

Introduction

AFP surveillance up to 1999 was passive surveillance. The activities were depending only on cases referred from clinical units passively for lab investigation. At the beginning of the year 2000 WHO made tremendous inputs to establish an efficient system and thus provided transport means, working tools, communication, supplies & equipment's, staff and running costs.

AFP surveillance in Sudan has reached and maintained certification level quality indicators since the beginning of 2001, and shifted to the virological classification since the beginning of 2001.

Different reviewers (nationals and internationals) confirmed that the AFP surveillance system is sensitive enough to detect any transmission or importation of wild poliovirus in Sudan. This was further confirmed when the system efficiently picked the imported Nigerian/ Chad virus in Forbrunga; a remote and insecure town in West Darfur state, in May 2004. Further more a new importation was detected in time this year on 10/9/2007, in Sheria Locality of South Darfur, thus enabling timely response.

This is the annual technical report for the year 2007. The contents of the report include results, analysis, and interpretations of the AFP surveillance data for Sudan. It also includes background information about the surveillance system in the country and the main activities conducted by the central unit.

The improvement of the system as reflected by the high quality performance indicators is very clear.

The first draft certification document was accepted by the RCC in Oct. 2003. Also annual updates were prepared and forwarded to EMRO for consideration by the RCC. This was resubmitted for the regional RCC for the year 2006 since the imported virus was eliminated, the last case being reported in May 2005.

An annual update for 2006 was written and forwarded to the regional RCC in March 2007 and another annual update for the year 2007 is ready now to be submitted to the RCC on 7th of March 2008.

During 2005, 2006 and 2007 the system is implementing community surveillance and expanding the zero reporting sites aiming at more perfection particularly for remote population groups and nomads. During 2007 zero reporting was expanded and the preparedness plan for picking importations and containing them was implemented vigorously and was reviewed during the annual meeting.

Integration of measles and NNT surveillance was started since 2003 and by the end of 2006 it is fully integrated in the system and continuous improvements were implemented.

BACKGROUND INFORMATION

Sudan lies in the center of Africa and has borders with nine countries namely Egypt, Libya, Chad, Central Africa, Uganda, Zaire, Kenya, Ethiopia and Eritrea. The border tribes often have the same families and other socio-economical ties that there is a continuous movement across the borders. This movement had affected the health situation through a long history and currently is having a great impact on the spread of diseases in the country.

The area of Sudan is 2.5 million square kilometers, making it the largest country in Africa.

The climate ranges from desert in the north, extending south through semi desert, poor savannah, savannah, rich savannah and ending into rainy equatorial forests in the south. This affects types and persistence of diseases in the country. The population is estimated to be 34 512 000, with an under 15 years population of about 14 769 566. About 35% of the populations are urban, 63% rural and 2% nomads.

Administratively, the country is divided into 25 states. There are 15 states in the north and these are divided into 135 localities.

For AFP/Measles/NNT surveillance purposes the table below shows the name of each state, the code used for surveillance purposes, the number of localities in that state and the under 15 years population.

POLIO ERADICATION IN SUDAN

Sudan started its efforts to eradicate poliomyelitis in 1994. EPI is the responsible body to carry out the activities of the program in the country. After the peace arrangement the AFP surveillance activities are conducted by WHO in South Sudan (10 states).

The program has adopted 4 strategies:

- Boosting the routine immunization.
- Conducting supplementary immunization activities (SIAs).
- Conducting AFP surveillance, to the required certification level.
- Effectively respond to and contain importation of wild poliovirus.

AFP SURVEILLANCE IN 2007

ORGANIZATION:

Diagram in the next page shows the organization of AFP surveillance at national and states level. It also indicates the relation between the program, WHO, UNICEF and different committees.

STAFF:

19 surveillance officers are posted through out the northern states of the country assisted by 4 WHO/STCs and 9 NMO holding WHO/SSA to oversee a surveillance network involving 308 reporting sites plus 158 additional zero reporting sites, including health care institutions, private clinics, special population groups (nomads, IDPs camps in rebels areas, ...etc) and traditional healers.

TRANSPORT & COMMUNICATION:

44 cars, 68 motorcycles, 45 bicycles are providing an efficient network for transportation. In each states fax and telephone services were made available. Some cars were provided with radio sets.

REPORTING SITES:

Reporting sites in North SUDAN during 2007 were :

- 105 high priority sites – mainly pediatric and specialized hospitals
- 112 medium priority sites – busy hospital and health centre
- 91 low priority sites – other less busy facilities and traditional healers
- 158 Additional zero-reporting sites.

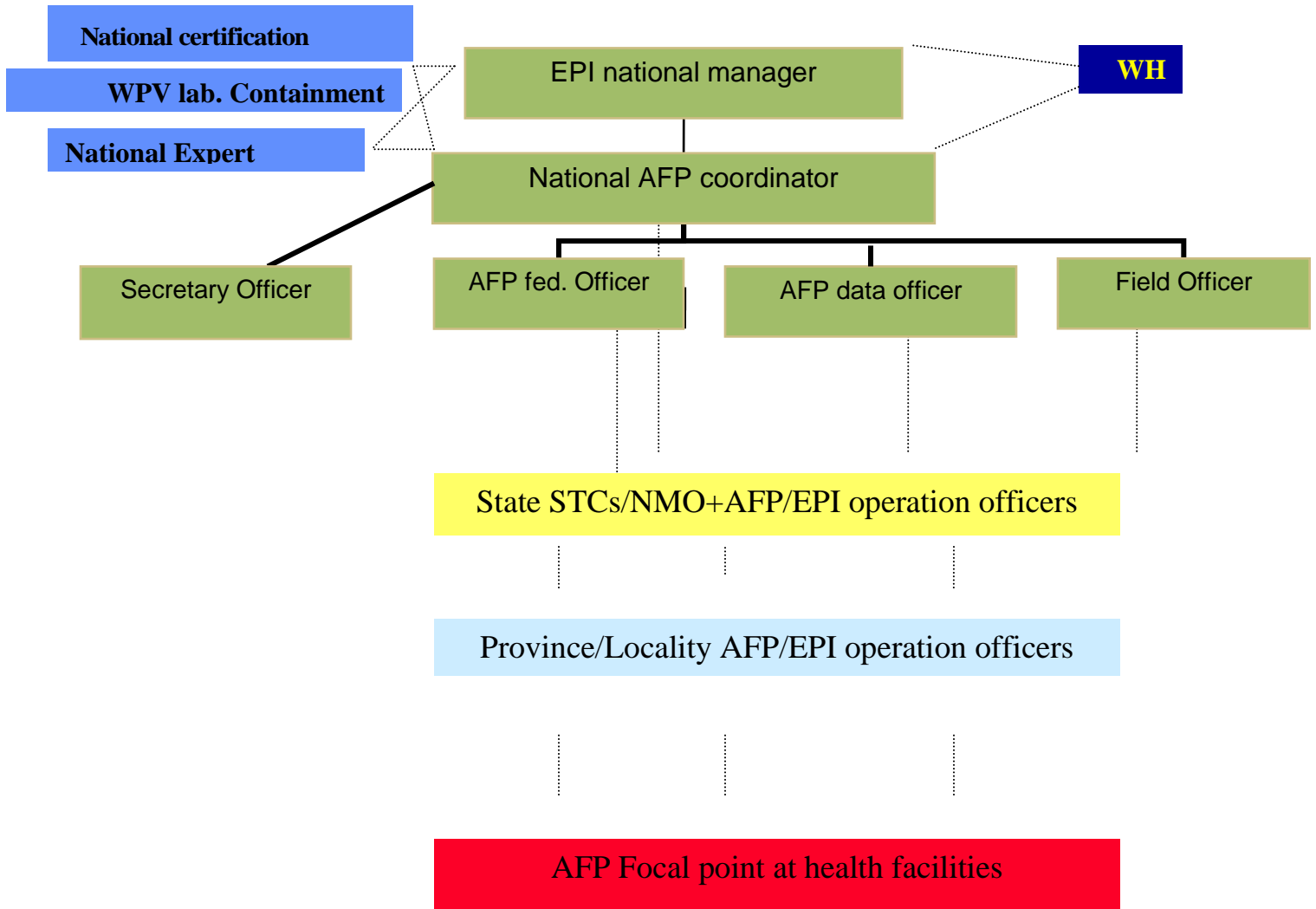
The 308 sites include: 278 public Institutions, 19 private clinics, and 11 traditional Healer places.

