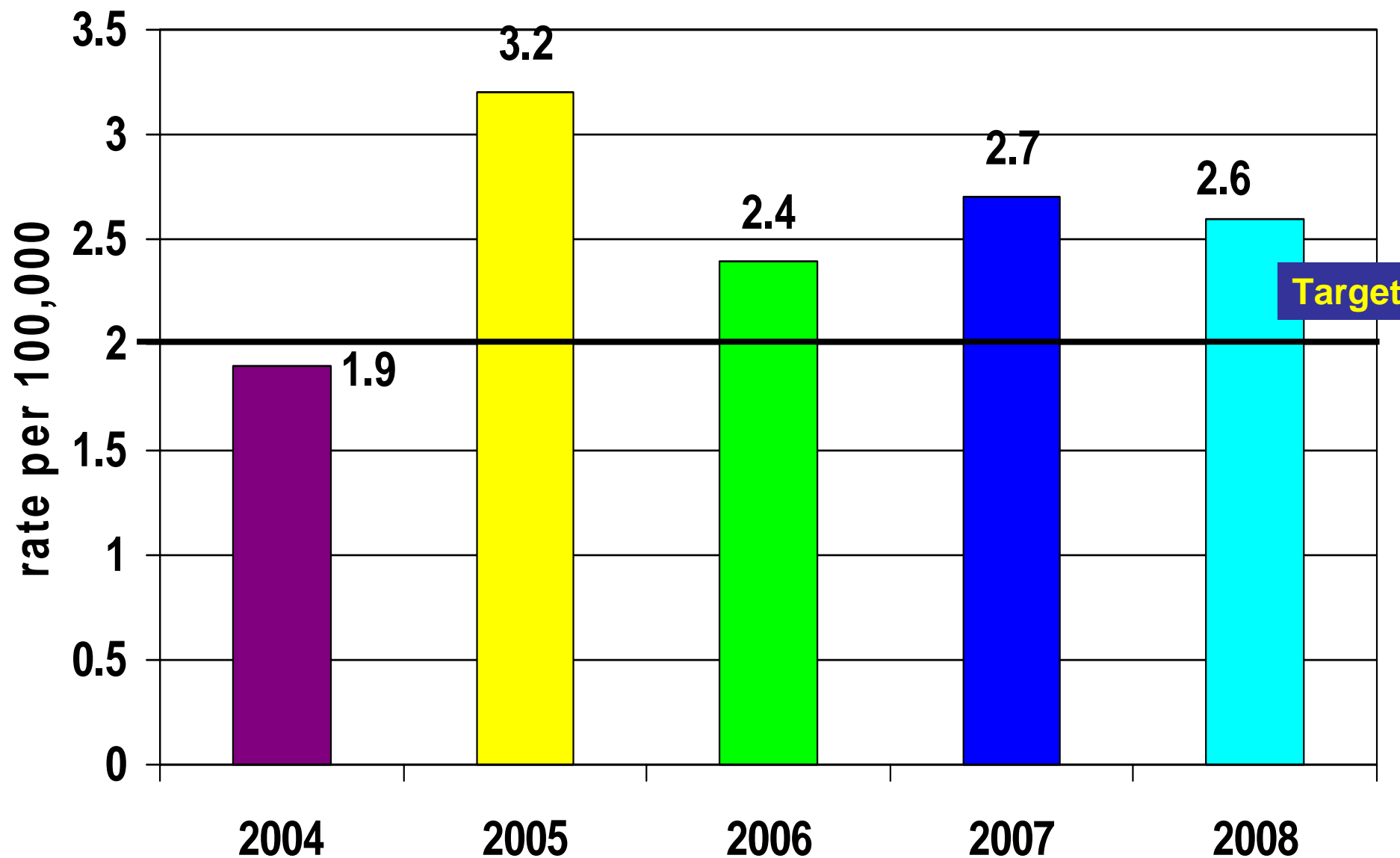
\*Up to 7/12/08

**Fig 14. Annualized Non-Polio AFP rate per 100,000 children under 15 years of age, total Sudan, 2004-2008\***



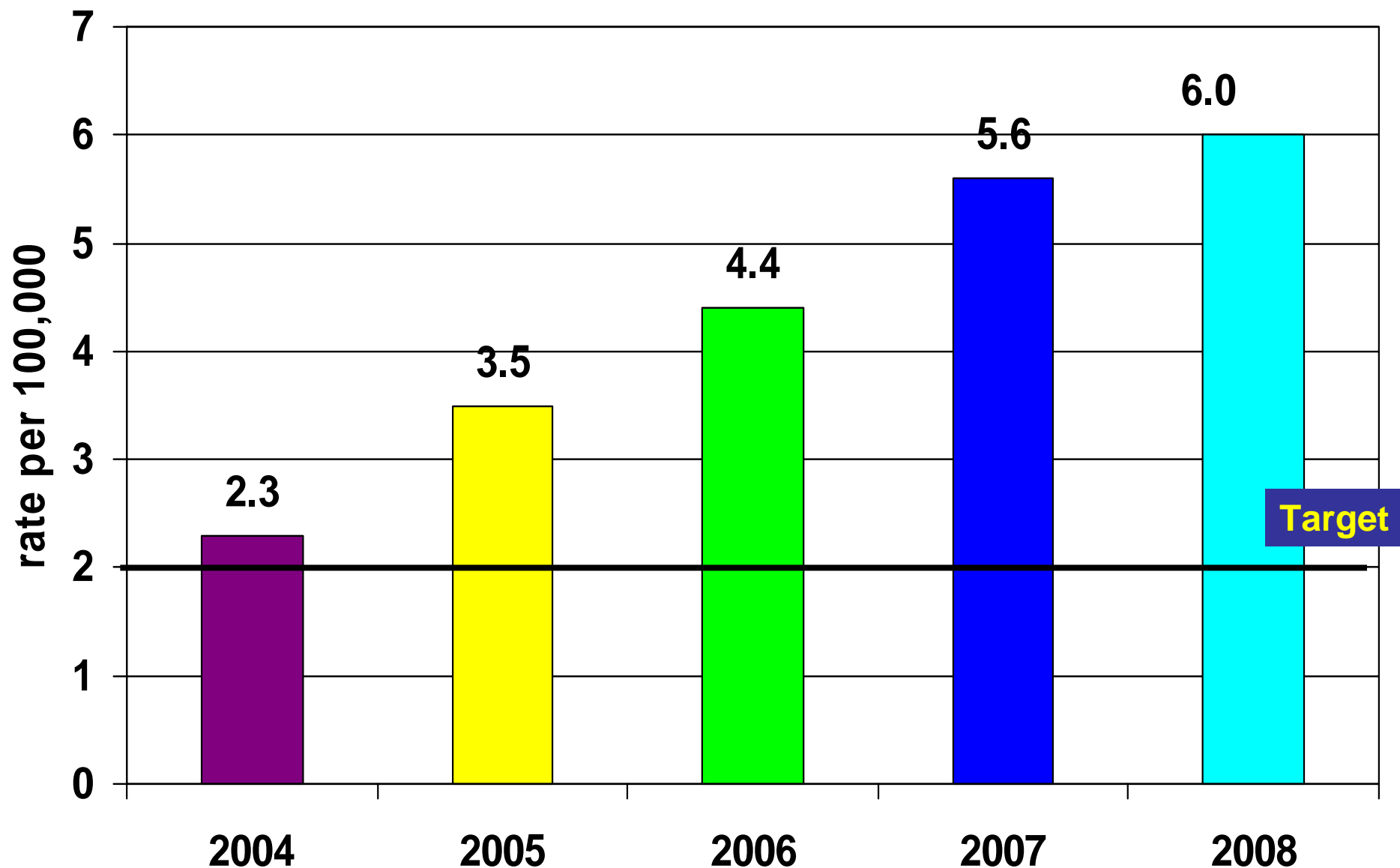
\*Up to 7/12/08

