

POLIOVIRUS EPIDEMIOLOGY

The AFP surveillance system has reported 2736 AFP cases in 2009, including 1250 from Punjab, 703 from Sindh, 513 from NWFP, 93 from FATA, 121 from Balochistan, 38 from AJK, 10 from FANA., and 08 from Islamabad. **The overall AFP surveillance indicators at the national and provincial levels are above the international standards.** The non-polio AFP rate (annualized) is 5.8 per 100,000 children below 15 years of age and percent AFP cases with adequate specimens is 92%.

There were 14 new polio cases since publication of the last bulletin (details on page 2), including seven type-1 polio cases and seven type-3 cases. The type-1 cases are located in Lahore district in Punjab; Sherani and Pishin districts in Balochistan; Noushero Feroz and Sanghar districts in Sindh; Bajour Agency in FATA; and Swat district in NWFP. Six of the seven new type-3 cases are from Bajour Agency in FATA, and there was one case from Dir Upper in NWFP. Apart from the cases in Bajour Agency, the new cases are from newly infected districts, bringing the number of infected districts to 22.

As of 17 August 2009, Pakistan has reported a total of 35 confirmed polio cases including, 21 type-1 and 14 type-3 cases. Seven of the confirmed cases had onset of paralysis in January, two in February, zero in March, six in April, four in May, three in June and 13 in July (about 30% of July specimens are under process in the laboratory).

Currently there are 8 cases in Punjab, 8 cases in Sindh, 5 cases in NWFP, 11 cases in FATA and 3 in Balochistan. **It is important to highlight that there have been no confirmed cases from Southern NWFP/FATA for the last 20 months, while AJK and FANA have been without polio cases for 9 and 10 years respectively. This reinforces the fact the virus circulation can be interrupted in the country, if recommended strategies are implemented comprehensively.**

Epidemiological data complemented by the genetic analysis of polioviruses highlight that there are three distinct epidemiological zones mentioned below.

- ◆ **The Central NWFP and FATA region**, mainly the tribal areas, is the only region in the country which has never interrupted indigenous poliovirus circulation for more than 12 months. The region has ongoing circulation of both types of polioviruses (type-1 and type-3). Bajour Agency alone has reported 9 cases (7 type-3 and 2 type-1 cases), which is the highest number of polio cases in any district this year. Access to all populations in this region has been greatly hampered by the ongoing active conflict. The team continues to look for any opportunity to proactively immunize children in these areas. More than 100,000 children (50% of the target population) in Bajour Agency have remained inaccessible to the vaccination teams since August 2008, leading to significant immunity gaps. This has led to an outbreak of type-3 poliovirus in Bajour Agency (6 cases in July; 4 from Tehsil Mamonad & 2 from Tehsil Khar; 4 of them zero-dose, 2 cases with

only 2 doses; Median age— 18 months; 5 of 6 cases - females).

- ◆ For the last two years there is ongoing type – 3 poliovirus circulation mainly in **Karachi and Hyderabad and surrounding districts**. This virus has spread to southern

Afghanistan and Bajour Agency. There are also early signs of re-establishment of type-1 poliovirus circulation, after an importation from southern Afghanistan.

- ◆ **North-western Balochistan (Quetta block)**, which shares borders with southern Afghanistan (Kandahar area) has ongoing circulation of type-1 poliovirus circulation and is responsible for the spread of virus to areas within the province (Shirani) and outside the province (Bahawalpur, Punjab).
- ◆ Detection of type-1 polio case from Lahore linked with the previous year circulation in Punjab province is of high concern.
- ◆ Given the un-restricted population movements between Southern Afghanistan, Balochistan and Sindh, there is regular sharing of polioviruses as reinforced by the ongoing circulation of type-1 poliovirus. Recently southern Afghanistan was affected by an 'importation' of poliovirus type-3 from Sindh, reinforcing again the ongoing sharing of poliovirus circulation between the two countries and the need for continued cross border collaboration and coordination.

Characteristics of polio cases: the majority of cases (91%) are young children below 3 years of age (range: 3 – 60 months) and are from high risk communities and areas. At least 60% of cases have not received any routine doses of OPV and 25% of the cases have received no OPV doses, indicating gaps in vaccination activities. Insecurity in NWFP/FATA remains the major risk to the program. However, the campaign monitoring data highlights that virus circulation in areas where there are no access issues, including Punjab, Sindh and Balochistan is due to the lack of uniformity of coverage at the sub-district levels.

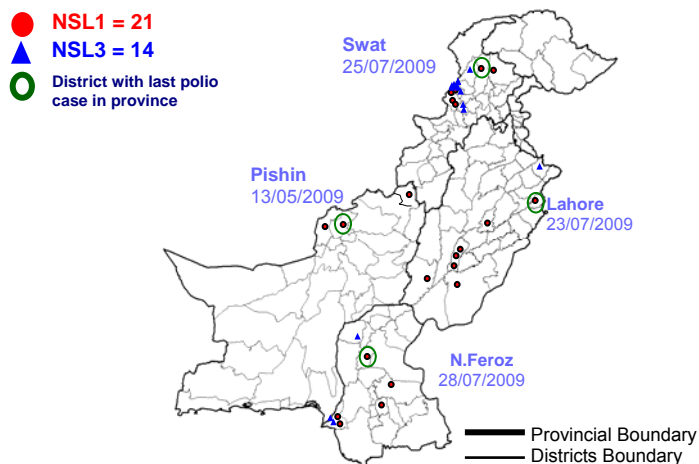
Implementation and institutionalized monitoring of already developed province and district specific plans to ensure vaccination of all children is the key to stopping poliovirus circulation. Program staff in NWFP and FATA should continue with locally appropriate strategies to vaccinate as many children as possible in the insecure areas.

