

AFP Surveillance Bulletin - India

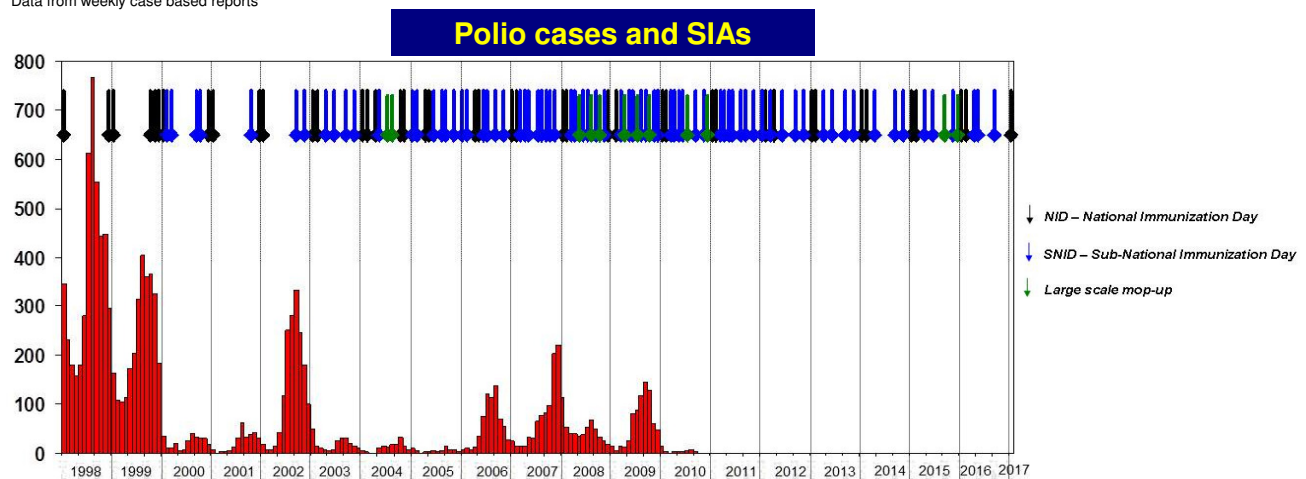
Report for week 6, ending 11 February 2017