**Fig 15. Annualized Non-Polio AFP rate per 100,000 children under 15 years of age, North Sudan, 2004 – 2008\***



\*Up to 7/12/08

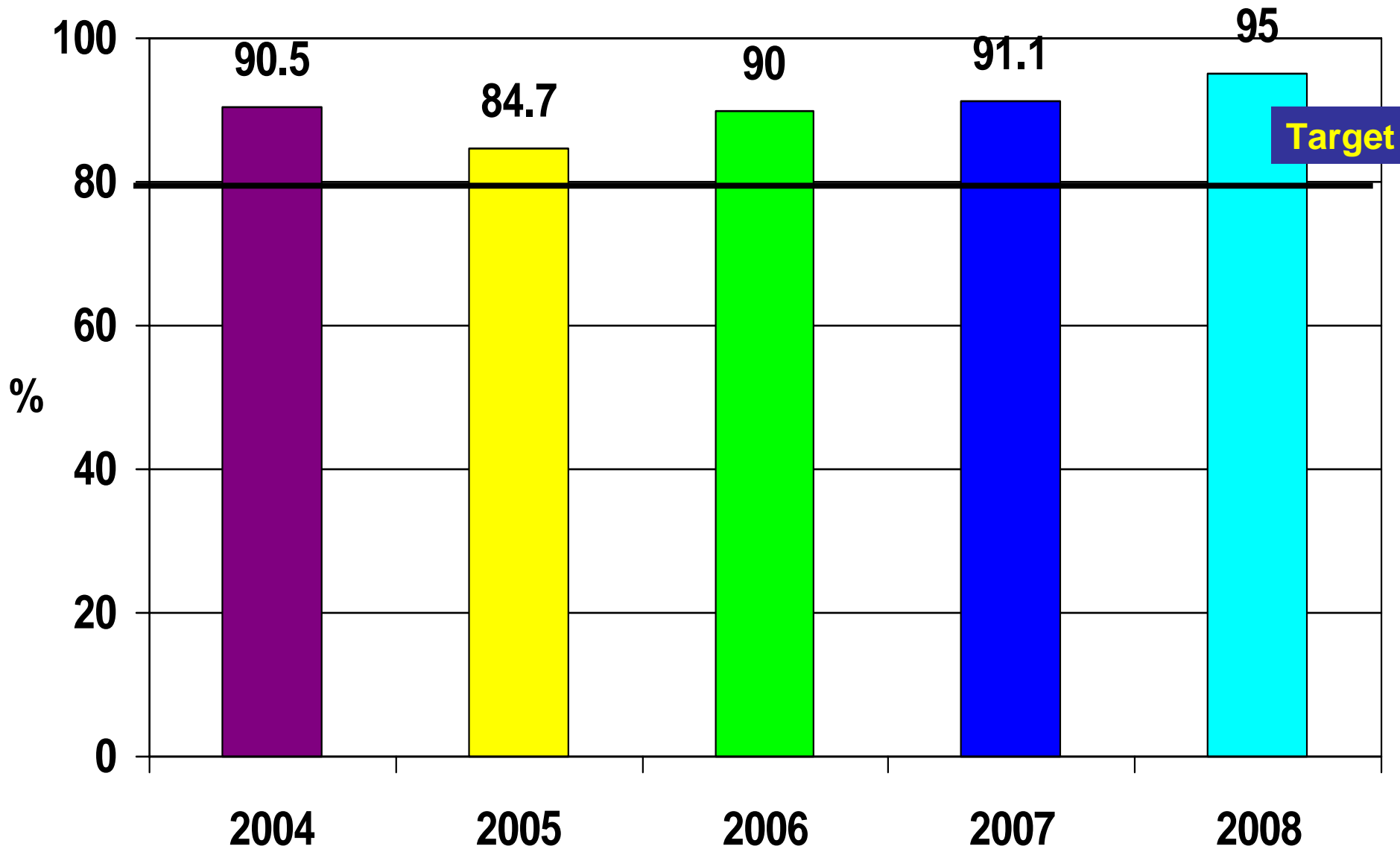
**Fig 16. Annualized Non-Polio AFP rate per 100,000 children under 15 years of age, southern Sudan 2004 – 2008\***



