








Sudan Weekly AFP Surveillance Report

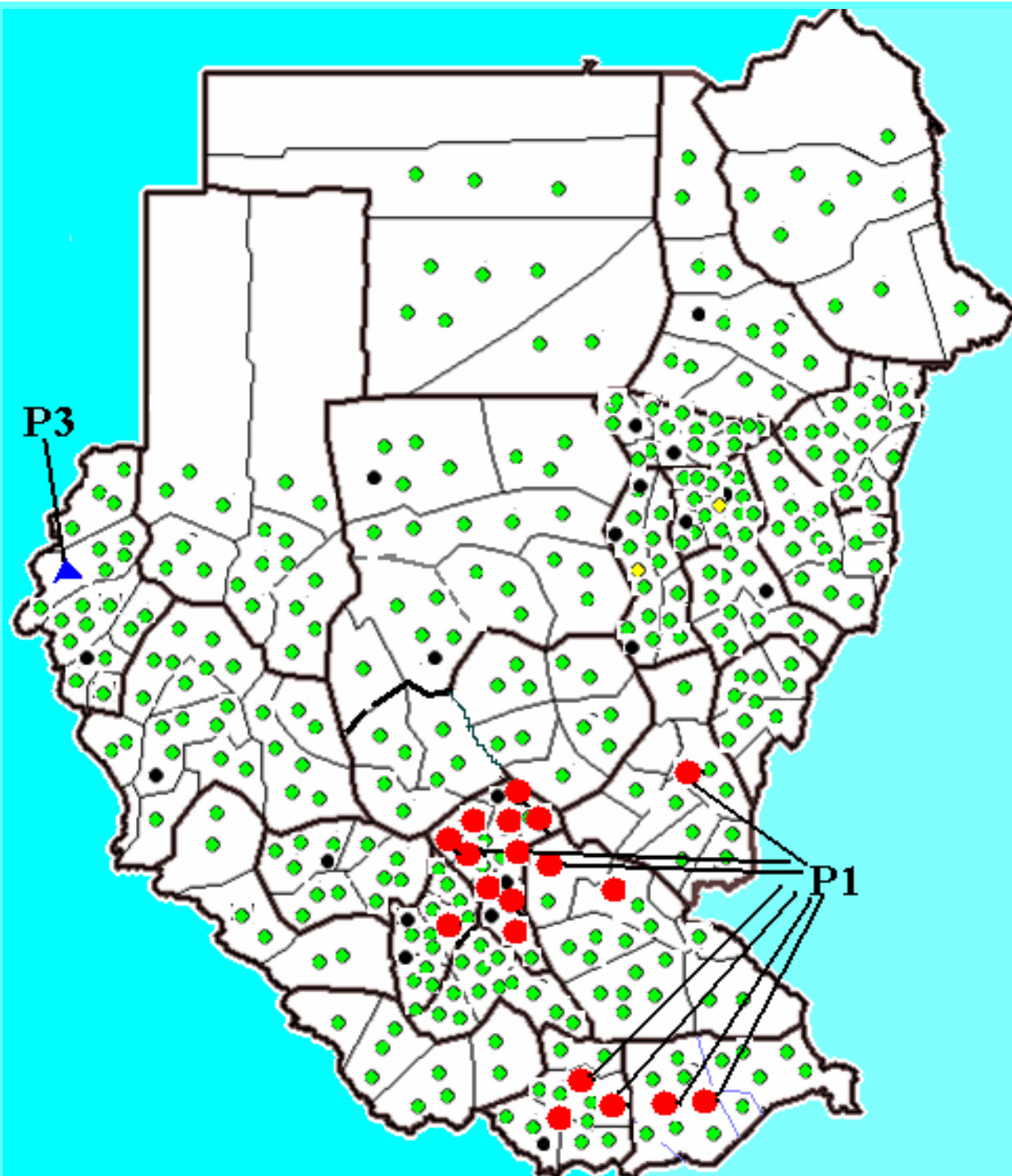
Week 1

(Ending on 4 January 2009)

**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



Total AFP cases, 2006-2008

Fig 1. Total SUDAN AFP cases reported

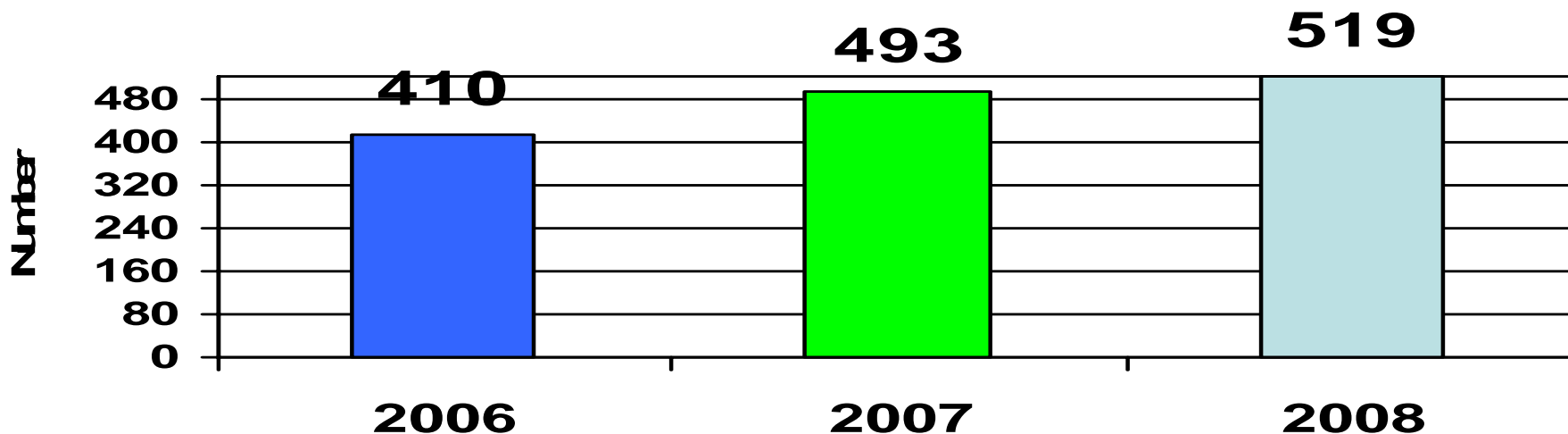


Fig 2. North Sudan AFP cases reported

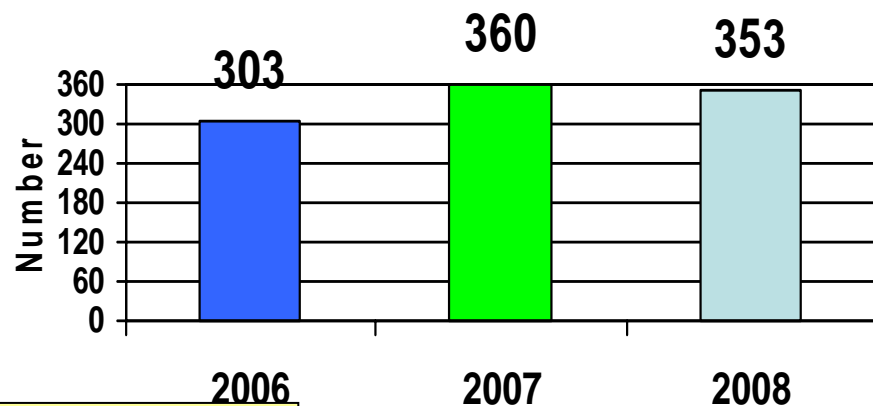
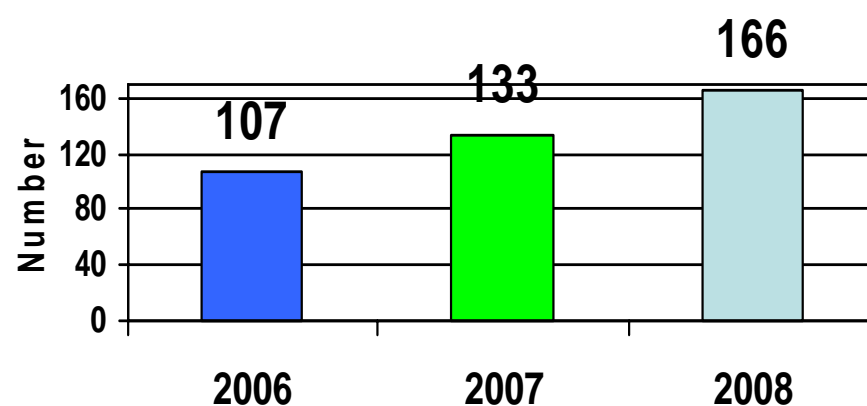


