

## ACUTE FLACCID PARALYSIS (AFP) SURVEILLANCE — COUNTRY UPDATE

To date in 2008, the AFP surveillance system has reported 2378 cases, with 961 from Punjab, 615 from Sindh, 567 from NWFP, 81 from FATA, 111 from Balochistan, 28 from AJK, 9 from FANA and 6 from Islamabad. There are currently a total of 15 confirmed polio cases. These cases highlight ongoing virus circulation which poses a risk of reintroduction to other areas. There are also 5 polio compatible cases, one each from Nowshero Feroz in Sindh, Dera Ismail Khan and Peshawar in NWFP, Nankana Sahib in Punjab and Killa Abdullah in Balochistan.

### POLIOVIRUS EPIDEMIOLOGY

The majority of populations in Pakistan continue to live in areas without polio cases. Of the 15 confirmed polio cases, there are 13 type-1 and 2 type-3 cases this year. Ten out of the 13 type-1 cases are in Sindh province, two in Balochistan and one from NWFP. Both type-3 cases are localized in Nowshera district of NWFP.

There are 14 districts to date in 2008 that have polio cases and each district has one case except Nowshera district having both type-3 cases. 4 districts (Jacobabad, Nowshera, Killa Abdullah and Pishin) had confirmed polio cases both in 2007 and 2008. Karachi had cases in both years but in different towns. These districts have been included in all targeted supplementary immunization activities in 2007 and 2008 and the presence of cases this year indicates gaps in the quality of vaccination activities. The epidemiological profile of cases shows that six of these cases were under 2 years, 4 cases 2 years to less than 5 years and the remaining 5 were aged 5 years and over. Thirteen cases (87%) had received OPV doses. However only 2 (13%) had received 3 routine doses; and 2 received no OPV doses due to refusal by parents.

Proportion of un-vaccinated children due to 'no team' among un-vaccinated children in Sindh is double that in any other province, indicating missing of children, probably consistently. This coupled with weak routine immunization programme seem to be the cause of maximum number of polio cases in the province. There has been insufficient ownership at different levels in the province resulting in operational issues and inadequate service delivery.

To reach the campaign quality required to stop poliovirus transmission, it is critical that identified issues are taken seriously at all levels. As well it is critical that there is visible engagement of district leadership (EDOs Health & DCOs) in vaccination activities to demonstrate ownership and foster accountability. Locally appropriate social mobilization strategies are the key to help overcome access issues.

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### LAST CONFIRMED POLIOMYELITIS CASE:

A type-1 polio case aged 13-month with onset of paralysis on 4th June 2008 was reported from a remote village in Pishin district. The district is part of the north-western Balochistan (and neighboring southern Afghanistan) epidemiological block. The child received no routine immunization but did receive 4 SIA doses. The district is known to have a cluster of families refusing vaccination for a long period of time due to misconceptions about the safety of OPV. Male teams have problems accessing children in the houses during campaigns. The family of this child is occasional refusal as per registered refusal list. Pishin district has conducted 10 SIAs in the last 12 months (4 rounds with mOPV1, 4 with mOPV3 and 2 with tOPV). The virus isolated is genetically related to the 2007 Killa Abdullah case. Improved communication skills of the teams and supervisors to alleviate misconceptions to reduce the number of refusals are needed. The support of community elders can also be sought in this regard. Additional female team members during the campaign will further improve access. Next SIA in Pishin starts on 28 July, when mOPV1 will be used.

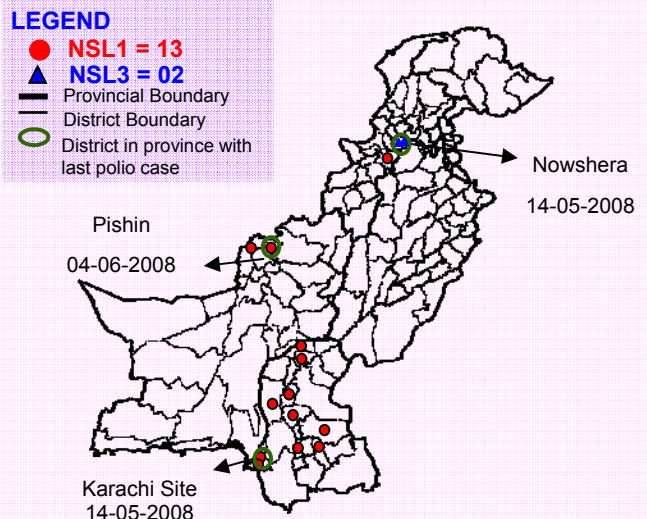
### News Briefs & Upcoming Events

- ◆ The Federal Health Minister & the Chief Minister Balochistan administered OPV during the last SNIDs (1—3 July). The Secretary Health Sindh monitored the activity in many districts (details on Page 3)
- ◆ An Emergency Technical Consultation Meeting, on 24 - 25 June 2008 at Karachi discussed the situation of polio eradication & mainly focusing on Sindh (details on Page 2)
- ◆ Mid Year Inter Provincial EPI Review Meeting was held on 7 - 8 July 2008 at Lahore (details will be reported in next issue)
- ◆ A targeted supplementary immunization activity (SNID) is scheduled from July 28 - 30 using mOPV1.

