



World Health Organization

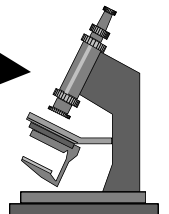
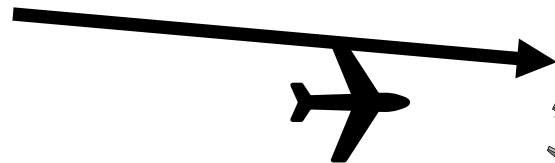
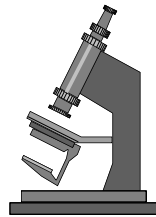
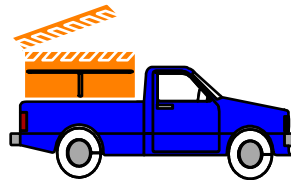
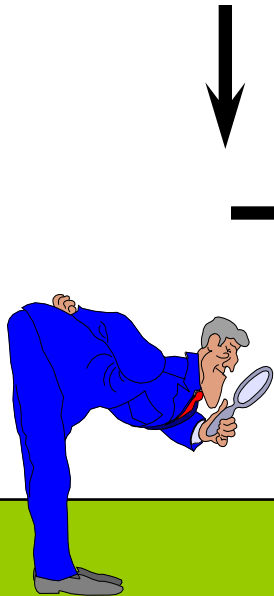


*Republic of Sudan*



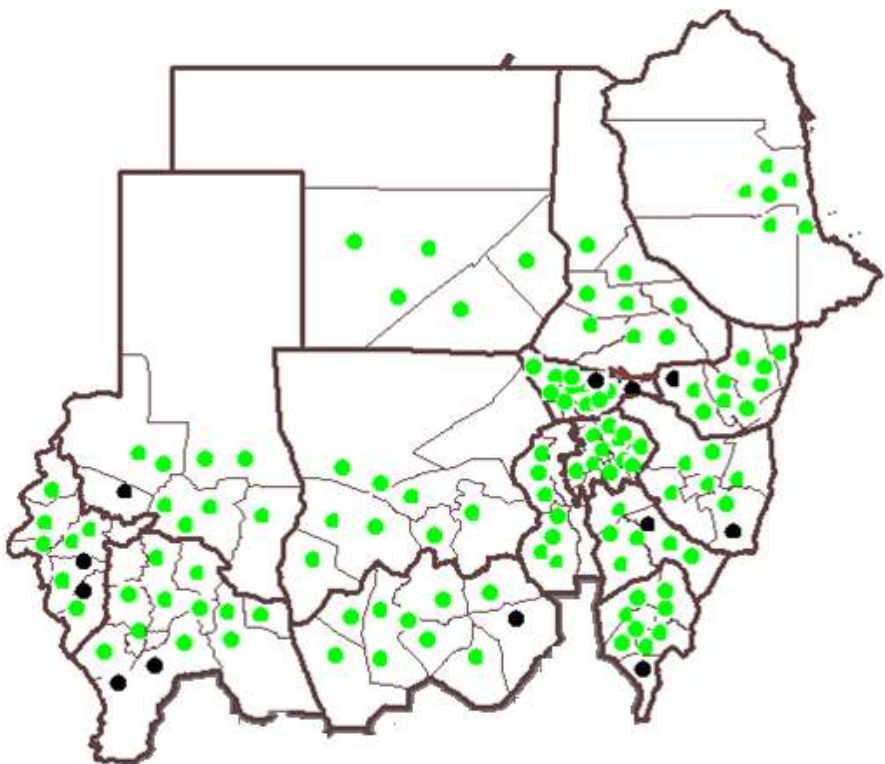
**Weekly AFP surveillance report  
week 22**

