

AFP Surveillance Bulletin - India

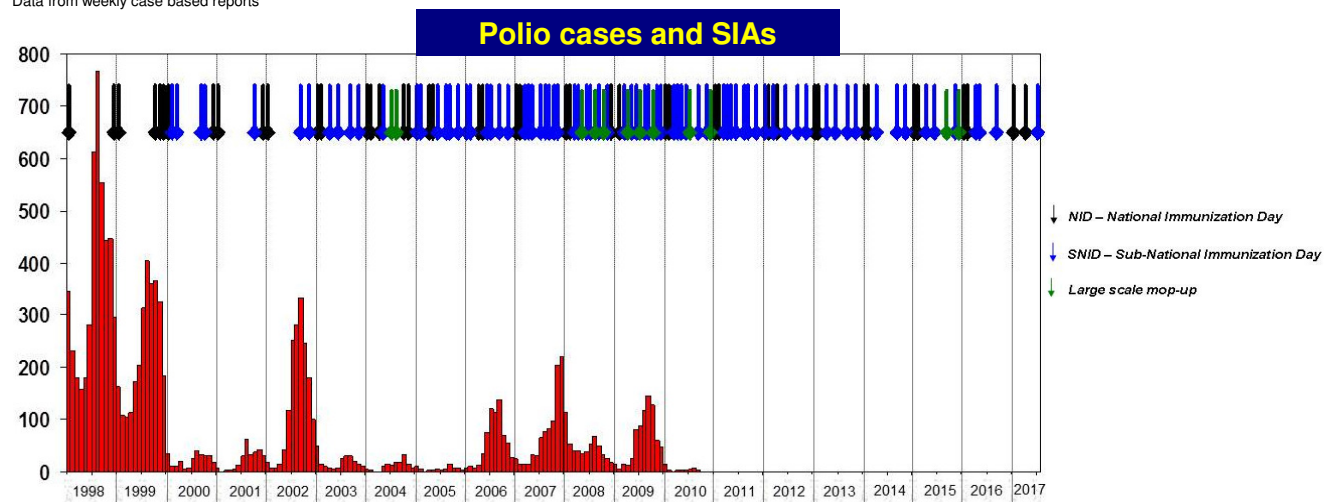
Report for week 30, ending 29 July 2017

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

State/UT's	Total AFP cases in 2016	AFP cases as on week 30, 2016	AFP cases as on week 30, 2017	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17
A&N ISLANDS	7	5	2	1	0	0	1	1	0	1	0	1	0	0	0	0
ANDHRA PRADESH	442	226	170	38	45	37	50	35	31	22	30	29	28	29	16	16
ARUNACHAL PR.	21	9	7	1	4	5	1	0	1	1	1	2	0	1	2	0
ASSAM	371	185	149	37	55	39	32	26	11	14	20	21	26	26	25	17
BIHAR	11074	6044	4270	1146	1217	954	830	750	788	741	651	611	560	604	634	469
CHANDIGARH	87	30	28	10	14	16	12	4	5	1	3	7	5	7	3	2
CHHATTISGARH	373	155	186	34	47	53	38	25	22	31	37	23	24	35	26	10
D&N HAVELI	6	2	2	0	3	0	1	0	0	0	1	1	0	0	0	0
DAMAN & DIU	10	4	4	0	2	0	1	4	0	1	1	0	0	2	0	0
DELHI	824	454	383	86	74	63	67	56	67	53	60	67	51	63	55	34
GOA	29	18	15	2	2	4	3	0	1	2	1	2	3	3	2	2
GUJARAT	1084	524	488	122	124	118	99	88	86	81	63	76	63	85	74	46
HARYANA	997	505	437	107	126	88	70	63	60	74	74	73	60	87	46	23
HIMACHAL PRADESH	180	73	35	12	36	32	17	10	6	5	4	4	5	7	8	2
JAMMU & KASHMIR	197	77	122	11	14	28	16	16	33	14	18	26	24	15	20	5
JHARKHAND	1019	471	445	120	152	87	79	67	77	60	67	63	61	82	82	30
KARNATAKA	944	532	331	108	106	83	70	67	40	51	45	48	48	54	54	31
KERALA	357	183	178	30	28	28	31	39	32	36	29	31	31	27	15	9
LAKSHADWEEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MADHYA PRADESH	2267	1121	859	192	260	261	195	188	153	143	117	111	130	164	143	51
MAHARASHTRA	2721	1335	1260	351	317	281	250	207	162	213	189	192	179	163	199	125
MANIPUR	21	8	12	4	4	2	0	2	1	1	0	0	1	1	3	6
MEGHALAYA	26	9	13	2	3	4	5	3	1	1	1	0	2	2	6	1
MIZORAM	34	10	10	2	2	13	5	1	2	1	4	0	2	3	0	0
NAGALAND	18	6	7	0	1	4	5	1	1	2	1	1	1	0	1	1
ODISHA	1621	743	562	245	265	187	130	78	118	72	75	72	85	72	101	85
PONDICHERRY	17	7	5	1	0	1	1	5	1	1	1	0	2	1	0	0
PUNJAB	726	376	303	68	105	82	54	39	35	55	63	52	41	49	26	17
RAJASTHAN	1743	829	943	178	205	186	158	132	126	142	149	151	141	165	127	68
SIKKIM	4	3	6	1	0	0	0	0	0	1	1	1	0	2	1	0
TAMIL NADU	728	397	255	77	63	65	46	57	47	58	37	31	26	42	42	19
TELANGANA	404	224	122	54	51	42	22	17	23	17	21	25	24	10	18	7
TRIPURA	30	22	26	1	4	0	1	0	2	2	3	3	1	7	7	3
UTTAR PRADESH	14783	7574	6426	1377	1789	1510	1159	1134	1082	1084	836	961	937	1012	1041	555
UTTARAKHAND	394	204	152	50	40	41	37	31	20	30	27	24	19	30	16	6
WEST BENGAL	2953	1398	1275	445	479	268	194	220	198	163	147	191	211	211	224	128
TOTAL	46512	23763	19488	4913	5637	4582	3680	3366	3232	3174	2777	2900	2791	3061	3017	1768

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

Data from weekly case based reports



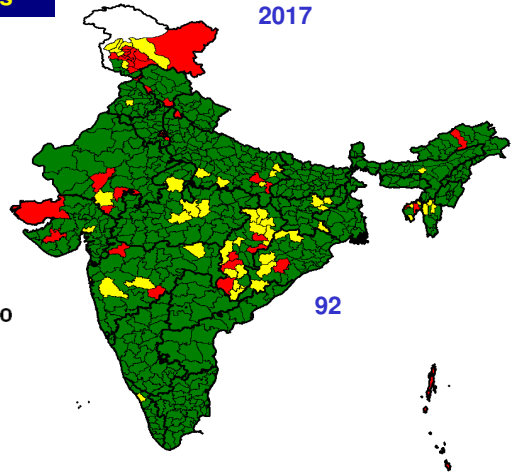
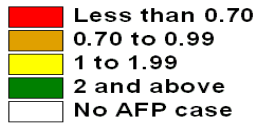
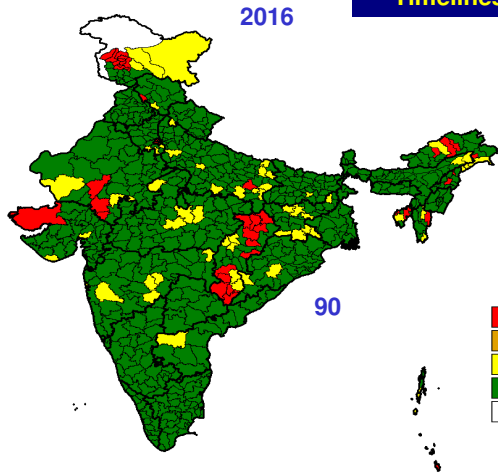
AFP cases key surveillance indicators, 2015 - 2017