More than half of the 'newly infected districts' in 2008 are outside the known transmission zones. This reinforces the fact that all polio-free areas remain at risk until endemic circulation is interrupted with high general population immunity through routine immunization and SIAs. Epidemiological and genetic data confirms endemic circulation of type-1 virus widespread in Sindh and in narrowed geographical areas of central NWFP and north-western Balochistan. Both type-3 cases are related to each other and are genetically linked to cases in southern Afghanistan. There is sharing of WPV1 with Afghanistan, as well.

Campaign monitoring data reinforces ongoing gaps in vaccination activities at the sub district and local levels, largely due to management issues. In NWFP and FATA, access issues due to the serious security situation and cultural conservatism continue to hamper the quality of immunization campaigns and the ability to reach all target children.

### CONFIRMED POLIO CASES BY DISTRICT 2008



## Province-wise AFP Surveillance Data for 2007 & 2008

Province/Region	AFP Surveillance Data 2007						AFP Surveillance Data 2008											Rec. File Date
	Minimum Expected AFP* Cases (Annual)	Total Reported AFP Cases	Wild Polio Cases	Indicators			Minimum Expected AFP* Cases (Annual)	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 Sites	Completeness (%)†‡	Timeliness (%)†‡			
Punjab	841	2,000	1	4.8	93	93	860	961	0	4.5	96	94	909	96	95	98	04 July 2008 €	
Sindh	355	1,092	12	6.3	90	91	365	615	10	6.8	91	83	1266	93	89	97		
NWFP	206	882	8	8.4	88	92	213	567	3	10.8	87	90	1204	90	90	91		
FATA	34	129	3	7.3	85	92	36	81	0	9.3	77	87	222	75	73	84		
Balochistan	75	237	8	6.0	83	85	77	111	2	5.8	86	82	449	87	83	82		
AJK	32	50	0	3.1	94	93	33	28	0	3.6	89	94	83	-	-	-		
FANA	11	18	0	3.2	100	100	12	9	0	3.7	100	100	42	100	100	100		
Islamabad	11	17	0	4.3	94	82	11	6	0	2.0	100	100	39	100	94	100		
<b>Pakistan</b>	<b>1,523</b>	<b>4,425</b>	<b>32</b>	<b>5.7</b>	<b>91</b>	<b>92</b>	<b>1,604</b>	<b>2,378</b>	<b>15</b>	<b>6.0</b>	<b>92</b>	<b>92</b>	<b>4214</b>	<b>-</b>	<b>-</b>	<b>-</b>		

\* 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.26 ending on 28 June 2008.

€ Analysis done on Rec. file dated 04/07/2008; however, total wild poliovirus cases as of 08/07/2008

‡ Zero reports and active surveillance averaged for last 4 weeks

† Target ≥80%

○ Indicator below target

### Emergency Technical Consultation Meeting 24-25 June 2008

An emergency technical consultation meeting was convened upon the request of the Federal Secretary of Health on 24-25<sup>th</sup> of June in Karachi to review the current situation of polio eradication in Pakistan and to discuss the upsurge of polio cases in 2008, especially in Sindh. The Federal Director-General of Health, the Sindh Secretary of Health and DG Health, the NWFP DG Health and the EPI managers from the Federal level, Sindh and NWFP also attended the meeting together with representatives of WHO and UNICEF and major polio partners.

It was observed that the overall polio eradication programme in Pakistan is at its best ever, with major progress since the February TAG meeting, especially in campaign monitoring & communications. It was further noted that the endemic foci of polio virus circulation correlate with unvaccinated children as a result of poor team performance & supervision. Sindh, especially Karachi was felt to be posing the highest risk to eradication in Pakistan due to the size and density of its population, intense population movements, combined with the fact that it has twice as high a proportion of missed children due to no team visiting them.

#### Decisions/Recommendations are as follows:

- ◆ Ensuring that polio eradication becomes a standing agenda item at the Inter Ministerial meetings of Minister of Health.
- ◆ Establish / activate polio Provincial Steering Committees in each province. It is strongly recommended to meet regularly on a monthly basis under the chairmanship of Provincial Chief Secretary.

- ◆ Establish / activate district polio task forces under DCOs chairmanship. They should meet regularly and report to the Provincial Steering Committees.
- ◆ DCOs and EDOs should be held accountable for quality of work of vaccinators and AIC in their districts.
- ◆ Ensuring proper selection and training of vaccinators and their supervisors (AICs).
- ◆ Ensure credible monitoring of campaigns using independent monitoring, relying on finger / nail marking.
- ◆ Ensure effective catch up policy following immunization days.
- ◆ Maintain surveillance efforts and introduce environmental monitoring.
- ◆ Build national capacities in communication with special efforts to target high risk areas and reaching non immunized children.
- ◆ Give priority to routine immunization with special emphasis towards creating public demands to immunization.

#### Meeting with CM Sindh:

On day 2 a delegation met with the Chief Minister of Sindh to brief him on the outcomes of the consultation. He endorsed the concept of steering committees as well as the engagement of district management in polio eradication activities and announced to personally lead the process by inaugurating the campaigns and if possible monitoring the campaign progress.