**Ending on 3 June 2012**

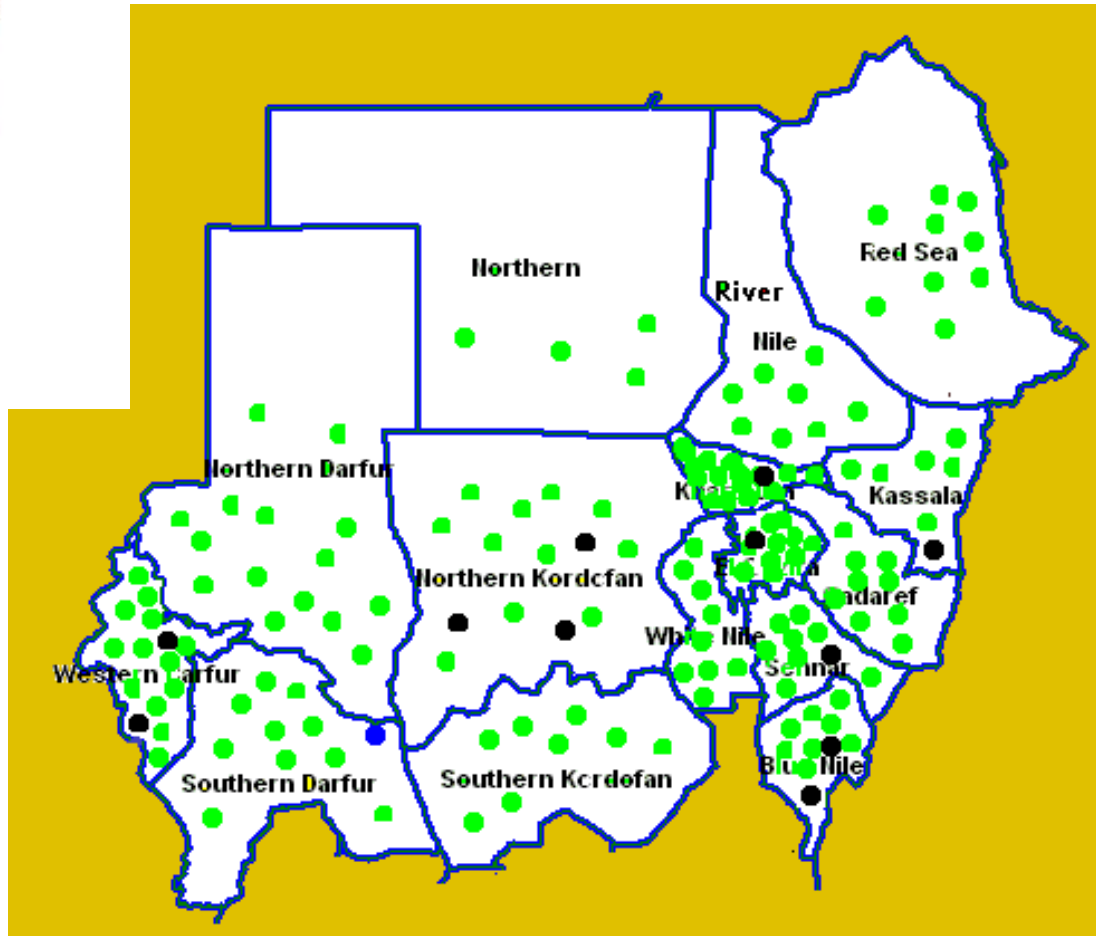


*AFP Surveillance central unit*

**Map 1. Distribution of AFP cases by classification, Sudan, 2011\***



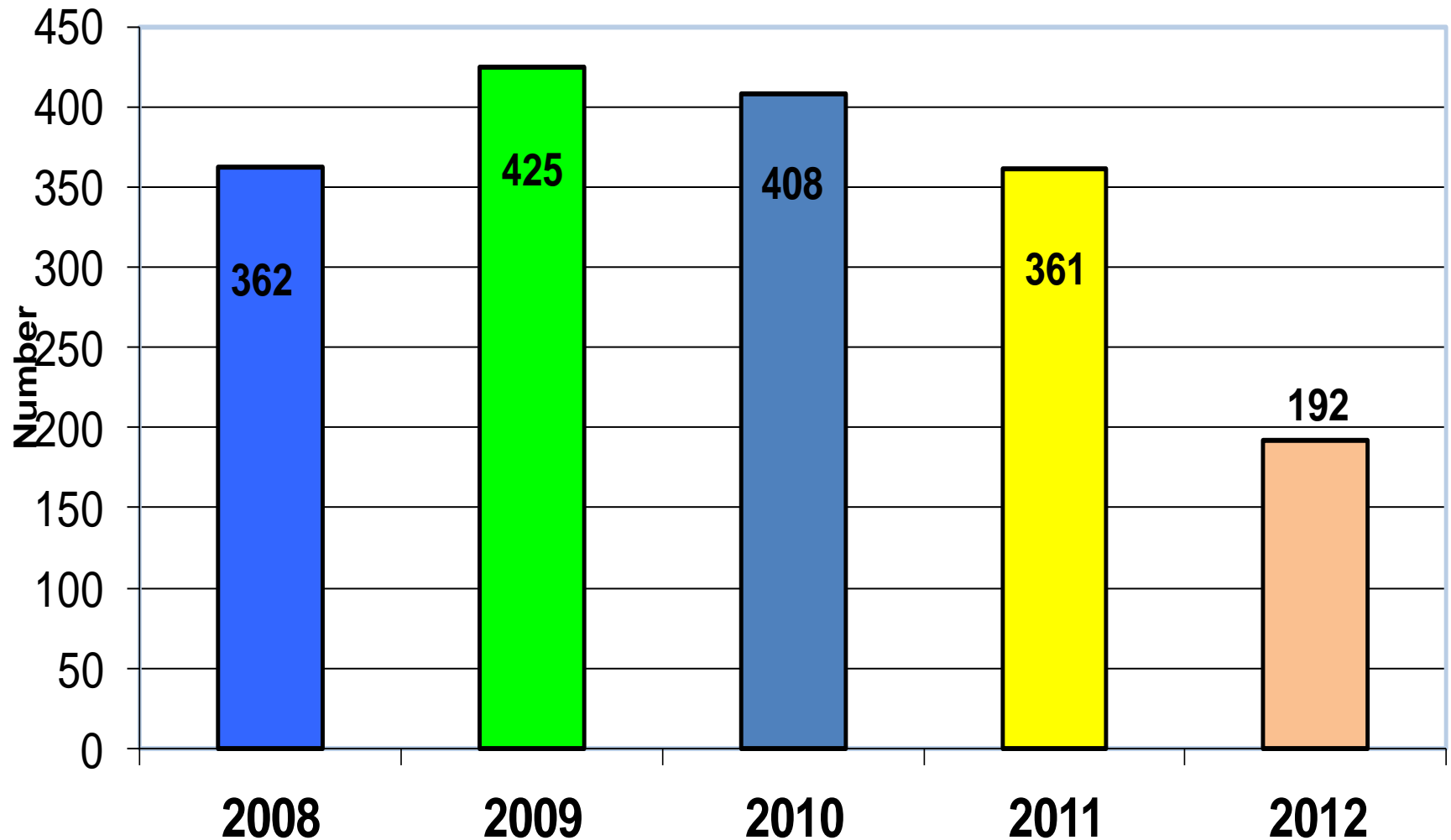
**Map 2. Distribution of AFP cases by classification, Sudan, 2012\***



