

AFP Surveillance Bulletin - India

Report for week 09, ending 6th March 2010

Table 1: AFP cases by month of paralysis onset, last 13 months

State/UT's	Total AFP cases in 2009	AFP cases as on week 9, 2009	AFP cases as on week 9, 2010	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10
Andhra Pradesh	855	77	112	60	60	70	79	96	97	66	95	73	55	65	47	0
Andaman & Nicobar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arunachal Pradesh	24	0	0	4	1	1	4	3	0	0	7	0	0	0	0	0
Assam	542	49	49	35	42	53	71	59	58	29	54	35	38	33	16	0
Bihar	13481	1232	1506	968	1003	1195	1344	1362	1356	1322	1240	1069	918	942	564	0
Chandigarh	24	1	4	0	2	1	1	3	6	7	1	0	1	2	2	0
Chhattisgarh	518	48	47	36	31	52	43	44	58	65	45	39	31	31	16	0
D & N Haveli	5	1	0	1	0	0	0	0	3	0	0	0	0	0	0	0
Daman & Diu	3	0	1	1	0	1	0	0	1	0	0	0	0	1	0	0
Delhi	310	29	31	30	27	27	28	19	23	31	30	27	24	21	10	0
Goa	13	3	4	1	0	1	1	2	0	0	1	3	0	1	3	0
Gujarat	792	77	81	63	66	66	64	80	102	83	58	55	59	51	30	0
Haryana	677	70	100	46	52	59	52	58	84	59	54	62	58	56	44	0
Himachal Pradesh	103	13	10	8	8	4	8	12	12	11	12	9	4	5	5	0
Jammu & Kashmir	178	5	18	16	15	16	15	12	12	16	22	17	14	10	8	0
Jharkhand	1494	137	125	120	121	119	168	196	176	137	104	98	60	75	50	0
Karnataka	775	66	85	57	63	70	75	81	76	81	63	56	52	52	33	0
Kerala	326	32	40	35	32	29	33	35	26	26	25	20	20	26	14	0
Lakshadweep	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Madhya Pradesh	2725	226	283	155	150	247	243	295	343	331	254	218	189	189	94	0
Maharashtra	2248	202	256	155	149	198	200	224	256	254	191	173	154	154	102	0
Manipur	21	1	2	1	5	1	1	5	2	3	0	2	0	0	2	0
Meghalaya	33	2	2	4	2	3	9	4	1	1	2	4	1	1	1	0
Mizoram	8	2	0	0	0	0	0	1	1	1	0	2	0	0	0	0
Nagaland	27	3	3	2	0	6	1	3	2	2	2	6	0	1	2	0
Orissa	1477	121	130	98	92	110	137	150	177	149	161	120	104	76	54	0
Pondicherry	16	1	1	0	0	3	1	0	3	0	3	3	0	0	1	0
Punjab	455	55	53	27	31	27	40	51	52	44	40	36	34	37	16	0
Rajasthan	1440	132	155	124	109	146	126	128	152	128	110	105	105	94	61	0
Sikkim	3	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Tamil Nadu	604	71	84	42	29	50	54	48	66	65	44	62	45	57	27	0
Tripura	60	4	8	2	9	8	6	4	7	3	7	5	4	3	5	0
Uttarakhand	348	26	30	23	22	27	34	28	43	35	30	34	31	21	9	0
Uttar Pradesh	18749	1801	2116	1192	1144	1395	1585	1853	1999	2011	2005	1686	1457	1380	736	0
West Bengal	1993	184	212	139	131	177	211	245	206	155	179	176	120	126	86	0
TOTAL	50327	4672	5548	3445	3396	4163	4634	5102	5400	5115	4839	4195	3578	3510	2038	0