State/UT's	2015						2016						2017					
	# AFP Cases	VDPV	Compatible	Discarded (non-polio AFP)	Pending		# AFP Cases	VDPV	Compatible	Discarded (non-polio AFP)	Pending		# AFP Cases	VDPV	Compatible	Discarded (non-polio AFP)	Pending	
					Total	> 90 Days					Total	> 90 Days					Total	> 90 Days
A&N ISLANDS	2	0	0	2	0	0	7	0	0	7	0	0	2	0	0	2	0	0
ANDHRA PRADESH	500	0	0	500	0	0	442	0	0	442	0	0	170	0	0	142	28	8
ARUNACHAL PR.	20	0	0	20	0	0	21	0	0	21	0	0	7	0	0	6	1	0
ASSAM	322	0	0	322	0	0	371	0	0	371	0	0	149	0	0	130	19	2
BIHAR	12595	0	1	12594	0	0	11074	1	3	11069	1	1	4270	0	0	3593	677	87
CHANDIGARH	81	0	0	81	0	0	87	0	0	87	0	0	28	0	0	26	2	0
CHHATTISGARH	347	0	0	347	0	0	373	0	1	372	0	0	186	0	0	150	36	11
D&N HAVELI	7	0	0	7	0	0	6	0	0	6	0	0	2	0	0	2	0	0
DAMAN & DIU	13	0	0	13	0	0	10	0	0	10	0	0	4	0	0	4	0	0
DELHI	860	1	0	859	0	0	824	0	0	820	4	4	383	0	0	332	51	16
GOA	27	0	0	27	0	0	29	0	0	29	0	0	15	0	0	9	6	3
GUJARAT	893	0	0	893	0	0	1084	0	0	1082	2	2	488	0	0	410	78	23
HARYANA	1017	0	0	1017	0	0	997	0	0	997	0	0	437	0	0	399	38	7
HIMACHAL PRADESH	124	0	0	124	0	0	180	0	0	179	1	1	35	0	0	31	4	1
JAMMU & KASHMIR	152	0	0	152	0	0	197	0	0	196	1	1	122	0	0	115	7	3
JHARKHAND	1169	0	2	1167	0	0	1019	0	2	1012	5	5	445	0	0	365	80	23
KARNATAKA	949	0	1	948	0	0	944	0	0	937	7	7	331	0	0	257	74	21
KERALA	355	0	0	355	0	0	357	0	0	357	0	0	178	0	0	166	12	4
LAKSHADWEEP	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MADHYA PRADESH	2285	1	0	2284	0	0	2267	0	0	2263	4	4	859	0	1	704	154	34
MAHARASHTRA	2463	0	0	2463	0	0	2721	0	2	2709	10	10	1260	0	1	970	289	78
MANIPUR	31	0	0	31	0	0	21	0	0	21	0	0	12	0	0	5	7	0
MEGHALAYA	27	0	0	27	0	0	26	0	0	26	0	0	13	0	0	10	3	0
MIZORAM	10	0	0	10	0	0	34	0	0	34	0	0	10	0	0	8	2	2
NAGALAND	11	0	0	11	0	0	18	0	0	18	0	0	7	0	0	5	2	0
ODISHA	1559	0	0	1559	0	0	1621	0	0	1619	2	2	562	0	1	441	120	21
PONDICHERRY	17	0	0	17	0	0	17	0	0	17	0	0	5	0	0	5	0	0
PUNJAB	670	0	0	670	0	0	726	0	0	726	0	0	303	0	0	264	39	9
RAJASTHAN	1665	0	1	1664	0	0	1743	0	1	1733	9	9	943	0	0	779	164	63
SIKKIM	4	0	0	4	0	0	4	0	0	4	0	0	6	0	0	5	1	0
TAMIL NADU	707	0	0	707	0	0	728	0	0	726	2	2	255	0	0	218	37	5
TELANGANA	353	0	0	353	0	0	404	0	0	403	1	1	122	0	0	99	23	4
TRIPURA	45	0	0	45	0	0	30	0	0	30	0	0	26	0	0	20	6	0
UTTAR PRADESH	14988	0	5	14983	0	0	14783	0	6	14773	4	4	6426	0	0	5701	725	101
UTTARAKHAND	342	0	0	342	0	0	394	0	0	394	0	0	152	0	0	142	10	1
WEST BENGAL	2359	0	1	2358	0	0	2953	0	0	2953	0	0	1275	0	0	1067	208	64
TOTAL	46970	2	11	46957	0	0	46512	1	15	46443	53	53	19488	0	3	16582	2903	591