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 6, 2016	AFP cases as on week 6, 2017	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17
A&N ISLANDS	7	0	1	0	1	1	1	1	1	0	0	1	1	0	1	0
ANDHRA PRADESH	442	41	17	34	45	35	23	31	38	45	37	50	35	31	17	0
ARUNACHAL PR.	21	1	1	2	1	1	1	3	1	4	5	1	0	1	1	0
ASSAM	371	23	13	31	28	19	36	33	37	55	39	32	26	11	12	1
BIHAR	11108	986	668	928	763	756	969	993	1147	1219	957	834	758	798	651	17
CHANDIGARH	87	9	1	4	2	0	3	8	10	14	16	12	4	5	1	0
CHHATTISGARH	376	25	15	19	25	27	24	29	34	47	55	37	26	22	15	0
D&N HAVELI	6	0	0	1	1	0	0	0	0	3	0	1	0	0	0	0
DAMAN & DIU	11	2	1	0	0	0	0	2	0	2	0	1	4	0	1	0
DELHI	823	84	34	57	57	63	76	67	86	74	64	67	55	66	33	1
GOA	29	3	2	3	2	5	0	4	2	2	4	3	0	1	2	0
GUJARAT	1081	81	75	77	78	75	68	70	122	124	118	100	87	83	72	3
HARYANA	1000	37	32	86	77	67	74	87	107	127	88	70	63	60	32	0
HIMACHAL PRADESH	180	6	5	13	12	8	11	17	12	36	32	17	10	6	5	0
JAMMU & KASHMIR	194	2	8	8	11	16	16	15	11	14	28	16	16	31	8	0
JHARKHAND	1022	53	40	76	56	59	78	100	123	152	89	81	65	73	39	1
KARNATAKA	941	93	29	66	76	74	86	74	108	106	83	71	64	38	29	0
KERALA	358	31	31	26	30	27	27	28	30	28	28	31	40	32	30	1
LAKSHADWEEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MADHYA PRADESH	2271	169	123	146	159	160	182	193	192	260	262	196	190	153	122	1
MAHARASHTRA	2725	173	156	197	184	176	180	231	352	318	284	250	207	159	151	5
MANIPUR	21	0	1	2	1	1	1	1	4	4	2	0	2	1	1	0
MEGHALAYA	26	0	1	1	1	2	2	2	2	3	4	5	4	0	1	0
MIZORAM	34	0	0	1	1	1	3	2	2	2	13	5	1	2	0	0
NAGALAND	17	1	1	1	0	3	1	0	0	1	4	5	1	0	1	0
ODISHA	1624	90	66	99	90	97	77	134	245	265	190	129	80	117	62	4
PONDICHERRY	16	3	0	1	0	1	2	1	1	0	1	1	5	0	0	0
PUNJAB	729	71	32	70	47	43	57	50	68	107	83	53	39	36	32	0
RAJASTHAN	1743	112	106	138	94	116	166	128	178	205	186	158	134	122	104	2
SIKKIM	4	1	1	0	1	0	0	1	1	0	0	0	0	0	1	0
TAMIL NADU	724	54	24	58	67	66	57	54	77	63	65	46	55	45	24	0
TELANGANA	403	18	5	23	38	28	36	49	54	51	42	22	17	22	5	0
TRIPURA	30	4	2	3	3	1	3	9	1	4	0	1	0	2	2	0
UTTAR PRADESH	14802	1284	1006	1061	1067	1001	1216	1113	1377	1790	1506	1171	1146	1077	971	35
UTTARAKHAND	393	26	27	25	20	25	40	35	50	40	41	38	30	19	27	0
WEST BENGAL	2955	194	137	187	180	175	179	226	445	480	268	194	223	196	136	1
TOTAL	46574	3677	2661	3444	3218	3129	3695	3791	4918	5645	4594	3699	3388	3209	2589	72