#### FOR FEEDBACK:

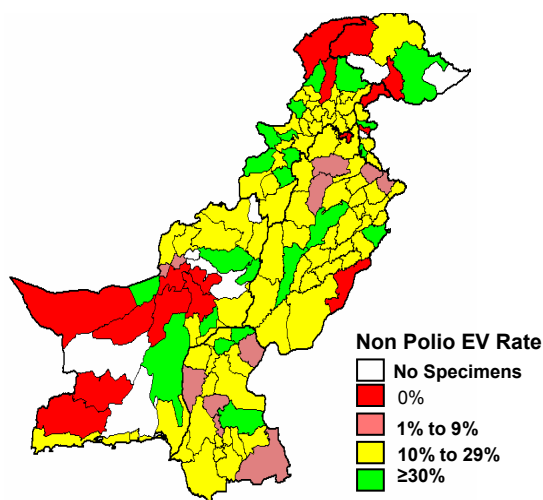
National Surveillance Cell, Polio Eradication Initiative, WHO Building, National Institute of Health, Park Road, Chak Shahzad, Islamabad-Pakistan,  
PO Box: 1013, Phone: +92 51 9255123, +92 51 9255282, Exchange: +92 51 9255075,077, 184,185, Ext: 62461 Fax:+92 51 9255192,  
Email:[epidata@pak.emro.who.int](mailto:epidata@pak.emro.who.int) Website: [www.whopak.org/polioeradication/](http://www.whopak.org/polioeradication/)

# Non-Polio Enterovirus (NPEV) Isolation Rate 2008

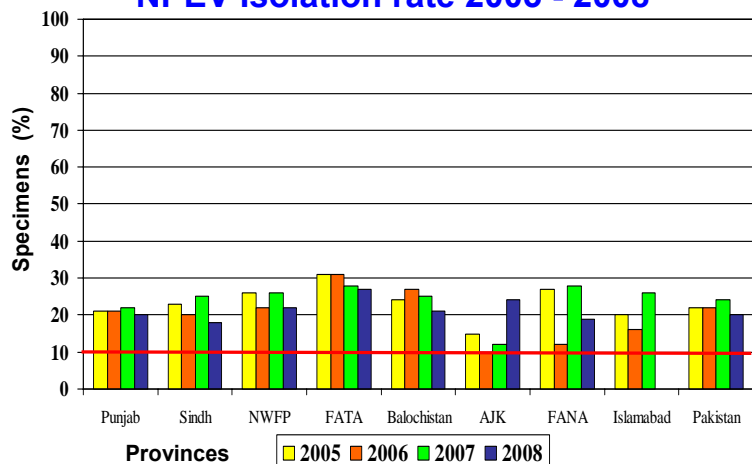
The NPEV isolation rate in the stool specimen of AFP cases and contacts is an indicator used to track the quality of the reverse cold chain as well as the performance of the laboratory to isolate of viruses. In developing countries, it is expected that NPEV isolation rate would be 10% or more. Since 2005, the proportion of specimens from the overall number of specimens collected for the testing of polioviruses has consistently been well above 10% at the national level. As well, all the provinces are meeting the standards (see bar chart below). 2008 to date, Islamabad has no NPEV isolation from 10 specimens.

The map below shows the percentage of specimens with NPEV isolation in districts/agencies. A few districts having more than 10 specimens collected to date have <10% NPEV isolation.

## NPEV Isolation rate by District 2008\*



## NPEV Isolation rate 2005 - 2008\*



Data as of 05-07-2008 Source AFPLAB Specimen based data including contacts.

Target NPEV Isolation ≥10%

Some of the districts have poliovirus isolation which gives certain level of confidence over process of specimens collection. Of concern are districts that have below 10% NPEV and no polio virus isolation in >10 specimens to date in 2008. These include Islamabad region, as well as Bahawalnagar and Swat districts which though have a good number of specimens collected, have a zero NPEV isolation rate. Matiari, Tharparkar, Ghotki, 2 towns of Karachi, Quetta, Sialkot, Chakwal, Khushab and Gujrat are the districts with below standard NPEV isolation rate but have no confirmed case this year. Dadu, Nawabshah, and Karachi North have low NPEV isolation rate and had confirmed polio cases this year.

**Experts at the recent technical consultation group meeting recommended that the quality of stool specimens need to be ensured by the investigating officer.**

## UPDATE ON JULY SNIDs

The fourth round of SNIDs in 2008 was held from 1-3 July in 66 selected districts/agencies of the country. The campaign was conducted in the entire Sindh province, in the central & southern districts of NWFP/FATA, the central districts of Balochistan and the southern districts of Punjab. Around 39,000 children below 5 years of age residing in the kachi abadis of Islamabad were also targeted in this campaign. A total of 16.03 million children were targeted. To ensure there is strong supervision and monitoring required for a high quality campaign, the Balochistan team conducted an advance campaign (26-28 June) in four key districts (Killa Saifullah, Kohlu, Barkhan and Musakhel). As the second round of Kohat case response using mOPV1 was held from 19-21 June, the July campaign in the southern districts of NWFP/FATA was held from 8-10 July.