"0" means that report was received but no cases were identified

Data from weekly case based reports

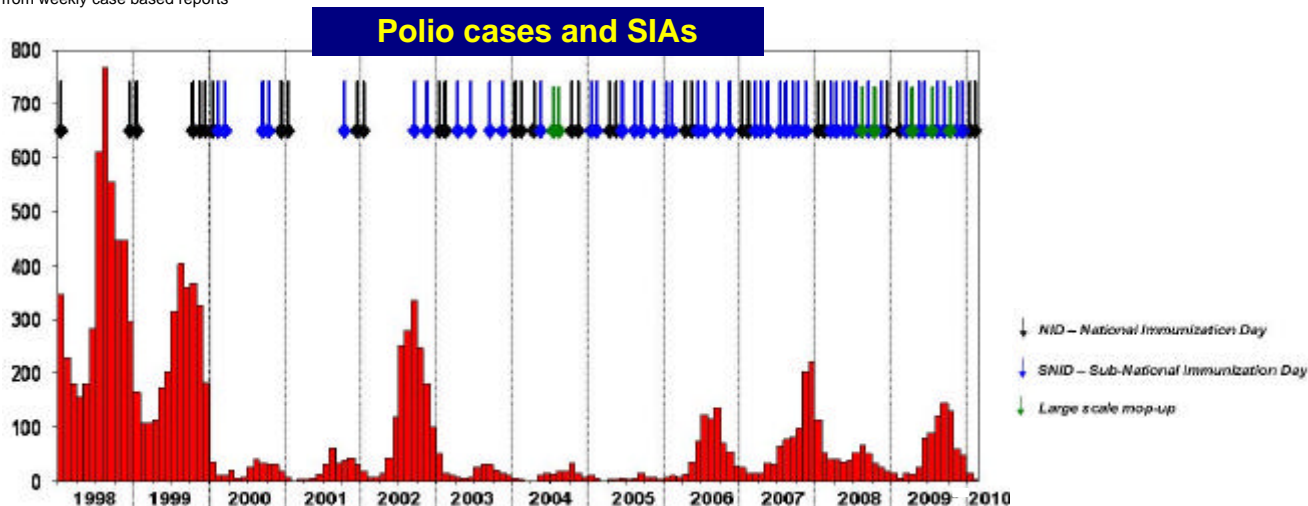


Table 2: Classification of AFP cases and key surveillance indicators, 2009 and 2010