Fig 3. Southern Sudan AFP cases reported



Up to 4/1/09

Fig 4. Total SUDAN AFP cases by age group, 2008

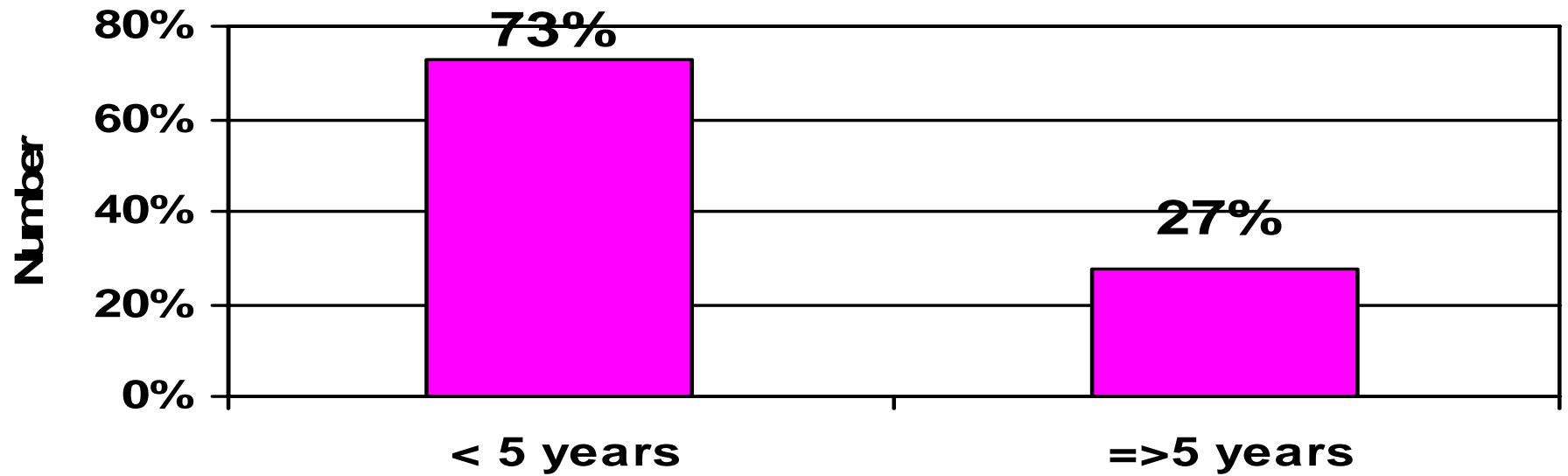


Fig 5. North SUDAN AFP cases by age group, 2008

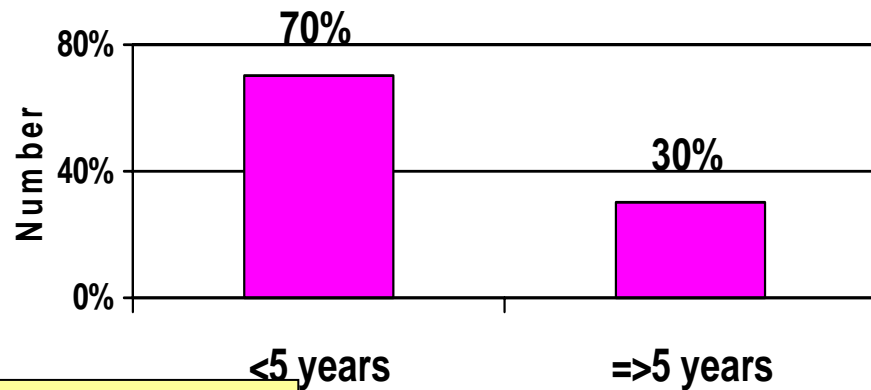
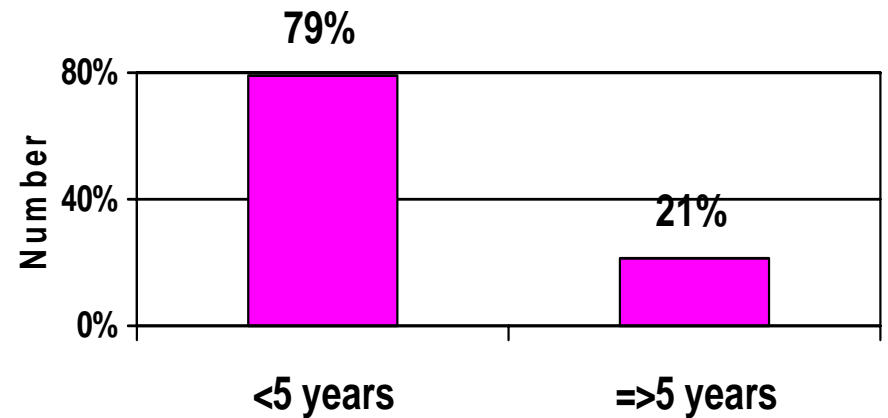


Fig 6. South SUDAN AFP cases by age group, 2008



Up to 4/1/09

Figure 7. Percent distribution of AFP cases by time of detection, Sudan, 2008

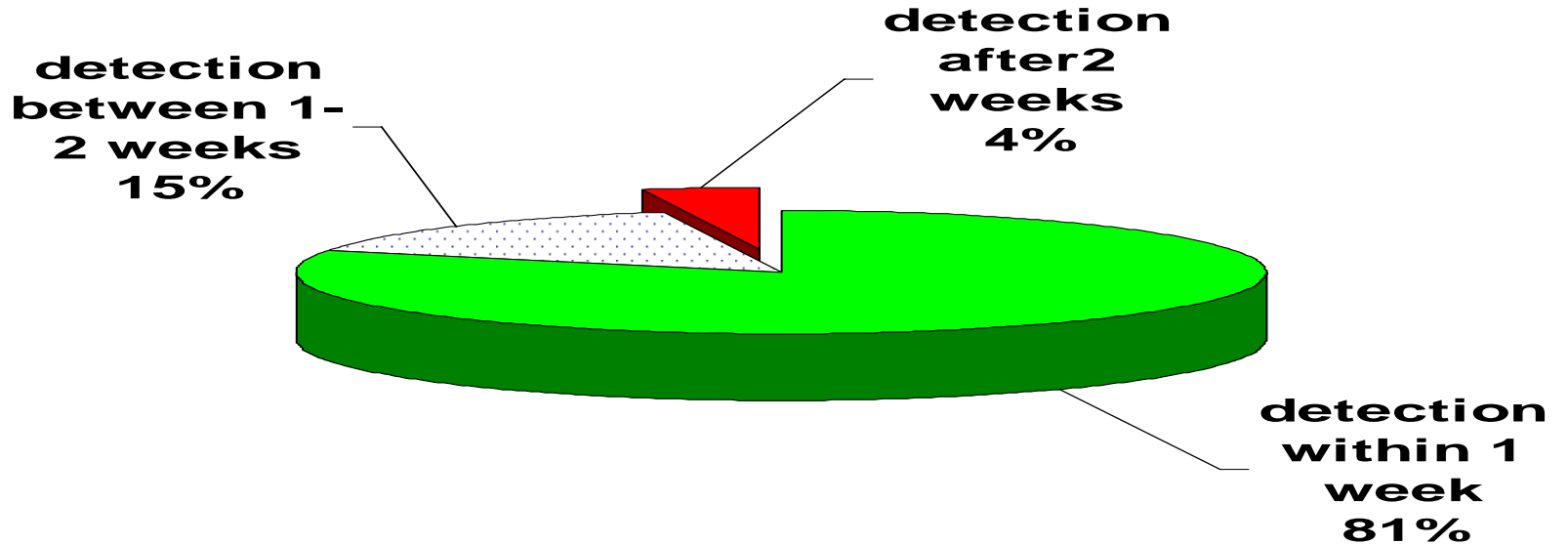


Figure 8. Percent distribution of AFP cases by time of detection, North Sudan, 2008

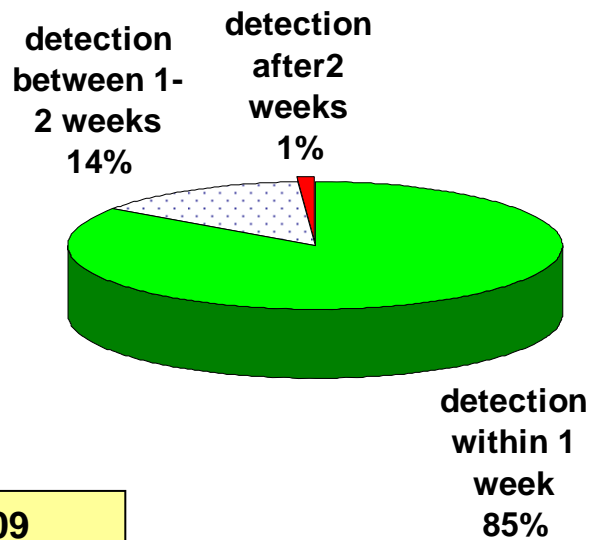
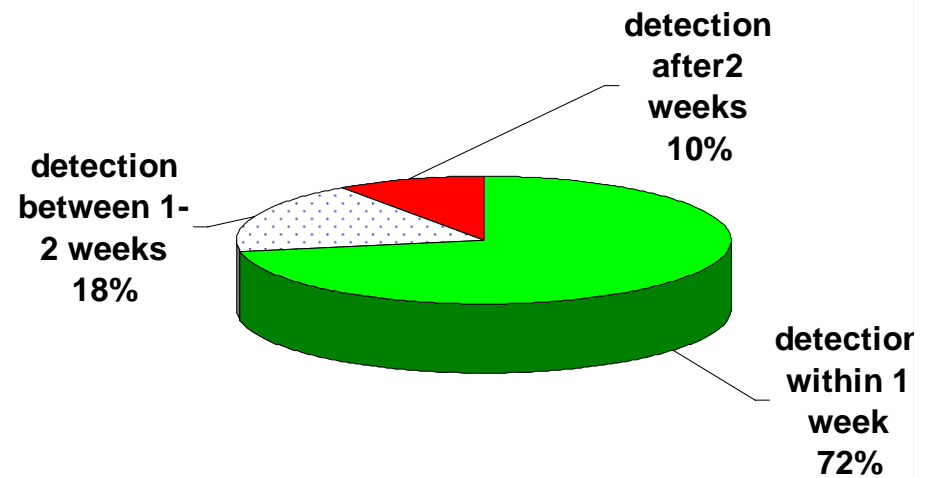


Figure 9. Percent distribution of AFP cases by time of detection, Southern Sudan, 2008