The Chief Minister of Balochistan, Nawab Muhammad Aslam Raisani, inaugurated the campaign in Quetta. Inaugurations were held at district levels in all the provinces. During this campaign, monovalent oral polio vaccine (mOPV3) was used in northern Sindh & Karachi and all participating districts of southern Punjab, Balochistan, and NWFP/FATA. Trivalent Oral Polio Vaccine (tOPV) was used in central & southern Sindh. All logistics were supplied to targeted areas in time.

A total of 44,998 vaccination teams, 8331 area supervisors and 1323 zonal supervisors participated in the campaign. The campaign activities were also monitored by Campaign Support Person (CSPs), national & international staff from partner agencies and the federal EPI cell. According to

administrative data received so far, 15.6 million children were vaccinated in this campaign. However, 416,142 children could not be accessed due to security situations in NWFP and FATA (this includes whole district Swat having 370775 children). A total of 1.36 million (8.7%) Not Available/refusals were recorded including 89896 (0.57% of the total target) as refusals. Out of these 302627 (22%) were covered during campaign and 771251 (56%) were covered during catch-up. Among refusals, 34260 (36%) were covered and efforts are still continuing to cover the remaining 55636 (62%) refusals. Campaign monitoring data analysis is being done at national level and a report on this would be included in the next issue of bulletin.

Overall coverage verified by finger marking in children aged below 5 years has improved from 88% in June SNIDs to 89% in July SNIDs. Improvement has especially been observed in Punjab (all districts are 95% or above) and some districts of Sindh especially Karachi where it improved remarkably from 68% to 79%. In Balochistan the coverage verified by finger marking has dropped down from 84% in June to 81% in July. Based on available information, several key districts like Quetta, Pishin, and Kila Abdullah in Balochistan, cluster of districts in Sindh comprising Karachi and surrounding districts like Thatta, Badin and Sanghar, and Khyber Agency in FATA have sub optimal performance.

Next SIA is scheduled from 28 - 30 July targeting all of the above mentioned areas with addition to couple of districts in the northern NWFP and central Balochistan. A total of 17.7 million children will be administered mOPV1.

## Global Update, 2008

As of end June 2008, 755 confirmed cases were reported globally in 2008 as compared to 285 in the same period in 2007. The cases from endemic countries are 712 and 43 are from non-endemic countries. The cases are: Pakistan - 15, India - 298, Afghanistan - 10, Nigeria - 388, Angola - 19, Niger - 9, CAR - 1, Ethiopia - 2, DRC - 3, Sudan - 1, Nepal - 4, Chad - 4 and Benin - 1.

## DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - PUNJAB

District	AFP Surveillance Data 2007						AFP Surveillance Data 2008									
	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	29	57	0	4.0	91	87	30	27	0	3.7	96	89	30	92	92	90
Bahwalnagar	23	44	0	3.8	95	81	24	20	0	3.5	100	100	25	91	91	95
Rahimyar Khan	38	91	0	4.8	91	89	39	45	0	4.7	98	92	40	83	83	100
Dera Ghazi Khan	20	84	1	8.4	92	91	20	41	0	8.2	95	88	20	99	99	100
Layyah	13	37	0	5.6	97	97	14	22	0	6.6	100	100	17	100	100	100
Muzaffargarh	32	96	0	6.0	95	93	33	57	0	7.0	95	96	26	100	96	100
Rajanpur	13	71	0	10.7	94	95	14	27	0	8.0	100	100	16	94	94	100
Faisalabad	61	124	0	4.1	81	89	63	54	0	3.5	91	86	36	100	100	94
Jhang	31	79	0	5.1	90	89	32	33	0	4.3	88	100	26	97	97	100
Toba Tek Singh	18	78	0	8.9	94	94	18	27	0	6.1	85	84	23	100	100	100
Gujranwala	39	72	0	3.7	89	100	40	43	0	4.3	93	95	47	97	97	100
Gujrat	22	55	0	4.9	100	96	23	24	0	4.3	100	93	40	100	97	100
Hafizabad	9	35	0	7.6	89	78	9	12	0	5.2	100	100	23	100	90	100
Mandi Bah uddin	12	48	0	7.8	100	97	13	14	0	4.5	100	100	25	97	95	100
Narowal	14	41	0	6.0	93	97	14	17	0	5.0	100	100	30	100	100	90
Sialkot	31	36	0	2.4	97	100	31	20	0	2.6	100	100	25	92	92	100
Kasur	27	60	0	4.5	95	94	28	32	0	4.7	97	94	27	100	100	100
Lahore	80	110	0	2.8	96	100	80	52	0	2.7	96	88	42	99	99	86
Okara	25	104	0	8.4	95	95	25	48	0	7.7	98	96	31	100	100	100
Sheikhupura	23	37	0	3.2	95	97	24	15	0	2.5	93	85	29	100	100	100
Nankana	14	41	0	5.7	88	95	14	11	0	2.7	82	87	29	100	93	100
Khanewal	23	51	0	4.4	92	95	24	39	0	6.7	97	92	30	94	94	100
Lodhran	13	54	0	8.1	94	96	14	22	0	6.5	95	100	22	99	99	100
Multan	36	78	0	4.4	95	95	37	44	0	4.9	98	96	29	94	94	100
Pakpattan	14	29	0	4.0	93	88	15	15	0	4.1	93	85	17	81	81	100
Sahiwal	20	51	0	5.1	92	89	20	25	0	5.0	100	100	28	92	92	100
Vehari	24	48	0	4.0	98	93	25	24	0	4.0	100	100	27	94	94	100
Attock	14	28	0	4.0	100	92	14	16	0	4.6	94	100	15	100	100	100
Chakwal	12	29	0	5.0	100	96	12	13	0	4.5	100	100	10	100	100	100
Jhelum	10	24	0	4.7	96	86	10	9	0	3.5	100	100	20	93	93	100
Rawalpindi	38	62	0	3.2	97	94	40	27	0	2.8	100	94	29	96	96	100
Bhakkar	12	43	0	7.2	95	92	12	24	0	7.9	100	84	11	98	98	100
Khushab	10	25	0	5.1	100	86	10	11	0	4.5	100	100	16	99	99	100
Mianwali	12	32	0	5.5	97	100	12	26	0	8.8	96	94	17	88	88	88
Sargodha	29	45	0	3.1	93	97	29	25	0	3.5	96	94	31	96	96	96
<b>Punjab</b>	<b>841</b>	<b>2,000</b>	<b>1</b>	<b>4.8</b>	<b>93</b>	<b>93</b>	<b>860</b>	<b>961</b>	<b>0</b>	<b>4.5</b>	<b>96</b>	<b>94</b>	<b>909</b>	<b>96</b>	<b>95</b>	<b>98</b>