The zero reporting sites were expanded by 158 new sites to report weekly without other activities of surveillance.

Early Preparedness for Importation:

Plans for early preparedness for picking any importation and containing it were up-dated for each state and put into real implementation by the states authorities. Situation of implementation of these plans was reviewed during the EPI annual meeting.

AFP surveillance structure



AFP SURVEILLANCE MAIN INDICATORS IN 2007

NON-POLIO AFP RATE:

The global standard for any population the Non-polio AFP rate is one per 100 000 under 15 years children. For Sudan it was suggested by the TAG to aim at 2 or more because of the high occurrence of malaria and meningitis.

The expected number of AFP cases for 2007 for north Sudan was 133, and during the year 360 cases had been reported This gives a rate of 2.7 cases per 100 000 under 15 years children. Compatible cases were 2 (see table 4) and one wild polio imported case (Sheria locality, South Darfur).

When looking to the data from north Sudan (table 4) all of the 15 states reported a rate of above 2.

ADEQUATE STOOL SAMPLES:

Adequate specimens are defined as " two stool specimens collected from a case, at least 24 hours apart within 14 days of paralysis onset: each specimen must be of adequate volume (8 – 10 grams) and arrive in the National Polio Laboratory in "good" condition". Good condition; is defined as no desiccation, no leakage, adequate documentation and evidence that the reverse cold chain was maintained. The global standard is that 80% of AFP cases should have adequate stool samples.

92% of the 360 cases had adequate stool specimens. All stool samples arriving at the laboratory in good condition was 100%.

Stool samples adequacy rate was 100% in three states, between 80% - 99% in 10 states, West Darfur and Red Sea States less than 80% (Table 6, & Map 5).

REPORTING AND INVESTIGATION:

The objective of the AFP surveillance is to notify cases within 7 days from date of onset, investigate 80% of AFP cases within 48 hours of being notified and 80% of Stool specimens arriving at the lab < 3 days of being sent.

During 2007 AFP cases notified within 7 days were 78%, AFP cases investigated within 48 hours of being notified was 99%, stool samples arriving the laboratory within 3 days of being collected 77% and of being sent was 96% (table 5).

NON-POLIO ENTEROVIRUS:

The non-polio entero-viruses detection rate among all stool samples was 15% with random distribution over the country (Table 6 & Map 6).

SPECIMENS RESULTS TURN ROUND TIME:

The laboratory results received from the National Polio Lab. by the EPI within 28 days from samples being received was of a rate of 99.6 %, while the required standard is 80%. (Table 5).

WEEKLY (ZERO) REPORTING:

The completeness of weekly (zero) reporting was 99.7 % from high priority sites, 98% from medium priority sites and 97.6 % from low priority sites. (Table No 14 & Figure 11).show completeness and timeliness by states.

ACTIVE SURVEILLANCE VISITS:

The completeness of active AFP/Measles surveillance visits for the high priority sites was 99.8 %, for medium priority sites was 97 % and for low priority sites was 95.5 % (table 15 & figure 12).

DIAGNOSIS OF AFP CASES

A list of 23 diseases and conditions were classified as causes of AFP. GBS was one of the main causes of AFP cases (42 %). Complicated malaria cases was 15 %. Traumatic neuritis 9 %, meningo encephalitis 12 % and Child-hood hemiplegia caused 7 %, transverse myelitis 3 %, NPEV myelitis 0.5 %, hypokalaemia 3 %, Anaemia 2 %, arthritis 1 %, diphtheria 0.2 %, ataxia 0.2 %, CVA 0.5 %, osteomyelitis 0.2 %, Todds paralysis 0.2 %, and 0.2 for diarrhea, Hypgirdle sy., potts disease, pneumonia, stroke and myositis.(table 12) .

SUMMARY OF AFP SURVEILLANCE CENTRAL UNIT ACTIVITIES

Here are the main activities conducted by the Central unit regarding supervisory visits, IEC materials, meetings and workshops, training and orientation. ect.

SUPERVISORY VISITS:

Supervisory visits were conducted from the CU to the peripheral levels during 2007. The states visited were Gezira , Gedarif, Kassala, Sennar, River Nile, Khartoum, North Kordofan, and Northern states.

MEETINGS AND WORKSHOPS:

During the year 2007 AFP surveillance Central Unit had participate actively in many meetings and workshops, mainly:

- Four AFP surveillance national expert committee meetings. The committee had review 25 cases, all of them were discarded except two compatible cases from Gezira and West Darfur states.
- Four National Certification Committee meetings.
- Meetings of WHO/STC and polio NMO.
- EPI states operation officers evaluation and planning meeting.
- Participated in the weekly (Sunday, now Monday) surveillance (AFP/Measles/NNT/Advese events) meetings.
- Participation in supervision of NIDs.