Up to 4/1/09

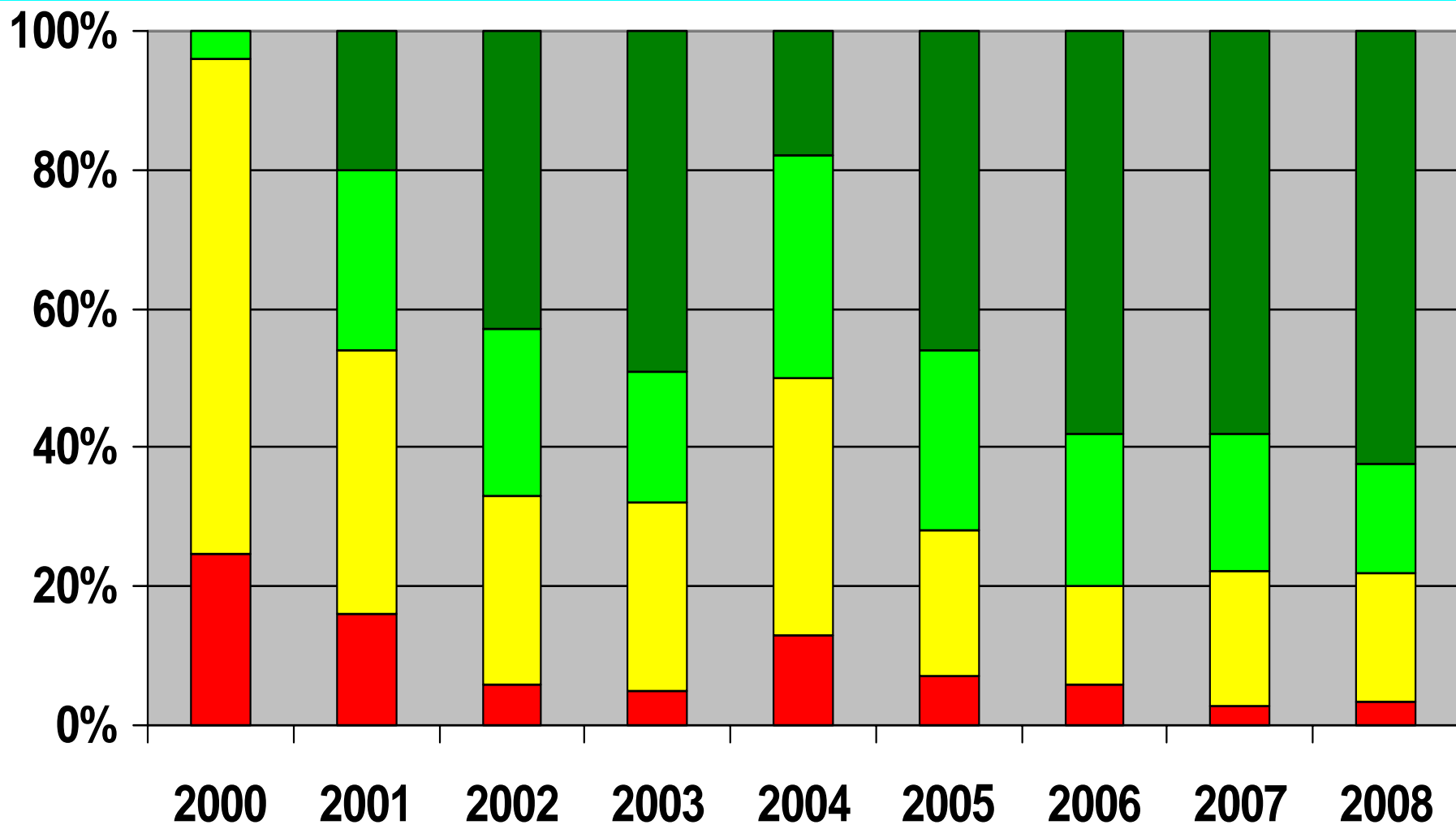
Table 1. Major AFP surveillance performance indicators, Northern States, 2008

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	13	12	1	0	0	100%	3.9	17%
Gedarif	783,014	18	18	0	0	0	100%	2.3	11%
Gezira	1,768,855	45	43	2	0	0	98%	2.5	12%
Kasala	776,264	20	20	0	0	0	100%	2.6	15%
Khartom	2,154,959	51	49	2	0	0	100%	2.4	17%
N.Darf	786,139	21	20	1	0	0	95%	2.7	20%
N.Kord	1,206,410	30	28	2	0	0	100%	2.5	11%
Northern	254,978	10	10	0	0	0	80%	3.9	11%
Red Sea	327,066	11	11	0	0	0	100%	3.4	18%
River Nile	437,544	17	16	1	0	0	100%	3.9	13%
Sennar	665,628	15	15	0	0	0	93%	2.3	13%
S.Darfur	1,579,911	35	34	1	0	0	100%	2.2	9%
S. Kord	922,086	21	21	0	0	0	100%	2.3	14%
W.Darfur	884,736	23	21	1	1	0	96%	2.5	14%
W. Nile	775,659	23	19	3	0	1	78%	3.0	16%
Total	13,658,598	353	337	14	1	1	97%	2.6	14%

Table 2. Major AFP surveillance performance indicators, Southern States, 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	15	11	1	3	0	80%	5.5	7%
E. Equatoria	214,239	14	12	0	2	0	79%	5.6	36%
Lakes	218,533	16	16	0	0	0	100%	7.3	13%
Jongli	431,881	22	20	0	2	0	100%	4.6	23%
N.Bahr Elgazal	328,795	16	15	1	0	0	100%	4.9	0%
Unity	107,203	32	19	3	10	0	88%	20.5	10%
Upper Nile	215,941	9	8	0	1	0	89%	3.7	22%
Warap	431,884	27	24	2	1	0	81%	6.0	20%
W.Bahr Elgazal	109,597	6	6	0	0	0	83%	5.5	0%
W. Equatoria	201,500	9	9	0	0	0	100%	4.5	11%
Total	2,477,128	166	140	7	19	0	90%	5.9	16%

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 4/1/09

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

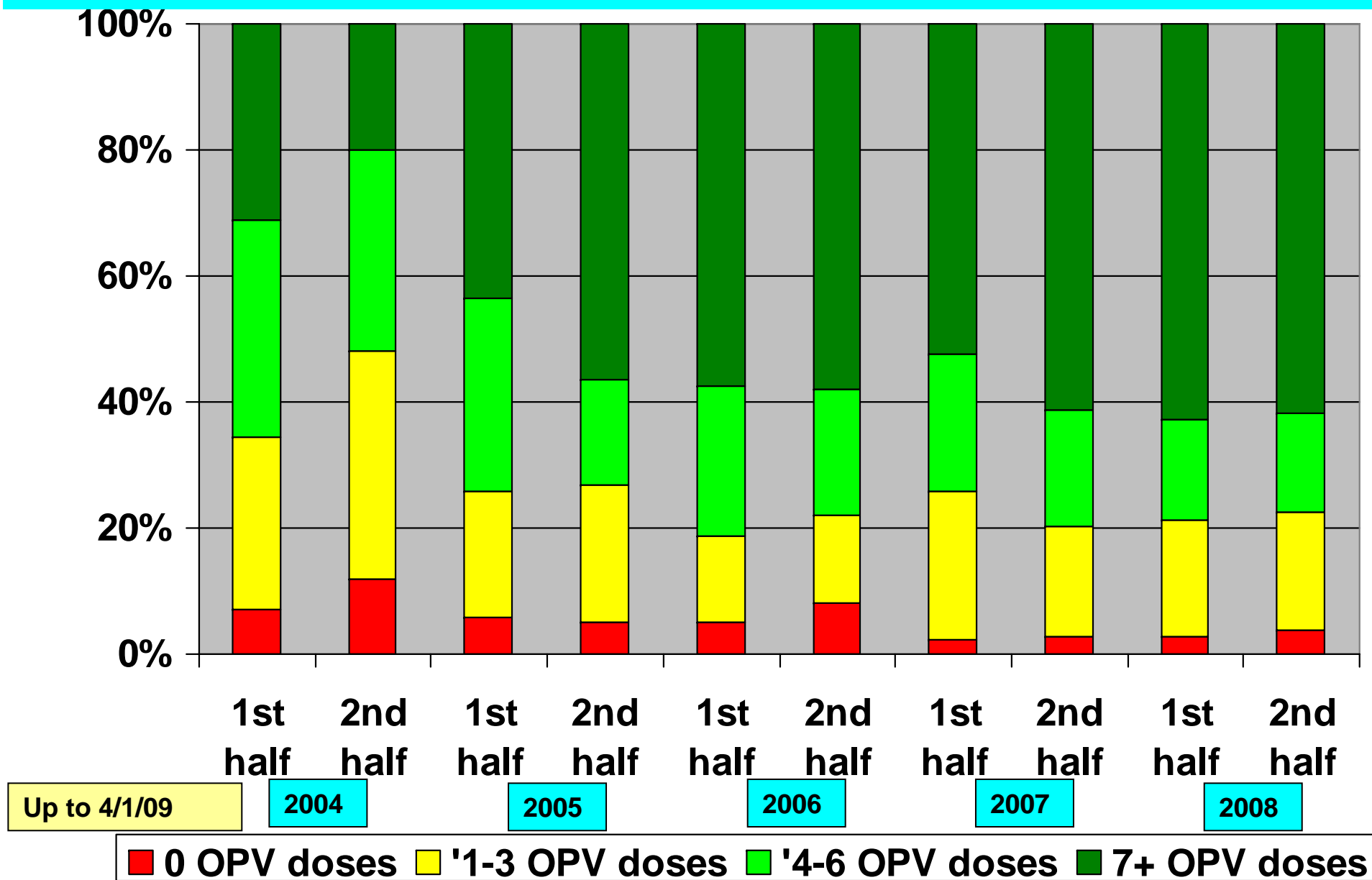
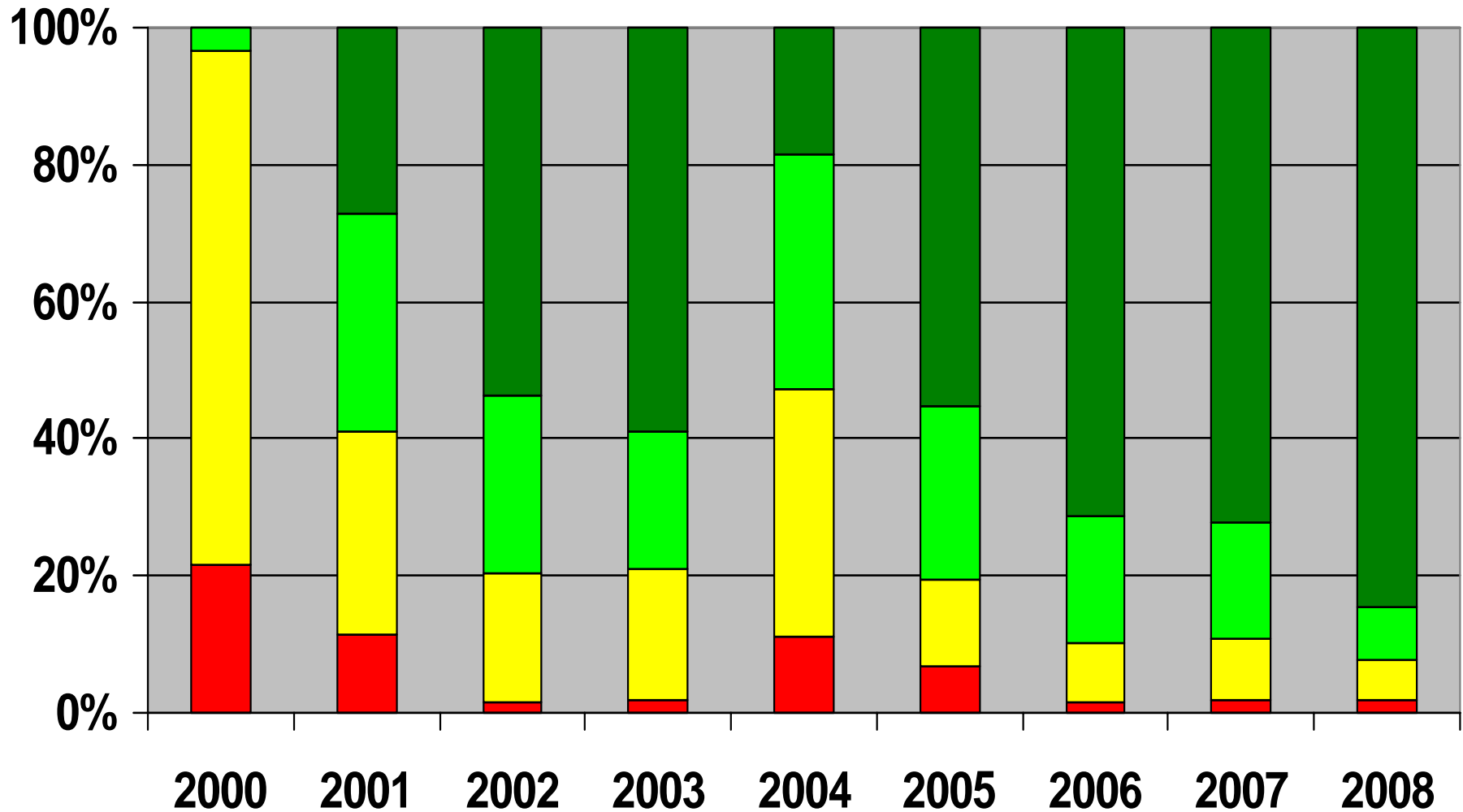