State/UT's	2009										2010											
	AFP							Surveillance Indicators			AFP							Surveillance Indicators				
	AFP Cases	Case Classification					Annualized Rates		Specimen		AFP Cases	Case Classification					Annualized Rates		Specimen			
		Confirmed Polio ¹	MDPV	Compatible	Discarded (non-polio AFP)	Pending	AFP rate	Non-polio AFP rate	% with 2 spec. w/in 14 days	% with any specimen		Confirmed Polio ²	MDPV	Compatible	Discarded (non-polio AFP)	Pending	AFP rate	Non-polio AFP rate	% with 2 spec. w/in 14 days	% with any specimen		
Total	> 90 Days	Total	> 90 Days	Total	> 90 Days																	
Andhra Pradesh	855	0	0	2	831	22	16	3.08	2.99	86	98	112	0	0	0	77	35	0	2.33	1.60	86	95
Andaman & Nicobar	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0.00	0.00	0	0
Arunachal Pradesh	24	0	0	0	22	2	2	4.55	4.17	71	100	0	0	0	0	0	0	0	0.00	0.00	0	0
Assam	542	0	1	1	530	10	10	4.41	4.31	87	97	49	0	0	0	34	15	0	2.30	1.60	92	100
Bihar	13481	117	3	113	12749	499	411	33.38	31.56	86	97	1506	6	0	0	1110	390	0	21.54	15.88	87	98
Chandigarh	24	0	0	0	24	0	0	4.52	4.52	83	100	4	0	0	0	1	3	0	4.35	1.09	50	100
Chhattisgarh	518	0	0	0	465	53	45	5.40	4.85	72	96	47	0	0	0	29	18	0	2.83	1.75	85	96
D & N Haveli	5	0	0	0	5	0	0	4.31	4.31	80	100	0	0	0	0	0	0	0	0.00	0.00	0	0
Daman & Diu	3	0	0	0	3	0	0	2.91	2.91	100	100	1	0	0	0	0	1	0	5.61	0.00	0	100
Delhi	310	4	0	2	271	33	30	4.40	3.85	70	95	31	0	0	0	23	8	0	2.54	1.89	90	100
Goa	13	0	0	0	12	1	1	2.63	2.43	85	100	4	0	0	0	1	3	0	4.68	1.17	50	100
Gujarat	792	0	0	1	778	13	8	3.77	3.71	87	96	81	0	0	0	61	20	0	2.23	1.68	86	94
Haryana	677	4	0	3	636	34	26	6.88	6.46	81	98	100	1	0	0	53	46	0	5.87	3.11	82	97
Himachal Pradesh	103	1	0	0	95	7	7	4.77	4.40	88	99	10	0	0	0	6	4	0	2.67	1.60	80	80
Jammu & Kashmir	178	0	0	0	176	2	0	3.59	3.55	96	99	18	0	0	0	10	8	0	2.10	1.17	100	100
Jharkhand	1494	2	0	2	1426	64	58	11.39	10.87	83	96	125	0	0	0	86	39	0	5.50	3.79	91	98
Karnataka	775	0	0	0	730	45	36	4.28	4.03	79	97	85	0	0	0	61	24	0	2.71	1.95	88	95
Kerala	326	0	0	0	320	6	4	3.83	3.76	78	96	40	0	0	0	24	16	0	2.72	1.63	80	95
Lakshadweep	0	0	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0	0	0	0	0.00	0.00	0	0
Madhya Pradesh	2725	0	0	2	2640	83	65	9.42	9.13	82	98	283	0	0	0	210	73	0	5.65	4.19	85	96
Maharashtra	2248	0	0	0	2164	84	66	5.84	5.62	82	97	256	1	0	0	177	78	0	3.84	2.66	83	96
Manipur	21	0	0	0	21	0	0	2.05	2.05	100	100	2	0	0	0	1	1	0	1.13	0.56	100	100
Meghalaya	33	0	0	0	33	0	0	2.96	2.96	85	100	2	0	0	0	1	1	0	1.04	0.52	100	100
Mizoram	8	0	0	0	8	0	0	1.94	1.94	88	100	0	0	0	0	0	0	0	0.00	0.00	0	0
Nagaland	27	0	0	0	26	1	1	2.33	2.25	93	100	3	0	0	0	2	1	0	1.50	1.00	100	100
Orissa	1477	0	0	3	1384	90	78	10.88	10.20	82	97	130	0	0	0	88	42	0	5.53	3.75	87	99
Pondicherry	16	0	0	0	15	1	1	4.80	4.50	88	100	1	0	0	0	1	0	0	1.74	1.74	100	100
Punjab	455	4	0	2	424	25	21	4.59	4.27	78	97	53	0	0	0	34	19	0	3.09	1.98	89	100
Rajasthan	1440	3	0	3	1357	77	61	5.34	5.03	78	96	155	0	0	0	112	43	0	3.32	2.40	86	95
Sikkim	3	0	0	0	3	0	0	1.22	1.22	100	100	0	0	0	0	0	0	0	0.00	0.00	0	0
Tamil Nadu	604	0	0	0	589	15	12	3.28	3.20	90	99	84	0	0	0	72	12	0	2.64	2.26	96	100
Tripura	60	0	0	0	60	0	0	4.22	4.22	98	100	8	0	0	0	7	1	0	3.25	2.84	100	100
Uttarakhand	348	4	0	4	328	12	7	9.01	8.49	82	97	30	0	0	0	24	6	0	4.49	3.59	100	100
Uttar Pradesh	18749	602	17	125	17018	987	796	23.59	21.41	82	97	2116	9	2	0	1544	561	0	15.38	11.22	85	96
West Bengal	1993	0	0	5	1952	36	28	6.42	6.29	88	98	212	1	0	0	147	64	0	3.94	2.73	86	96
TOTAL	50327	741	21	268	47095	2202	1790	11.62	10.87	83	97	5548	18	2	0	3996	1532	0	7.40	5.33	86	97

AFP cases > 15 years of age or missing age information are excluded

1 Includes 39 index cases (type 1 - 1 in Bihar; type 3 - 2 in Bihar, 36 in Uttar Pradesh) with contact specimen positive for wild poliovirus in 2009