ORIENTATION AND TRAINING:

- Training of all newly appointed NMO, and orientation for STCs and STOP team members. In all meetings of expert committee and NCC orientation on polio eradication situation, the AFP surveillance activities and performance was done.
- Re-training for field staff during the annual planning and evaluation meeting for 2007/2007.

IEC Materials, Newsletter and Working Forms:

- Four issues of quarterly news letter (Sharh) were produced, 800 copies of each distributed timely to partners and lower level as feed back.
- Reprinting and distribution of needed posters and working tables & forms.
- Distribution of the IEC materials to the states (leaflets & dear citizen).

STATES	STATE CODE	High priority	Medium priority	Low priority	Total
Blue Nile	BNI	7	9	4	20
Gedarif	GED	12	7	11	30
Gezira	GEZ	5	5	6	16
Kassala	KAS	20	28	6	54
Khartoum	KHA	6	7	9	22
North Darfur	NDA	5	4	4	13
North Kordofan	NKO	6	6	7	19
Northern	NOR	5	6	7	18
Red Sea	RED	3	13	6	22
River Nile	RNI	5	2	6	13
Sennar	SEN	6	5	5	16
South Darfur	SDA	7	4	4	15
South West Kordofan	SWKO	4	1	3	8
South East Kordofan	SEKO	3	6	3	12
West Darfur	WDA	8	6	2	16
White Nile	WNI	3	3	8	14
TOTAL	SUD	105	112	91	308

(Table – 2)

NORTH SUDAN / States code, No Localities, Population < 15 years ,Expected AFP Cases 2007

STATES	STATE CODE	Localities	Population <15 year	Expected NO. OF AFP CASES
Blue Nile	BNI	5	325835	3
Gedarif	GED	7	758808	8
Gezira	GEZ	7	1720844	17
Kassala	KAS	5	757257	8
Khartoum	KHA	7	2078672	21
North Darfur	NDA	7	762058	8
North Kordofan	NKO	9	1188347	12
Northern	NOR	4	214396	2
Red Sea	RED	8	326088	3
River Nile	RNI	6	429765	4
Sennar	SEN	3	649203	6
South Darfur	SDA	9	1527813	15
South Kordofan	SKO	9	909535	9
West Darfur	WDA	8	864253	9
White Nile	WNI	4	756962	8
TOTAL	SUD	98	13269836	133

(Table – 3)

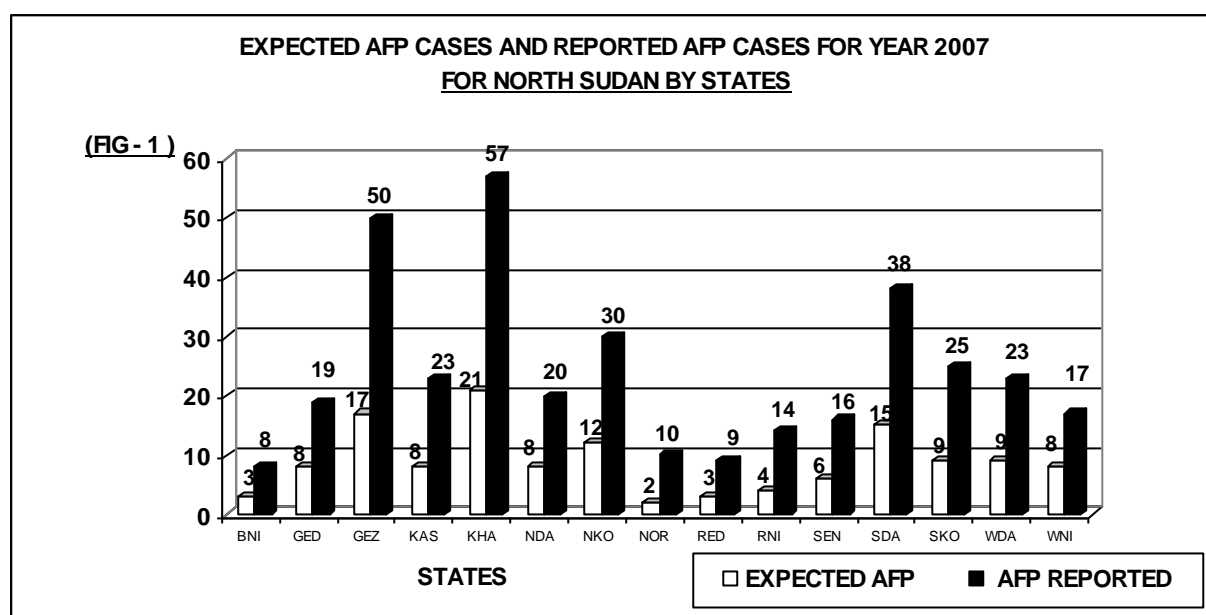
AFP Surveillance Summary in North Sudan for year 2007

	North Sudan
EXPECTED AFP CASES	133
REPORTED AFP CASES	360
CONFIRMED POLIO CASES	1
COMPATIBLE CASES	2
DISCARDED CASES	357
CASES WITH 2 SPECIMENS	354
CASES WITH 1 SPECIMENS	2
CASES WITH NO SPECIMENS	4
TOTAL SPECIMENS COLLECTED	710
SPECIMENS IN GOOD CONDITION	710
SPECIMENS IN POOR CONDITION	0
AFP CASES WITH ADEQUATE SPECIMENS	92%
SPECIMENS WITH POSITIVE RESULTS	2
SPECIMENS WITH NEGATIVE RESULTS	708
AFP CASES INVESTIGATED <=48 HOURS	99%
SPECIMENS ARRIVED LABORATORY <= 3 DAYS OF BEING SEND	96%
SPECIMENS ARRIVED LABORATORY 3 DAYS OF BEING COLLECTED	77%
SPECIMENS RESULTS TURN ROUND <= 28 DAYS	99%
SPECIMENS WITH ENTERO-VIRUS	15%
NON-POLIO AFP RATE	2.7