- Non-polio AFP
- Pending classification
- VDPV

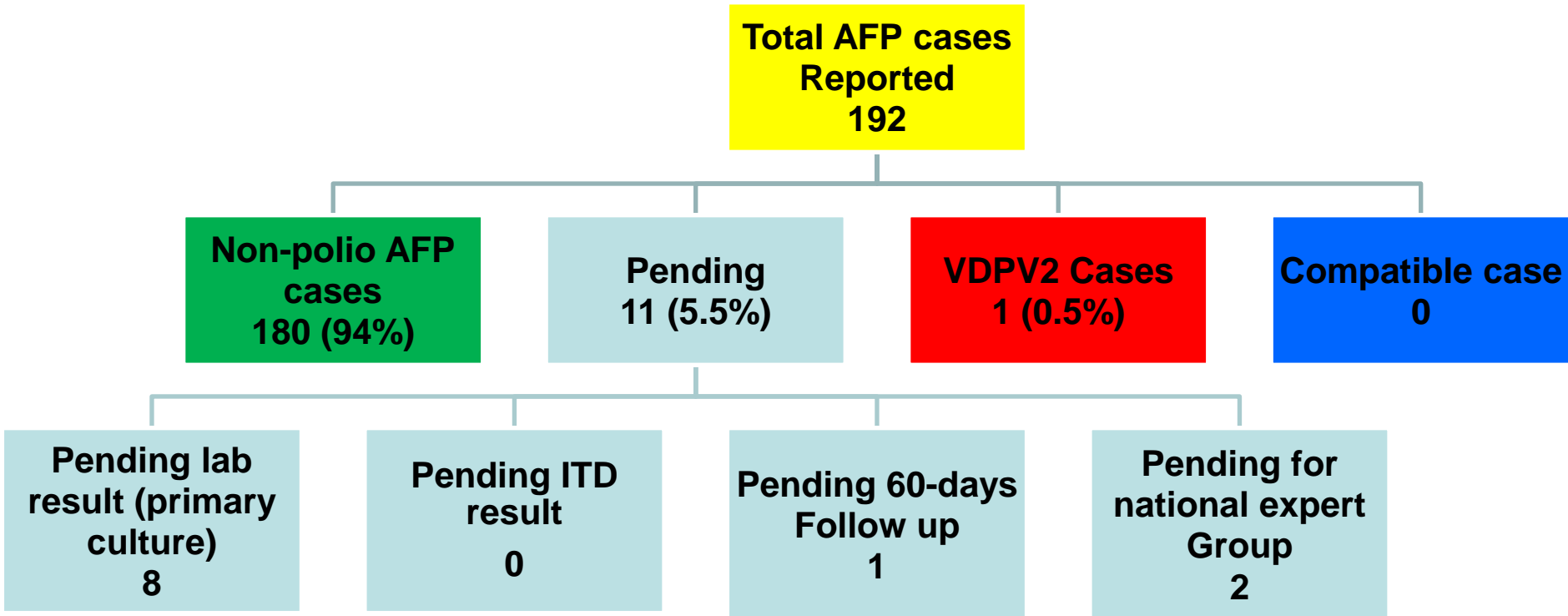
**\*Up to week 22**

**Fig. 1: Total AFP cases  
Sudan, 2008-2012\***



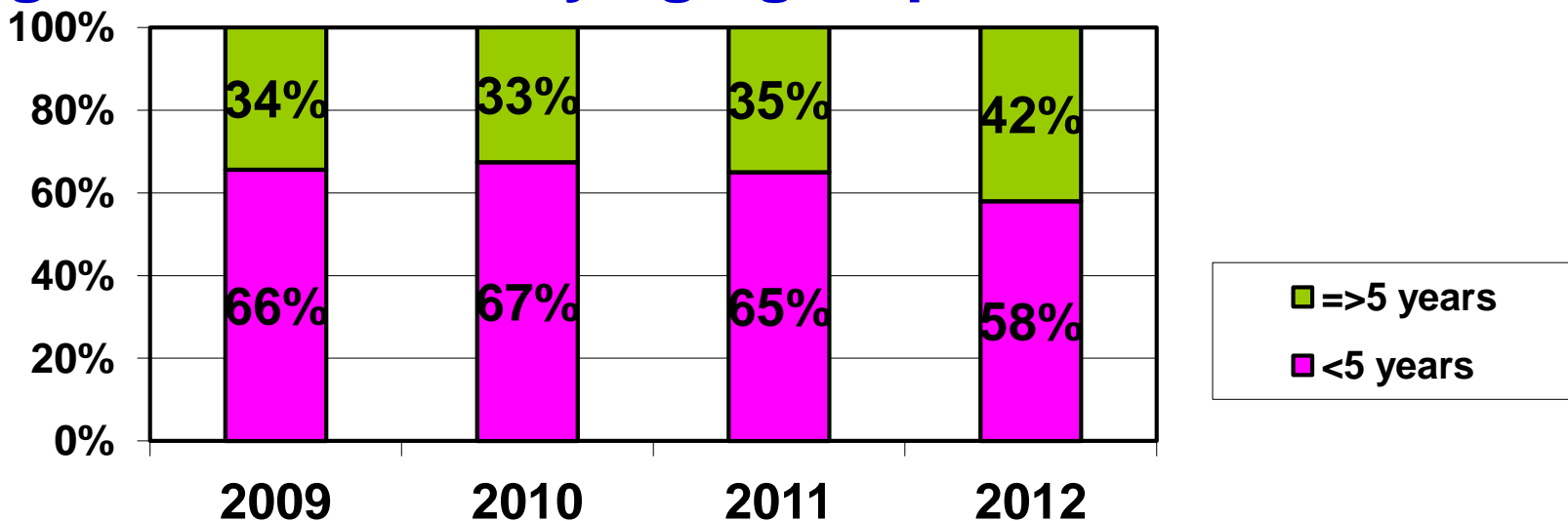
**\*Up to week 22**

**Fig. 2: Total AFP cases by classification, Sudan, 2012\***



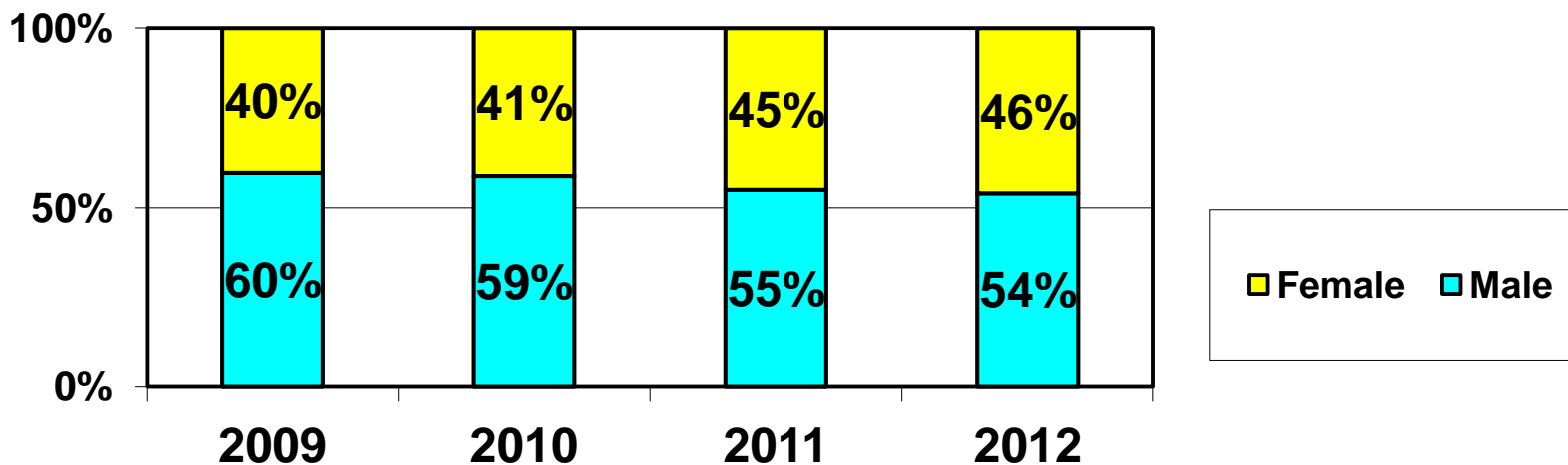
**\*Up to week 22**

### Fig. 3: AFP cases by age group, 2009 – 2012\*



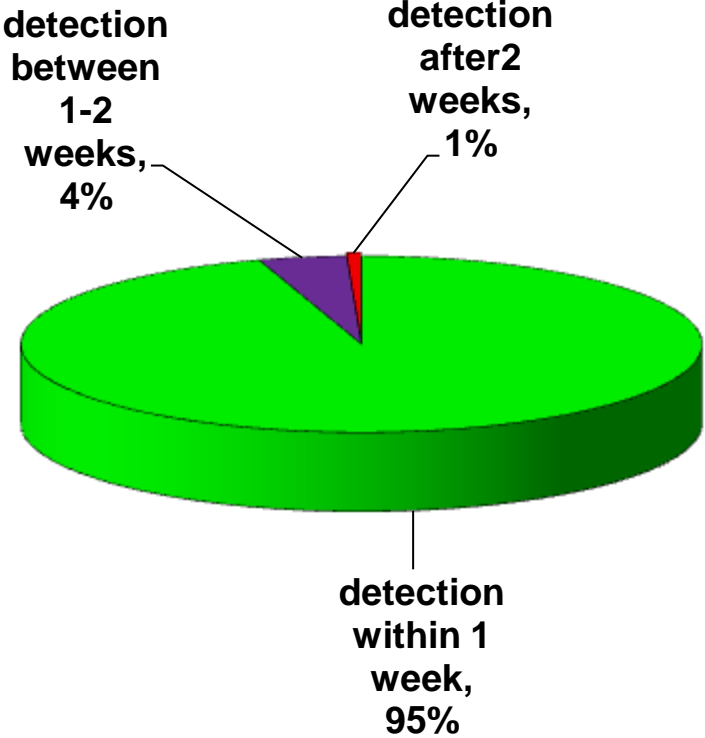
\*Up to week 22

### Fig. 4: AFP cases by sex 2009 – 2012\*



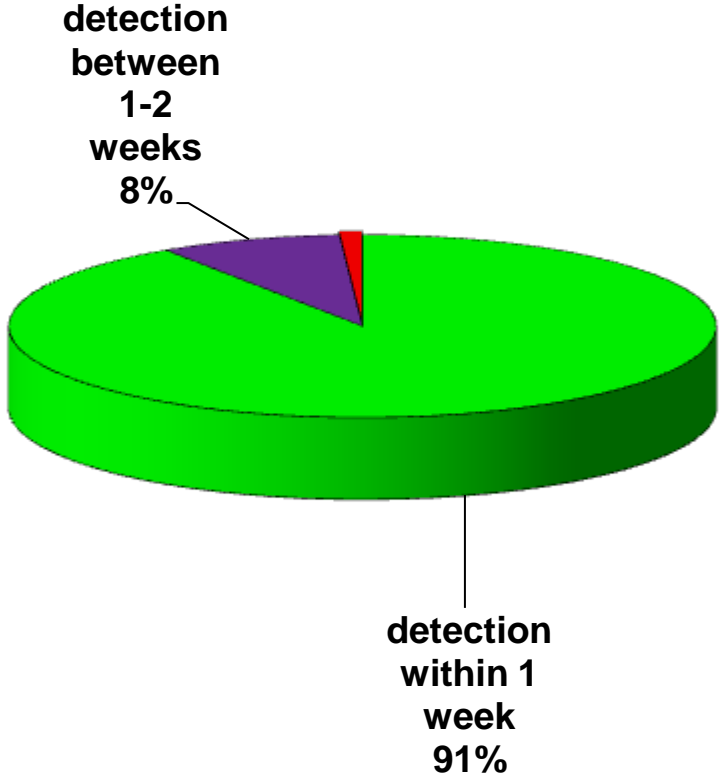
**Fig. 5: Percent distribution of AFP cases by time of detection, 2011\***

**N = 143 AFP cases**



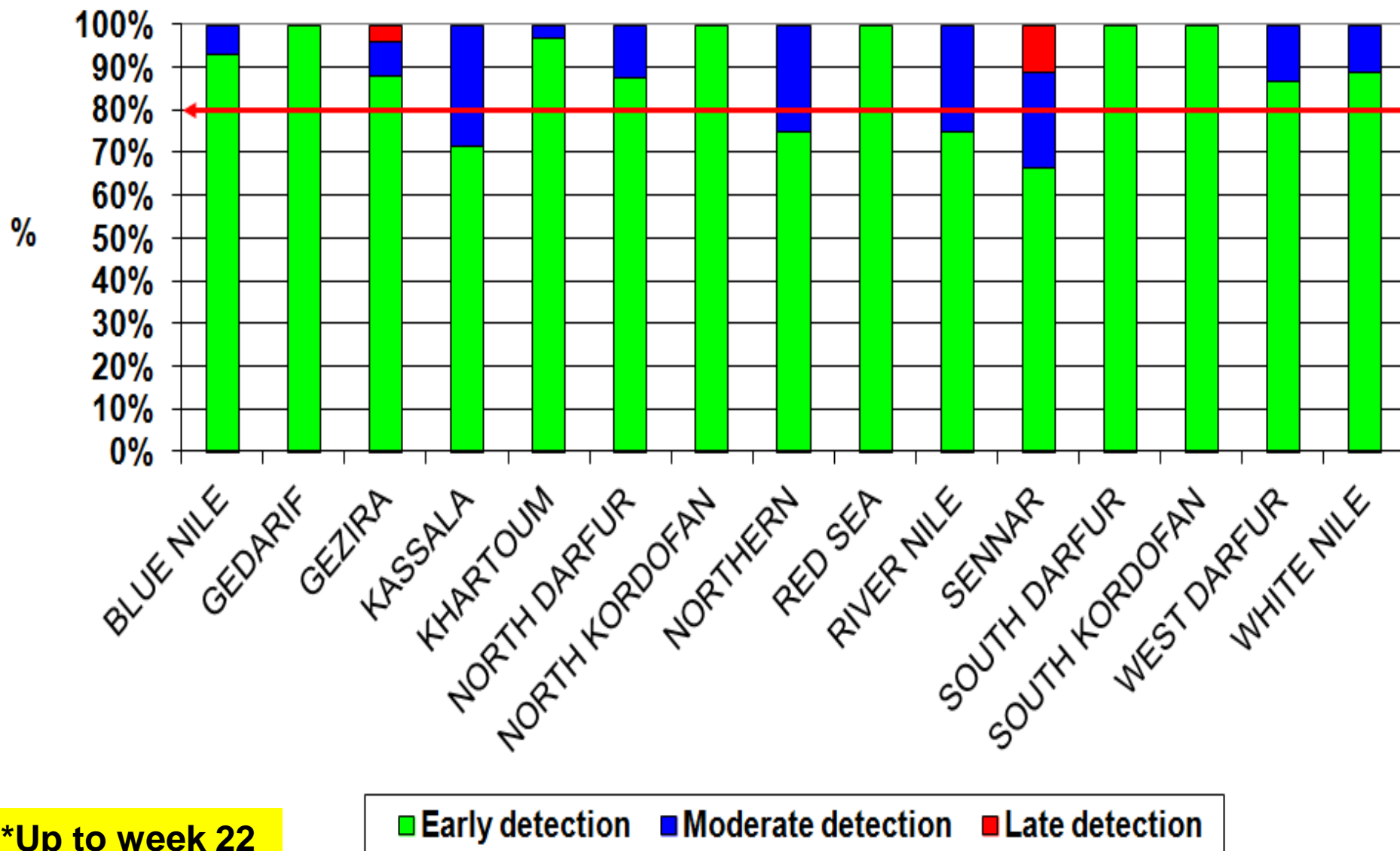
**Fig. 6: Percent distribution of AFP cases by time of detection, 2012\***