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News Briefs & Upcoming Events

- ◆ President Mr Asif Ali Zardari was presented with a Polio Champion Award by the PolioPlus Chairman of Rotary International in recognition of his leadership and oversight of the polio programme in Pakistan.
- ◆ Environmental surveillance for wastewater (sewerage) sampling has started for the first time in Pakistan for having a better understanding of poliovirus transmission pattern. Sampling data and results will be presented in the upcoming issue of the bulletin.
- ◆ SNIDs are being conducted from 17 to 19 August in selected districts of the country using a mix of mOPV1 and mOPV3
- ◆ An independent evaluation of the major barriers to interrupting poliovirus circulation in Pakistan will take place from 24 August to 1 September.

CONFIRMED POLIO CASES BY DISTRICT 2009



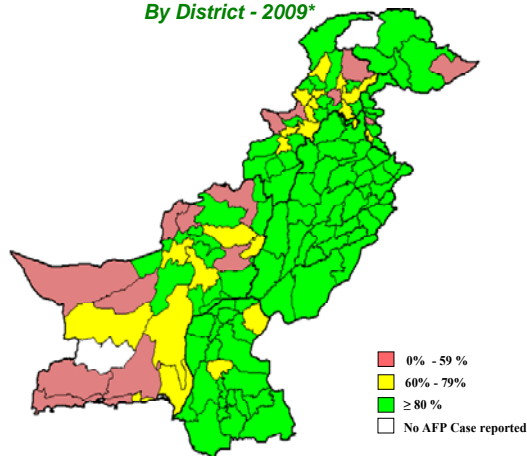
CASE NOTIFICATION OF AFP CASES WITHIN 7 DAYS OF ONSET OF PARALYSIS, 2009

The percentage of AFP cases notified within 7 days of onset of paralysis is an indicator to reflect the efficiency of the surveillance system in terms of timeliness for notification of AFP cases and thus detecting polioviruses, if present. The national standard requires 80% or more of AFP cases to be notified within 7 days of the onset of paralysis.

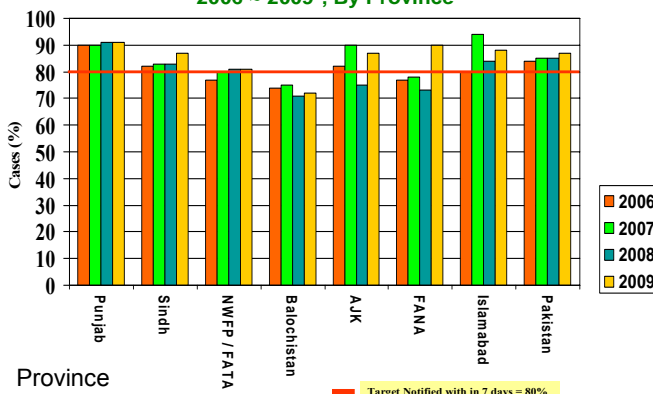
An analysis of data from 2006- 2009 shown in the bar chart below indicates that at the national level, Pakistan's surveillance system is consistently meeting the national standard. Most provinces and regions are also meeting the standard. It is important to highlight improvements in the timeliness of reporting in FANA, which has for the past few years had a low percentage of AFP cases notified within 7 days of onset of paralysis. Balochistan however is persistently performing below the required global standards, which is a concern. The 2009 map indicates that there are districts with a sub-optimal percentage of AFP cases notified within 7 days of onset of paralysis. Of particular concern are the districts, many of which are in the active transmission zones (see section on Poliovirus Epidemiology) or re-infected areas. These are: Dir Upper, Kohistan, Nowshera (NWFP); Mohmand and Khyber (FATA); Bin Qasim&Nazimabad towns in Karachi and Tando Allahyar (Sindh); and ICT (Islamabad); and Killa Abdullah, Loralai, Zhob and Pishin (Balochistan).

All Executive District Officers Health/District Health Officers/Agency Surgeons, especially in the above mentioned areas are requested to ensure that every AFP case is immediately notified by all health care providers. A review of health facilities in the current surveillance network should be conducted for assessing appropriateness by analysis of reporting together with targeted awareness sessions for the immediate reporting of all AFP cases.