\*Up to 7/12/08

# Fig 17. Adequate stool collection rate, total Sudan

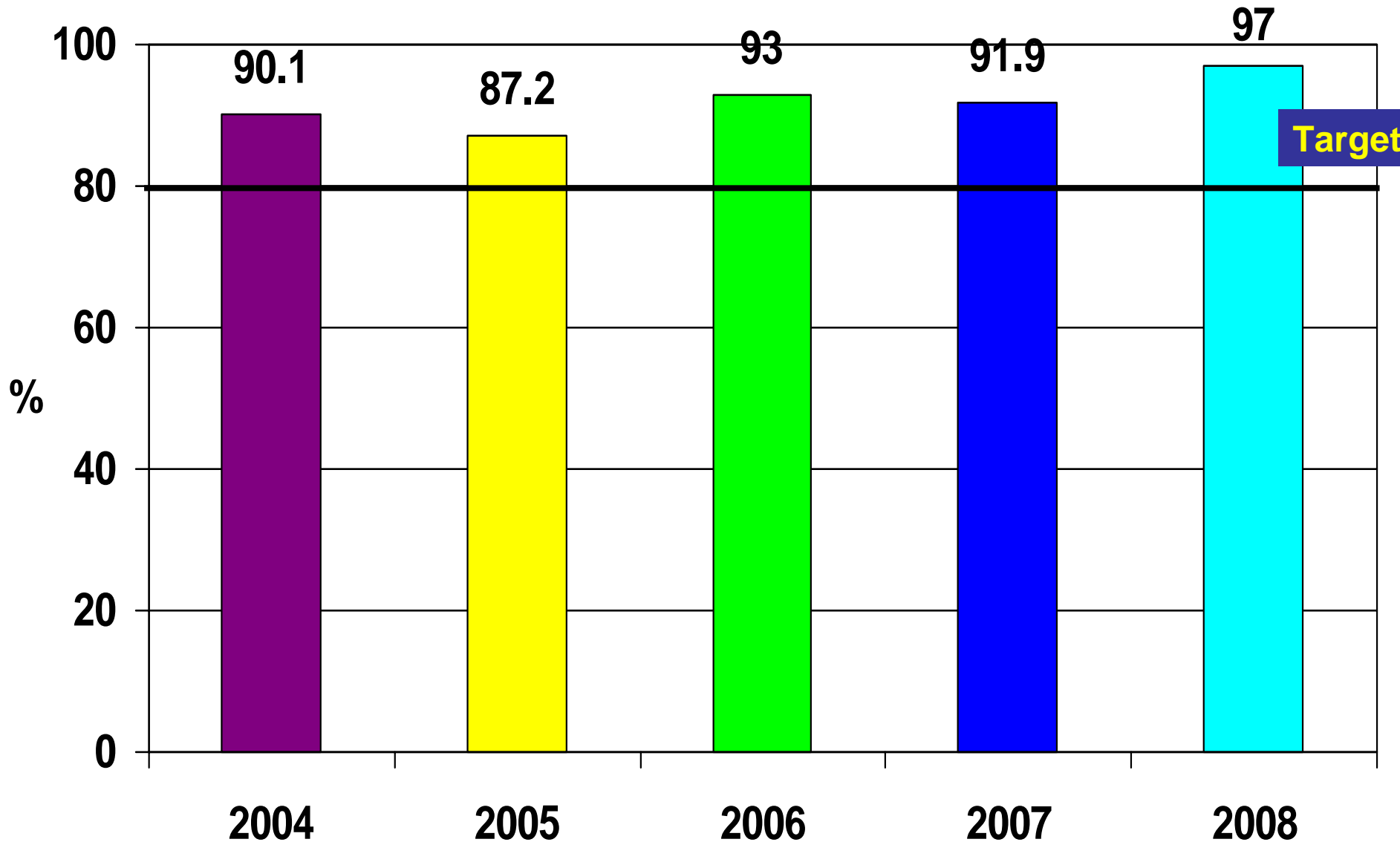