**N = 192 AFP cases**



**\*Up to week 22**

**Fig. 7: Percent distribution of AFP cases according to the timeliness of detection by states, 2012\***

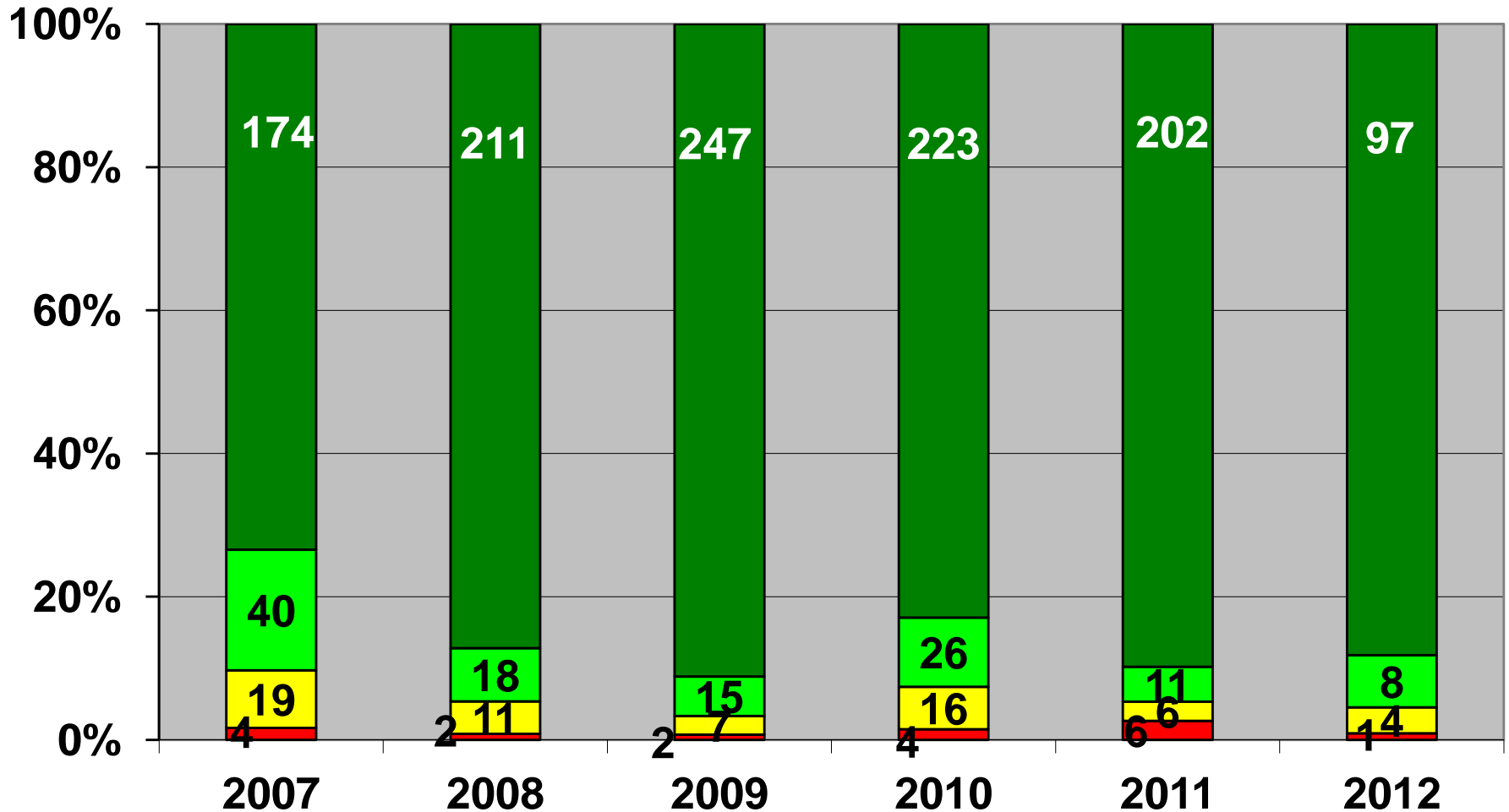


# Table 1. Major AFP surveillance performance indicators, up to week 22, 2012

State	U 15 yrs population	Total reported AFP cases	Non-polio AFP cases	Pending classification	VDPV	Compatible cases	% Adequate stools	Annualized AFP rate	% NPEV
B. Nile	451,519	14	12	2	0	0	93%	7.3	14%
Gedarif	887,810	9	9	0	0	0	89%	2.4	11%
Gezira	1,974,675	25	24	1	0	0	96%	3.0	25%
Kasala	857,183	7	6	1	0	0	100%	1.9	14%
Khartoum	2,489,151	33	32	1	0	0	100%	3.1	12%
N.Darf	890,317	16	16	0	0	0	100%	4.2	13%
N.Kord	1,281,448	15	12	3	0	0	93%	2.8	13%
Northern	271,479	4	4	0	0	0	75%	3.5	25%
Red Sea	331,008	9	9	0	0	0	100%	6.4	11%
River Nile	470,091	8	8	0	0	0	100%	4.0	13%
Sennar	735,588	9	8	1	0	0	89%	2.9	22%
S.Darfur	1,806,686	10	9	0	1	0	91%	1.4	10%
S. Kord	974,048	8	8	0	0	0	100%	1.9	0%
W.Darfur	971,638	15	13	2	0	0	100%	3.6	20%
W. Nile	855,181	9	9	0	0	0	100%	2.5	22%
<b>Total</b>	<b>15,247,822</b>	<b>191</b>	<b>179</b>	<b>11</b>	<b>1</b>	<b>0</b>	<b>96%</b>	<b>3.0</b>	<b>16%</b>



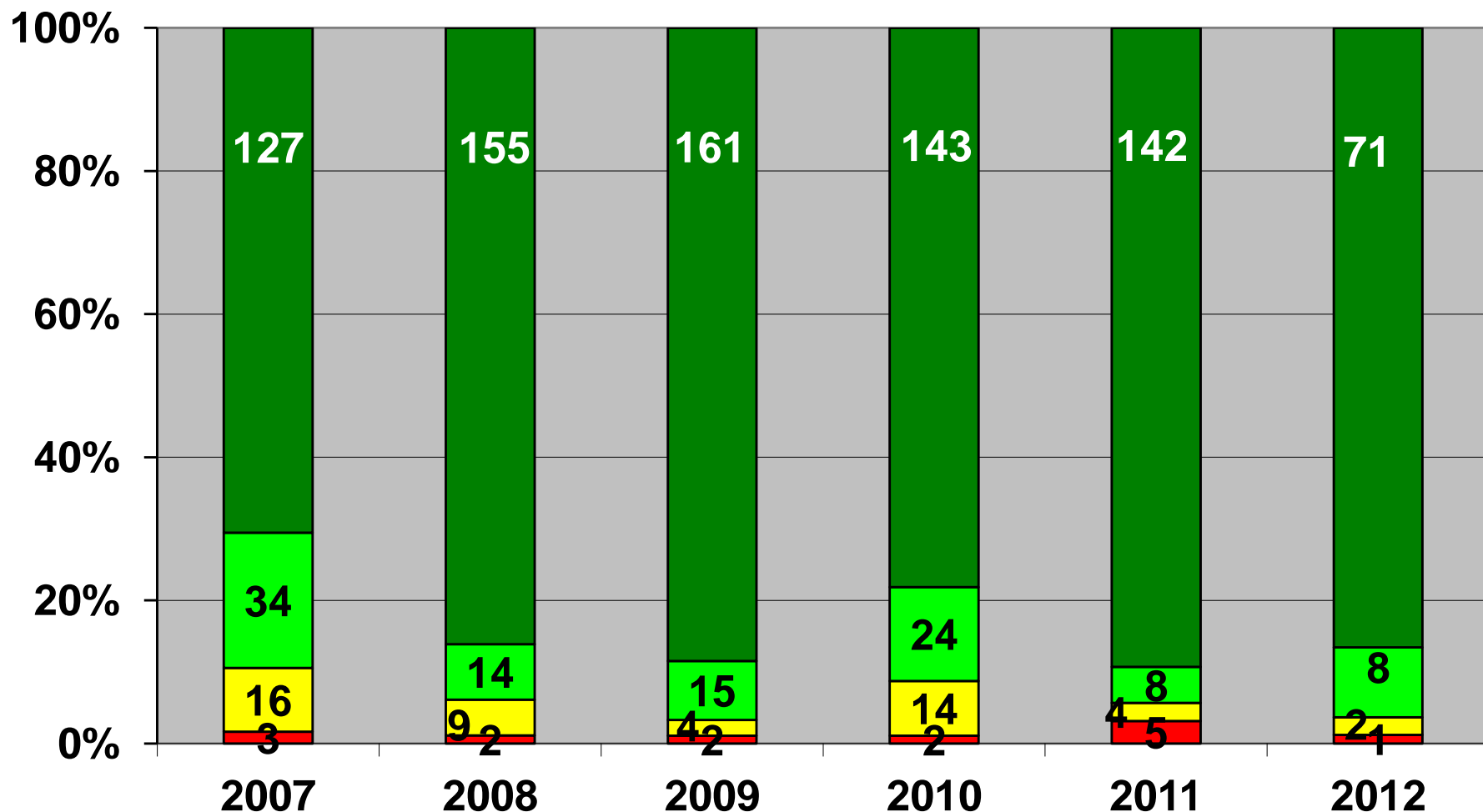
**Fig. 8: Percent distribution of AFP cases 6-59 months by number of OPV doses, 2007-2012\***