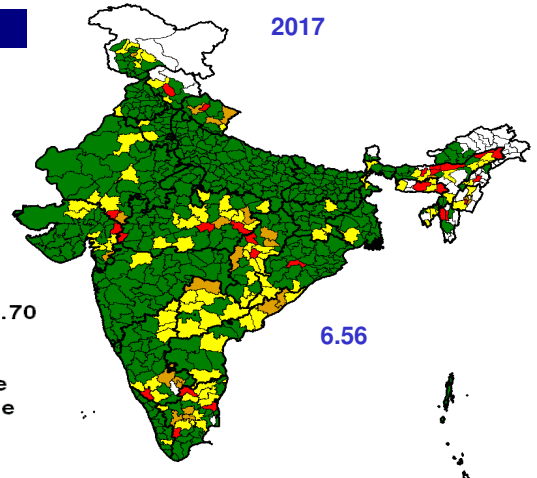
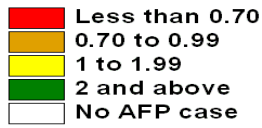
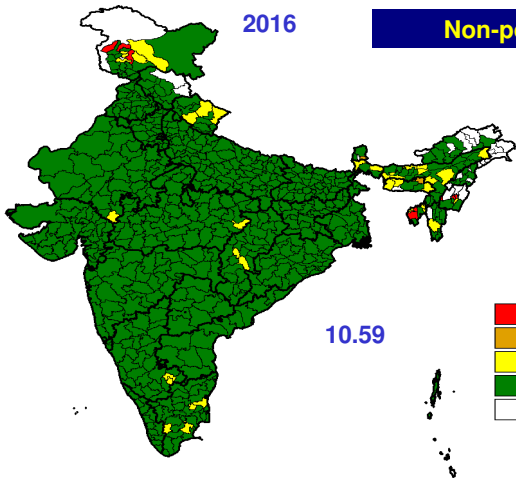
AFP cases key surveillance indicators, 2015 - 2017