\* 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%

‡ Zero reports and active surveillance averaged for last 4 weeks

\*\* Non Polio rate is annualized up to week No. 26 ending on 28 June 2008

## DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - SINDH

Town/District	AFP Surveillance Data 2007						AFP Surveillance Data 2008									
	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 (%) ††	
<b>Town Wise Summary — Karachi</b>																
Baldia	5	15	2	5.7	87	71	5	5	0	4.4	80	100	20	96	89	100
BinQasim	5	7	0	2.9	100	100	5	11	0	8.9	100	85	22	100	100	100
Gadap	4	17	0	8.4	88	100	4	8	0	7.8	75	66	13	77	77	100
Gulberg	5	5	0	1.9	100	100	6	7	0	5.2	86	100	8	100	100	100
Gulshan-e-Iqbal	8	22	0	5.5	86	94	8	12	0	5.9	100	88	15	100	100	100
Jamsheed	9	10	0	2.3	90	88	9	9	0	4.1	89	100	18	87	87	83
Kamari	6	11	0	4.0	82	90	6	3	0	2.1	67	100	11	100	100	100
Korangi	7	16	0	4.7	100	84	7	12	0	7.0	92	100	10	100	100	100
Landhi	9	15	0	3.3	93	85	9	12	0	5.3	100	87	20	100	98	100
Liaqatabad	8	6	0	1.6	83	100	8	4	0	2.1	100	100	17	100	100	100
Layari	7	4	0	1.2	75	66	7	7	0	4.4	100	100	15	100	95	100
Malir	6	11	0	3.8	100	80	6	6	0	4.1	100	66	15	100	100	100
North	8	12	0	3.0	75	81	8	15	1	6.9	80	70	13	79	79	100
North Nazimabad	6	7	0	2.4	86	80	6	5	0	3.4	100	75	12	94	85	100
Orangi	10	16	0	3.2	88	100	11	15	0	5.8	93	90	22	98	98	100
Shah Faisal	6	8	0	2.7	75	83	6	11	0	7.3	91	100	11	100	100	100
Saddar	9	10	0	2.1	80	90	10	7	0	3.0	100	75	22	100	100	100
Site	7	6	0	1.8	83	83	7	8	1	4.2	88	66	15	100	94	94
<b>District Wise Summary— Sindh</b>																
KARACHI	123	198	2	3.2	88	88	128	157	2	5.0	92	86	279	96	95	99
Badin	13	46	0	7.4	89	90	13	22	0	7.0	91	88	26	84	84	71
Dadu	12	50	0	8.1	94	84	13	14	1	4.1	100	30	45	100	91	100
Jamshoro	7	27	0	8.1	93	96	7	16	0	9.6	81	77	30	98	91	98
Tando M. Khan	5	15	0	5.7	100	80	5	10	0	9.1	80	83	12	98	98	100
Tando Allahyar	5	16	0	6.3	100	93	5	17	0	12.8	88	100	24	91	91	95
Matiari	6	27	0	9.7	89	91	6	12	0	9.0	100	71	40	99	95	87
Hyderabad	16	20	0	2.6	100	94	16	16	1	3.7	88	80	30	100	100	100
Thatta	12	40	1	6.2	93	89	13	30	0	9.8	97	90	28	95	95	92
Jacobabad	8	98	2	22.7	80	97	9	33	1	15.9	88	82	45	98	84	100
Larkana	13	27	0	4.1	89	100	14	20	0	6.6	90	93	46	83	83	100
Kashmore	7	37	0	10.2	89	91	7	13	0	7.0	85	50	29	99	83	100
Kambar	9	43	5	8.1	98	95	10	19	0	6.8	89	64	41	86	86	100
Shikarpur	10	57	0	11.7	93	88	10	28	1	11.1	96	95	39	97	97	100
Mirpurkhas	10	55	0	10.4	89	83	11	25	1	9.2	96	100	83	77	71	100
Umerkot	8	42	0	10.5	88	97	8	20	0	9.9	90	81	35	98	98	97
Sanghar	17	43	0	5.2	88	90	17	31	1	7.1	94	82	54	92	92	95
Tharparkar	11	29	0	5.3	86	88	11	17	0	6.2	100	91	83	83	80	100
Ghotki	12	49	1	8.2	86	93	12	22	0	7.4	86	78	50	92	92	100
Khairpur	18	96	1	10.7	93	95	18	51	0	11.4	88	100	95	83	83	100
Nawab Shah	11	19	0	3.4	84	82	11	11	1	3.6	82	71	39	94	87	100
Naushero Feroz	11	22	0	3.9	100	84	11	19	1	6.0	89	66	49	100	84	100
Sukkur	11	36	0	6.8	97	94	11	12	0	4.5	100	66	70	100	97	100
<b>Sindh</b>	<b>355</b>	<b>1,092</b>	<b>12</b>	<b>6.3</b>	<b>90</b>	<b>91</b>	<b>365</b>	<b>615</b>	<b>10</b>	<b>6.8</b>	<b>91</b>	<b>83</b>	<b>1272</b>	<b>93</b>	<b>89</b>	<b>97</b>