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

\*Up to week 22

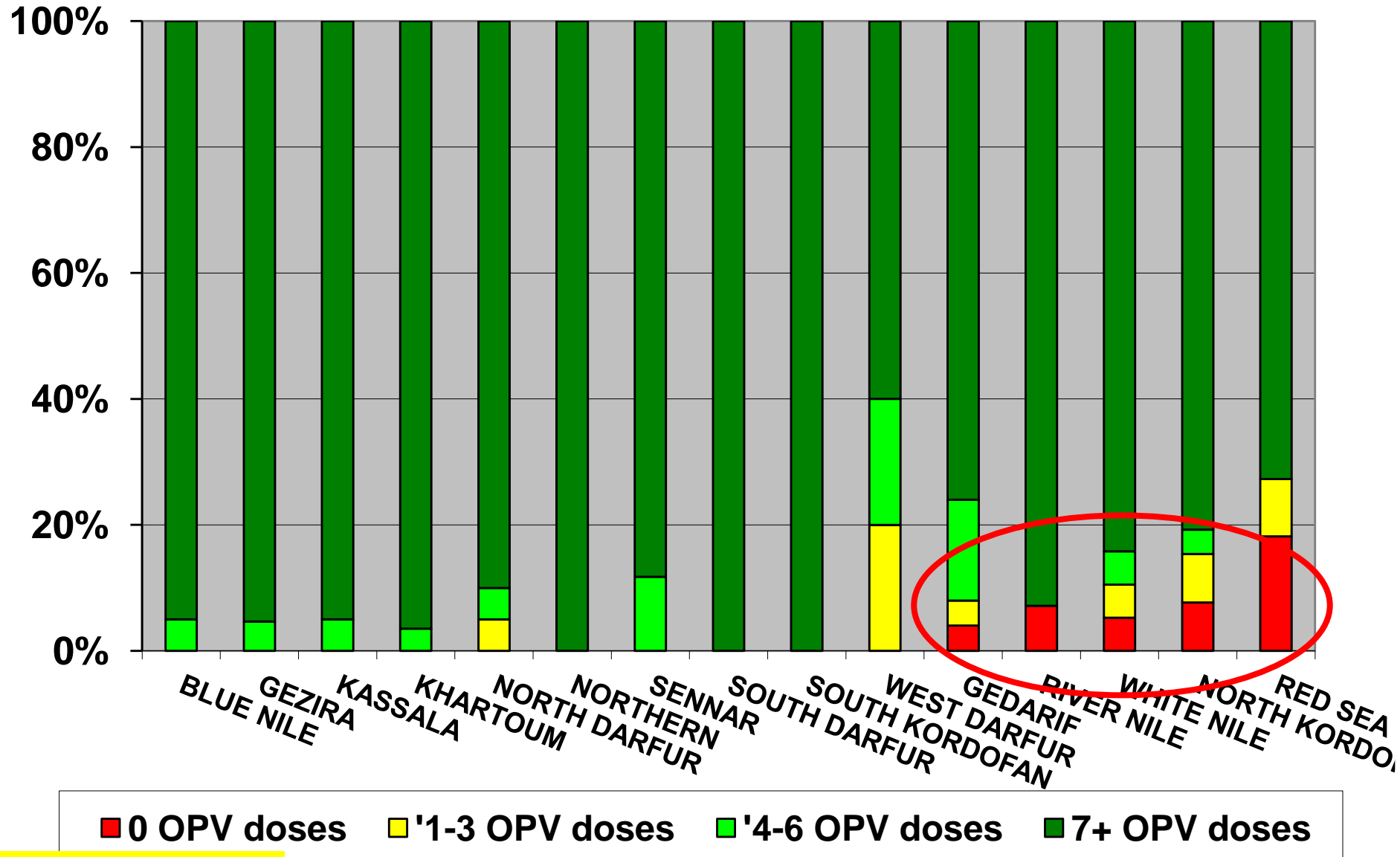
**Fig. 9: No. & percent distribution of AFP cases 6-36 months by number of OPV doses, 2007-2012\***