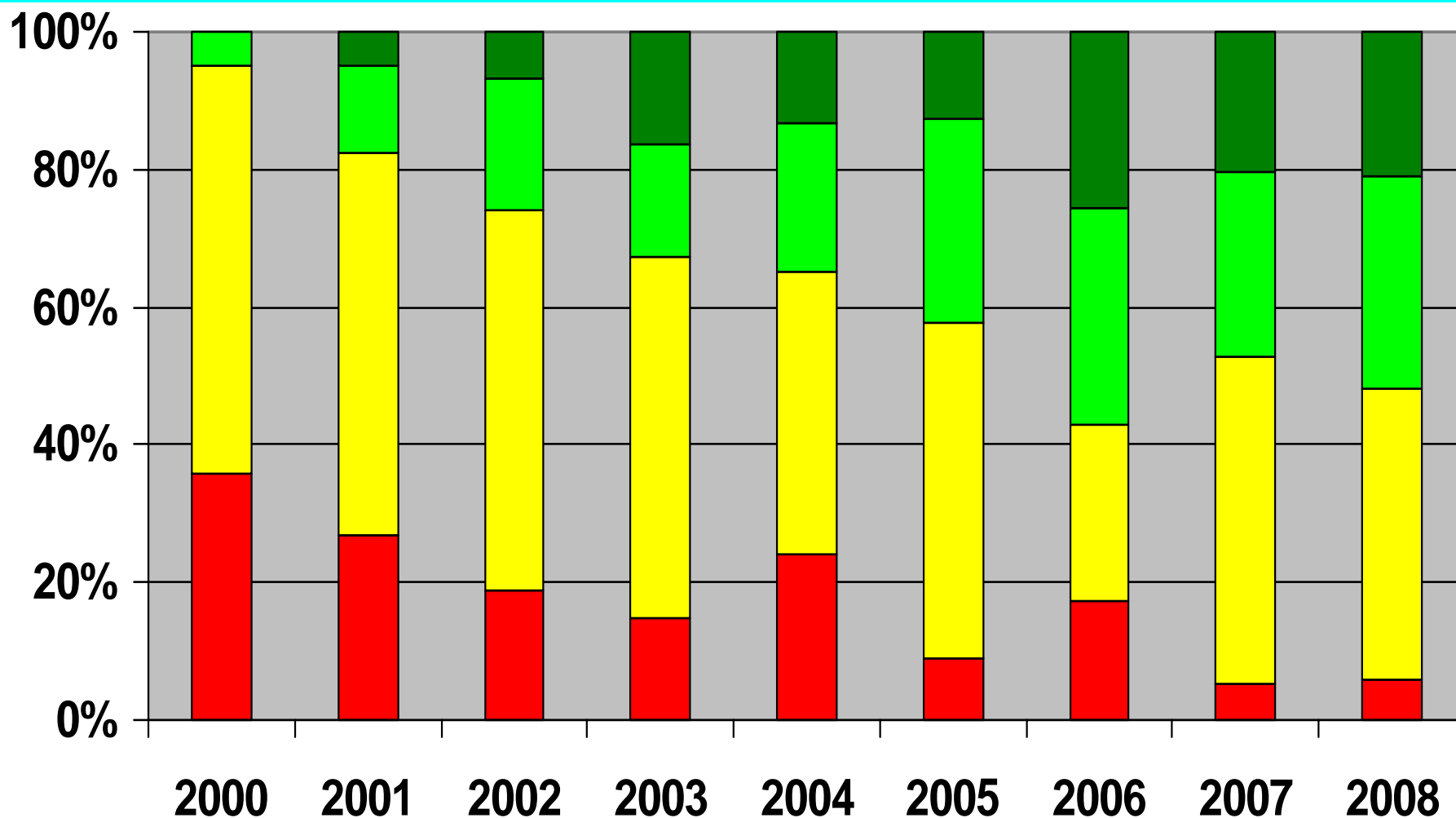
Fig 12. Percent distribution of AFP cases < 60 months by number of OPV doses, North Sudan 2000-08



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

Up to 4/1/09

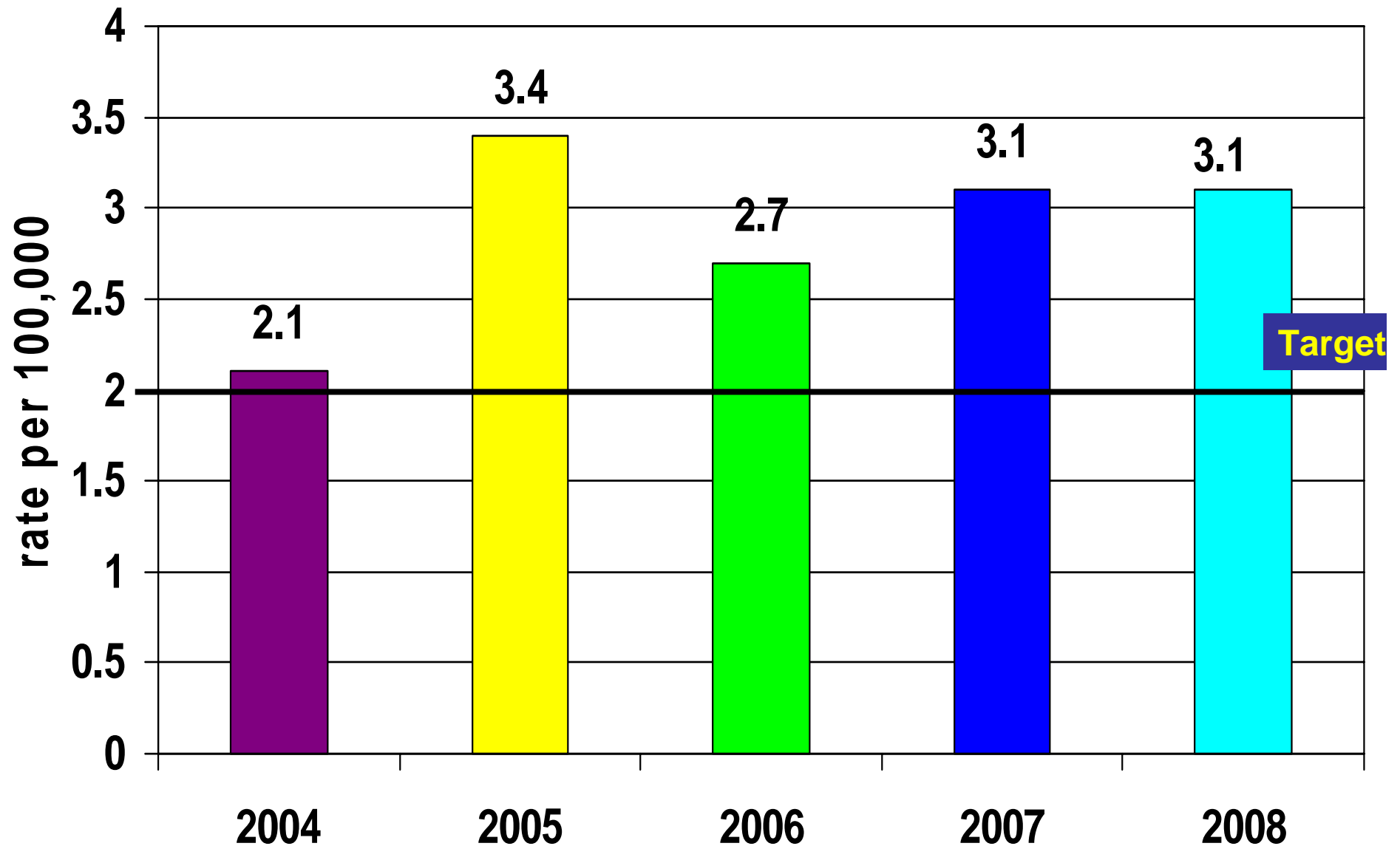
Fig 13. Percent distribution of AFP cases <60 months by number of OPV doses, South Sudan 2000-2008