## 2004 – 2008\*



\*Up to 7/12/08

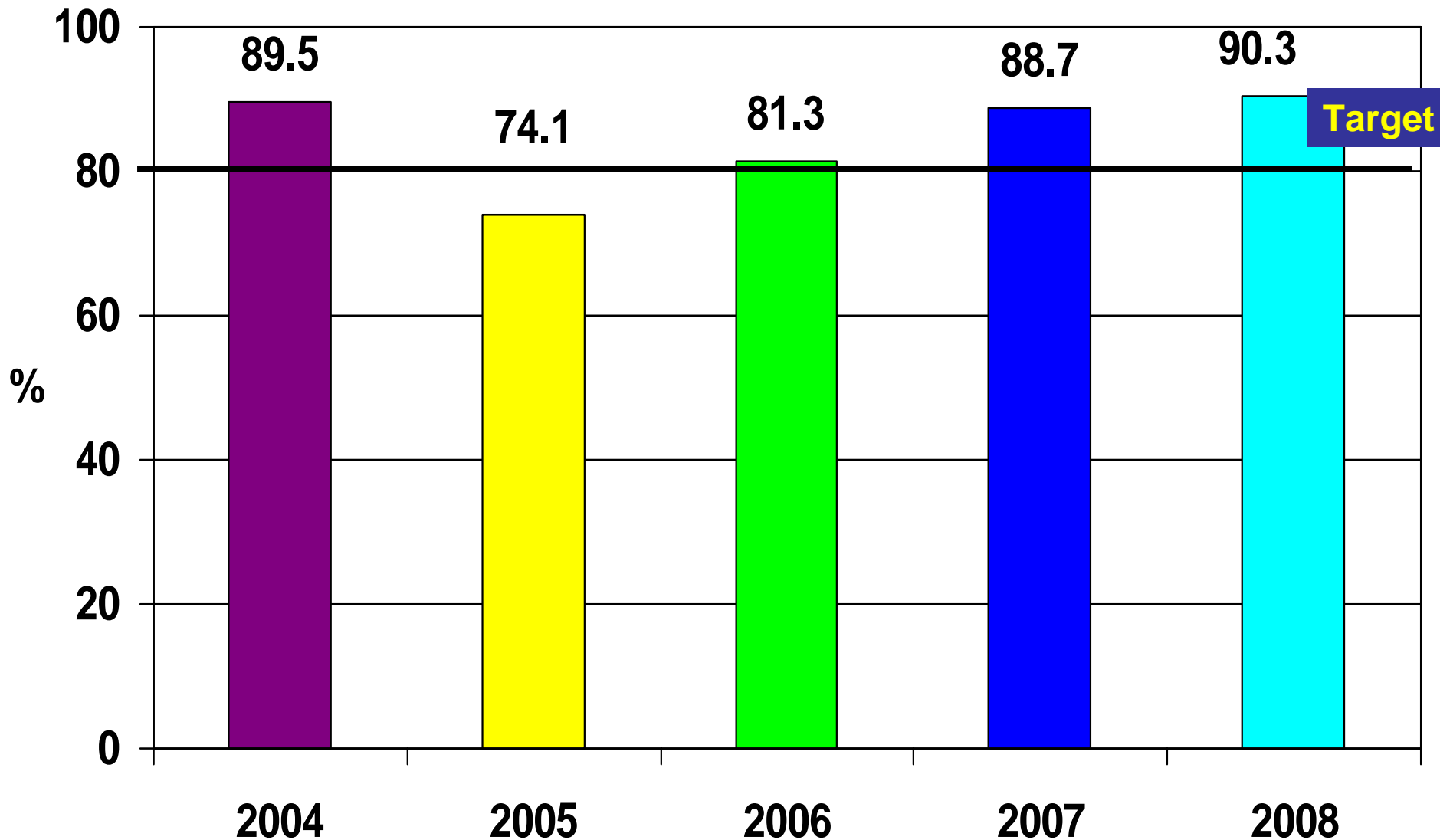
# Fig 18. Adequate stool collection rate