Percentage AFP Cases Notified with in 7 days of paralysis onset, By District - 2009*



Percent AFP Cases Notified within 07 days of paralysis onset 2006 ~ 2009*, By Province



* Data as of 01-08-2009

EPIDEMIOLOGICAL CHARACTERISTICS OF RECENT POLIO CASES

Province/Region	District	Onset of Paralysis	Wild Virus Type	Sex	Age (months)	Routine OPV Doses*	SIA OPV doses*
NWFP	Dir upper	28th June	P3	M	18	0	2
NWFP	Swat ^	25th July	P1	F	10	0	0
Balochistan	Sherani f	4th July	P1	M	3	0	0
Balochistan	Pishin f	13th July	P1	M	6	0	0
FATA	Bajour ^	1st July	P3	M	23	0	2
FATA	Bajour ^	3rd July	P1	M	16	0	7
FATA	Bajour ^	8th July	P3	F	9	0	0
FATA	Bajour	17th July	P3	F	26	0	0
FATA	Bajour ^	20th July	P3	F	24	0	0
FATA	Bajour	22nd July	P3	F	14	0	0
FATA	Bajour ^	14th July	P3	F	18	0	2
Punjab	Lahore ¥	23rd July	P1	F	18	0	0
Sindh	N-Feroz	28th July	P1	M	54	0	7+
Sindh	Sanghar	20th July	P1	M	11	3	5

* As per recall of parents

^ Insecure areas.

¥ Case response conducted 10-12 August.

f Refusal

Global Update, 2009

821 confirmed cases were reported globally in 2009 (605 cases from endemic countries and 216 from non-endemic countries) compared with 1008 for the same period in 2008. The cases are: Pakistan - 35, Afghanistan - 14, India - 184, Nigeria-372, Kenya-17, Sudan-44, Benin- 20, Uganda-8, Niger-15, Angola-18, Togo-6, Burkina Faso-12, Ivory Coast-23, CAR-14; Chad-13; Guinea-15; Liberia-7, DRC-3; and one from Mali. For details, please

[visit www.polioeradication.org](http://www.polioeradication.org)

NATIONAL IMMUNIZATION DAYS - JULY 2009

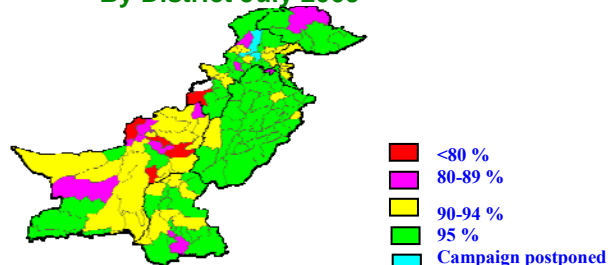
The 4th scheduled round of NIDs in 2009 was held from 20-22 July using trivalent Oral Polio Vaccine (tOPV). The Federal Health Minister Mr. Aijaz Jakhri inaugurated the campaign in Islamabad. The campaign was postponed for one week in Sindh province because of heavy rains. Also, it was not conducted in Swat, Bunir & Malakand due to the ongoing security situation. Efforts continued to immunize as many internally displaced children as possible from these insecure areas. In Bajour, S. Waziristan, Shangala and FR Kohat, more than 50% of the target could not be accessed. Mohmand agency, Charsada, Dir upper & lower, Kohat, FR Bannu and Peshawar were also partially inaccessible. A total of 1.04 million children were not accessible because of insecurity.

The overall national coverage as verified through finger marking was 94%. The provincial coverage was 96% in Punjab, 94% in Sindh, 94% in NWFP, 93% in FATA, 88% in Balochistan, 95% in AJK, 94% in FANA and 86% in Islamabad. However, many critical

districts are persistently showing sub-optimal performance including Killah Abdullah, Quetta, Pishin, Karachi, Dir Upper, Lahore, Islamabad, Badin & Hyderabad, please see the map. National guidelines is to re-cover all areas having coverage below 90%.

Inconsistent performance within provinces at the district level reinforces the need for addressing quality issues at the sub-districts level to ensure homogenous / consistent performance.

**Coverage by Finger Marking
By District July 2009**



SURVEILLANCE REVIEW IN SOUTH PUNJAB (1—4 JULY 2009)

Genetic data analysis of a recent wild poliovirus type-1 from Rajanpur district indicated potential gaps in the sensitivity of the AFP surveillance system. A field assessment to understand the quality of the AFP surveillance system was carried out in 7 districts of south Punjab as recommended by the Technical Advisory Group.

Reviewers included experienced staff from WHO and UNICEF working outside of Punjab, who followed standard methodologies and field review guidelines. The review was undertaken in Multan, Rajanpur, Dera Ghazi Khan, Bahawalpur, Rahim Yar Khan, Muzfargarh and Lodhran districts.

The review mission observed that there was a functioning, responsive and sensitive surveillance system in place in all districts of the region. The key surveillance indicators in these districts are meeting the international standards and there was no evidence that poliovirus circulation and cases are being missed. However, the team did find evidence that potential AFP cases are being missed in a

few districts. The reviewers observed a number of operational issues in the field. However these issues can be rapidly overcome through more careful case investigation and enhanced supervision.

Key recommendations of the review are: a) ensure provision of vehicles with sufficient fuel support to the District Surveillance Coordinator for performing their responsibilities optimally; b) review and update existing district specific plans based on the findings of the review with special focus on training and orientation seminars; and c) periodic field assessment by the provincial team. Feedback was given to the provincial and district staff during a meeting, which was chaired by the Director General Health of Punjab. He found the review beneficial for the program and assured implementation and follow up of the recommendations. Given the importance of ensuring a sensitive surveillance system in the presence of ongoing poliovirus circulation, reviews are also being planned in northern Sindh and eastern Balochistan.