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

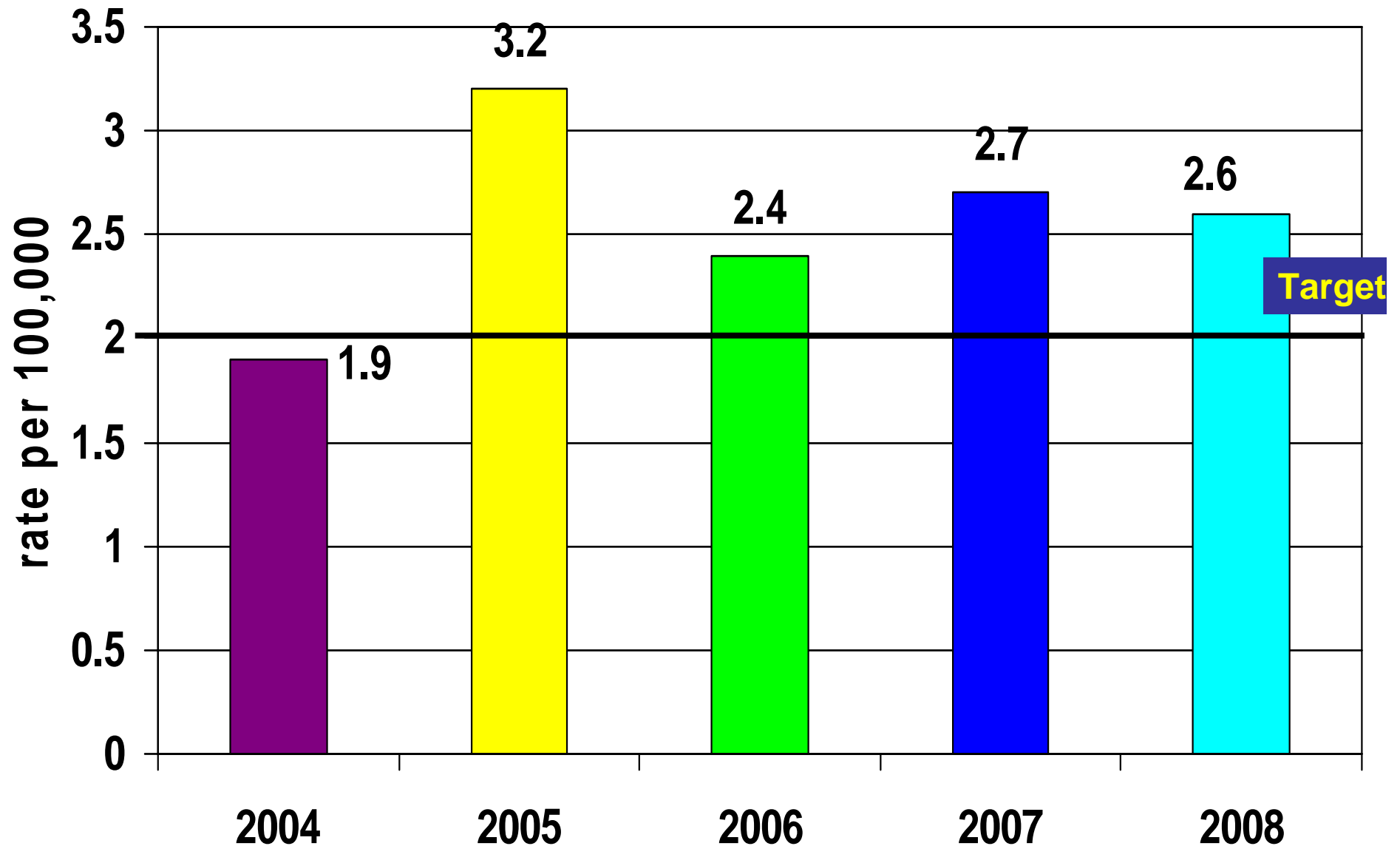
Up to 4/1/09

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



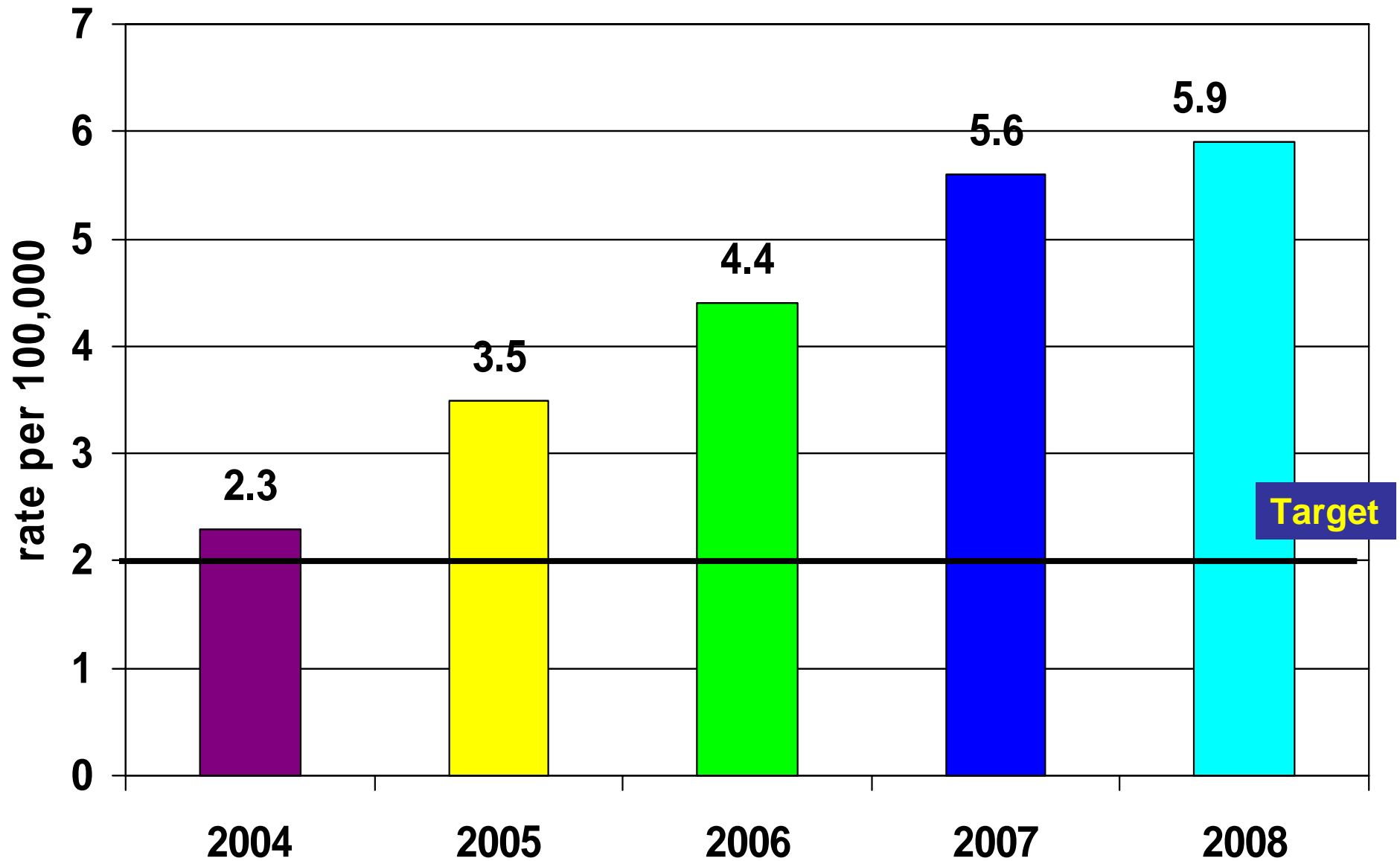
Up to 4/1/09

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