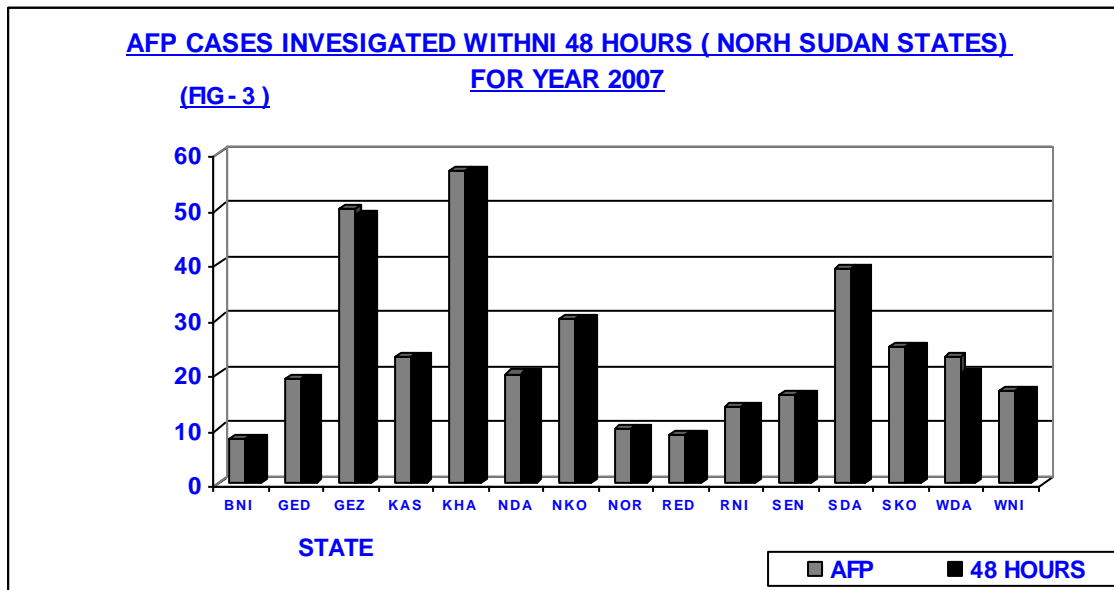
(Table – 4)

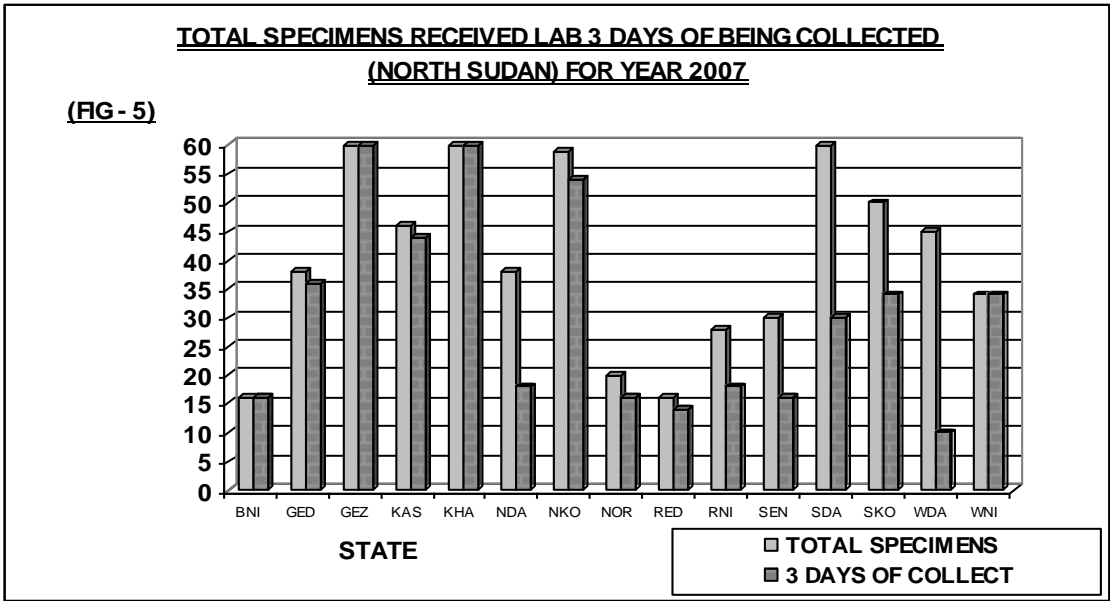
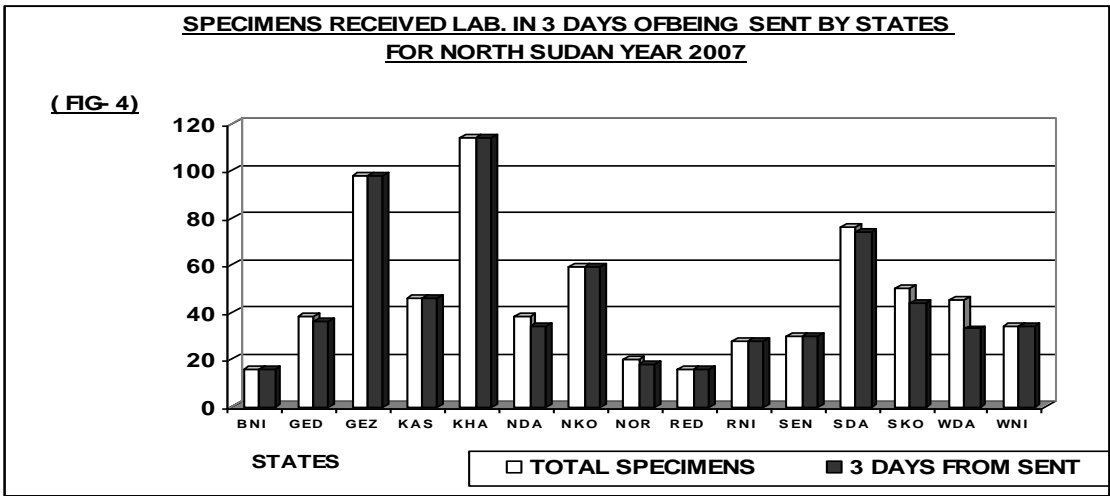
Expected number of AFP and reported AFP cases and final classification
For year 2007 (North Sudan)

STATES	EXP	AFP	CLASSIFICATION			NON-POLIO AFP RATE
			Confirmed (Wild)	Compatible	Discarded	
BLUE NILE	3	8	0	0	8	2.7
GEDARIF	8	19	0	0	19	2.4
GEZIRA	17	50	0	1	49	2.9
KASSALA	8	23	0	0	23	2.9
KHARTOUM	21	57	0	0	57	2.7
NORTH DARFUR	8	20	0	0	20	2.5
NORTH KORDOFAN	12	30	0	0	30	2.5
NORTHERN	3	10	0	0	10	3.3
RED SEA	3	9	0	0	9	3.0
RIVER NILE	4	14	0	0	14	3.5
SENNAR	6	16	0	0	16	2.7
SOUTH DARFUR	15	39	1	0	38	2.5
SOUTH KORDOFAN	9	25	0	0	25	2.8
WEST DARFUR	8	23	0	1	20	2.5
WHITE NILE	8	17	0	0	17	2.1
TOTAL	133	360	1	2	357	2.7