Province-wise AFP Surveillance Data for 2008 & 2009

Province/ Region	AFP Surveillance Data 2008						AFP Surveillance Data 2009										Rec. File Date
	Minimum Expected AFP* Cases	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected Cases	Total Reported AFP Cases	Wild Polio virus Cases	Indicators			Zero Reporting†			Active Surveillance (%)†	
				Non-Polio AFP Rate	Adequate Stools (%)	60 Day Follow Up				Non-Polio AFP Rate**	Adequate Stools (%)	60 Day Follow Up	Number Zero Reporting	Completeness (%)†	Timeliness (%)†		
Punjab	860	2,177	31	5.0	94	94	885	1,250	8	4.9	95	95	912	94	94	99	07 August 2009 [§]
Sindh	365	1,334	18	7.2	90	91	374	703	8	6.5	91	91	1431	87	88	***	
NWFP	213	1,275	38	11.5	86	91	219	513	5	7.8	88	81	1209	76	75	79	
FATA	36	191	14	9.7	82	89	37	93	11	7.7	84	80	215	64	62	61	
Balochistan	77	253	11	6.2	82	86	78	121	3	5.2	85	87	480	98	94	99	
AJK	33	65	0	3.8	88	95	35	38	0	3.8	92	93	91	99	99	100	
FANA	12	23	0	4.6	87	95	10	10	0	3.4	100	100	42	100	100	100	
Islamabad	11	26	5	3.3	92	96	13	8	0	2.2	88	100	39	100	95	100	
Pakistan	1,604	5,344	117	6.5	92	92	1,651	2,736	35	5.8	92	91	4,419	90	88	91	

* The expected number of AFP cases calculated @ 2/100,000 children below 15 years of age.

** Non Polio rate is annualized up to week No.30 ending on 01 August 2009.

*** Data not received

† Zero reports and active surveillance averaged for last 4 weeks

FEEDBACK

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PO Box: 1013, Phone: +92 51 9255123, +92 51 9255282, Exchange: +92 51 9255075,077, 184,185, Ext: 62461 Fax: +92 51 9255192, 9255274
Email: epidata@pak.emro.who.int Website: www.whopak.org/polioeradication

DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - PUNJAB

District	AFP Surveillance Data 2008						AFP Surveillance Data 2009									
	Minimum Expected AFP Cases (Annual)*	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected AFP Cases (Annual)*	Total Reported AFP Cases	Wild Polio Cases	Indicators			Zero Reporting†			Active Surveillance (%)+ ‡
				Non-Polio AFP Rate	Adequate Stools (%)+ †	60 Day Follow Up (%)+ †				Non-Polio AFP Rate **	Adequate Stools (%)+ †	60 Day Follow Up (%)+ †	Number Zero Reporting Sites	Completeness (%)+ † ‡	Timeliness (%)+ † ‡	
Bahawalpur	30	61	1	4.0	97	94	31	32	1	3.5	97	95	30	94	94	100
Bahwalnagar	24	54	0	4.5	93	94	24	29	0	4.2	97	88	25	88	88	90
Rahim Yar Khan	39	103	0	5.3	92	97	40	51	0	4.4	98	89	40	80	80	100
Dera Ghazi Khan	20	98	0	9.6	98	91	21	63	0	10.3	95	100	20	82	82	98
Layyah	14	50	0	7.3	94	94	14	25	0	6.1	100	100	17	100	100	100
Muzaffargarh	33	112	0	6.8	95	94	34	59	0	6.0	86	90	26	99	95	100
Rajanpur	14	64	0	9.3	97	98	14	46	1	11.0	98	96	17	86	86	100
Faisalabad	63	133	2	4.2	83	90	64	61	0	3.3	92	92	36	98	98	100
Jhang	32	85	4	5.0	82	95	32	29	0	3.1	93	95	26	91	91	100
Toba Tek Singh	18	55	1	6.0	91	89	18	33	1	6.0	85	95	23	100	96	100
Gujranwala	40	107	3	5.0	93	97	42	52	0	4.3	94	100	47	94	94	100
Gujrat	23	49	0	4.2	96	95	23	36	0	5.3	97	91	40	100	95	100
Hafizabad	9	32	5	5.5	88	96	10	19	0	6.9	100	90	23	100	98	100
Mandi Bahuddin	13	34	0	5.4	97	97	13	22	0	6.0	100	100	25	95	95	100
Narowal	14	33	0	4.8	94	100	14	29	0	7.1	90	95	30	98	98	98
Sialkot	31	49	1	3.0	94	100	32	38	1	4.0	95	96	25	99	99	100
Kasur	28	71	2	5.0	97	95	28	37	0	4.5	100	96	27	100	100	100
Lahore	80	114	2	2.8	95	92	83	64	1	2.6	97	95	42	98	98	96
Okara	25	105	2	8.1	96	93	26	49	0	6.5	96	96	32	96	96	98
Sheikhupura	24	41	3	3.2	98	95	25	28	0	3.9	86	100	29	100	100	100
Nankana Sahib	14	39	1	4.8	87	94	15	31	0	7.0	97	96	29	91	91	100
Khanewal	24	90	2	7.4	94	96	24	54	0	7.7	93	95	30	96	96	100
Lodhran	14	51	0	7.4	94	95	14	38	0	9.3	89	92	22	83	83	100
Multan	37	79	0	4.3	91	90	38	67	3	5.9	97	98	30	97	97	100
Pakpattan	15	35	0	4.7	97	97	15	21	0	4.8	81	82	17	93	93	100
Sahiwal	20	56	1	5.3	91	96	21	37	0	6.1	89	100	28	92	92	94
Vehari	25	65	0	5.3	95	92	25	26	0	3.6	92	94	27	100	100	100
Attock	14	30	0	4.2	97	100	15	13	0	3.1	92	100	15	100	100	100
Chakwal	12	30	0	5.1	100	100	12	17	0	4.9	94	100	10	100	100	100
Jhelum	10	27	0	5.2	96	96	11	20	0	6.5	100	100	20	100	100	100
Rawalpindi	40	66	1	3.3	97	95	41	40	0	3.4	100	96	29	95	95	100
Bhakkar	12	41	0	6.6	98	82	13	18	0	4.9	100	100	11	91	91	100
Khushab	10	26	0	5.2	96	96	10	12	0	4.1	100	100	16	79	100	100
Mianwali	12	41	0	6.8	95	95	12	21	0	5.9	100	93	17	100	100	94
Sargodha	29	51	0	3.5	98	96	30	33	0	3.8	97	93	31	98	98	99
Punjab	860	2,177	31	5.0	94	94	885	1,250	8	4.9	95	95	912	94	94	99