"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
Andaman & Nicobar	2	0	0	2	0	0	7	0	0	5	2	2	1	0	0	1	0	0
Andhra Pradesh	500	0	0	500	0	0	442	0	0	435	7	4	17	0	0	8	9	0
Arunachal Pradesh	20	0	0	20	0	0	21	0	0	20	1	1	1	0	0	0	1	0
Assam	322	0	0	322	0	0	371	0	0	366	5	2	13	0	0	1	12	0
Bihar	12595	0	1	12594	0	0	11108	1	2	10745	360	200	668	0	0	304	364	0
Chandigarh	81	0	0	81	0	0	87	0	0	84	3	0	1	0	0	0	1	0
Chhattisgarh	347	0	0	347	0	0	376	0	0	326	50	32	15	0	0	6	9	0
D & N Haveli	7	0	0	7	0	0	6	0	0	6	0	0	0	0	0	0	0	0
Daman & Diu	13	0	0	13	0	0	11	0	0	11	0	0	1	0	0	1	0	0
Delhi	860	1	0	859	0	0	823	0	0	791	32	16	34	0	0	16	18	0
Goa	27	0	0	27	0	0	29	0	0	28	1	1	2	0	0	2	0	0
Gujarat	893	0	0	893	0	0	1081	0	0	1029	52	29	75	0	0	42	33	0
Haryana	1017	0	0	1017	0	0	1000	0	0	949	51	36	32	0	0	24	8	0
Himachal Pradesh	124	0	0	124	0	0	180	0	0	168	12	11	5	0	0	4	1	0
Jammu & Kashmir	152	0	0	152	0	0	194	0	0	187	7	3	8	0	0	7	1	0
Jharkhand	1169	0	2	1167	0	0	1022	0	1	929	92	63	40	0	0	16	24	0
Karnataka	949	0	1	948	0	0	941	0	0	865	76	60	29	0	0	18	11	0
Kerala	355	0	0	355	0	0	358	0	0	346	12	5	31	0	0	20	11	0
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	2271	0	0	2134	137	86	123	0	0	80	43	0
Maharashtra	2463	0	0	2463	0	0	2725	0	1	2562	162	119	156	0	0	97	59	0
Manipur	31	0	0	31	0	0	21	0	0	19	2	1	1	0	0	0	1	0
Meghalaya	27	0	0	27	0	0	26	0	0	22	4	2	1	0	0	1	0	0
Mizoram	10	0	0	10	0	0	34	0	0	34	0	0	0	0	0	0	0	0
Nagaland	11	0	0	11	0	0	17	0	0	13	4	4	1	0	0	1	0	0
Odisha	1559	0	0	1559	0	0	1624	0	0	1562	62	29	66	0	0	25	41	0
Pondicherry	17	0	0	17	0	0	16	0	0	16	0	0	0	0	0	0	0	0
Punjab	670	0	0	670	0	0	729	0	0	686	43	30	32	0	0	20	12	0
Rajasthan	1665	0	1	1664	0	0	1743	0	0	1635	108	69	106	0	0	68	38	0
Sikkim	4	0	0	4	0	0	4	0	0	4	0	0	1	0	0	0	1	0
Tamil Nadu	707	0	0	707	0	0	724	0	0	713	11	10	24	0	0	20	4	0
Telangana	353	0	0	353	0	0	403	0	0	386	17	8	5	0	0	4	1	0
Tripura	45	0	0	45	0	0	30	0	0	29	1	1	2	0	0	2	0	0
Uttar Pradesh	14988	0	5	14983	0	0	14802	0	1	14362	439	232	1006	0	0	549	457	0
Uttarakhand	342	0	0	342	0	0	393	0	0	386	7	5	27	0	0	13	14	0
West Bengal	2359	0	1	2358	0	0	2955	0	0	2866	89	37	137	0	0	60	77	0
TOTAL	46970	2	11	46957	0	0	46574	1	5	44719	1849	1098	2661	0	0	1410	1251	0