BLUE NILE	8	87%	100%	100%	100%	100%	100%
GEDARIF	19	73%	100%	95%	95%	100%	95%
GEZIRA	50	86%	97%	86%	100%	100%	60%
KASSALA	23	91%	100%	96%	100%	98%	100%
KHARTOUM	57	91%	100%	100%	100%	100%	91%
NORTH DARFUR	20	80%	100%	45%	89%	100%	85%
NORTH KORDOFAN	30	67%	100%	90%	100%	100%	60%
NORTHERN	10	70%	100%	80%	90%	100%	80%
RED SEA	9	78%	100%	78%	100%	100%	89%
RIVER NILE	14	71%	100%	64%	100%	100%	86%
SENNAR	16	100%	100%	100%	100%	100%	94%
SOUTH DARFUR	39	69%	100%	39%	91%	100%	90%
SOUTH KORDOFAN	25	68%	100%	68%	88%	100%	80%
WEST DARFUR	23	43%	100%	22%	73%	100%	83%
WHITE NILE	17	100%	100%	100%	100%	100%	82%
TOTAL	360	78%	99%	77%	96%	96%	83%

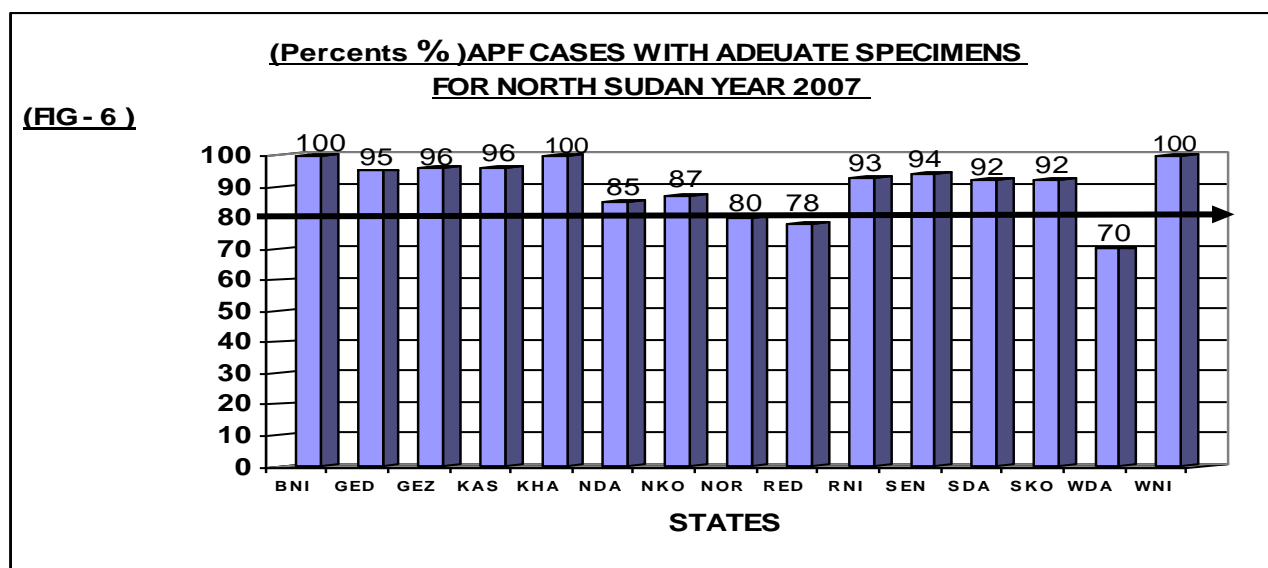




(Table – 6)

LABORATORY INVESTIGATION FOR AFP CASES BY STATES IN NORTH SUDAN FOR YEAR 2007

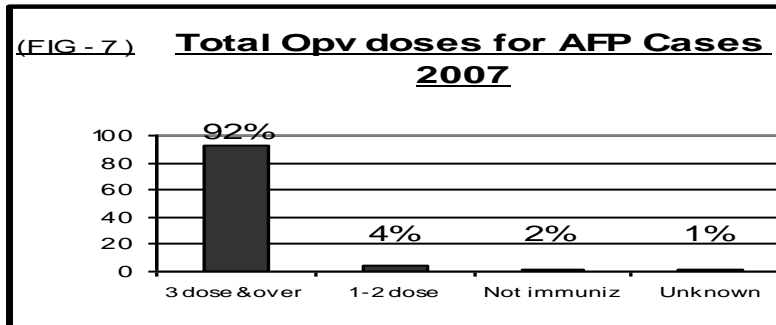
STATES	AFP Cases Reported	Cases With Adequate Specimens %	SPECIMENS			TOTAL SPECIMENS COLLECTED	Stool Condition		LAB. RESULTS		Enterovirus %
			By cases				Good	Poor	Positive	Negative	
			With 2 Specimen	With 1 Specimen	No Specimen						
BLUE NILE	8	100	8	0	0	16	100%	0	0	16	25%
GEDARIF	19	95	19	0	0	38	100%	0	0	38	11%
GEZIRA	50	96	49	0	1	98	100%	0	0	98	14%
KASSALA	23	96	23	0	0	46	100%	0	0	46	11%
KHARTOUM	57	100	57	0	0	114	100%	0	0	114	19%
NORTH DARFUR	20	85	19	0	1	38	100%	0	0	38	21%
N .KORDOFAN	30	87	29	1	0	59	100%	0	0	59	7%
NORTHERN	10	80	10	0	0	20	100%	0	0	20	10%
RED SEA	9	78	8	0	1	16	100%	0	0	16	0%
RIVER NILE	14	93	14	0	0	28	100%	0	0	28	36%
SENNAR	16	94	15	0	1	30	100%	0	0	30	7%
SOUTH DARFUR	39	92	39	0	0	76	100%	0	2	74	11%
South KORDOFAN	25	92	25	0	0	50	100%	0	0	50	20%
WEST DARFUR	23	70	22	1	0	45	100%	0	0	45	13%
WHITE NILE	17	100	17	0	0	34	100%	0	0	34	9%
TOTAL	360	92%	354	2	4	710	100%	0	2	708	15%



(Table – 7-A)
Total doses of AFP cases by age in months (Routine & Additional)2007