2 Includes 1 index case (type 3 - 1 in Uttar Pradesh) with contact specimen positive for wild poliovirus in 2010

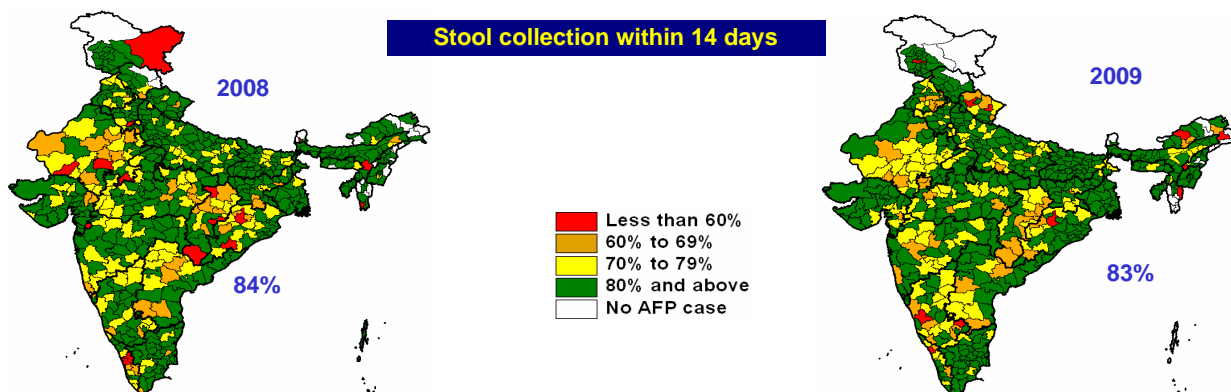


Table 3: Primary isolation results of AFP cases (2009 and 2010 date of onset)

Polio Laboratories	AFP cases with specimens, 2010	Laboratory results for AFP cases with specimen processed, 2010						Specimens received by lab in 2010
		Positive culture	Positive culture and NPEV	NPEV	Negative for polio & NPEV	Number of cases pending		
						<=14 days	>14 days	
BJMC, Ahmedabad	677	171	4	29	398	74	1	1377
NIV, Bangalore	424	110	7	23	224	60	0	868
IoS, Calcutta	586	71	4	37	372	97	5	1191
KIPM, Chennai	996	208	8	50	638	92	0	2052
NCDC, Delhi	110	23	2	4	70	11	0	236
CRI, Kasauli	154	31	0	4	74	34	11	315
ERC, Mumbai	505	96	4	42	355	8	0	1048
SGPGI, Lucknow	1662	338	54	355	765	150	0	3329
TOTAL	5114	1048	83	544	2896	526	17	10416

Polio Laboratories	AFP cases with specimens, 2009	Laboratory results for AFP cases with specimen processed, 2009						Specimens received by lab in 2009
		Positive culture	Positive culture and NPEV	NPEV	Negative for polio & NPEV	Number of cases pending		
						<=14 days	>14 days	
BJMC, Ahmedabad	5077	202	23	928	3924	0	0	10347
NIV, Bangalore	3343	255	51	930	2107	0	0	6852
IoS, Calcutta	6491	126	27	1832	4506	0	0	13130
KIPM, Chennai	9282	912	57	1509	6803	1	0	19328
NCDC, Delhi	310	44	1	51	214	0	0	632
CRI, Kasauli	1311	75	7	184	1045	0	0	2720
ERC, Mumbai	5935	229	49	1586	4071	0	0	12084
SGPGI, Lucknow	17041	780	183	6662	9414	2	0	34674
TOTAL	48790	2623	398	13682	32084	3	0	99767

Table 4: Intratypic differentiation (ITD) of isolates from AFP cases (2009 and 2010 date of onset)

Polio Laboratories	Total AFP cases referred to ITD	2010																
		Wild				Vaccine				VDPV			NPEV by PCR	Non enterovirus	Negative	Result pending		
		Polio 1	Polio 2	Polio 3	Wild mix	Polio 1	Polio 2	Polio 3	Vaccine mix	Polio 1	Polio 2	Polio 3				<= 7 days	8-14 days	>14 days
ERC, Mumbai	262	2	0	2	0	51	49	84	56	0	0	0	0	0	0	10	7	1
KIPM, Chennai	216	0	0	7	0	17	76	50	49	0	1	0	0	0	0	11	5	0
NIV, Bangalore	117	0	0	1	0	18	43	23	25	0	1	0	0	1	0	5	0	0
SGPGI, Lucknow	361	0	0	5	0	39	43	154	77	0	0	0	1	6	0	31	0	5
BJMC, Ahmedabad	175	0	0	0	0	35	36	49	46	0	0	0	1	0	0	6	0	2
TOTAL	1131	2	0	15	0	160	247	360	253	0	2	0	2	7	0	63	12	8

* Does not include 1 contact case (type 3 - 1 in Uttar Pradesh) positive for wild poliovirus in 2010