\* 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. 26 ending on 28 June 2008

† Target ≥80%

‡ Zero reports and active surveillance averaged for last 4 weeks

○ Indicator below target

## DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - NWFP & FATA

District /Agency	AFP Surveillance Data 2007						AFP Surveillance Data 2008									
	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 (%) † ‡	
<b>District Wise Summary — NWFP</b>																
Bannu	8	38	0	9.7	86	97	8	23	0	11.7	87	87	45	94	89	100
Dera Ismail Khan	10	44	0	8.6	93	88	11	29	0	10.8	90	88	63	94	94	76
Lakki Marwat	6	34	0	11.7	88	87	6	26	0	17.6	92	91	55	95	95	100
Tank	3	4	0	2.8	100	100	3	6	0	8.4	100	100	27	93	93	100
Abottabad	9	30	0	6.4	97	89	9	14	0	6.0	93	100	92	77	(75)	97
Batagram	3	13	0	9.9	85	63	3	7	0	9.7	(57)	85	31	92	92	86
Haripur	8	23	0	6.1	87	86	8	11	0	5.8	91	100	66	97	97	97
Kohistan	4	7	0	3.3	86	100	4	3	0	2.8	100	50	21	88	88	96
Mansehra	13	53	0	8.3	96	89	13	31	0	9.6	90	91	74	86	86	98
Karak	5	27	0	10.4	81	96	5	15	0	11.5	87	(75)	28	96	96	100
Kohat	7	29	0	8.6	90	88	7	17	1	9.3	94	100	40	78	(78)	98
Hangu	4	5	0	2.6	100	100	4	7	0	7.3	86	(66)	28	100	100	100
Bunir	6	40	0	12.5	93	97	7	24	0	14.7	96	85	42	100	100	100
Chitral	4	11	0	6.1	100	63	4	1	0	(1.1)	100	100	11	100	100	100
Dir Lower	9	43	0	9.8	95	100	9	26	0	11.7	100	100	62	91	85	94
Dir Upper	7	26	0	7.9	88	92	7	18	0	10.8	83	(60)	30	100	100	75
Malakand	5	19	0	6.9	89	88	6	16	0	11.5	88	90	46	100	100	100
Swat	15	36	1	4.6	86	88	16	11	0	2.8	91	(75)	46	53	(53)	69
Shangla	5	9	0	3.4	100	87	5	6	0	4.5	100	100	35	93	93	0
Mardan	17	91	4	10.1	88	94	18	72	0	16.6	82	89	77	99	99	90
Swabi	12	48	0	8.0	88	100	12	48	0	15.8	83	85	62	86	86	100
Charsadda	12	53	0	8.9	81	93	12	39	0	13.0	79	96	50	80	80	98
Nowshera	10	65	2	12.4	82	90	10	37	2	13.6	84	82	50	84	84	100
Peshawar	25	128	1	10.2	82	94	26	80	0	12.5	86	96	124	86	86	100
<b>NWFP</b>	<b>206</b>	<b>882</b>	<b>8</b>	<b>8.4</b>	<b>88</b>	<b>92</b>	<b>213</b>	<b>567</b>	<b>3</b>	<b>10.8</b>	<b>87</b>	<b>90</b>	<b>1204</b>	<b>90</b>	<b>90</b>	<b>91</b>
<b>Agency Wise Summary — FATA</b>																
Bajour	8	29	0	7.4	86	92	8	12	0	6.0	92	85	28	92	90	68
Khyber	7	38	2	10.4	79	100	7	34	0	19.2	(71)	90	72	94	90	100
Kurram	5	12	0	4.8	92	91	5	3	0	2.4	(67)	(100)	30	0	(0)	100
Mohmand	4	15	0	6.8	73	83	5	11	0	9.8	82	100	26	88	88	23
Orakzai	2	6	0	7.6	100	100	2	3	0	8.0	100	(50)	33	100	92	100
North Waziristan	4	16	0	7.9	94	92	4	10	0	9.8	(70)	(66)	21	74	(74)	94
South Waziristan	5	13	1	5.2	92	66	5	8	0	6.9	(75)	83	12	77	(77)	100
<b>FATA</b>	<b>34</b>	<b>129</b>	<b>3</b>	<b>7.3</b>	<b>85</b>	<b>92</b>	<b>36</b>	<b>81</b>	<b>0</b>	<b>9.3</b>	<b>(77)</b>	<b>87</b>	<b>222</b>	<b>75</b>	<b>(73)</b>	<b>84</b>
<b>NWFP &amp; FATA</b>	<b>234</b>	<b>1011</b>	<b>11</b>	<b>8.5</b>	<b>88</b>	<b>92</b>	<b>248</b>	<b>648</b>	<b>3</b>	<b>10.6</b>	<b>86</b>	<b>89</b>	<b>1426</b>	<b>87</b>	<b>86</b>	<b>90</b>