State/UT's	2015				2016				2017			
	Surveillance Indicators				Surveillance Indicators				Surveillance Indicators			
	Annualized Rates		Specimen		Annualized Rates		Specimen		Annualized Rates		Specimen	
	AFP rate	Non-polio AFP rate	% with 2 spec. w/in 14 days	% with any specimen	AFP rate	Non-polio AFP rate	% with 2 spec. w/in 14 days	% with any specimen	AFP rate	Non-polio AFP rate	% with 2 spec. w/in 14 days	% with any specimen
A&N ISLANDS	2.22	2.22	50	100	7.61	7.61	86	86	3.65	3.65	100	100
ANDHRA PRADESH	3.52	3.52	90	98	3.38	3.38	89	96	2.24	1.87	89	96
ARUNACHAL PR.	3.28	3.28	80	100	3.37	3.37	71	100	1.92	1.65	86	100
ASSAM	2.49	2.49	98	99	2.81	2.81	96	99	2.14	1.87	94	99
BIHAR	27.96	27.96	86	98	23.84	23.83	88	99	15.53	13.06	89	98
CHANDIGARH	18.12	18.12	98	100	19.16	19.16	95	100	10.51	9.75	86	100
CHHATTISGARH	3.33	3.33	65	93	3.4	3.39	63	94	2.91	2.34	68	95
D&N HAVELI	8.43	8.43	71	86	7.14	7.14	83	100	3.98	3.98	100	100
DAMAN & DIU	20.97	20.97	92	92	14.93	14.93	100	100	9	9.00	100	100
DELHI	16.01	15.99	82	97	15.08	15.01	81	97	11.94	10.35	86	97
GOA	6.65	6.65	89	100	7.04	7.04	93	100	6.22	3.73	67	100
GUJARAT	3.93	3.93	83	94	4.68	4.67	84	94	4.28	3.59	84	94
HARYANA	9.39	9.39	81	97	9.04	9.04	84	98	6.74	6.15	85	98
HIMACHAL PRADESH	5.53	5.53	80	99	7.93	7.89	87	97	2.94	2.60	94	100
JAMMU & KASHMIR	2.74	2.74	99	100	3.46	3.44	93	99	3.82	3.60	93	100
JHARKHAND	8.28	8.27	81	96	8.37	8.31	81	96	6.22	5.10	80	97
KARNATAKA	5.56	5.55	85	98	5.44	5.4	81	97	3.25	2.53	81	95
KERALA	4.25	4.25	88	98	4.17	4.17	90	100	3.58	3.34	94	99
LAKSHADWEEP	5.88	5.88	100	100	0	0	NA	NA	0	0.00	NA	NA
MADHYA PRADESH	7.27	7.27	84	98	7.08	7.07	83	98	4.57	3.74	82	97
MAHARASHTRA	7.55	7.55	86	98	8.27	8.23	84	97	6.55	5.04	81	97
MANIPUR	3.28	3.28	84	100	1.99	1.99	62	100	1.58	0.66	92	100
MEGHALAYA	2.09	2.09	85	100	1.95	1.95	85	96	1.54	1.18	69	92
MIZORAM	2.21	2.21	50	90	6.71	6.71	91	97	3.81	3.05	70	100
NAGALAND	1.52	1.52	82	91	2.82	2.82	67	89	1.66	1.19	86	86
ODISHA	12.29	12.29	88	98	12.83	12.81	88	99	7.46	5.85	84	96
PONDICHERRY	4.27	4.27	100	100	4.17	4.17	94	94	2.68	2.68	100	100
PUNJAB	8.90	8.90	84	97	9.51	9.51	84	98	6.79	5.91	82	96
RAJASTHAN	6.93	6.92	84	97	7.12	7.08	82	95	6.62	5.47	83	96
SIKKIM	1.79	1.79	75	100	1.77	1.77	100	100	4.54	3.78	83	100
TAMIL NADU	3.86	3.86	93	99	3.95	3.94	95	99	2.5	2.14	95	99
TELANGANA	3.39	3.39	80	94	3.97	3.96	80	94	2.01	1.63	75	94
TRIPURA	2.91	2.91	89	100	1.85	1.85	77	100	3.5	2.69	81	100
UTTAR PRADESH	17.45	17.44	88	98	16.9	16.89	88	98	12.5	11.09	87	98
UTTARAKHAND	7.87	7.87	86	99	8.91	8.91	87	98	5.85	5.47	86	99
WEST BENGAL	7.29	7.29	90	98	9.43	9.43	93	99	7.18	6.01	91	99
TOTAL	10.78	10.77	86	98	10.61	10.59	87	98	7.71	6.56	86	98