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

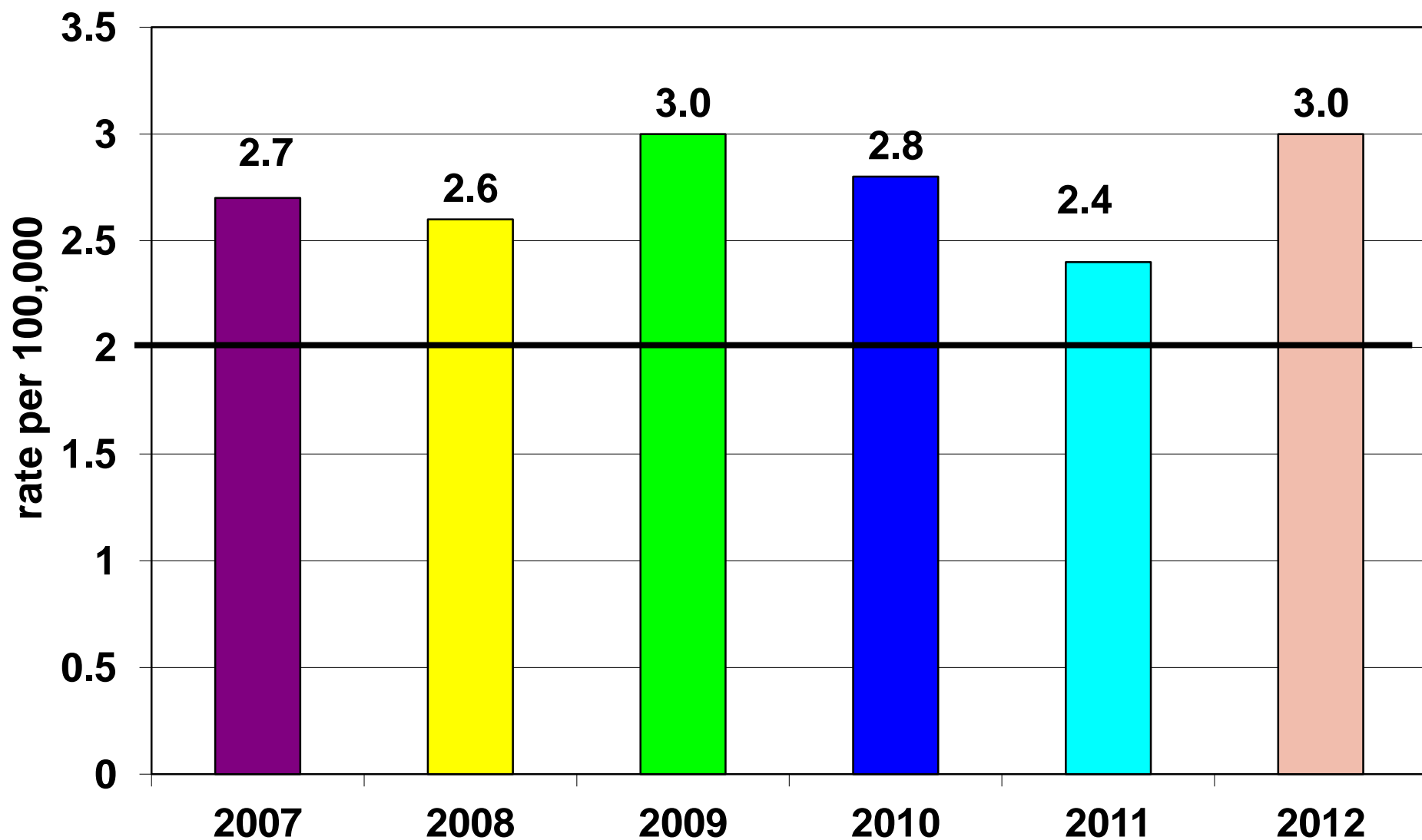
**\*Up to week 22**

# Fig. 10: Percent distribution of AFP cases 6-59 months by number of OPV doses and states, 2011-2012\*



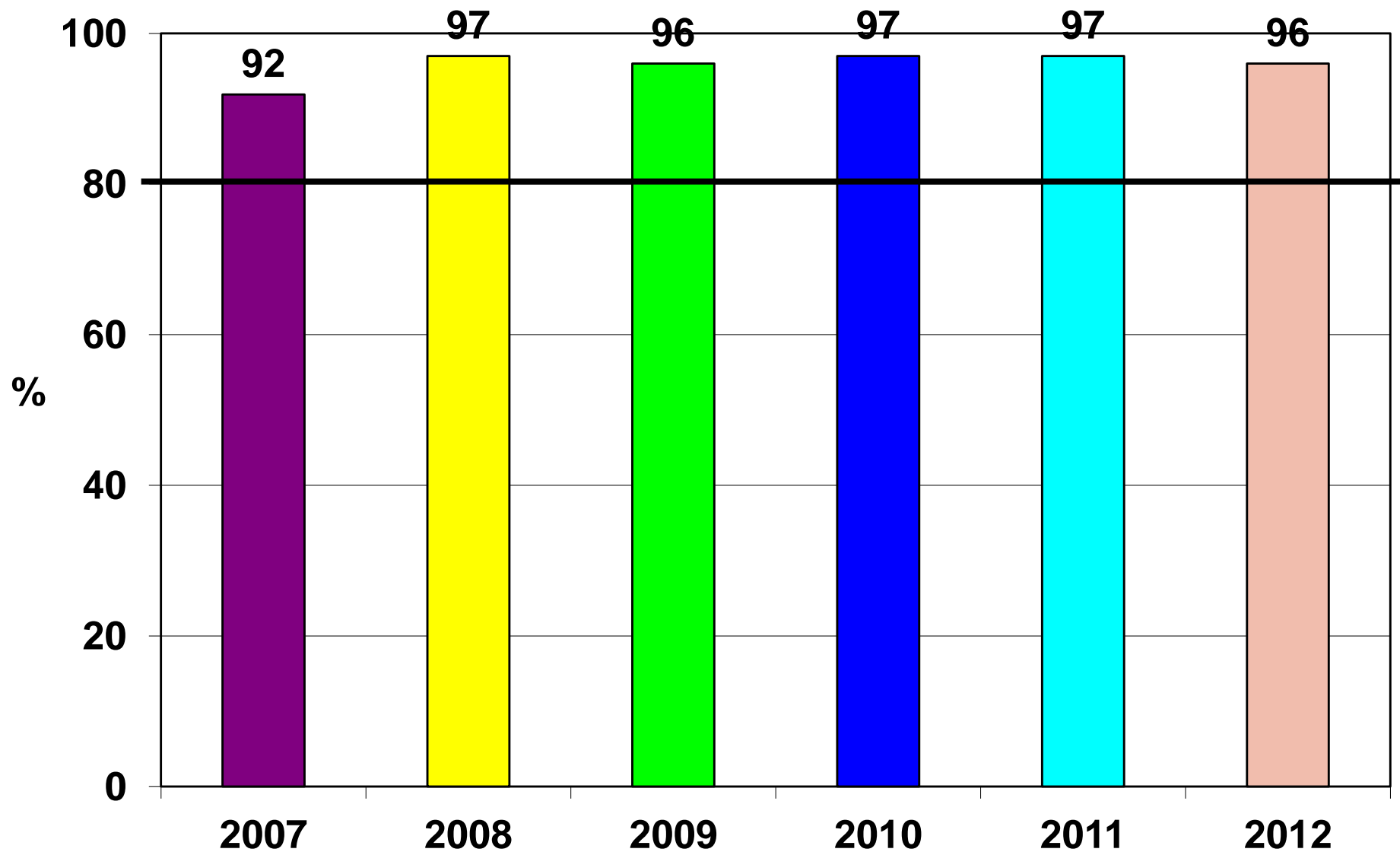
\*Up to week 22

**Fig. 11: Non-Polio AFP rate per 100,000 children under 15 years of age, 2007 – 2012\***



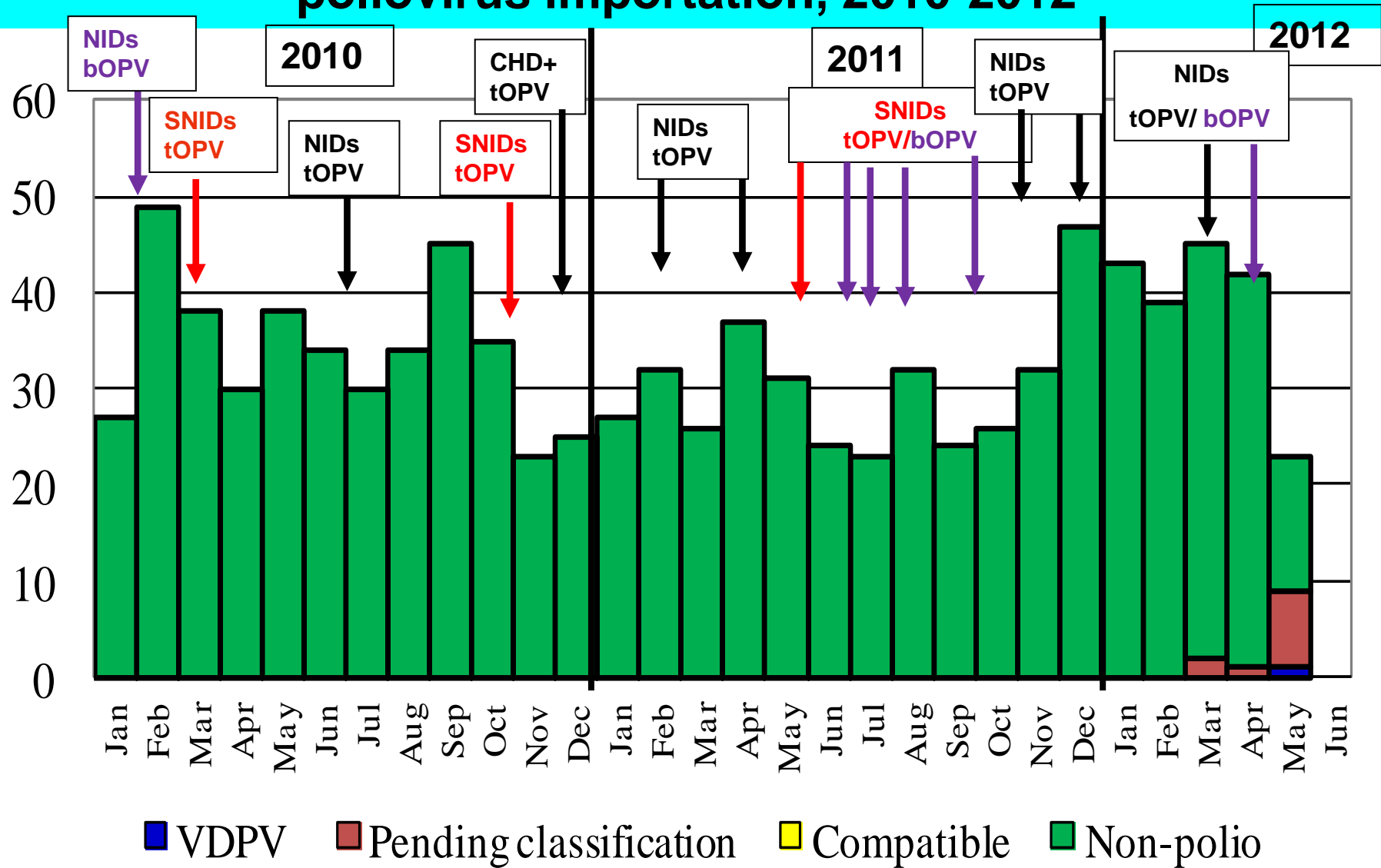
**\*Up to week 22**

**Fig. 12: Adequate stool collection rate, 2007 – 2012\***



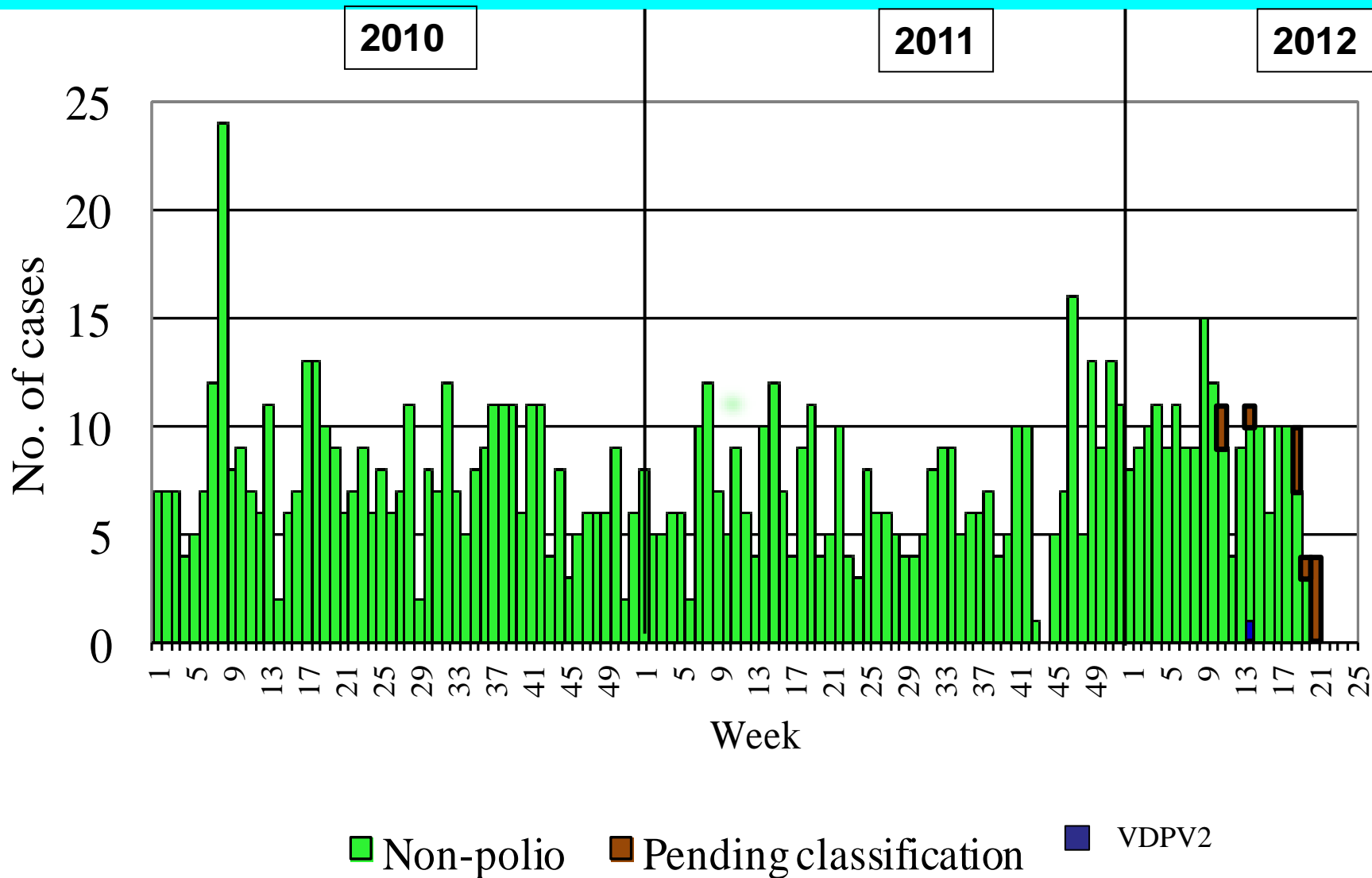
**\*Up to week 22**

**Fig 13. Distribution of polio and non-polio AFP Cases by classification, month of onset & SIA response to the poliovirus importation, 2010-2012\***



\*Up to week 22