\* 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. 26 ending on 28 June 2008

† Target ≥80%

‡ Zero reports and active surveillance averaged for last 4 weeks

○ Indicator below target

## DISTRICT WISE SUMMARY OF SURVEILLANCE DATA - BALOCHISTAN

District	AFP Surveillance Data 2007						AFP Surveillance Data 2008									
	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	2	0	3.6	100	100	1	1	0	3.7	100	-	11	100	90	100
Kalat	2	6	0	5.2	83	83	2	1	0	1.8	0	-	13	***	***	***
Kharan	1	2	0	3.0	100	100	1	1	0	3.8	100	100	6	50	50	50
Khuzdar	5	8	0	3.4	100	85	5	10	0	8.5	100	75	24	100	99	100
Lasbella	4	13	1	6.5	69	90	4	4	0	4.3	100	100	27	100	92	100
Mastung	2	5	0	6.0	60	100	2	1	0	2.4	100	-	15	50	50	***
Gawadar	2	3	0	2.8	33	50	2	3	0	5.5	100	100	11	100	100	100
Kech	4	5	0	2.6	100	100	4	4	0	4.2	75	100	15	100	98	100
Panjgour	3	1	0	0.8	100	100	3	2	0	3.1	50	100	12	94	94	100
Nasirabad	3	21	2	12.2	81	71	3	6	0	7.5	83	100	22	***	***	100
Bolan	3	9	0	5.6	67	88	3	2	0	2.8	100	-	14	***	***	25
Jafarabad	5	38	0	15.1	84	80	5	17	0	13.3	88	83	28	90	100	***
Jhalmagsi	1	4	0	6.3	75	100	1	2	0	6.2	100	0	13	***	***	***
Chaghai	2	2	0	1.7	50	50	2	1	0	3.6	100	100	11	100	92	100
Noshki	1	5	0	8.4	100	100	1	3	0	13.6	100	100	9	***	***	***
Killa Abdullah	5	16	3	5.3	69	92	5	7	1	4.0	71	100	20	100	97	100
Pishin	5	14	1	5.7	79	72	5	12	1	9.5	83	50	36	***	***	***
Quetta	9	34	0	7.7	88	93	9	12	0	4.7	92	71	55	100	96	100
Dera Bugti	2	6	0	5.5	67	83	2	5	0	9.0	80	100	7	100	100	100
Kohlu	1	3	0	5.6	67	100	1	0	0	0.0	-	-	6	50	50	50
Sibi	2	7	0	6.3	86	100	2	2	0	3.5	100	100	16	***	***	25
Ziarat	1	2	0	13.1	100	100	1	0	0	0.0	-	-	7	25	25	25
Washuk	1	3	0	6.1	100	50	1	0	0	0.0	-	-	9	***	***	***
Zhob	2	8	0	7.7	100	75	2	5	0	10.1	80	100	16	***	***	***
Sherani	1	1	0	2.7	100	0	1	0	0	0.0	-	-	1	***	***	***
Loralai	3	6	1	3.3	100	83	3	1	0	1.3	100	-	14	100	94	92
Barkhan	1	2	0	3.6	100	100	1	2	0	6.5	100	100	9	100	88	100
Musa Khel	1	2	0	2.8	100	0	1	4	0	10.7	75	100	9	100	83	100
Killa Saifullah	2	7	0	7.0	100	100	2	3	0	6.0	67	66	13	***	***	***
<i>Balochistan</i>	75	237	8	6.0	83	85	77	111	2	5.8	86	82	449	87	83	82

\* 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. 26 ending on 28 June 2008