Age in months	AFP	3 dose +	1 to 2 Doses	not immunized	Unknown
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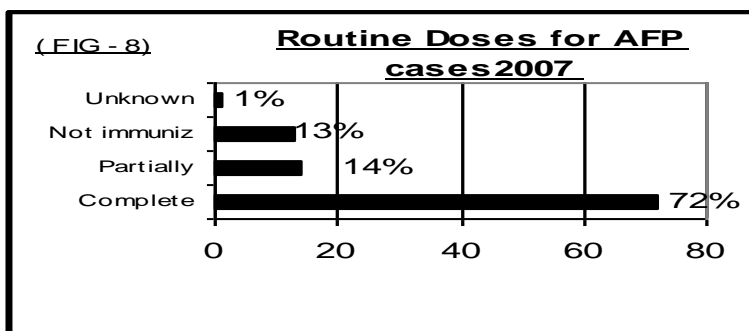
0 - 11	25	88%	12%	0%	0%
12 - 23	69	93%	6%	1%	0%
24 - 35	65	92%	6%	2%	0%
36 - 47	46	96%	2%	2%	0%
48 - 59	35	94%	3%	3%	0%
60 +	120	92%	2%	3%	3%
Total	360	92.0%	4.0%	2.0%	1.0%



(Table – 7-B)

Routine Doses of AFP cases by age in months 2007

Age in months	AFP	Complete	Partially	not immunized	Unknown
0 - 11	25	68%	16%	16%	0%
12 - 23	69	78%	13%	9%	0%
24 - 35	65	75%	12%	12%	0%
36 - 47	46	78%	4%	17%	0%
48 - 59	35	66%	23%	11%	0%
60 +	120	68%	16%	13%	3%
Total	360	72.0%	14.0%	13.0%	1.0%

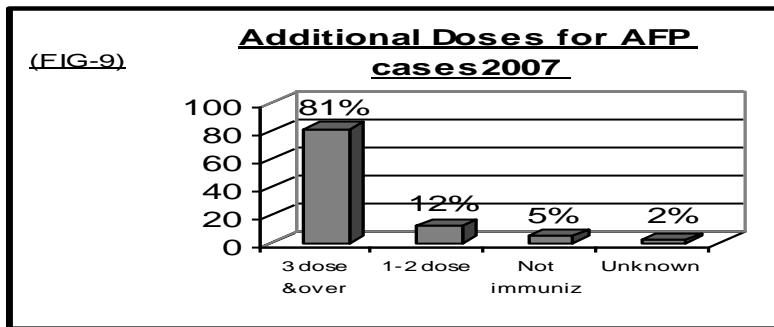


(Table – 7-C)

Additional Doses of AFP cases by age in months 2007

Age in months	AFP	3 doses +	1-2 doses	not immunized	Unknown
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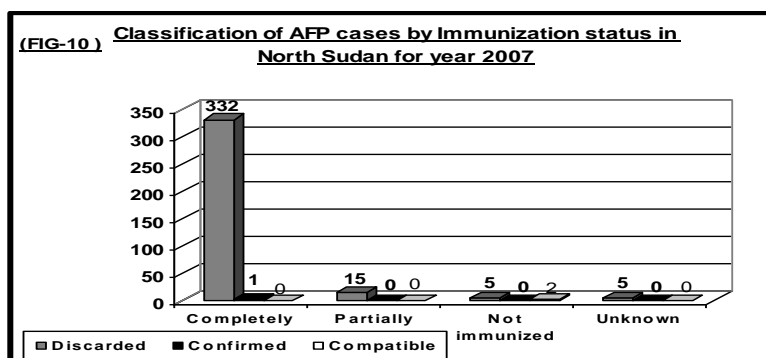
0 - 11	25	64%	32%	4%	0%
12 - 23	69	77%	19%	4%	0%
24 - 35	65	89%	8%	3%	0%
36 - 47	46	89%	9%	2%	0%
48 - 59	35	82%	15%	3%	0%
60 +	120	80%	8%	8%	4%
Total	360	81.0%	12.0%	5.0%	2.0%



(Table – 8)

Classification of AFP cases by immunization status 2007

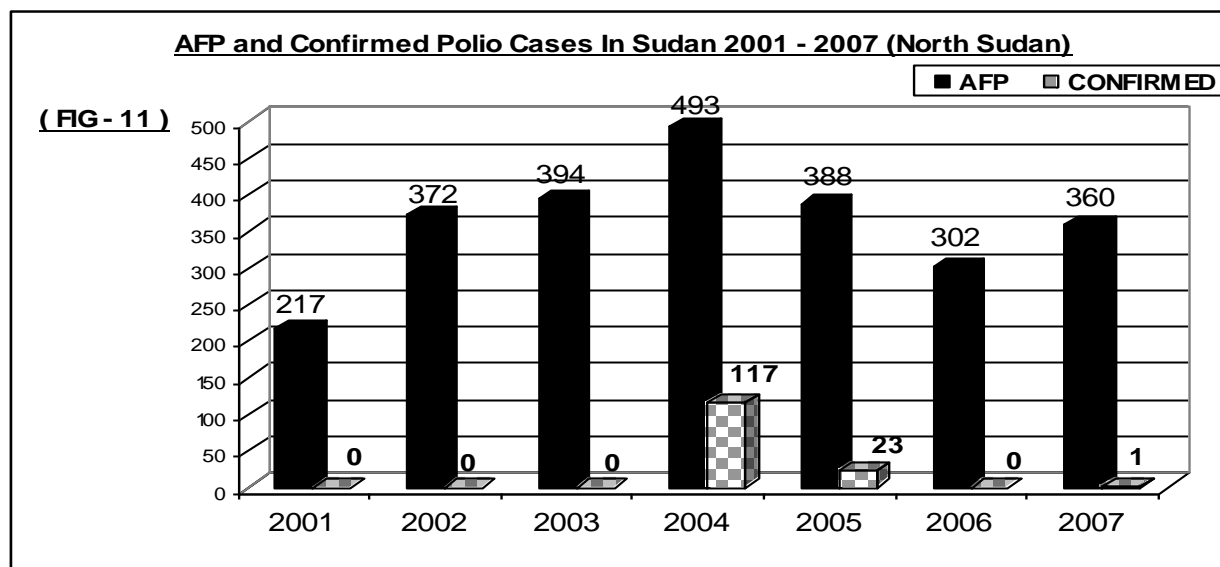
Immunization status	AFP	Classification		
		Confirmed (Wild)	Compatible	Discarded
Completely	333	1	0	332
Partially	15	0	0	15
Not immunized	6	0	2	5
Unknown	6	0	0	5
Total	360	1	2	357



(Table – 9)