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	5.43	71	86	9.42	9.42	100	100
ANDHRA PRADESH	3.52	3.52	90	98	3.38	3.33	89	96	1.13	0.53	94	94
ARUNACHAL PR.	3.28	3.28	80	100	3.37	3.21	71	100	1.39	0.00	100	100
ASSAM	2.49	2.49	98	99	2.81	2.77	96	99	0.85	0.07	77	92
BIHAR	27.96	27.96	86	98	23.91	23.13	88	99	12.46	5.67	88	97
CHANDIGARH	18.12	18.12	98	100	19.16	18.50	95	100	1.91	0.00	0	100
CHHATTISGARH	3.33	3.33	65	93	3.42	2.97	62	94	1.18	0.47	53	93
D&N HAVELI	8.43	8.43	71	86	7.14	7.14	83	100	0.00	0.00	NA	NA
DAMAN & DIU	20.97	20.97	92	92	16.42	16.42	100	100	12.94	12.94	100	100
DELHI	16.01	15.99	82	97	15.06	14.48	81	98	5.39	2.54	79	88
GOA	6.65	6.65	89	100	7.04	6.80	93	100	4.21	4.21	100	100
GUJARAT	3.93	3.93	83	94	4.67	4.44	84	94	2.81	1.57	85	91
HARYANA	9.39	9.39	81	97	9.07	8.60	84	98	2.51	1.89	94	100
HIMACHAL PRADESH	5.53	5.53	80	99	7.93	7.40	87	97	1.91	1.53	80	80
JAMMU & KASHMIR	2.74	2.74	99	100	3.41	3.29	93	99	1.22	1.07	100	100
JHARKHAND	8.28	8.27	81	96	8.39	7.63	81	96	2.85	1.14	85	100
KARNATAKA	5.56	5.55	85	98	5.42	4.98	82	97	1.45	0.90	93	97
KERALA	4.25	4.25	88	98	4.18	4.04	90	100	3.13	2.02	97	97
LAKSHADWEEP	5.88	5.88	100	NA	0.00	0.00	NA	NA	0.00	0.00	NA	NA
MADHYA PRADESH	7.27	7.27	84	98	7.09	6.67	82	98	3.33	2.17	89	98
MAHARASHTRA	7.55	7.55	86	98	8.28	7.78	83	98	4.11	2.55	82	95
MANIPUR	3.28	3.28	84	100	1.99	1.80	62	100	0.82	0.00	0	0
MEGHALAYA	2.09	2.09	85	100	1.95	1.65	77	96	0.65	0.65	100	100
MIZORAM	2.21	2.21	50	90	6.71	6.71	91	97	0.00	0.00	NA	NA
NAGALAND	1.52	1.52	82	91	2.66	2.03	71	94	1.36	1.36	100	100
ODISHA	12.29	12.29	88	98	12.85	12.36	88	99	4.53	1.71	86	94
PONDICHERY	4.27	4.27	100	100	3.92	3.92	94	94	0.00	0.00	NA	NA
PUNJAB	8.90	8.90	84	97	9.55	8.98	83	98	3.63	2.27	88	97
RAJASTHAN	6.93	6.92	84	97	7.12	6.68	82	96	3.75	2.41	92	97
SIKKIM	1.79	1.79	75	100	1.77	1.77	100	100	3.83	0.00	0	0
TAMIL NADU	3.86	3.86	93	99	3.93	3.87	95	99	1.13	0.94	100	100
TELANGANA	3.39	3.39	80	94	3.96	3.79	81	94	0.43	0.34	80	100
TRIPURA	2.91	2.91	89	100	1.85	1.78	77	100	1.07	1.07	100	100
UTTAR PRADESH	17.45	17.44	88	98	16.92	16.42	88	98	9.97	5.44	85	93
UTTARAKHAND	7.87	7.87	86	99	8.89	8.73	87	98	5.29	2.55	93	96
WEST BENGAL	7.29	7.29	90	98	9.44	9.15	93	99	3.79	1.66	90	98
TOTAL	10.78	10.77	86	98	10.62	10.20	87	98	5.26	2.79	87	95