† Target ≥80%

‡ Zero reports and active surveillance averaged for last 4 weeks

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

## DISTRICT WISE SUMMARY OF SURVEILLANCE DATA AJK, FANA & ISLAMABAD

District	AFP Surveillance Data 2007						AFP Surveillance Data 2008									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	7	0	3.3	100	100	4	4	0	3.7	100	100	11	100	100	100
Bhimber	3	6	0	3.6	83	100	3	4	0	4.7	100	100	10	100	100	100
Kotli	6	8	0	2.5	100	87	6	4	0	2.5	100	100	13	100	100	100
Mirpur	3	12	0	7.0	100	100	4	4	0	10.7	100	100	19	100	100	100
Muzaffarabad	7	10	0	2.8	90	80	7	8	0	4.5	63	80	12	100	100	100
Neelum	1	2	0	2.8	100	100	1	2	0	5.2	100	100	3	100	100	100
Poonch	4	3	0	1.4	67	100	4	1	0	0.9	100	-	9	100	100	100
Sudnuti	2	2	0	1.8	100	100	2	1	0	1.6	100	100	6	100	100	100
<b>AJK</b>	<b>32</b>	<b>50</b>	<b>0</b>	<b>3.1</b>	<b>94</b>	<b>93</b>	<b>33</b>	<b>28</b>	<b>0</b>	<b>3.6</b>	<b>89</b>	<b>94</b>	<b>83</b>	<b>100</b>	<b>100</b>	<b>100</b>

### District Wise Summary of Surveillance Data - FANA

Diamer	1	3	0	5.0	100	100	1	0	0	0.0	-	-	5	100	100	100
Astore	1	0	0	0.0	-	-	1	1	0	3.2	100	100	5	100	100	100
Ghanche	1	1	0	1.4	100	100	1	0	0	0.0	-	-	7	100	100	100
Ghizer	1	4	0	5.6	100	100	1	3	0	9.0	100	100	7	100	100	100
Gilgit	3	6	0	3.9	100	100	3	3	0	4.4	100	100	12	100	100	100
Sakardu	3	4	0	2.7	100	100	3	1	0	1.7	100	-	6	100	100	100
<b>FANA</b>	<b>11</b>	<b>18</b>	<b>0</b>	<b>3.2</b>	<b>100</b>	<b>100</b>	<b>12</b>	<b>9</b>	<b>0</b>	<b>3.7</b>	<b>100</b>	<b>100</b>	<b>42</b>	<b>100</b>	<b>100</b>	<b>100</b>

### District Wise Summary of Surveillance Data - ISLAMABAD

<b>Islamabad</b>	<b>11</b>	<b>17</b>	<b>0</b>	<b>4.3</b>	<b>94</b>	<b>82</b>	<b>11</b>	<b>6</b>	<b>0</b>	<b>2.0</b>	<b>100</b>	<b>100</b>	<b>39</b>	<b>100</b>	<b>94</b>	<b>100</b>
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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. 26 ending on 28 June 2008. ‡ Zero reports and active surveillance averaged for last 4 weeks: † Target ≥80%: ○ Indicator below target.

### REPORTED AFP CASES BY WEEK OF ONSET<sup>1</sup> — (Source RRL REC file 04/07/2008)

Province	Total AFP 2006	Total AFP 2007	Total AFP 2008	W 13	W 14	W 15	W 16	W 17	W 18	W 19	W 20	W 21	W 22	W 23	W 24	W 25	W 26
				29 Mar 08	05 Apr 08	12 Apr 08	19 Apr 08	26 Apr 08	03 May 08	10 May 08	17 May 08	24 May 08	31 May 08	07 June 08	14 Jun 08	21 Jun 08	28 Jun 08
Punjab	1936	2000	961	32	44	34	39	43	46	60	35	49	34	48	39	44	20
Sindh	1207	1092	615	20	30	24	26	26	34	33	31	22	27	25	24	10	10
NWFP & FATA	967	1011	648	27	17	20	25	21	28	22	24	22	22	23	29	20	18
Balochistan	228	237	111	3	4	5	1	5	7	9	7	4	9	6	7	7	5
AJK	45	50	28	0	1	2	1	2	1	2	2	2	1	2	0	0	1
FANA	13	18	9	0	1	1	0	0	0	0	2	0	1	0	0	2	0
Islamabad	20	17	6	0	0	1	0	0	0	0	1	0	0	0	0	0	1
<b>Pakistan</b>	<b>4416</b>	<b>4425</b>	<b>2378</b>	<b>83</b>	<b>101</b>	<b>89</b>	<b>94</b>	<b>99</b>	<b>121</b>	<b>130</b>	<b>107</b>	<b>109</b>	<b>97</b>	<b>110</b>	<b>102</b>	<b>84</b>	<b>59</b>

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

Province	2006	2007	2008	2007						2008						
				Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May <sup>¶</sup>	Jun <sup>¶</sup>
Punjab	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Sindh	12	12	10	0	0	2	3	0	2	1	2	1	0	5	2	0
NWFP & FATA	16	11	3	2	0	0	0	0	1	5	0	0	0	1	2	0
Balochistan	10	8	2	0	0	0	0	1	3	2	0	0	0	0	1	1
AJK/FANA/ISB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Pakistan</b>	<b>40</b>	<b>32</b>	<b>15</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>8</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>5</b>	<b>1</b>

<sup>1</sup> Epidemiological week calendar, <sup>¶</sup> Data not complete