# Fig 14. Distribution of polio and non-polio AFP Cases by classification, month of onset & SIA response to the poliovirus importation, 2010-2012\*

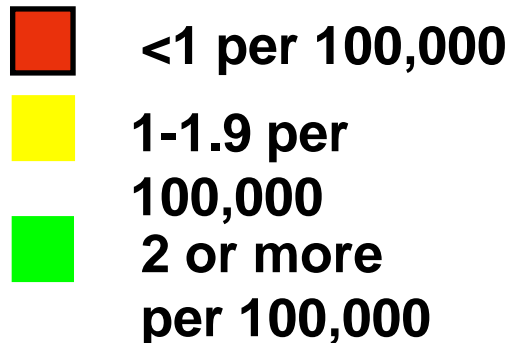


\*Up to week 22

**Map 3. Non-polio AFP rate by state, 2011 up to W22**



**Map 4. Annualized Non-polio AFP rate by state, 2012 up to W22**





**Map 5. Percent distribution of AFP cases having adequate stool samples by states, 2011 up to W22**



**Map 6. Percent distribution of AFP cases having adequate stool samples by state, 2012 up to W22**



■ <60%     
 ■ 60% - 79%  
■ 80% - 100%

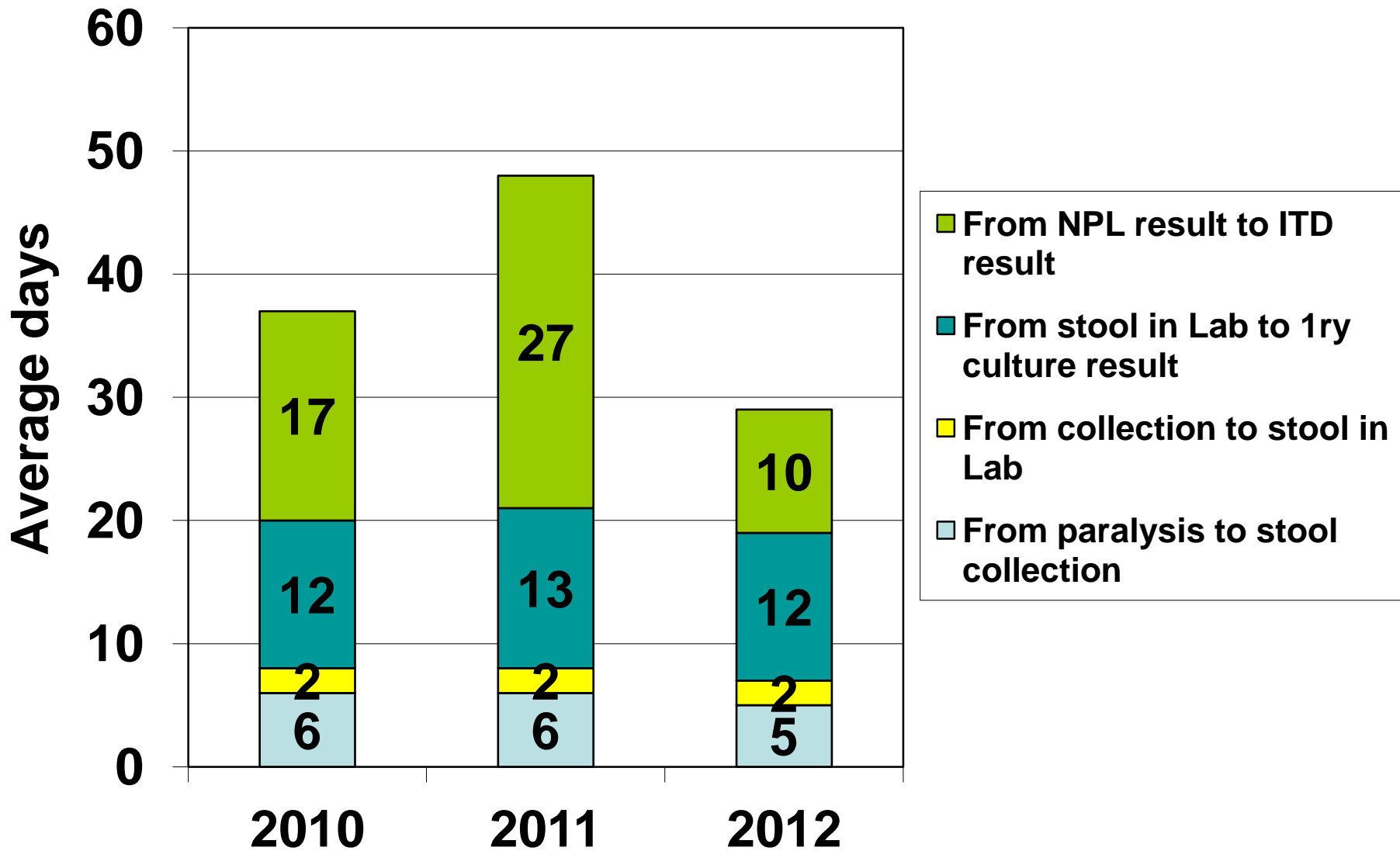
## Table 2. National polio lab performance indicators 2010-2012 up to week 22