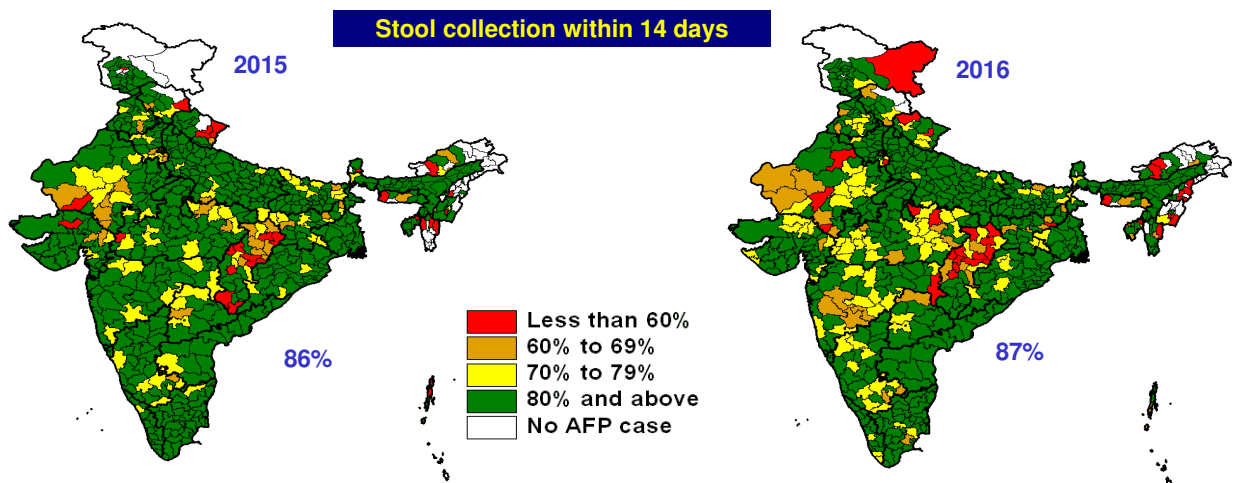
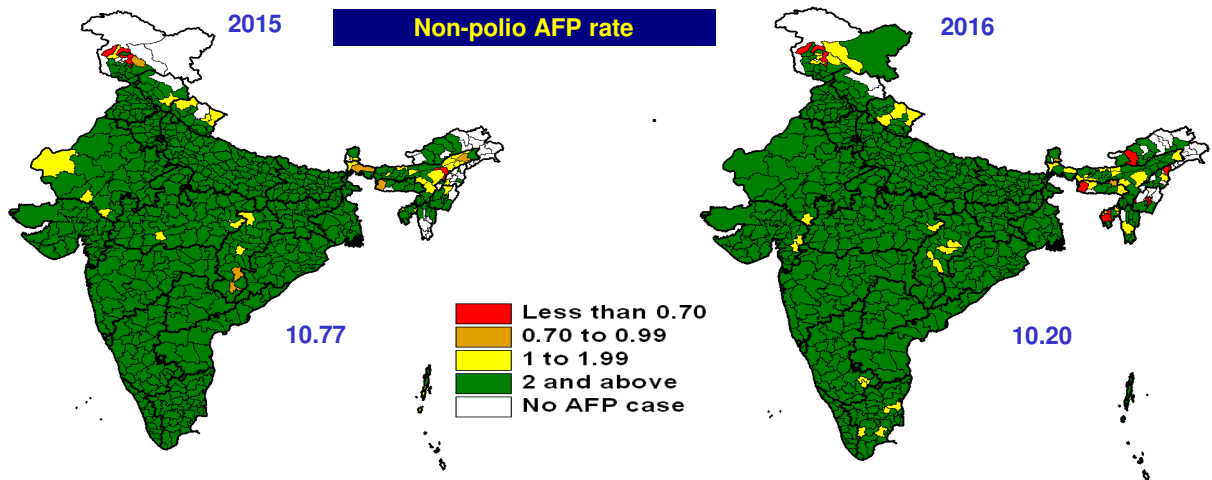