Timeliness of Reporting Units



Non-polio AFP rate



Stool collection within 14 days

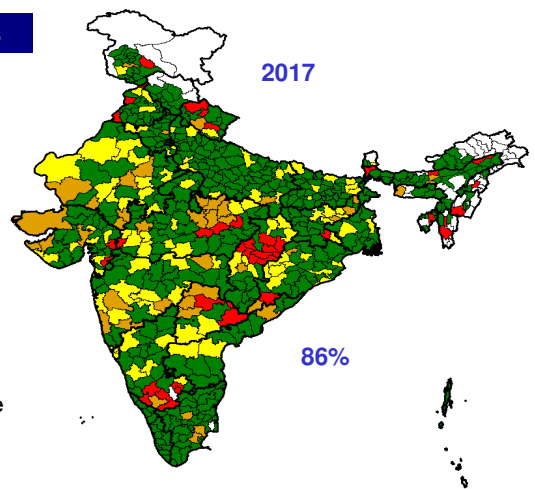
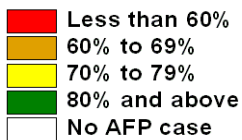
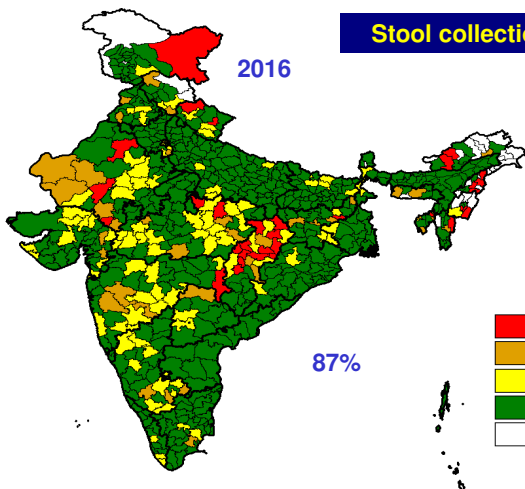
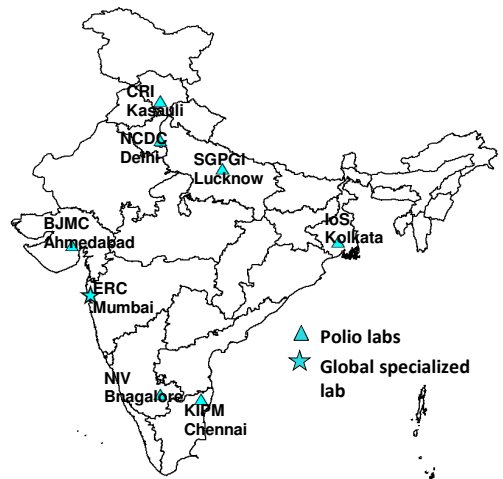


Table 3: Primary isolation results of AFP cases

2017								
Polio Laboratories	Number of AFP cases with stool specimens	Number of AFP cases with laboratory result as				Number of cases pending for		Number of specimens received by lab
		Culture positive for poliovirus	Culture positive for polio virus and NPEV	NPEV	No polio virus or NPEV	<=14 days	>14 days	
BJMC, Ahmedabad	2709	132	17	484	1906	170	0	5410
NIV, Bangalore	1754	77	12	425	1101	139	0	3498
ERC, Mumbai	1785	117	11	294	1363	0	0	3564
IoS, Kolkata	2679	116	12	605	1908	18	20	5308
NCDC, Delhi	3054	145	14	388	2326	181	0	6115
CRI, Kasauli	855	13	1	138	678	25	0	1716
KIPM, Chennai	1614	34	4	290	1272	14	0	3140
SGPGI, Lucknow	3846	190	20	823	2637	176	0	7681
TOTAL	18296	824	91	3447	13191	723	20	36432

Polio laboratory network



2016								
Polio Laboratories	Number of AFP cases with stool specimens	Number of AFP cases with laboratory result as				Number of cases pending for		Number of specimens received by lab
		Culture positive for poliovirus	Culture positive for polio virus and NPEV	NPEV	No polio virus or NPEV	<=14 days	>14 days	
BJMC, Ahmedabad	6103	234	26	1127	4716	0	0	12211
NIV, Bangalore	4395	191	35	1200	2969	0	0	8801
ERC, Mumbai	4941	158	14	1187	3582	0	0	10031
IoS, Kolkata	7148	91	21	1012	6024	0	0	14304
NCDC, Delhi	6935	212	20	885	5818	0	0	13872
CRI, Kasauli	2067	35	0	276	1756	0	0	4154
KIPM, Chennai	5123	90	9	954	4070	0	0	10240
SGPGI, Lucknow	8810	281	29	1551	6949	0	0	17610
TOTAL	45522	1292	154	8192	35884	0	0	91223