INDICATORS	2002	2003	2004	2005	2006	2007*
EXPECTED AFP CASES	143	143	146	149	127	133
REPORTED AFP CASES	372	394	494	388	302	360
CONFIRMED POLIO CASES	0	0	119	23	0	1
CASES WITH WILD POLIOVIRUS ISOLATED	0	0	119	23	0	1
CONFIRMED POLIO CASES BY FOLLOW-UP	0	0	0	0	0	0
COMPATIBLE CASES	1	1	23	0	6	2
DISCARDED CASES	370	393	352	354	296	357
TOTAL CASES WITH SPECIMENS COLLECTED	371	391	490	381	299	356
CASES WITH 2 SPECIMENS	367	388	481	376	298	354
CASES WITH 1 SPECIMENS	4	3	9	5	1	2
CASES WITH NO SPECIMENS	0	3	4	7	3	4
TOTAL SPECIMENS COLLECTED	738	779	971	757	697	710
SPECIMENS IN GOOD CONDITION	738	779	969	757	697	710
SPECIMENS IN POOR CONDITION	0	0	2	0	0	0
CASES WITH ADEQUATE SPECIMENS	332	350	87.6%	88%	93	92%
SPECIMENS WITH POSITIVE RESULTS	0	0	203	39	0	2
SPECIMENS WITH NEGATIVE RESULTS	738	779	768	718	597	708
AFP CASES INVESTIGATED \leq 48 HOURS	338	383	99.6%	99%	100%	99%
SPECIMENS ARRIVED LABORATORY \leq 3DAYS OF BEING SEND	-	99.2%	99.1%	96%	98%	96%
SPECIMENS RESULTS TURN ROUND \leq 28 DAYS	-	95%	90%	96%	99%	99%
NON-POLIO AFP RATE	2.6	2.7	2.4	2.4	2.3	2.7

* 2007 Included information for North Sudan only



(Table – 10)

Progress & Fever & Asymmatric at onset of Paralysis 2007

Type	Yes	No
Progress	100%	--
Fever	64%	36%
Asymmatric	53%	47%

(Table – 11)

Finding at follow-up for AFP Cases in North Sudan for year 2007

Res Weekness	No Res Weekness	Lost follow-up	Died before follow-up
33%	55%	7%	5%

(Table – 12)

Special Diganosis of Dicarded AFP cases in for year 2007

Diseases	No.	Percent%
GBS	151	42%
Trnasvaire	12	3%
Nonpolio	2	0.5%
Complicated Malaria	57	15%
Traumatic Neuritis	32	9%
Childhood Hemiplegia	28	7%
Meningo Encephalitis	43	12%
Hypokalemia	9	3%
Anaemia	6	2%
Artheritis	4	1%
Diphtheria	1	0.2%
Ataxia	1	0.2%
CVA	2	0.5%
Osteomyelitis	1	0.2%
Acute Diarrhoea	1	0.2%
Brain	1	0.2%
Spinal cord	1	0.2%
Todd's Paralysis	1	0.2%
Hypgirdle	1	0.2%
Potts diseases	1	0.2%
Sever Pneumonia	1	0.2%
Stroke	1	0.2%
Myositis	1	0.2%
Total	357	100%
Others 3 Cases classified as 1 Confirmed 2 Compatible		

(Table – 13)

PERFORMANCE INDICATORS OF AFP SURVEILLANCE SYSTEM IN NORTH SUDAN BY STATES 2007

EXE	AFP	AD	EC	1 *	2 *	3 *	CC	CO	DI	AI
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STATES							4*				ENTERO	
BLUE NILE	3	8	100%	100%	100%	100%	100%	0	0	8	25%	2.7
GEDARIF	8	19	95%	100%	95%	95%	100%	0	0	19	11%	2.4
GEZIRA	17	50	96%	97%	86%	100%	100%	0	1	49	14%	2.9
KASSALA	8	23	96%	100%	96%	100%	98%	0	0	23	11%	2.9
KHARTOUM	21	57	100%	100%	100%	100%	100%	0	0	57	19%	2.7
NORTH DARFUR	8	20	85%	100%	45%	89%	100%	0	0	20	21%	2.5
N..KORDOFAN	12	30	87%	100%	90%	100%	100%	0	0	30	7%	2.5
NORTHERN	3	10	80%	100%	80%	90%	100%	0	0	10	10%	3.3
RED SEA	3	9	78%	100%	78%	100%	100%	0	0	9	0%	3.0
RIVER NILE	4	14	93%	100%	64%	100%	100%	0	0	14	36%	3.5
SENNAR	6	16	94%	100%	100%	100%	100%	0	0	16	7%	2.7
SOUTH DARFUR	15	39	92%	100%	39%	91%	100%	1	0	38	11%	2.5
S. KORDOFAN	9	25	92%	100%	68%	88%	100%	0	0	25	20%	2.8
WEST DARFUR	8	23	70%	100%	22%	73%	100%	0	1	22	13%	2.5
WHITE NILE	8	17	100%	100%	100%	100%	100%	0	0	17	9%	2.1
TOTAL	133	360	92%	99%	77%	96%	96%	1	2	357	15%	2.7

1* AFP cases investigated within 48 hours

2* Specimens received LAB. 3 days of being sent

3* Specimens received LAB. 3 days of being collected

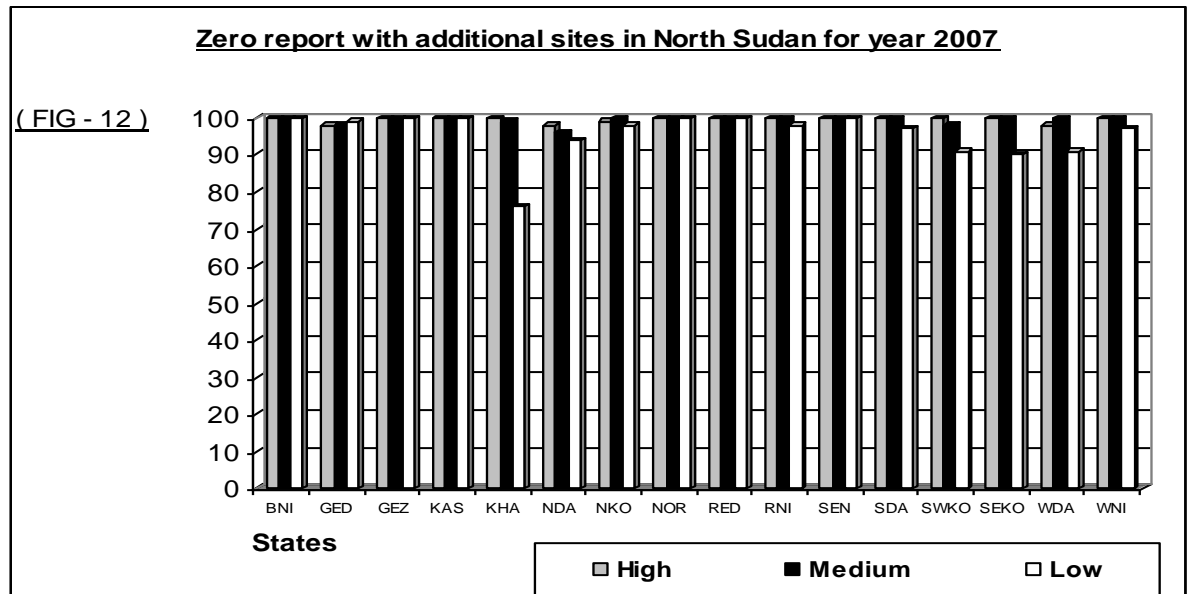
4* specimens results received EPI 28 days of being received to the LAB.