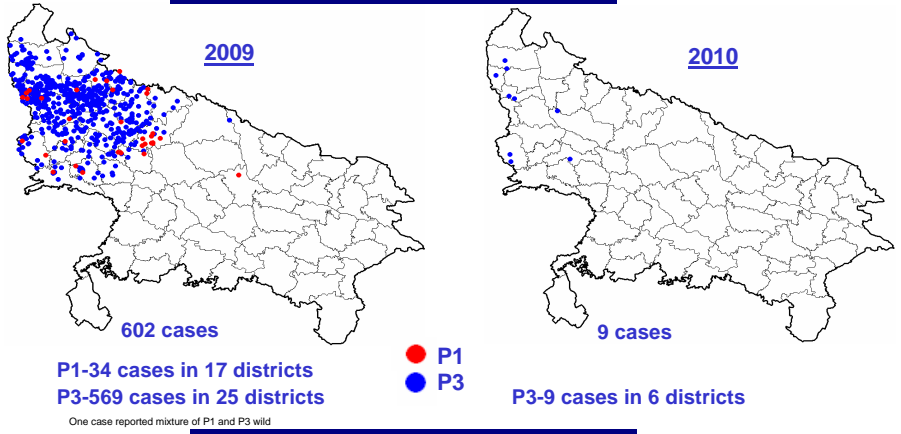
Polio Laboratories	Total AFP cases referred to ITD	2009																
		Wild				Vaccine				VDPV			NPEV by PCR	Non enterovirus	Negative	Result pending		
		Polio 1*	Polio 2	Polio 3*	Wild mix	Polio 1	Polio 2	Polio 3	Vaccine mix	Polio 1	Polio 2	Polio 3				<= 7 days	8-14 days	>14 days
ERC, Mumbai	617	13	0	21	0	239	72	158	59	2	0	0	45	2	3	1	2	0
KIPM, Chennai	967	25	0	467	1	162	90	172	37	0	11	0	0	0	2	0	0	0
NIV, Bangalore	251	4	0	49	0	97	35	39	15	0	5	0	7	0	0	0	0	0
SGPGI, Lucknow	962	34	0	81	0	380	210	158	72	0	3	0	21	2	0	0	0	1
BJMC, Ahmedabad	224	2	0	5	0	105	29	50	28	0	0	0	5	0	0	0	0	0
TOTAL	3021	78	0	623	1	983	436	577	211	2	19	0	78	4	5	1	2	1

* Does not include 39 contact cases (type 1 - 1 in Bihar; type 3 - 2 in Bihar, 36 in Uttar Pradesh) positive for wild poliovirus in 2009

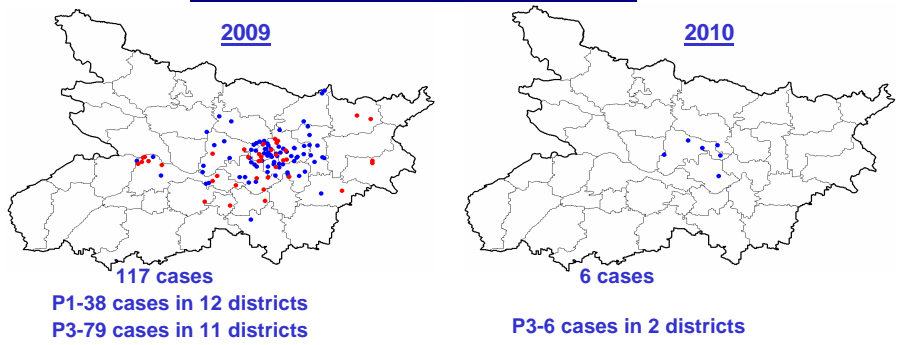
Most recent Wild Polio Virus case by State

State	Date of most recent polio case	Type
Uttar Pradesh	06-Feb-10	P3
West Bengal	23-Jan-10	P1
Bihar	23-Jan-10	P3
Haryana	13-Jan-10	P3
Maharashtra	10-Jan-10	P1
Jharkhand	07-Dec-09	P1
Rajasthan	27-Nov-09	P3
Uttarakhand	06-Nov-09	P3
Himachal Pradesh	17-Oct-09	P3
Punjab	13-Oct-09	P3
Delhi	28-Jun-09	P3
Madhya Pradesh	04-Aug-08	P3
Orissa	22-Jul-08	P3
Andhra Pradesh	16-Jul-08	P3
Assam	09-Jun-08	P1
Karnataka	03-Nov-07	P3
Gujarat	16-Mar-07	P1
Jammu & Kashmir	17-Nov-06	P1
Chandigarh	02-Aug-06	P1
Tamil Nadu	18-Feb-04	P1
Chhattisgarh	18-Jul-02	P1
Kerala	29-Sep-00	P1
Pondicherry	26-Nov-98	P1
Goa	28-Oct-98	P1
Daman & Diu	22-Oct-98	P1
D & N Haveli	31-Jan-98	P1
Nagaland	10-Dec-97	P1 & P3
Meghalaya	15-Oct-97	P1
Tripura	10-Oct-97	P1
A&N Islands	Before 1997	
Arunachal Pradesh	Before 1997	
Lakshadweep	Before 1997	
Manipur	Before 1997	
Mizoram	Before 1997	
Sikkim	Before 1997	