* The expected number of AFP cases calculated @ 2/100,000 children below 15 years of age; number expected cases by district may not add up to the total because of rounding off.

† Target ≥80%

○ Indicator below target

** Non Polio rate is annualized up to week No.30 ending on 01 August 2009.

DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - SINDH

Town/District	AFP Surveillance Data 2008						AFP Surveillance Data 2009									
	Minimum Expected AFP Cases (Annual) *	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected AFP Cases (Annual) *	Total Reported AFP Cases	Wild Polio Cases	Indicators			Zero Reporting‡		Active Surveillance (%) ††	
				Non-Polio AFP Rate	Adequate Stools (%) †	60 Day Follow Up (%) †				Non-Polio AFP Rate **	Adequate Stools (%) †	60 Day Follow Up (%) †	Number Zero Reporting Sites	Completeness (%) ††		Timeliness (%) ††
Town Wise Summary — Karachi																
Baldia	5	15	0	6.5	80	80	5	13	2	7.9	92	90	20	93	76	***
Bin Qasim	5	23	0	9.1	91	95	5	11	0	7.1	64	100	22	100	100	***
Gadap	4	22	1	10.0	77	90	4	16	1	11.7	88	80	12	85	94	***
Gulberg	6	10	0	3.7	90	100	6	5	0	3.0	80	100	14	100	100	***
Gulshan-e-Iqbal	8	26	1	6.1	92	100	9	13	1	4.8	77	83	20	100	95	***
Jamsheed	9	17	0	3.8	88	100	9	8	0	3.0	75	85	18	83	94	***
Kamari	6	12	0	4.2	83	90	6	6	0	3.4	100	100	11	100	100	***
Korangi	7	28	0	8.0	93	96	7	18	0	8.5	83	69	12	100	100	***
Landhi	9	20	0	4.1	95	94	10	14	0	4.9	93	88	22	99	99	***
Liaqatabad	8	13	0	3.3	92	100	8	7	0	3.0	100	100	17	99	91	***
Layari	7	14	0	4.3	100	92	7	14	0	7.2	86	100	15	84	93	***
Malir	6	19	0	6.4	95	100	6	9	0	4.9	100	100	15	100	100	***
North	8	21	1	4.9	81	85	9	4	0	1.6	75	100	13	79	93	***
North Nazimabad	6	10	0	3.3	90	80	6	4	0	2.2	75	0	13	89	91	***
Orangi	11	27	0	5.1	93	95	11	8	0	2.5	88	75	23	74	80	***
Shah Faisal	6	13	0	4.2	85	84	6	6	0	3.2	100	100	11	100	100	***
Saddar	10	19	1	3.8	84	84	10	6	0	2.1	100	100	21	76	97	***
Site	7	13	1	3.5	85	75	7	8	0	3.8	88	100	16	100	95	***
District Wise Summary— Sindh																
KARACHI	128	322	5	5.0	89	92	131	170	4	4.4	86	87	295	92	94	***
Badin	13	55	0	8.6	93	89	13	32	0	8.5	94	95	54	97	86	***
Dadu	13	35	1	5.3	100	88	13	34	0	8.9	91	82	64	53	84	***
Jamshoro	7	30	0	8.8	73	80	7	9	0	4.5	100	100	30	90	90	***
Tando M. Khan	5	21	0	9.3	81	85	5	9	0	6.8	89	85	12	100	98	***
Tando Allahyar	5	32	0	11.8	81	87	6	17	1	10.0	82	100	31	100	86	***
Matiari	6	32	0	11.8	94	96	6	9	0	5.6	100	100	40	100	93	***
Hyderabad	16	40	2	4.6	78	92	17	22	0	4.6	91	100	30	94	94	***
Thatta	13	71	0	11.3	96	87	13	40	0	10.8	93	96	34	48	37	***
Jacobabad	8	75	3	17.4	89	95	8	43	0	17.9	91	90	45	91	86	***
Larkana	12	46	0	7.5	89	97	13	20	0	5.5	95	94	52	100	85	***
Kashmore	7	43	0	11.4	86	95	8	35	0	15.8	97	95	39	92	86	***
Kambar	10	38	0	6.7	89	89	12	17	1	4.7	94	100	42	100	81	***
Shikarpur	10	65	1	12.9	97	93	10	35	0	11.9	94	96	54	96	90	***
Mirpurkhas	11	53	1	9.8	94	98	11	30	0	9.5	93	95	100	100	85	***
Umerkot	8	37	0	9.0	89	83	9	8	0	3.3	100	100	35	91	100	***
Sanghar	17	59	1	6.7	92	87	18	32	1	6.3	88	88	55	93	99	***
Tharparkar	11	39	0	6.8	95	94	12	22	0	6.6	95	94	98	70	85	***
Ghotki	12	48	0	8.0	90	89	12	27	0	7.5	85	81	50	89	100	***
Khairpur	18	108	2	11.6	88	93	19	37	0	6.9	95	96	102	82	93	***
S. Benazirabad^^	11	23	1	3.9	87	90	12	14	0	4.2	86	90	39	80	73	***
Naushero Feroz	11	37	1	6.1	86	88	12	24	1	6.8	87	84	60	65	96	***
Sukkur	11	25	0	4.6	96	86	11	17	0	5.3	100	100	70	90	100	***
Sindh	365	1,334	18	7.2	90	91	374	703	8	6.5	91	91	1431	87	88	***