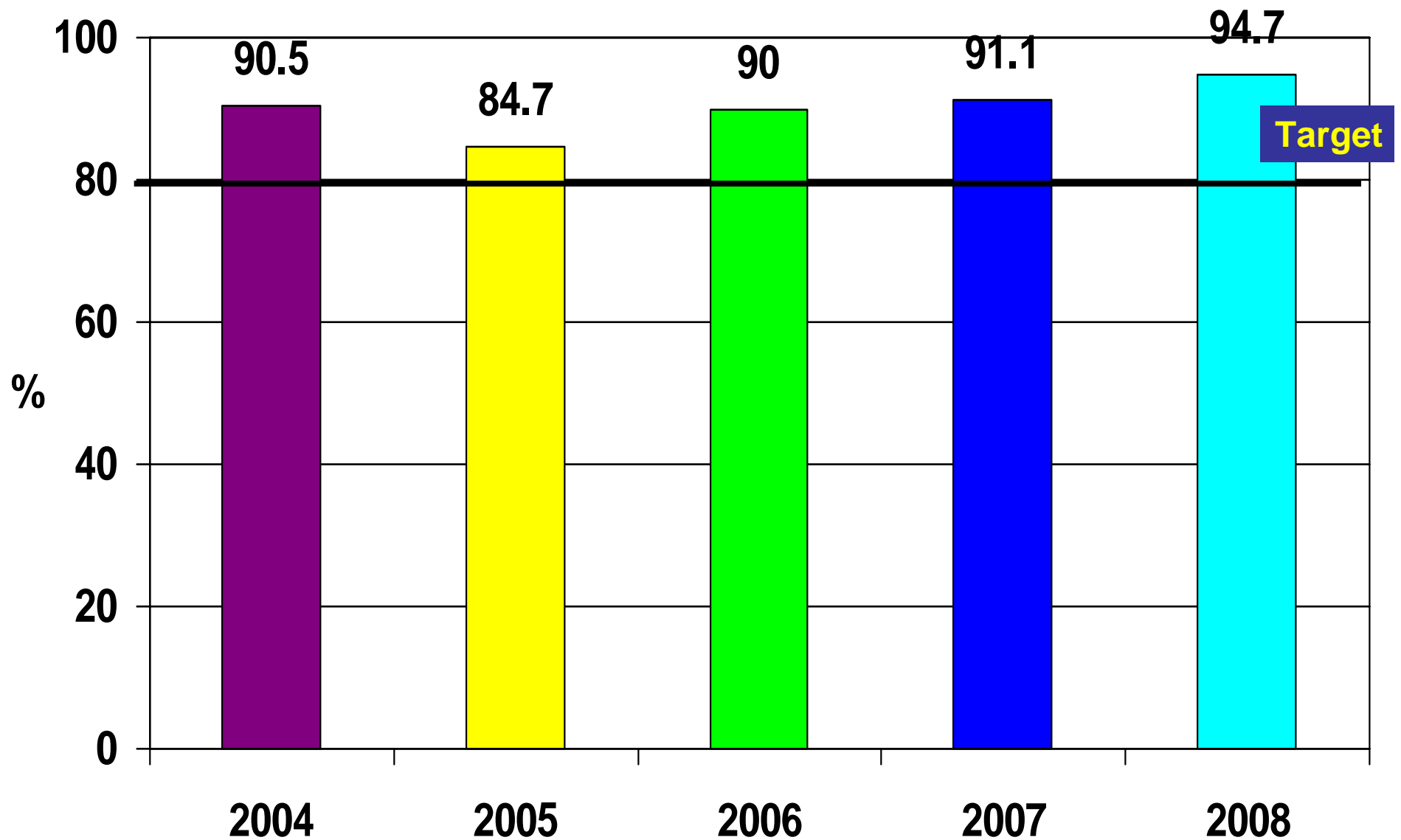
Up to 4/1/09

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



Up to 4/1/09

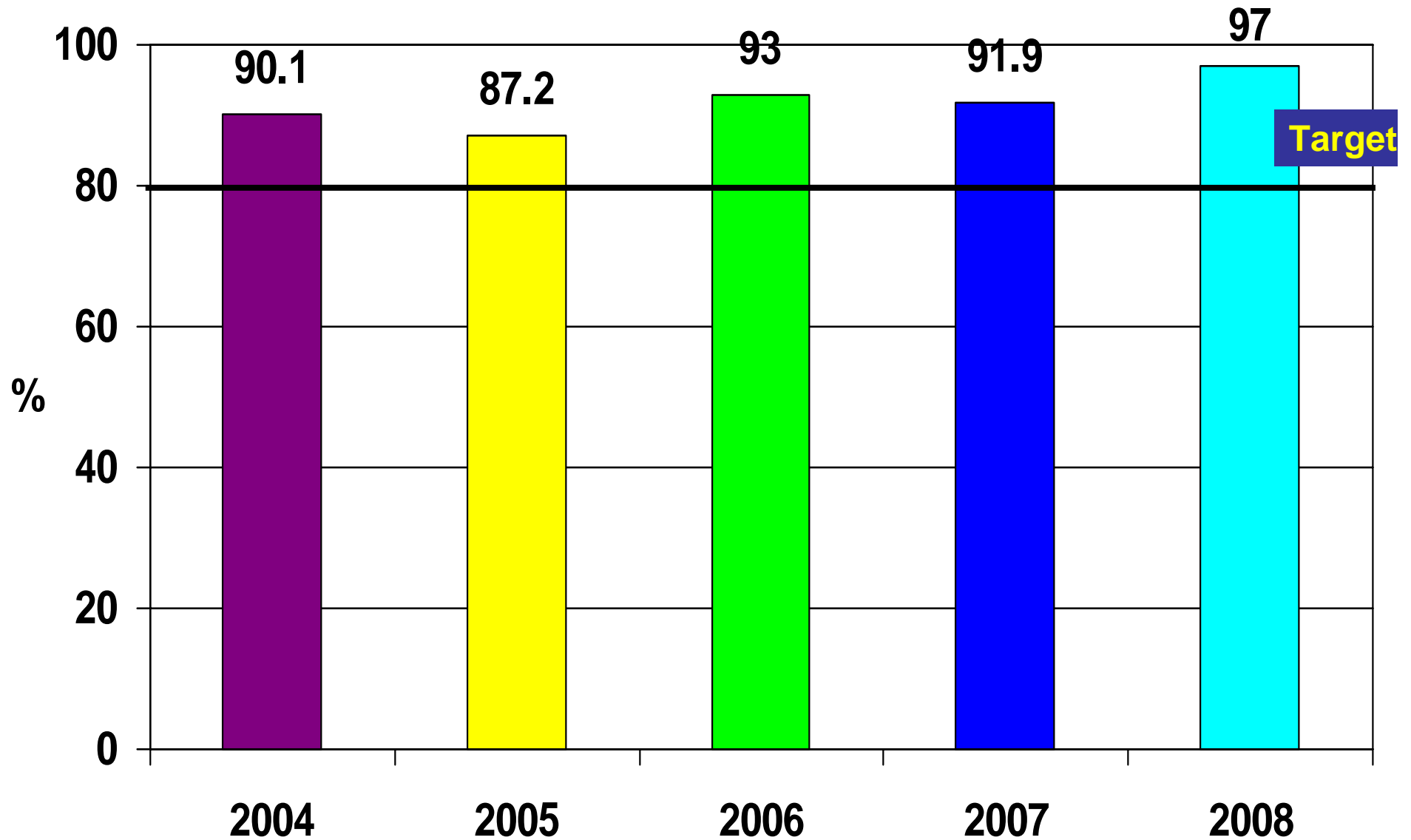
**Fig 17. Adequate stool collection rate, total Sudan
2004 – 2008**