## North Sudan, 2004 – 2008\*



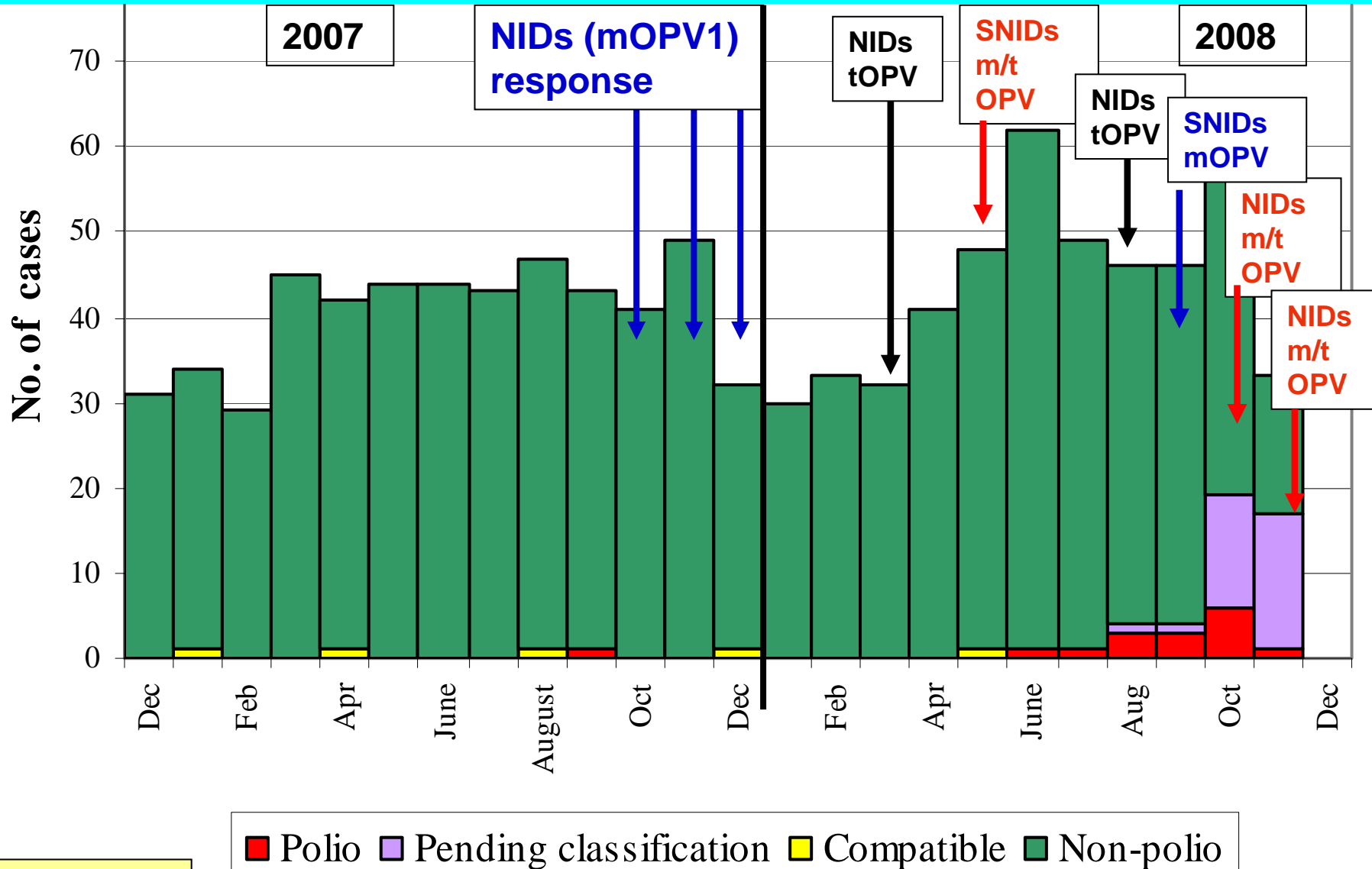
\*Up to 7/12/08

**Fig 19. Adequate stool collection rate**  
**Southern Sudan 2004 – 2008\***



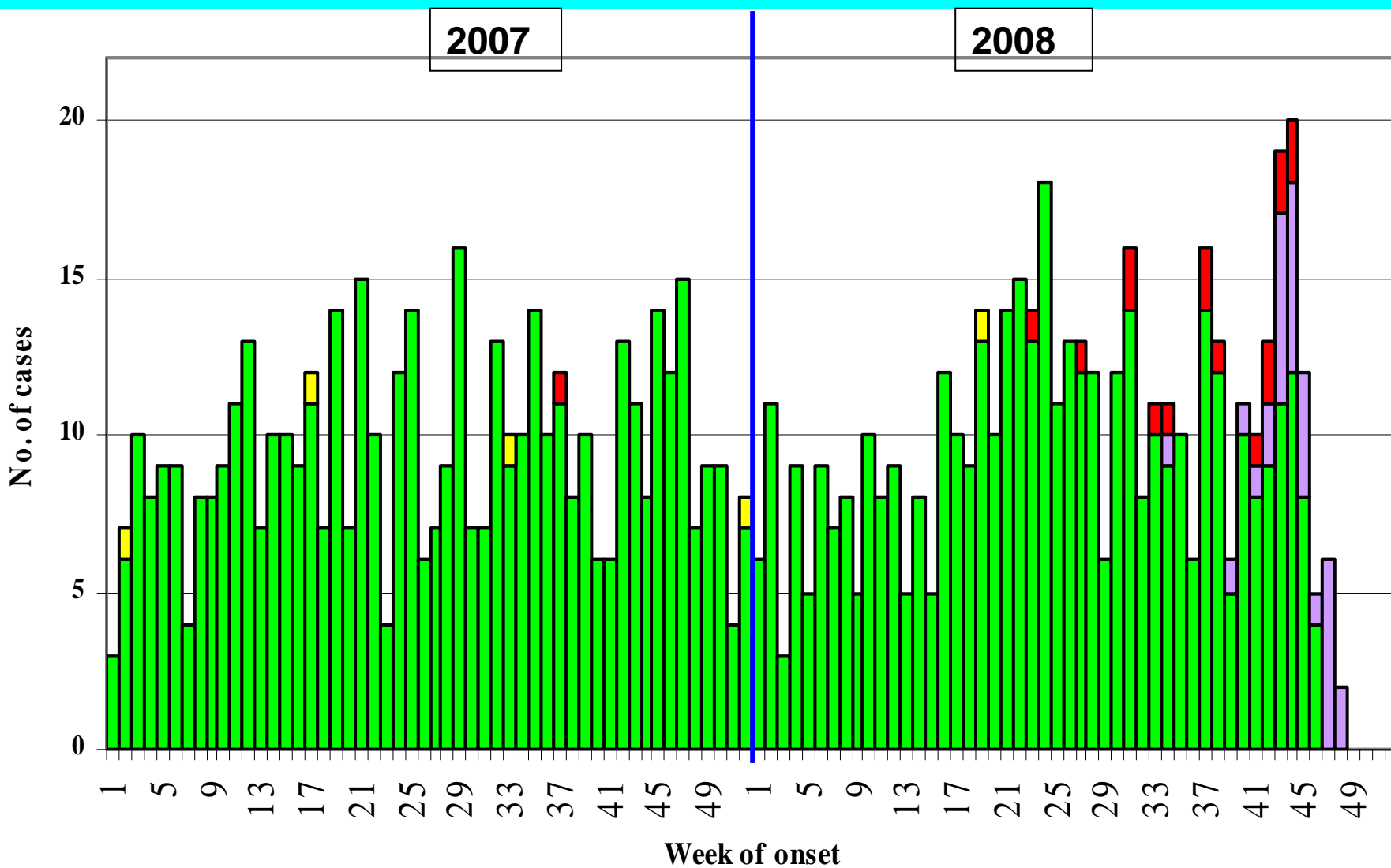
\*Up to 7/12/08

**Fig 20. Distribution of polio and non-polio AFP Cases by classification, month of onset & SIA response to the poliovirus importation, total SUDAN 2007-08\***