(Table – 14)

Weekly Report (Completeness and Timeliness) in North Sudan by states for year 2007

STATES	High Priority	Medium Priority	Low Priority
BLUE NILE	100%	100%	100%
GEDARIF	98%	98%	99%

GEZIRA	100%	100%	100%
KASSALA	100%	100%	100%
KHARTOUM	100%	99%	100%
NORTH DARFUR	98%	96%	94%
N .KORDOFAN	99%	100%	98%
NORTHERN	100%	100%	100%
RED SEA	100%	100%	100%
RIVER NILE	100%	100%	100%
SENNAR	100%	100%	100%
SOUTH DARFUR	100%	100%	97%
South W . KORDOFAN	100%	98%	91%
South E. KORDOFAN	100%	100%	90%
WEST DARFUR	98%	100%	97%
WHITE NILE	100%	100%	100%
Total	99.6%	98%	98%

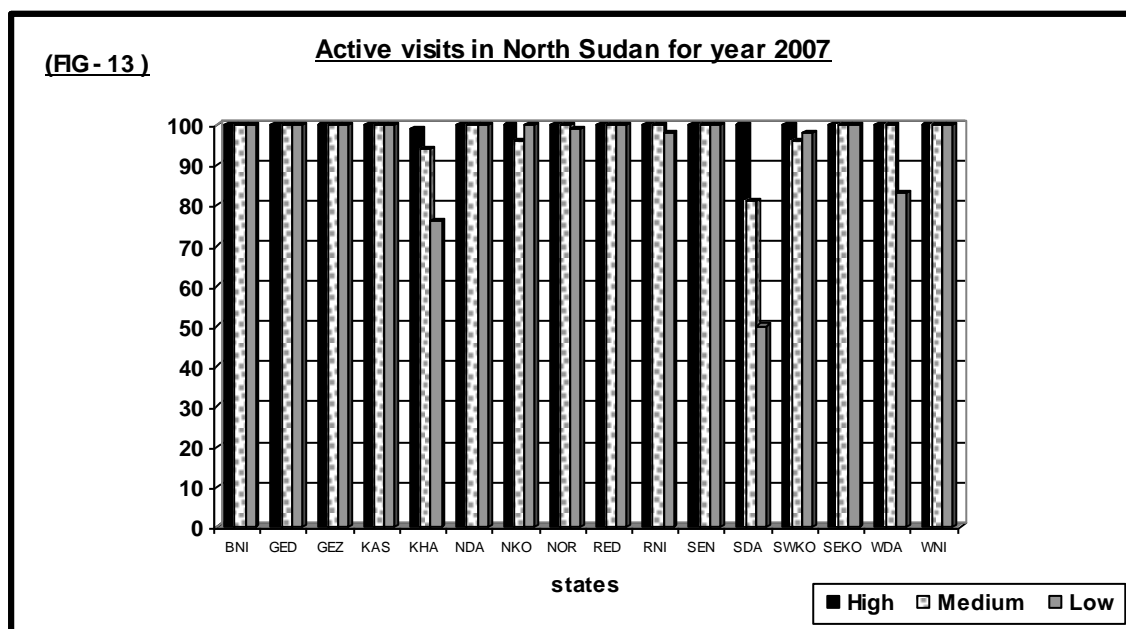


(Table – 15)

Active Visit by states in North Sudan for year 2007

STATES	High Priority	Medium Priority	Low Priority
BLUE NILE	100%	100%	100%
GEDARIF	100%	100%	100%
GEZIRA	100%	100%	100%
KASSALA	100%	100%	100%
KHARTOUM	99%	94%	76%

NORTH DARFUR	100%	100%	100%
N .KORDOFAN	100%	96%	100%
NORTHERN	100%	100%	99%
RED SEA	100%	100%	100%
RIVER NILE	100%	100%	98%
SENNAR	100%	100%	100%
SOUTH DARFUR	100%	81%	50%
South W . KORDOFAN	100%	96%	98%
South E. KORDOFAN	100%	100%	100%
WEST DARFUR	100%	100%	83%
WHITE NILE	100%	100%	100%
Total	99.9%	97%	96%



Wild Polio Virus Importation During 2007

In August 2005, the importation of wild polio virus and the epidemic that occurred as a result was contained and since then no evidence of wild polio virus circulation in the country. Thus a certification document was written and forwarded to the Regional Certification

Commission in EMRO, Cairo and was accepted.

Countries neighboring Sudan are free of wild polio virus except Chad which has been suffering from importations from Nigeria. Due to the high population movement between Sudan and Chad a wild polio virus was imported to Shi-aria locality in South Darfur State in 10/9/2007.

The case was a male child, 30 months of age, presented with acute flaccid paralysis, asymmetrical, and fever. The paralysis affected only the left leg and there was no loss of sensation. The child received 4 OPV doses one routine + 3 Nids. The probable source is the nomadic population moving between Chad and Sudan. Examination of two adequate stool specimens showed that both were positive for wild polio virus type 1.

According to national EPR plan for importation, the Ministry of Health in cooperation with WHO, UNICEF and other partners conducted 3 NIDs rounds using P1 oral vaccine, during October, November and December. This, added to the high routine coverage (91%), raised the immunity level of children so that no any other secondary case resulted so far in spite of the efforts exerted actively to detect AFP cases all over the country.

The importation of this case will not affect the certification situation. An update of the Sudan Certification Document for the year 2007 is now ready to be forwarded to the RCC during March 2006 for consideration in its next meeting in April 2008.

ACUTE FLACCID PARALYSIS (AFP)
SURVEILLANCE CENTRAL UNIT

ANNUAL REPORT 2007

KHARTOUM
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