Table 4: Intratypic differentiation (ITD) of isolates from AFP cases

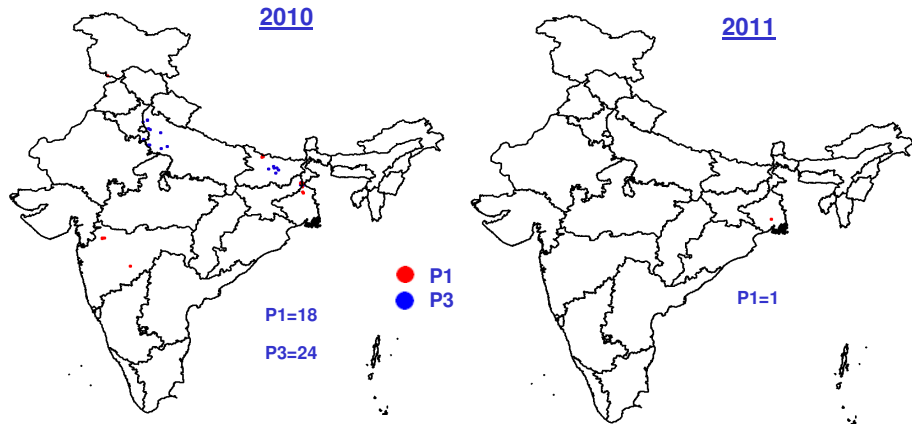
2017																		
Polio Laboratories	Number of AFP cases referred for ITD	Number of AFP cases with ITD result as														Number of cases pending for		
		Wild poliovirus				Vaccine poliovirus				VDPV			NPEV by PCR	Non enterovirus	Negative	<=7 days	8-14 days	>14 days
		Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3						
ERC, Mumbai	125	0	0	0	0	44	0	38	29	0	0	0	14	0	0	0	0	0
IoS, Kolkata	128	0	0	0	0	46	0	34	45	0	0	0	2	1	0	0	0	0
NCDC, Delhi	159	0	0	0	0	42	0	66	43	0	0	0	2	0	0	6	0	0
KIPM, Chennai	37	0	0	0	0	5	0	19	8	0	0	0	0	0	0	5	0	0
NIV, Bangalore	90	0	0	0	0	33	0	21	27	0	0	0	6	0	0	3	0	0
SGPGI, Lucknow	212	0	0	0	0	40	0	72	42	0	0	0	18	31	0	9	0	0
BJMC, Ahmedabad	149	0	0	0	0	44	0	34	49	0	0	0	5	0	0	17	0	0
CRI, Kasauli	15	0	0	0	0	10	0	2	3	0	0	0	0	0	0	0	0	0
TOTAL	915	0	0	0	0	264	0	286	246	0	0	0	47	32	0	40	0	0

2016																		
Polio Laboratories	Number of AFP cases referred for ITD	Number of AFP cases with ITD result as														Number of cases pending for		
		Wild poliovirus				Vaccine poliovirus				VDPV			NPEV by PCR	Non enterovirus	Negative	<=7 days	8-14 days	>14 days
		Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3						
ERC, Mumbai	172	0	0	0	0	53	13	52	43	0	0	0	11	0	0	0	0	0
IoS, Kolkata	113	0	0	0	0	26	18	35	33	0	0	0	0	1	0	0	0	0
NCDC, Delhi	231	0	0	0	0	47	38	91	52	0	0	0	3	0	0	0	0	0
KIPM, Chennai	99	0	0	0	0	26	17	27	28	0	1	0	0	0	0	0	0	0
NIV, Bangalore	226	0	0	0	0	56	24	68	70	0	0	0	6	2	0	0	0	0
SGPGI, Lucknow	311	0	0	0	0	56	53	86	66	0	0	0	16	34	0	0	0	0
BJMC, Ahmedabad	259	0	0	0	0	78	25	74	81	0	0	0	1	0	0	0	0	0
CRI, Kasauli	35	0	0	0	0	5	7	11	12	0	0	0	0	0	0	0	0	0
TOTAL	1446	0	0	0	0	347	195	444	385	0	1	0	37	37	0	0	0	0