\*Up to 7/12/08

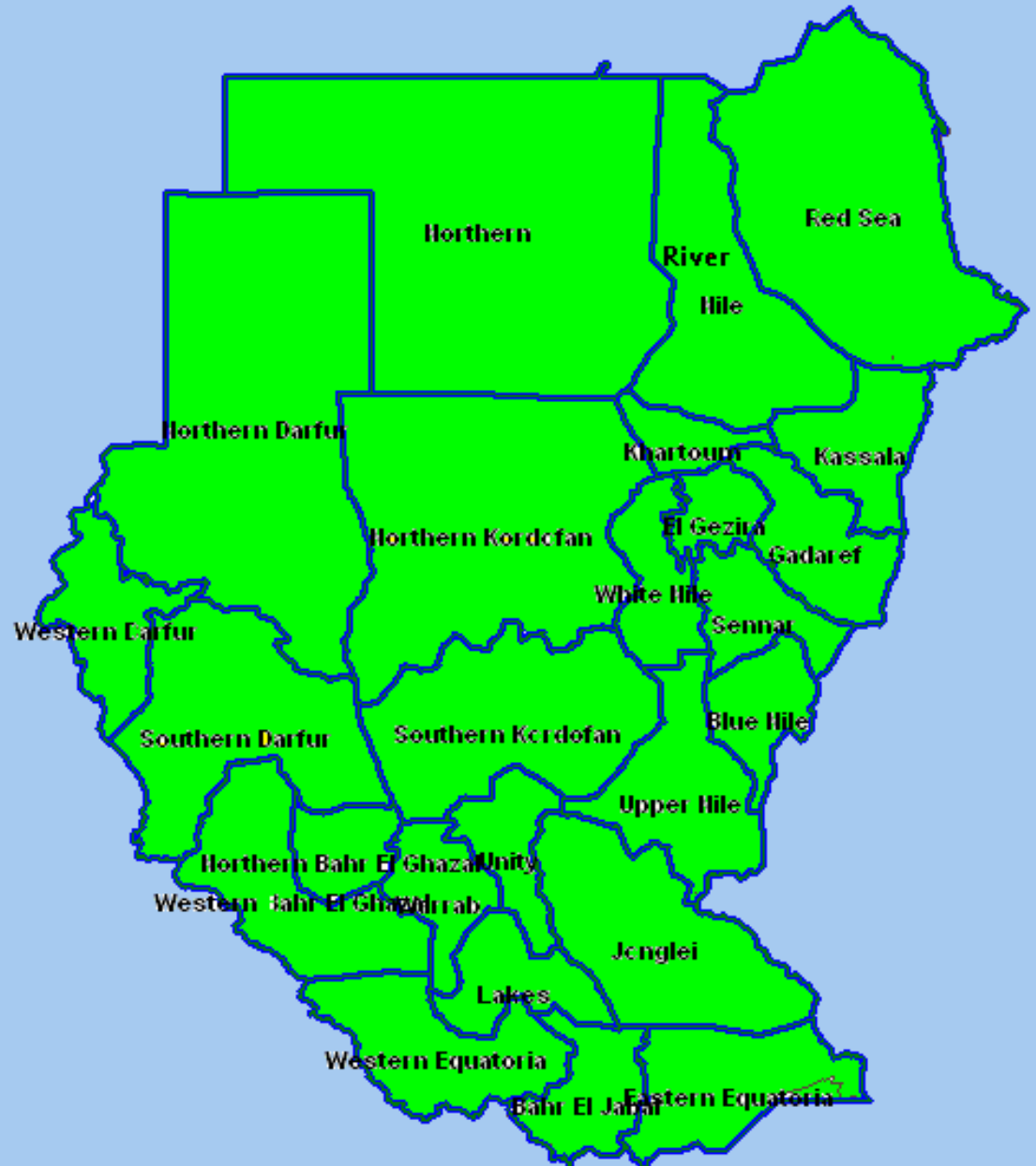
# Fig 21. Distribution of AFP cases by classification and week of onset, Sudan 2007 – 2008\*