Wild Polio cases, UP

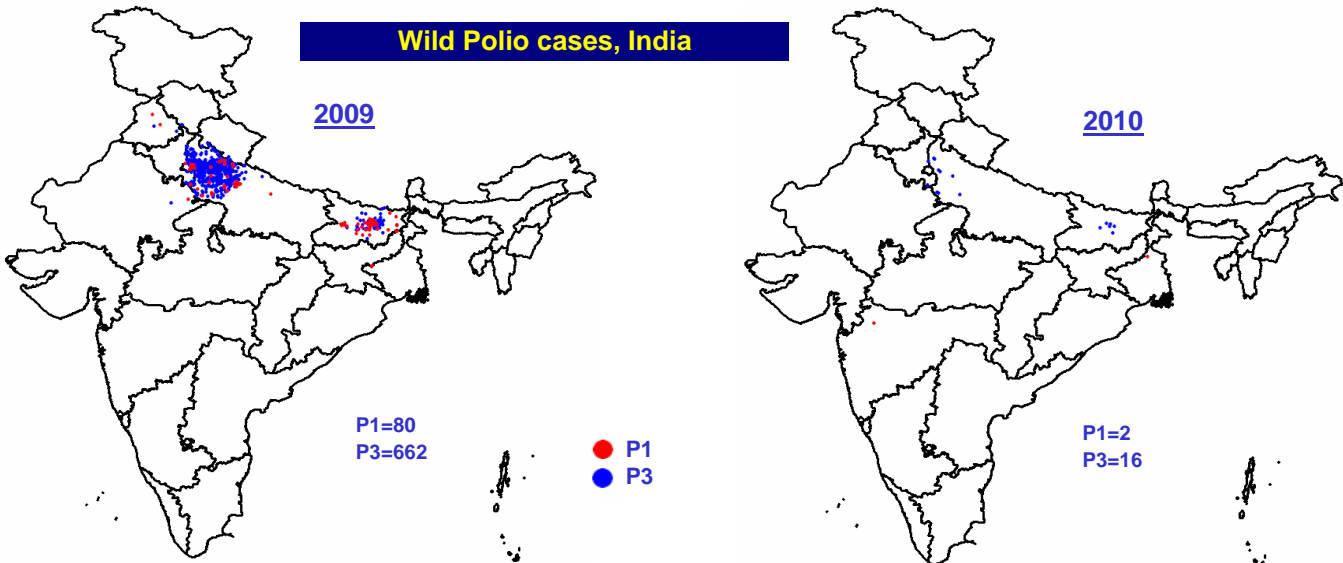


Wild Polio cases, Bihar



Month	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	112	36	36	7	18	51	4	10	8	24	112	14	16
February	32	22	10	1	8	16	3	5	9	14	53	5	2
March	42	11	10	3	7	9	1	1	8	14	40	16	
April	26	8	20	3	16	7	1	2	13	14	40	13	
May	49	39	6	4	42	5	9	2	36	32	34	24	
June	118	69	8	13	117	7	14	6	76	30	38	79	
July	324	142	25	30	251	25	13	3	121	64	53	89	
August	418	187	39	62	280	29	18	6	114	78	67	119	
September	283	193	32	33	334	30	18	14	137	82	49	145	
October	170	195	31	38	247	20	32	7	71	98	32	129	
November	226	155	31	43	180	16	14	7	55	203	24	60	
December	134	69	17	31	100	10	7	3	28	221	17	48	
Total	1934	1126	265	268	1600	225	134	66	676	874	559	741	18

Wild Polio cases, India



One case reported mixture of P1 and P3 wild