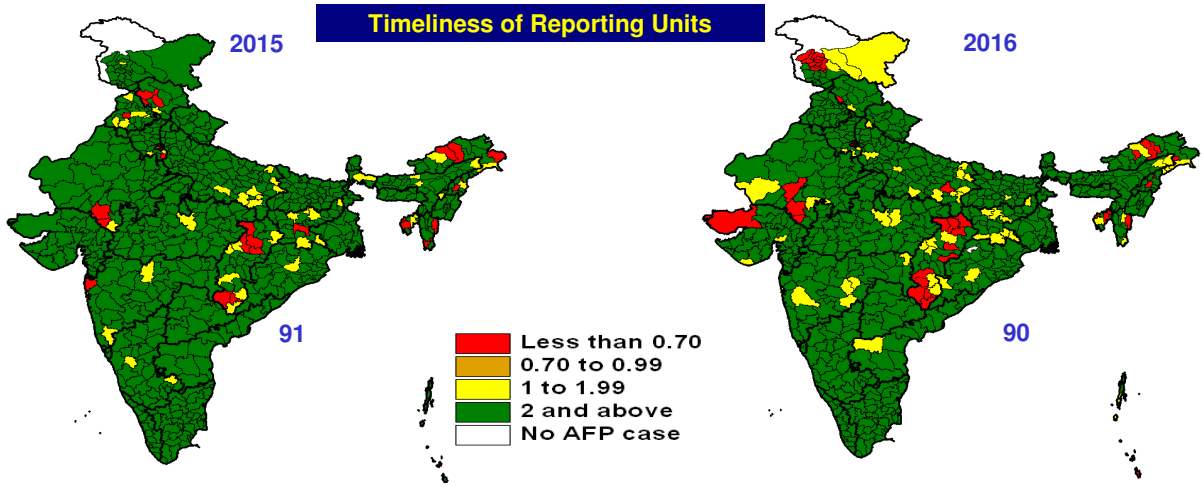
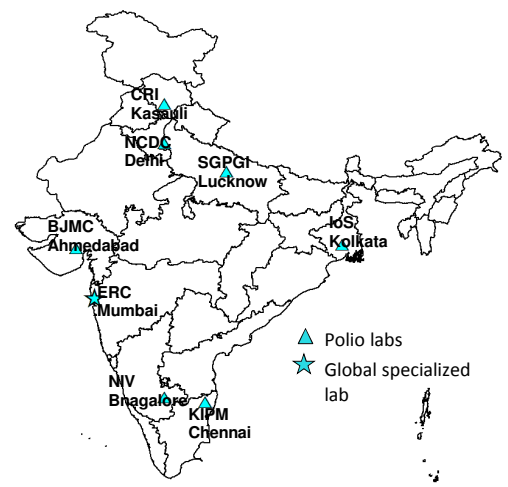