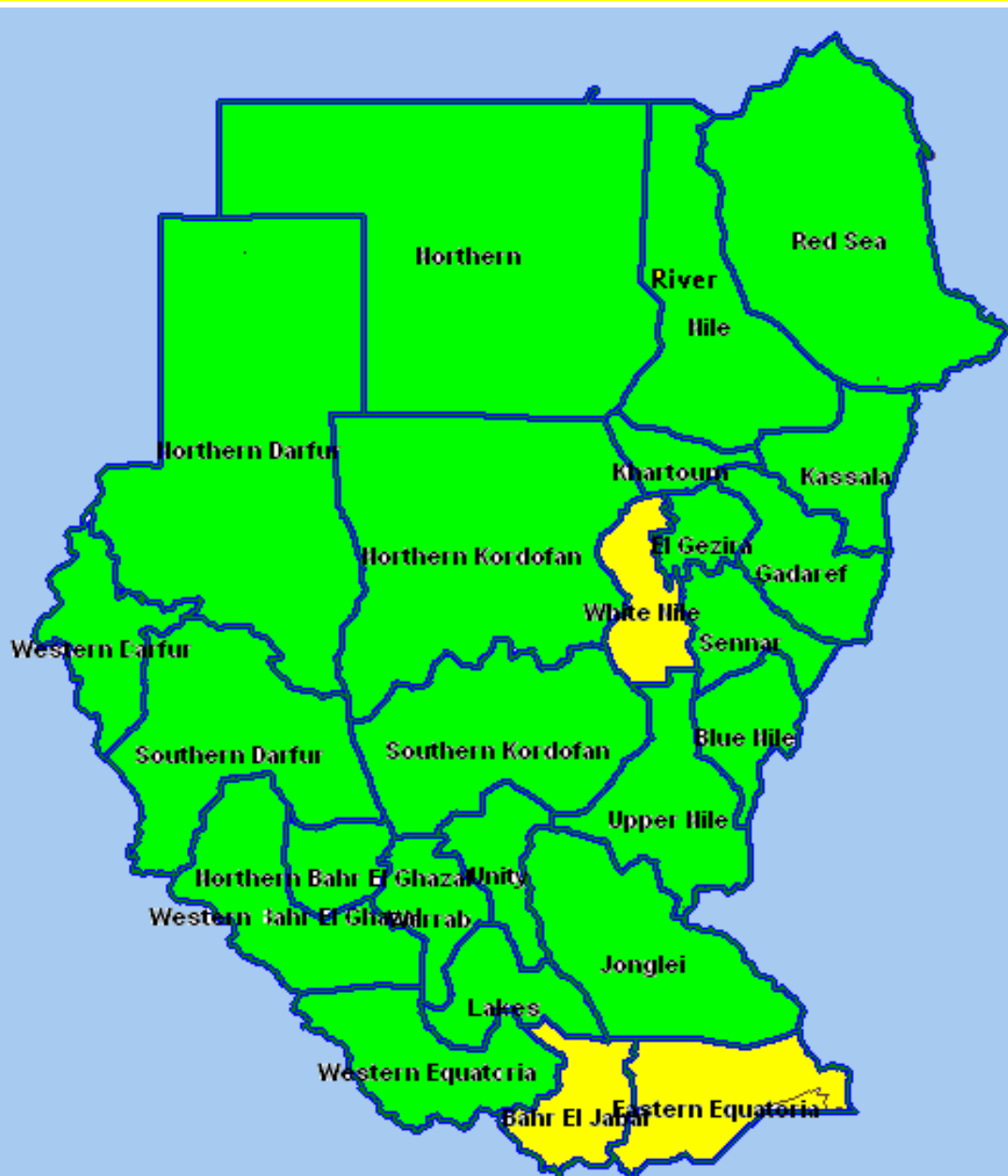
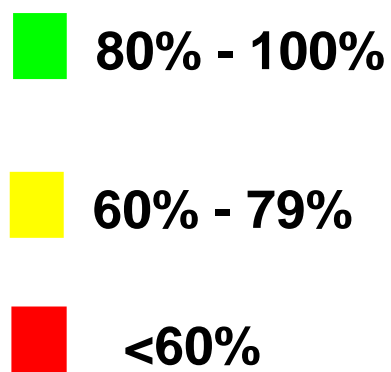
■ Non-polio 
 ■ Pending classification 
 ■ Polio 
 ■ Compatible

\*Up to 7/12/08

**Map 3. Annualized non-polio AFP rate per 100,000 by state, up to week 49, 2008**



**Map 4. Percent distribution of AFP cases having adequate stool samples by state, up to week 49, 2008**



**Table 3. National polio lab performance indicators  
North Sudan, 2006-2008\***

Indicator	2006	2007	2008*
Total AFP cases tested in NPL	305	355	331
Cases with wild poliovirus	0	1	1
Cases with non-polio enterovirus	19%	15%	14%
Sabin like viruses No. & (%) from AFP cases	10 (3.3%)	10 (3%)	5 (1.6%)
Median days from the time of samples received in the lab to primary culture report or L20B result	18 days	14 days	11 days
Number of AFP contacts tested in the NPL	121	326	364
Contacts with non-polio enterovirus	12.4%	10.4%	7.8%
Sabin like viruses No. & (%) from contacts	6(5%)	4(1%)	6(1.9%)
Number of contacts with wild poliovirus P1	0	2	0
Number of healthy children with wild poliovirus P1	0	1	0

\*Up to 7/12/08

## Table 4. Polio lab performance North Sudan, 2007 and 2008

Week of onset	Total AFP Cases	AFP Cases under process	L20B +ve pending ITD	Negative cases	NPEV positive	% NPEV	Result reported within 14 days*	Arrival within 3 days of being collected	Arrival within 3 days of being sent
2007 up to week 49	355	0	0	283	52	15.5 %	100%**	76.8%	97.4%
2008 up to week 49	331	13	0	275	43	14 %	94.7%	69.9%	98.8%

\* The time for reporting Lab result has changed from 28 days to 14 days as Sudan has applied the new algorithm in culturing stool samples.

\*\* As per the old algorithm (result to be reported within 28 days).

\*Up to 7/12/08

# Fig 22. Specimens' timeliness, NPL, 2007-2008\*

Paralysis onset

2007

Stool Collected

Stool in lab

Culture results reported

ITD results reported

8 days

2.9 days

14 days

13 days

Average=25

Primary Culture result from Date of onset Average=35

ITD result from date of onset

2008\*

6 days

3 days

12 days

14 days

Average=21

Primary Culture result from Date of onset

Average=31

ITD result from date of onset

N=4 cases

\*Up to 7/12/08