* The expected number of AFP cases calculated @ 2/100,000 children below 15 years of age; number expected cases by district may not add up to the total because of rounding off.

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† Target ≥80%

^^Previously Nawabshah

○ Indicator below target

*** data not received from district

**Non Polio rate is annualized up to week No. 30 ending on 01 August 2009.

DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - NWFP & FATA

District /Agency	AFP Surveillance Data 2008						AFP Surveillance Data 2009									
	Minimum Expected AFP Cases (Annual) *	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected AFP Cases (Annual) *	Total Reported AFP Cases	Wild Polio Cases	Indicators			Zero Reporting †			Active Surveillance (%) ‡
				Non-Polio AFP Rate **	Adequate Stools (%) †	60 Day Follow Up (%) †				Non-Polio AFP Rate **	Adequate Stools (%) †	60 Day Follow Up (%) †	Number Zero Reporting Sites	Completeness (%) † ‡	Timeliness (%) † ‡	
District Wise Summary — NWFP																
Bannu	8	41	0	10.2	83	90	8	14	0	5.9	93	81	43	94	90	98
Dera Ismail Khan	11	53	0	9.5	85	94	11	12	0	3.8	100	87	64	93	93	95
Lakki Marwat	6	53	0	17.6	91	94	6	24	0	13.4	92	52	48	87	87	90
Tank	3	21	0	14.4	81	95	3	6	0	6.9	83	100	27	93	93	100
Abottabad	9	31	0	6.5	97	96	10	22	0	7.9	91	100	93	85	85	96
Batagram	3	14	1	8.8	79	100	3	9	0	10.6	89	100	31	87	87	100
Haripur	8	26	0	6.7	92	92	8	12	0	5.3	100	100	63	98	98	100
Kohistan	4	7	0	3.3	86	71	4	3	1	1.6	67	0	21	95	95	94
Mansehra	13	79	0	11.9	89	91	13	32	0	8.2	84	88	74	89	89	88
Karak	5	29	0	10.9	90	96	6	10	0	6.3	100	100	28	88	88	98
Kohat	7	45	2	12.3	91	95	7	13	0	6.3	92	100	40	84	84	94
Hangu	4	12	0	6.2	75	75	4	3	0	2.6	67	100	28	100	100	100
Bunir	7	47	0	14.1	91	95	7	22	0	11.1	91	58	42	***	***	***
Chitral	4	9	0	4.9	100	100	4	12	0	11.0	92	44	27	83	83	86
Dir Lower	9	72	0	15.9	93	95	9	27	0	10.0	93	95	62	80	78	74
Dir Upper	7	34	2	8.8	79	87	7	15	1	6.9	80	81	30	97	97	0
Malakand	6	43	0	15.2	86	97	6	10	0	5.9	80	100	46	0	0	100
Swat	16	37	4	3.9	84	56	16	12	1	2.6	83	0	46	***	***	***
Shangla	5	15	0	5.6	100	93	6	5	0	3.1	60	0	35	40	40	0
Mardan	18	141	1	15.6	79	87	18	57	0	10.9	86	80	77	99	99	97
Swabi	12	109	0	17.6	84	93	13	50	0	13.6	96	96	63	89	89	100
Charsadda	12	88	3	13.9	82	87	13	33	2	8.5	85	92	49	65	33	97
Nowshera	10	81	4	14.7	86	86	11	30	0	9.6	87	64	48	82	82	98
Peshawar	26	188	21	12.4	86	95	27	80	0	10.4	88	82	124	98	98	99
NWFP	213	1,275	38	11.5	86	91	219	513	5	7.8	88	81	1209	76	75	79
Agency Wise Summary — FATA																
Bajour	8	33	4	7.1	91	63	9	36	9	11.0	86	77	16	52	51	24
Khyber	7	75	6	18.3	78	95	8	22	0	10.1	73	94	72	85	78	100
Kurram	5	7	0	2.7	86	28	5	1	0	0.7	100	0	30	***	***	***
Mohmand	5	29	4	10.5	69	82	5	14	2	8.7	79	30	26	78	78	42
Orakzai	2	8	0	10.5	100	87	2	2	0	4.6	100	100	33	100	93	96
North Waziristan	4	21	0	10.1	76	80	4	11	0	9.0	91	100	21	83	83	100
South Waziristan	5	18	0	7.6	89	94	5	7	0	5.1	100	100	17	50	50	68
FATA	36	191	14	9.7	82	89	37	93	11	7.7	84	80	215	64	62	61
NWFP & FATA	248	1,461	52	11.2	86	89	256	606	16	8.0	88	80	1424	73	72	75