Table 3: Primary isolation results of AFP cases

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	373	2	0	14	194	163	0	732
NIV, Bangalore	219	2	1	17	123	76	0	429
ERC, Mumbai	209	10	0	19	176	0	4	409
IoS, Kolkata	153	0	0	13	124	16	0	288
NCDC, Delhi	338	6	0	25	246	61	0	654
CRI, Kasauli	68	0	0	4	51	13	0	138
KIPM, Chennai	167	4	0	24	110	29	0	321
SGPGI, Lucknow	523	8	0	25	310	180	0	1036
TOTAL	2050	32	1	141	1334	538	4	4007

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	6109	238	26	1129	4711	5	0	12222
NIV, Bangalore	4391	191	35	1199	2965	1	0	8790
ERC, Mumbai	4952	158	14	1192	3588	0	0	10056
IoS, Kolkata	7106	94	21	1008	5982	1	0	14201
NCDC, Delhi	6938	212	20	883	5819	4	0	13873
CRI, Kasauli	2072	36	0	277	1759	0	0	4162
KIPM, Chennai	5117	90	9	954	4064	0	0	10230
SGPGI, Lucknow	8827	283	29	1551	6954	10	0	17644
TOTAL	45512	1302	154	8193	35842	21	0	91178

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

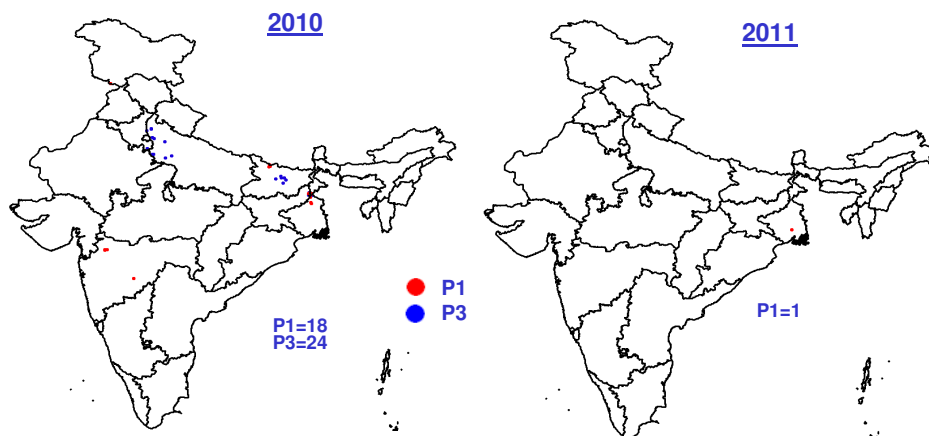
2017																		
Polio Laboratories	Number of AFP cases referred for ITD	Number of AFP cases with ITD result as														Number of cases pending for		
		Wild poliovirus				Vaccine poliovirus				VDPV			NPEV by PCR	Non enterovirus	Negative	<=7 days	8-14 days	>14 days
		Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3						
ERC, Mumbai	9	0	0	0	0	3	0	2	2	0	0	0	1	0	0	1	0	0
IoS, Kolkata																		
NCDC, Delhi	6	0	0	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0
KIPM, Chennai	4	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0
NIV, Bangalore	3	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0	0
SGPGI, Lucknow	9	0	0	0	0	4	0	1	0	0	0	0	1	1	0	2	0	0
BJMC, Ahmedabad	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
CRI, Kasauli																		
TOTAL	33	0	0	0	0	9	0	11	5	0	0	0	3	1	0	4	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	116	0	0	0	0	27	18	36	34	0	0	0	0	1	0	0	0	0
NCDC, Delhi	231	0	0	0	0	47	38	92	51	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	57	24	68	69	0	0	0	6	2	0	0	0	0
SGPGI, Lucknow	313	0	0	0	0	56	53	87	67	0	0	0	16	34	0	0	0	0
BJMC, Ahmedabad	263	0	0	0	0	77	25	75	85	0	0	0	1	0	0	0	0	0
CRI, Kasauli	36	0	0	0	0	5	7	12	12	0	0	0	0	0	0	0	0	0
TOTAL	1456	0	0	0	0	348	195	449	389	0	1	0	37	37	0	0	0	0

Most recent Wild Polio Virus case by State

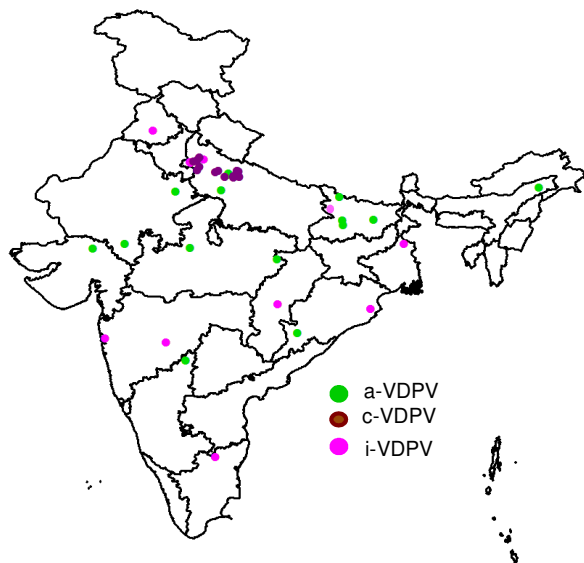
State	Date of most recent polio case	Type
West Bengal	13-Jan-11	P1
Jharkhand	22-Oct-10	P3
Maharashtra	16-Sep-10	P1
Bihar	01-Sep-10	P1
Uttar Pradesh	21-Apr-10	P3
Jammu & Kashmir	07-Feb-10	P1
Haryana	13-Jan-10	P3
Rajasthan	27-Nov-09	P3
Uttarakhand	06-Nov-09	P3
Himachal Pradesh	17-Oct-09	P3
Punjab	13-Oct-09	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*
January	112	36	36	7	18	51	4	10	8	24	112	14	16	1	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
March	42	11	10	3	7	9	1	1	8	14	40	16	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
May	49	39	6	4	42	5	9	2	36	32	34	24	2	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
July	324	142	25	30	251	25	13	3	121	64	53	89	5	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
September	283	193	32	33	334	30	18	14	137	82	49	145	3	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
November	226	155	31	43	180	16	14	7	55	203	24	60	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
Total	1934	1126	265	268	1600	225	134	66	676	874	559	741	42	1	0	0	0	0	0

Vaccine-derived Poliovirus in AFP cases, India, 2009 - 2016



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	
Total	1	1	15	18	9	1