Up to 4/1/09

Fig 18. Adequate stool collection rate

North Sudan, 2004 – 2008



Up to 4/1/09

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

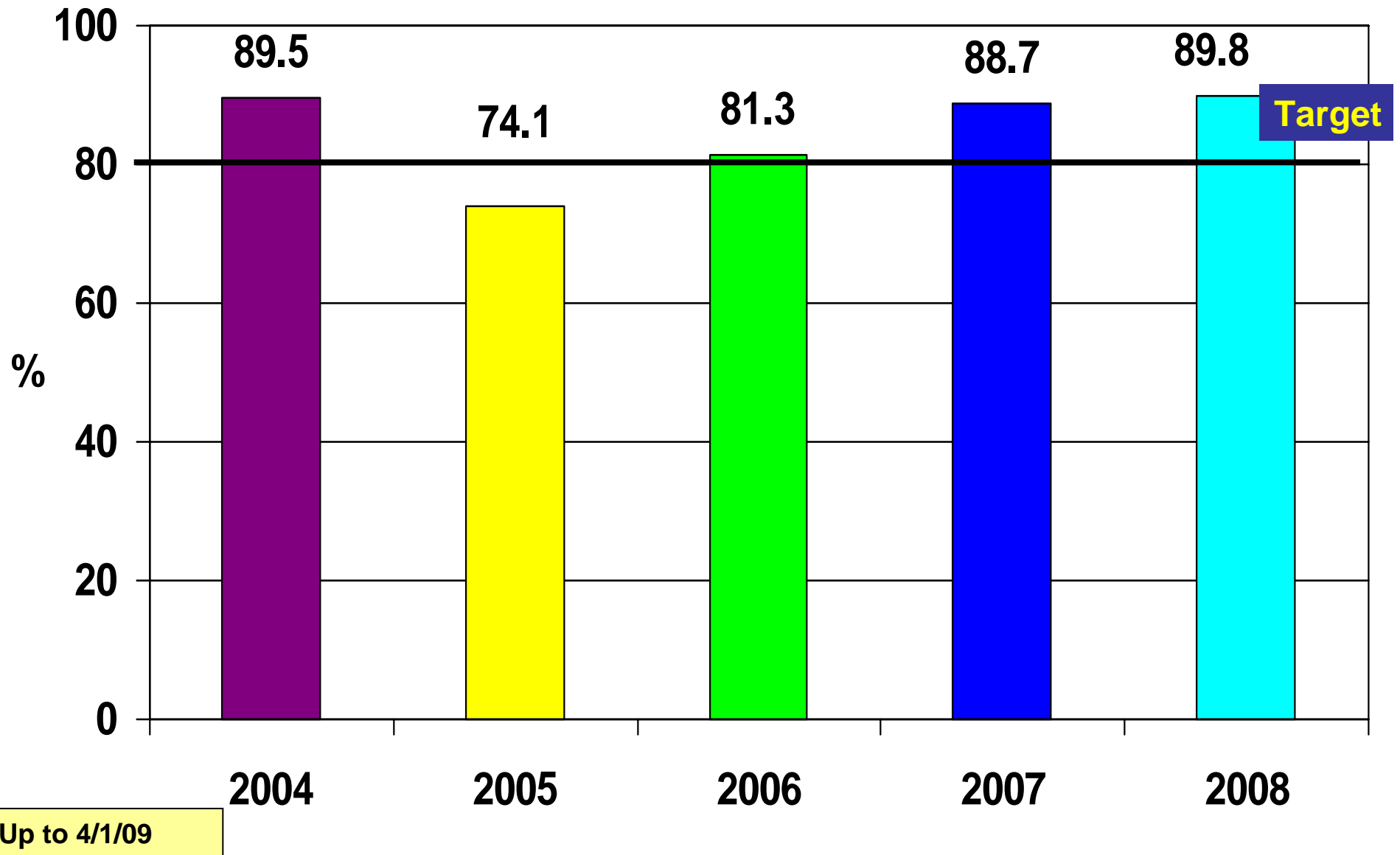
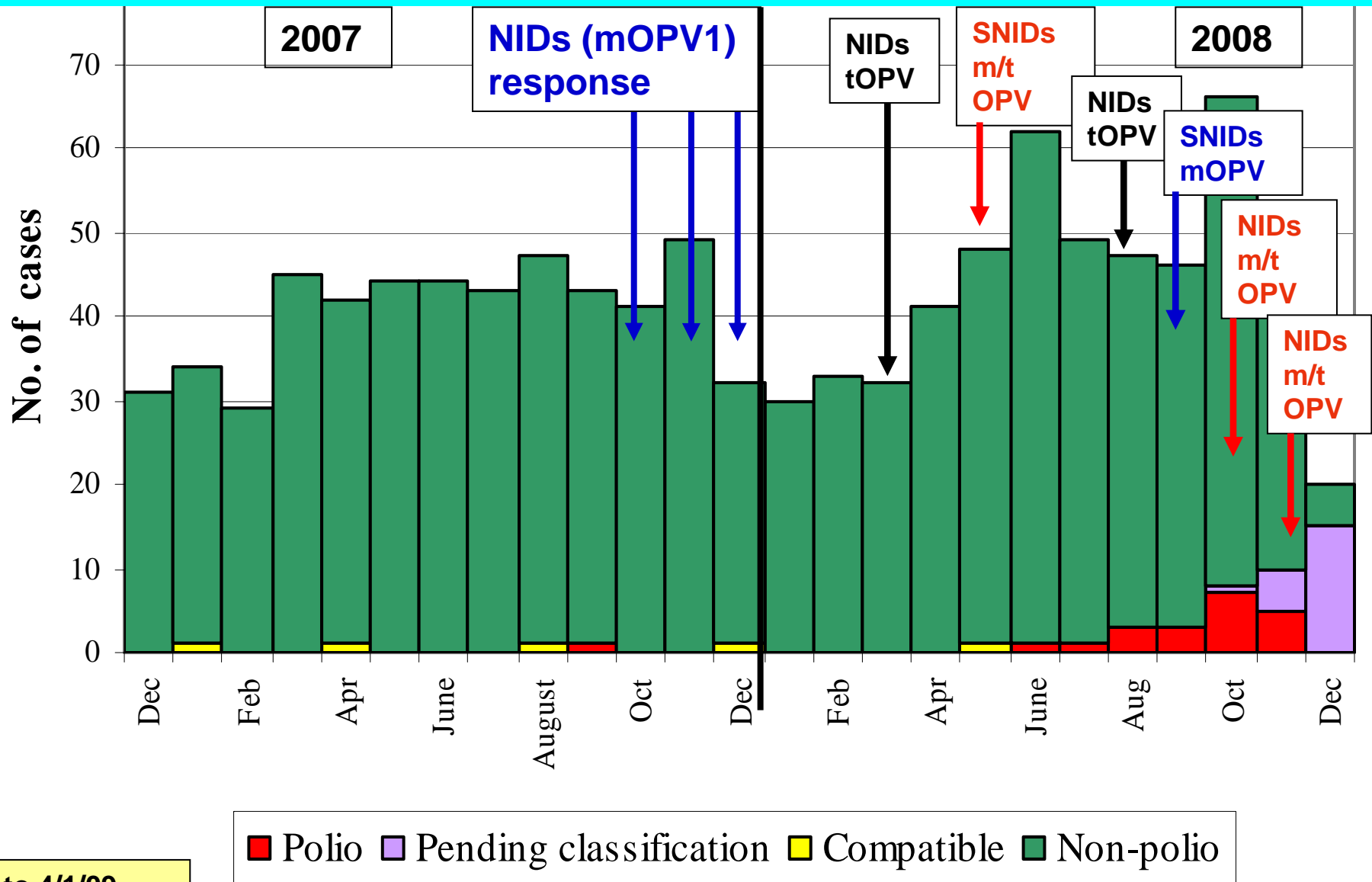
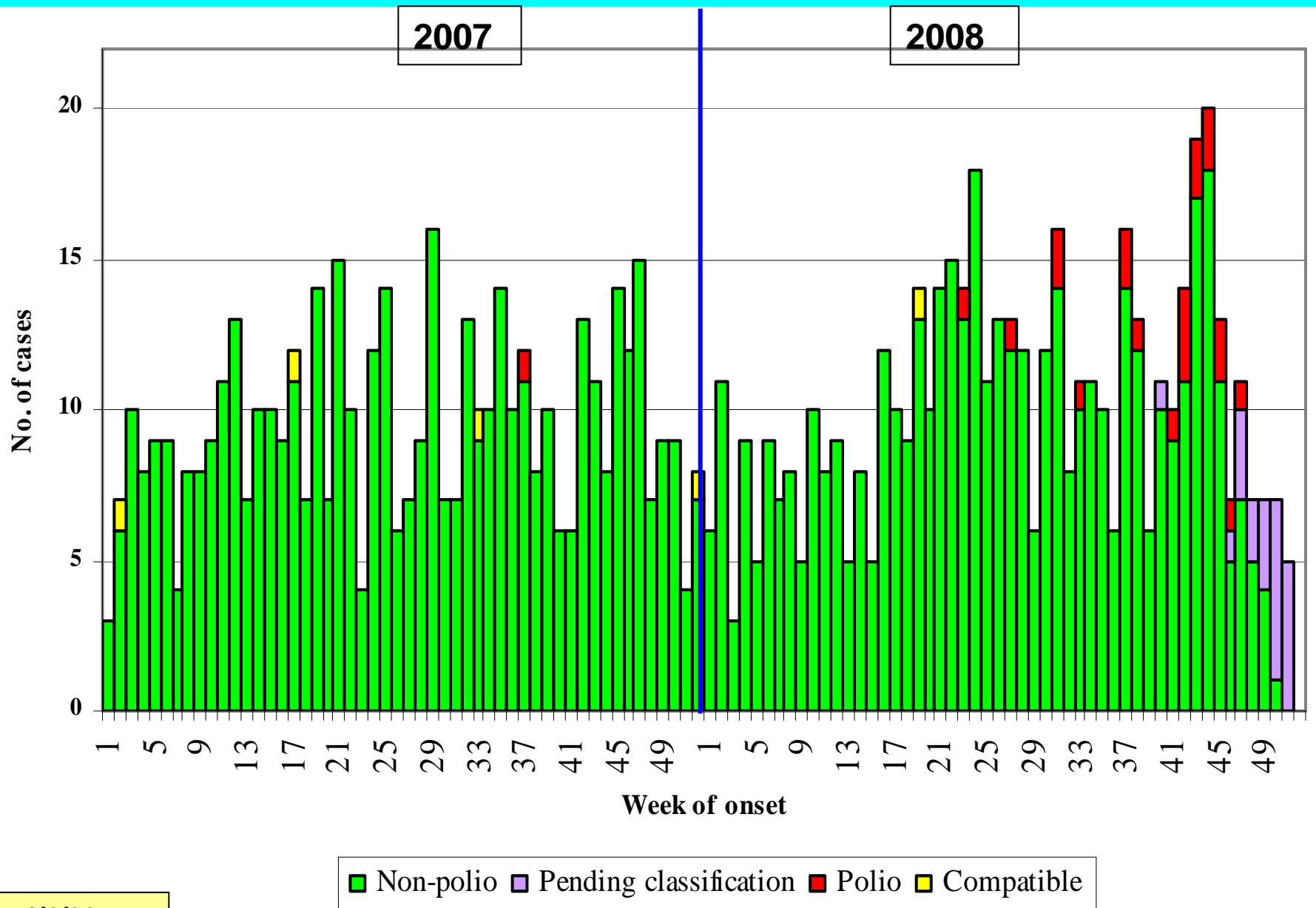


Fig 20. Distribution of polio and non-polio AFP Cases by classification, month of onset & SIA response to the poliovirus importation, total SUDAN 2007-08