* The expected number of AFP cases calculated @ 2/100,000 children below 15 years of age ; number expected cases by district may not add up to the total because of rounding off.

**Non Polio rate is annualized up to week No.30 ending on 01 August 2009.

† Target >80%

‡ Zero reports and active surveillance averaged for last 4 weeks

○ Indicator below target

*** Data not received

DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - BALOCHISTAN

District	AFP Surveillance Data 2008						AFP Surveillance Data 2009									
	Minimum Expected AFP* Cases (Annual)*	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected AFP Cases (Annual)*	Total Reported AFP Cases	Wild Polio Cases	Indicators			Zero Reporting			Active Surveillance (%)†‡
				Non-Polio AFP Rate	Adequate Stools (%)†	60 Day Follow Up (%)†				Non-Polio AFP Rate**	Adequate Stools (%)†	60 Day Follow Up (%)†	Number Zero Reporting Sites	Completeness (%)†‡	Timeliness (%)†‡	
Awaran	1	3	0	5.5	100	66	1	2	0	6.2	100	50	11	***	***	***
Kalat	2	2	0	1.7	50	50	2	1	0	1.5	100	-	13	***	***	***
Kharan	1	3	0	5.7	100	66	1	2	0	6.4	50	100	6	100	92	100
Khuzdar	5	13	0	5.4	100	83	5	4	0	2.8	100	100	32	100	81	***
Lasbella	4	9	0	4.7	89	62	4	4	0	3.6	100	66	27	***	***	***
Mastung	2	2	0	2.4	100	100	2	3	0	6.1	67	100	15	***	***	***
Gawadar	2	7	0	6.3	100	85	2	2	0	3.0	0	0	11	100	100	***
Kech	4	8	0	4.1	88	100	4	2	0	0.9	100	100	18	100	98	***
Panjgour	3	6	0	4.6	67	80	3	0	0	0.0	-	-	12	100	100	***
Nasirabad	3	22	1	13.0	77	91	3	15	0	15.5	93	90	22	100	100	100
Bolan	3	4	0	2.8	100	100	3	6	0	7.1	83	100	15	89	89	100
Jafarabad	5	35	0	13.1	80	88	5	12	0	7.8	100	90	28	95	95	100
Jhalmagsi	1	6	0	9.1	100	66	1	1	0	2.6	100	-	17	89	89	100
Chaghai	1	5	0	8.8	60	60	1	5	0	14.9	80	100	11	100	92	100
Noshki	1	7	0	15.6	71	71	1	3	0	11.1	100	100	9	100	77	***
Killa Abdullah	5	15	2	4.7	80	100	5	9	1	5.2	89	85	20	92	92	100
Pishin	5	17	1	6.8	82	76	5	9	1	5.7	22	100	36	***	***	80
Quetta	9	37	4	6.4	78	91	11	10	0	3.2	100	83	57	97	97	100
Dera Bugti	2	7	0	6.2	86	71	2	1	0	1.5	100	-	7	***	***	***
Kohlu	1	1	0	1.8	0	100	1	2	0	6.2	100	-	6	***	***	***
Sibi	1	7	0	6.7	100	100	1	6	0	21.7	100	100	17	100	91	100
Harnai	1	2	0	2.6	100	100	1	2	0	9.6	100	0	10	***	***	***
Ziarat	1	3	1	13.3	33	100	1	2	0	23.1	100	-	7	100	97	100
Washuk	1	1	0	1.9	100	100	1	3	0	9.5	100	100	9	100	89	***
Zhob	2	9	0	8.9	78	100	3	4	0	4.7	50	50	16	100	98	100
Sherani	1	0	0	0.0	-	-	1	2	1	4.6	100	-	3	100	100	100
Loralai	3	6	1	3.2	100	83	3	4	0	4.4	75	100	14	100	95	***
Barkhan	1	6	1	7.9	83	83	1	3	0	8.0	100	100	9	***	***	***
Musa Khel	1	5	0	6.6	80	100	2	1	0	2.3	100	100	9	100	98	100
Killa Saifullah	2	5	0	4.9	60	100	2	1	0	3.4	100	100	13	100	96	100
Balochistan	77	253	11	6.2	82	86	78	121	3	5.2	85	87	480	98	94	99

* The expected number of AFP cases calculated @ 2/100,000 children below 15 years of age ; number expected cases

† Target ≥80%

by district may not add up to the total because of rounding off.