Indicator	2010	2011	2012
<b>AFP cases with samples tested in NPL</b>	<b>180</b>	<b>143</b>	<b>191</b>
<b>Cases with VDPV2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Cases with non-polio enterovirus</b>	<b>11%</b>	<b>13%</b>	<b>16%</b>
<b>SL viruses No. &amp; (%) from AFP cases</b>	<b>1(0.6%)</b>	<b>2(1.5%)</b>	<b>3(1.6%)</b>
<b>Median days from the time of samples received in the lab to primary culture report or L20B result</b>	<b>12 days</b>	<b>13 days</b>	<b>12days</b>
<b>Number of samples from the AFP contacts tested in the NPL</b>	<b>84</b>	<b>88</b>	<b>132</b>
<b>Contacts with non-polio enterovirus</b>	<b>9.5%</b>	<b>8.8%</b>	<b>14%</b>
<b>Sabin like viruses No. &amp; (%) from contacts</b>	<b>0</b>	<b>4(5%)</b>	<b>1(1.0%)</b>
<b>Wild polioviruses from contacts</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Table 3. Polio lab performance 2010 - 2012

Week of onset	Total AFP Cases with samples	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 from the 2 <sup>nd</sup> sample	Arrival within 3 days of being sent from the 2 <sup>nd</sup> sample
2010 up to week 22	180	12	0	150	18	11%	89%	88%	99%
2011 up to week 22	143	8	4	113	18	13%	80%	83%	100%
2012 up to week 22	191	8	0	154	29	16%	96.6%	86%	99%

# Fig. 16: AFP Specimens' median timeliness NPL 2010-2012\*



\*Up to week 22

# Monthly follow up on the implementation of the 6 months plan

Issues to be addressed	Proposed Interventions	Support and Resource Requirements	Time line	Status
Access to children in insecure area (S Kordofan & Blue Nile)	<ul style="list-style-type: none"> <li>-Strengthen the partnership with national NGOs and local community to ensure access to children.</li> <li>-Advocate among rebel commander and community leaders living in these areas</li> <li>-Build the capacity of the volunteers living in these areas to implement SIAs.</li> </ul>	<p>Orientation workshops for partners.</p> <p>Advocacy meetings with local community leaders.</p> <p>Training workshops for the volunteers</p>	March-April	<p>During the last NIDs in March, the programme received support from National NGOs and National armed forces to reach insecure areas in Blue Nile state.</p> <p>Unfortunately, there was no way to communicate with rebels in the central area of S. Kordofan state.</p> <p>More children were reached in Blue Nile state during the April campaign. But not in S Kordofan due to escalation of the war in Heglig.</p>
Refusal among some communities in Red Sea state.	<ul style="list-style-type: none"> <li>- Developing and printing guidelines for interpersonal communication (IPC).</li> <li>-Distribute the IPC guidelines to communication focal persons and members of refusal committee in 3 localities in Red Sea states.</li> <li>- Train the communication focal persons and members of the refusal committee on IPC using the IPC guidelines.</li> <li>-Develop communication check list for monitoring the outcome of the IPC guidelines.</li> </ul>	<p>Technical assistance (UNICEF consultant)</p> <p>Fund for printing and distribution of the guidelines, and training of the communication focal persons and members of the refusal committee.</p>	May-August	<p>Draft guidelines for IPC were prepared.</p> <p>Training the communication focal points was done before the March NIDs in Red Sea using the draft guidelines.</p> <p>UNICEF consultant has not been deployed yet.</p> <p>Development of the check list is under process by EPI/Communication section.</p> <p>The April campaign results showed less refusals in Red sea than March campaign.</p> <p><b>The IPC guidelines and communication check list were developed. It is planned to print the guidelines in June 2012.</b></p>

# Monthly follow up on the implementation of the 6 months plan

<p>Immunity gaps in several localities</p>	<ul style="list-style-type: none"> <li>- Conduct 2 NIDs rounds.</li> <li>-During the training of volunteers, the registration of missed children and their retrieval will be emphasised.</li> <li>-Proper selection and quality training of the first level supervisors (team leaders).</li> <li>-Build IPC training of the social mobilizers.</li> </ul>	<p>Financial and technical support needed.</p>	<p>March-April</p>	<p>All proposed activities related to the training of volunteers on all aspects of the campaign and proper selection of team leaders were taken care by the states before the March campaign.</p> <p>The NIDs round was conducted on 12 March for 3 days. The administrative coverage rate was 100% and IM finger marking rate was 97%. The other quality indicators were included in the campaign report.</p> <p>April NIDs campaign was conducted during 16-18 April 2012. The result is under processing.</p> <p><b>The training using the IPC guidelines will be conducted after printing the guidelines.</b></p>
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# Monthly follow up on the implementation of the 6 months plan

Issues to be addressed	Proposed Interventions	Support and Resource Requirements	Time line	Status
Surveillance 3 Vacant positions (national medical officers)	1. Proper selection and recruitment of candidates.  2. Induction training for the new officers.	-Fund for salaries and operations.  -Transportation and communication means.	Mar-May  March	The post is filled in Red sea and the South Darfur recruitment is in the pipeline.  <b>The post is filled in South Darfur.</b>  <b>Induction training for the new officers was done in May.</b>
Delayed transportation of stool samples observed in some high risk areas.	1. Analysis of the bottle necks in the path of transportation of the samples. 2. Formulation of strategies to resolve those bottle necks.	Technical assistance	March-August	Analysis done for 2011 data in W. Darfur state. The main problem was the infrequent air transportation from Darfur to Khartoum. Instructions on the proper storage were given to states to maintain the reverse cold chain and also to use UN flights and commercial flights to minimize the delay. The samples' timeliness is under scrutiny in 2012. Log tags were sent to WD to track the reverse cold chain. The results of 4 specimens showed proper reverse cold chain. <b>Monitoring the transportation of samples with electronic Log tag from Darfur states is ongoing. No major problem occurred so far.</b>

# Monthly follow up on the implementation of the 6 months plan

<p>Case investigation form does not include a field for prior contact with healthcare system.</p>	<p>1.To update the investigation form to include:</p> <p>1.1.prior contact with health system</p> <p>1.2.identification of high risk groups (nomads, IDPs, refugees, etc)</p>	<p>Fund for printing the new form</p>	<p>April</p>	<p>2 fields were introduced to the investigation form. One for the question about the first contact between the case and health care point and the other one is concerning the special population group.</p> <p>Regular data is received and uploaded in EPI6 programme.</p>
<p>Variable understanding of immunization coverage surveys for inadequate cases, cluster investigation and standard collection of samples from healthy children in silent localities</p>	<p>1.Develop standardized protocol for immunization coverage surveys and collection of samples from health children in silent localities.</p> <p>2. Conduct AFP surveillance workshop to introduce protocol of an immunization coverage survey, standard protocol for collection of samples from health children in silent localities and cluster investigation (field work).</p>	<p>Fund for the workshop</p> <p>WHO/EMRO Technical assistance</p>	<p>June</p>	<p>The date of the workshop changed from May to June 2012 for a better preparation. The protocol is expected to be developed during the workshop.</p> <p>A protocol for community stool specimens is adopted from the one of the S Sudan.</p> <p>A standard protocol for the vaccination coverage around special AFP cases (cases with inadequate samples, Hot cases, cases with zero OPV) is under preparation.</p>
<p>Some states did not achieve NPEV target.</p>	<p>1.Use of temperature log tags in those states to monitor the reverse cold chain.</p>	<p>Provision of log tags</p>	<p>Mar-August</p>	<p>On going.</p> <p>So far all states, except one reported NPEV.</p>



# Monthly follow up on the implementation of the 6 months plan

Area of Work	Issues to be addressed	Proposed Interventions	Support and Resource Requirements	Time line	Status
<b>Routine EPI</b>	-Financial sustainability	1. Advocacy among the decision makers to contribute financially to the routine immunization programme.  2. Advocacy meeting with IACC.	Involvement of high level of MOH personnel and NITAG.	March-August	The state teams approached the states' authorities to contribute to the operations cost. Modest contribution in some states was obtained.  IACC did not meet yet!
<b>Cross-border activities</b>	-Synchronization of SIAs  -Joint planning  -Information sharing	-Coordination meetings at locality level with SS, Eritrea and Chad.  -Continue sharing of AFP surveillance data on weekly basis.	AFRO and EMRO involvement is needed.	June	2 cross border meetings happened between Adre (Chad) and Genina (West Darfur) around the SIAs in both countries. Detailed report was shared with the concerned parties earlier.  Information sharing is ongoing on weekly basis with Chad.