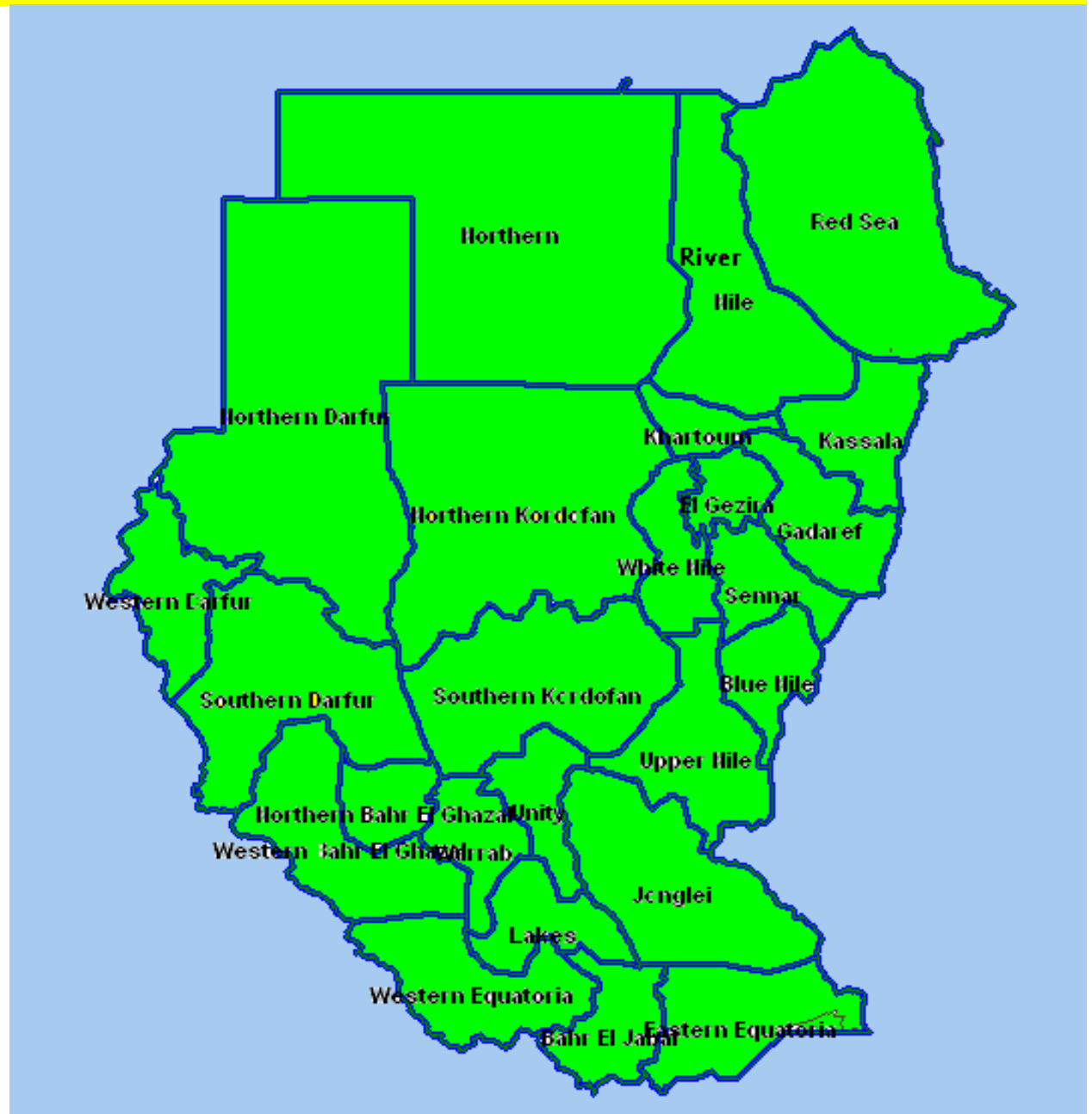
Up to 4/1/09

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



Up to 4/1/09

Map 3. Annualized non-polio AFP rate per 100,000 by state, 2008



Up to 4/1/09

Map 4. Percent distribution of AFP cases having adequate stool samples by state, 2008

80% - 100%

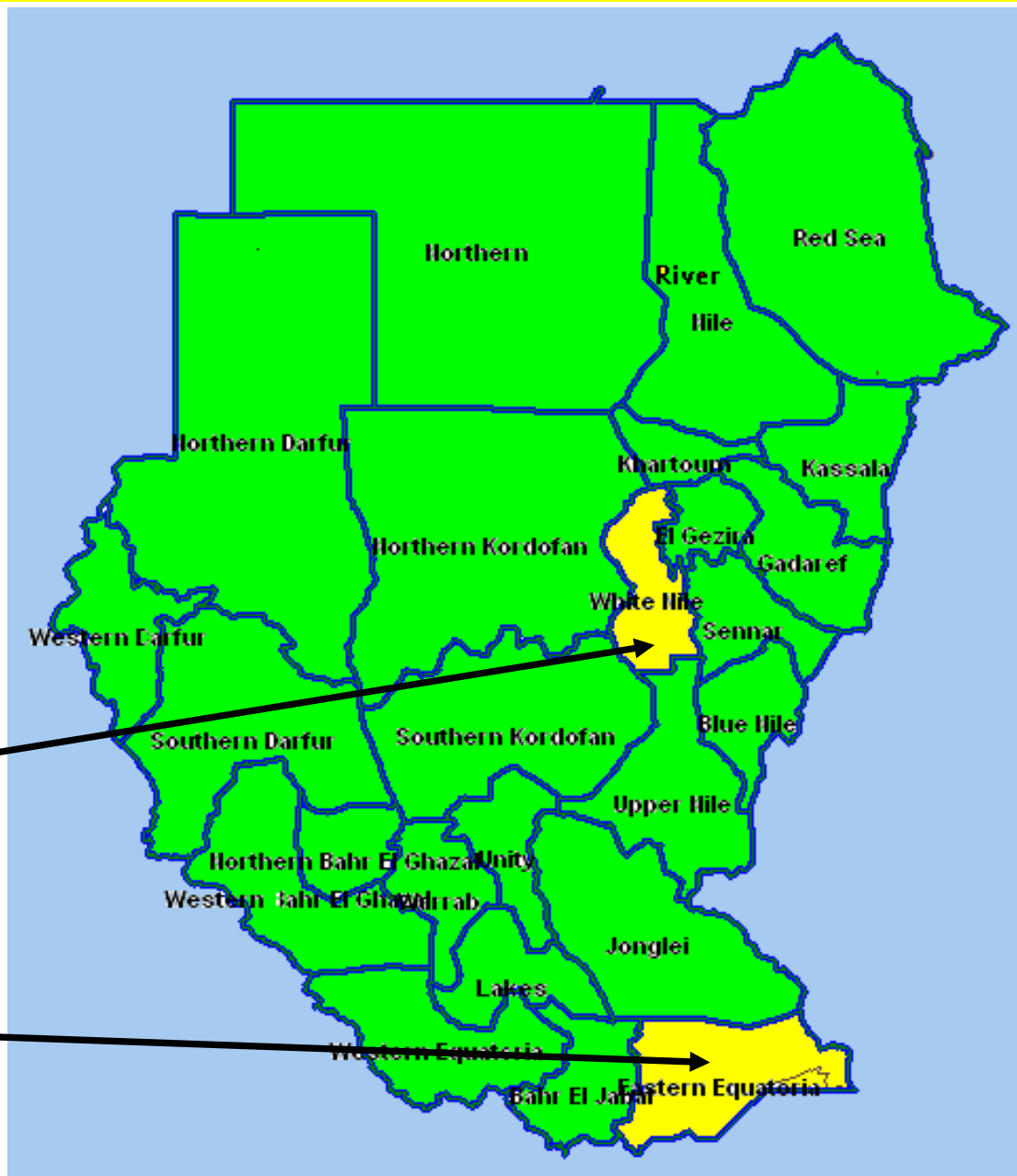
60% - 79%

<60%

• White Nile: 78% stool adequacy rate

• East Equatoria: 79% stool adequacy rate

Up to 4/1/09



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

Indicator	2006	2007	2008
Total AFP cases tested in NPL	305	355	352
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 (1.5%)
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	381
Contacts with non-polio enterovirus	12.4%	10.4%	7.9%
Sabin like viruses No. & (%) from contacts	6(5%)	4(1%)	6(1.6%)
Number of contacts with wild poliovirus P1	0	2	0
Number of healthy children with wild poliovirus P1	0	1	0

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

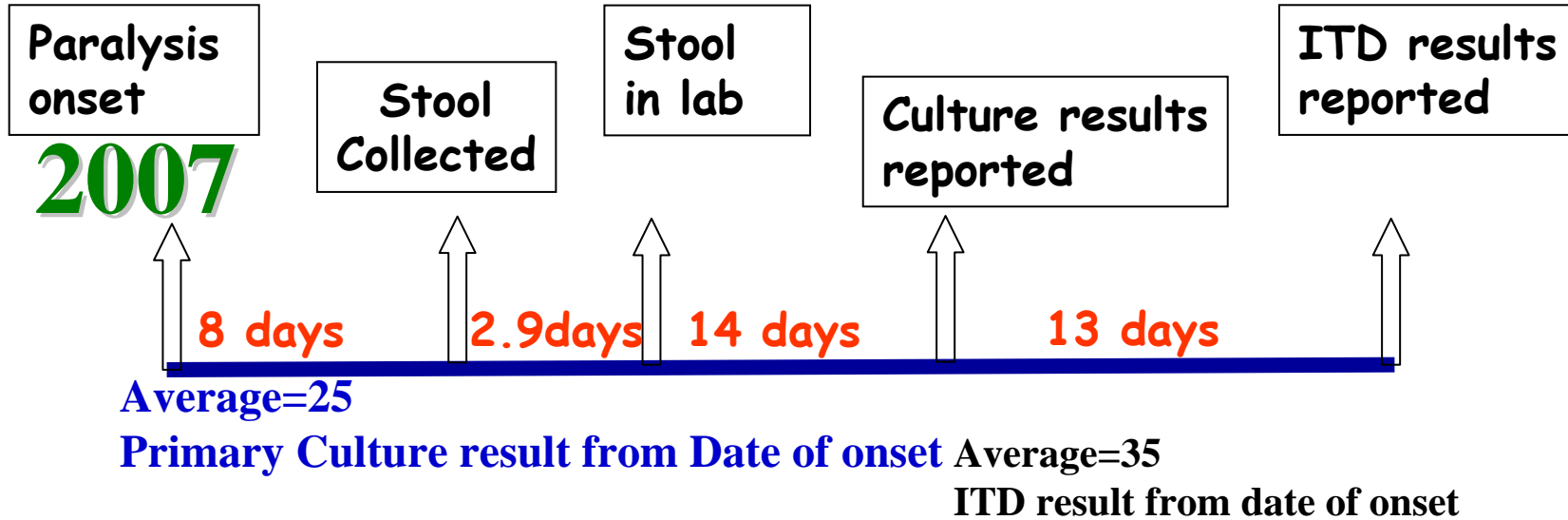
Week of onset	Total AFP Cases	AFP Cases under process	L20B +ve pending ITD	Negative cases	NPEV positive	% NPEV	Result reported within 14 days*	Arrival within 3 days of being collected	Arrival within 3 days of being sent
2007	355	0	0	302	53	15 %	100%**	74.9%	97.5%
2008	352	15	2	289	46	13.7 %	94.7%	69%	98%

* 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 4/1/09

Fig 22. Specimens' timeliness, NPL, 2007-2008



2008



Average=21
Primary Culture result from Date of onset

Average=31
ITD result from date of onset
N=4 cases

Up to 4/1/09