○ Indicator below target *** data not received from district

** Non Polio rate is annualized up to week No.30 ending on 01 August 2009.

DISTRICT WISE SUMMARY OF SURVEILLANCE DATA AJK, FANA & ISLAMABAD

District	AFP Surveillance Data 2008						AFP Surveillance Data 2009									Active Surveillance (%) ††
	Minimum Expected AFP Cases (Annual) *	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected AFP Cases (Annual) *	Total Reported AFP Cases	Wild Polio Cases	Indicators			Zero Reporting ‡			
				Non-Polio AFP Rate	Adequate Stools (%) †	60 Day Follow Up (%) †				Non-Polio AFP Rate **	Adequate Stools (%) †	60 Day Follow Up (%) †	Number Zero Reporting Sites	Completeness (%) † †	Timeliness (%) † †	

District Wise Summary of Surveillance Data - AJK

Bagh	4	12	0	5.5	92	100	4	5	0	3.9	100	100	11	100	100	100
Bhimber	3	10	0	5.1	90	100	4	12	0	11.6	92	100	11	100	100	100
Kotli	6	11	0	3.4	91	100	7	7	0	3.7	100	100	13	100	100	100
Mirpur	4	9	0	4.8	100	88	4	5	0	4.5	80	100	26	100	100	100
Muzaffarabad	7	17	0	4.7	76	94	7	3	0	1.4	67	66	12	89	89	100
Neelum	1	2	0	2.6	100	100	2	2	0	4.5	100	100	3	100	100	100
Poonch	4	2	0	0.9	100	100	5	1	0	0.7	100	0	9	100	100	100
Sudnuti	2	2	0	1.6	50	50	3	2	0	2.7	100	100	6	100	100	100
AJK	33	64	0	3.8	88	95	35	38	0	3.8	92	93	91	99	99	100

District Wise Summary of Surveillance Data - FANA

Diamer	1	3	0	5.8	67	100	1	1	0	3.3	100	100	5	100	100	100
Astore	1	1	0	1.6	100	100	1	2	0	5.3	100	100	5	100	100	100
Ghanche	1	2	0	4.0	100	100	1	1	0	3.4	100	100	7	100	100	100
Ghizer	1	4	0	5.9	100	100	1	0	0	0.0	-	-	7	100	100	100
Gilgit	3	9	0	6.5	89	87	3	2	0	2.5	100	100	12	100	100	100
Sakardu	3	4	0	3.3	75	100	3	4	0	5.5	100	100	6	100	100	100
FANA	12	23	0	4.6	87	95	12	10	0	3.4	100	100	42	100	100	100

District Wise Summary of Surveillance Data - ISLAMABAD

Islamabad	12	26	5	3.3	92	96	13	8	0	2.2	88	100	39	100	95	100
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* The expected number of AFP cases calculated @ 2/100,000 children below 15 years of age; number expected cases by district may not add up to the total because of rounding off.

** Non Polio rate is annualized up to week No.30 ending on 01 August 2009. ‡ Zero reports and active surveillance averaged for last 4 weeks: † Target ≥80%: ○ Indicator below target.

REPORTED AFP CASES BY WEEK OF ONSET¹ — (Source RRL REC file 07/08/2009)

Province	Total AFP 2007	Total AFP 2008	Total AFP 2009	Week 17 02 May 09	Week 18 09 May 09	Week 19 16 May 09	Week 20 23 May 09	Week 21 30 May 09	Week 22 06 Jun 09	Week 23 13 Jun 09	Week 24 20 Jun 09	Week 25 27 Jun 09	Week 26 04 Jul 09	W 27 11 Jul 09	W 28 18 Jul 09	W 29 25 Jul 09	W 30 01 Aug 09
Punjab	2000	2177	1250	45	62	47	46	43	50	37	37	35	46	37	49	42	18
Sindh	1092	1334	703	24	20	19	29	27	22	24	32	30	26	17	17	23	8
NWFP/FATA	1011	1466	606	10	18	18	20	24	22	19	19	27	25	26	31	23	5
Balochistan	237	253	121	4	2	4	5	6	7	2	3	6	6	7	4	2	2
AJK	50	65	38	2	0	2	2	1	0	0	0	0	0	3	2	1	2
FANA	18	23	10	0	1	0	1	0	0	0	0	0	1	0	0	0	0
Islamabad	17	26	8	1	1	0	0	0	1	0	2	1	0	0	0	0	0
Pakistan	4425	5344	2736	86	104	90	103	101	102	82	93	99	104	90	103	91	66

CONFIRMED POLIO CASES BY MONTH OF ONSET — (Source AFP REC file)

Province	2007	2008	2009	2008					2009							
				Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June†	July†
Punjab	1	31	8	3	8	13	5	2	-	2	-	-	2	1	2	1
Sindh	12	18	8	2	3	-	-	1	1	1	2	-	2	1	-	2
NWFP & FATA	11	52	16	10	5	13	13	4	5	4	-	-	2	1	1	8
Balochistan	8	11	3	1	2	2	3	-	-	-	-	-	-	1	-	2
AJK / FANA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Islamabad	-	5	-	2	-	3	-	-	-	-	-	-	-	-	-	-
Pakistan	32	117	35	18	18	31	21	7	6	7	2	0	6	4	3	13