Most recent Wild Polio Virus case by State

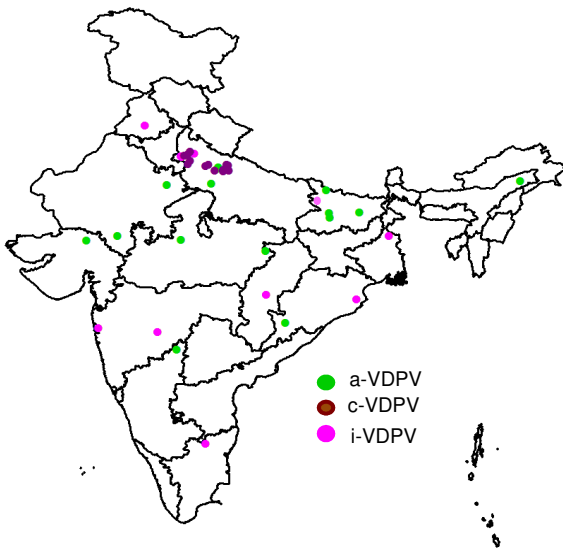
State	Date of most recent polio case	Type
West Bengal	13-Jan-11	P1
Jharkhand	22-Oct-10	P3
Maharashtra	16-Sep-10	P1
Bihar	01-Sep-10	P1
Uttar Pradesh	21-Apr-10	P3
Jammu & Kashmir	07-Feb-10	P1
Haryana	13-Jan-10	P3
Rajasthan	27-Nov-09	P3
Uttarakhand	06-Nov-09	P3
Himachal Pradesh	17-Oct-09	P3
Punjab	13-Oct-09	P3
Delhi	28-Jun-09	P3
Madhya Pradesh	04-Aug-08	P3
Odisha	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
Telangana	03-Jul-07	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, India



Month	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	112	36	36	7	18	51	4	10	8	24	112	14	16	1	0	0	0	0	0	0
February	32	22	10	1	8	16	3	5	9	14	53	5	3	0	0	0	0	0	0	0
March	42	11	10	3	7	9	1	1	8	14	40	16	0	0	0	0	0	0	0	0
April	26	8	20	3	16	7	1	2	13	14	40	13	2	0	0	0	0	0	0	0
May	49	39	6	4	42	5	9	2	36	32	34	24	2	0	0	0	0	0	0	0
June	118	69	8	13	117	7	14	6	76	30	38	79	2	0	0	0	0	0	0	0
July	324	142	25	30	251	25	13	3	121	64	53	89	5	0	0	0	0	0	0	0
August	418	187	39	62	280	29	18	6	114	78	67	119	7	0	0	0	0	0	0	0
September	283	193	32	33	334	30	18	14	137	82	49	145	3	0	0	0	0	0	0	0
October	170	195	31	38	247	20	32	7	71	98	32	129	1	0	0	0	0	0	0	0
November	226	155	31	43	180	16	14	7	55	203	24	60	0	0	0	0	0	0	0	0
December	134	69	17	31	100	10	7	3	28	221	17	48	1	0	0	0	0	0	0	0
Total	1934	1126	265	268	1600	225	134	66	676	874	559	741	42	1	0	0	0	0	0	0

Vaccine-derived Poliovirus in AFP cases, India, 2009 - 2017



Year	type 1		type 2			type 3
	a	i	a	c	i	i
2009	1	1	4	15		
2010			1	3	1	
2011			4		2	1
2012					1	
2013			2		3	
2014			3			
2015			1		1	
2016					1	
2017						
Total	1	1	15	18	9	1

