

AFP Surveillance Bulletin - India

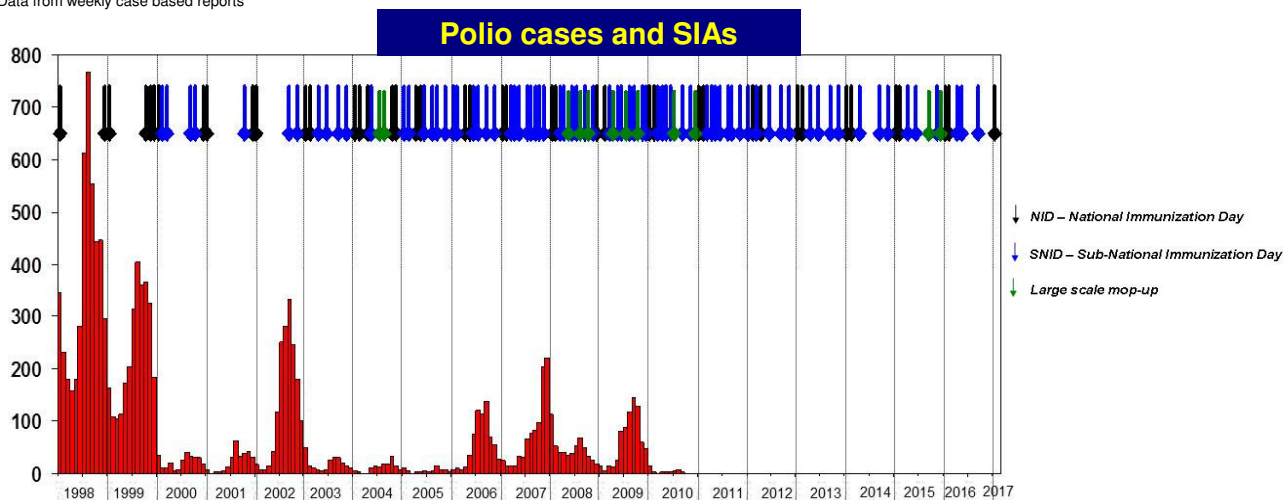
Report for week 14, ending 8 April 2017

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 14, 2016	AFP cases as on week 14, 2017	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
A&N ISLANDS	7	0	2	1	1	1	1	0	0	1	1	0	1	0	1	0
ANDHRA PRADESH	442	108	74	35	23	31	38	45	37	50	35	31	21	29	24	0
ARUNACHAL PR.	21	2	3	1	1	3	1	4	5	1	0	1	1	1	1	0
ASSAM	371	79	55	19	36	33	37	55	39	32	26	11	14	21	20	0
BIHAR	11099	2642	1900	755	969	992	1146	1218	956	832	758	798	742	641	516	1
CHANDIGARH	87	13	6	0	3	8	10	14	16	12	4	5	1	3	2	0
CHHATTISGARH	373	58	81	27	24	29	34	47	53	38	25	22	30	36	15	0
D&N HAVELI	6	2	2	0	0	0	0	3	0	1	0	0	0	1	1	0
DAMAN & DIU	11	2	2	0	0	2	0	2	0	1	4	0	1	1	0	0
DELHI	825	201	159	63	76	67	86	74	64	67	55	68	54	59	46	0
GOA	29	8	4	5	0	4	2	2	4	3	0	1	2	1	1	0
GUJARAT	1084	219	205	75	68	70	122	124	118	100	88	85	80	63	62	0
HARYANA	1000	214	177	67	74	87	107	127	88	70	63	61	72	73	32	0
HIMACHAL PRADESH	180	31	13	8	11	17	12	36	32	17	10	6	5	4	4	0
JAMMU & KASHMIR	196	27	43	16	16	15	11	14	28	16	16	33	14	17	12	0
JHARKHAND	1031	176	166	59	78	100	123	152	88	80	70	79	64	60	42	0
KARNATAKA	943	221	105	74	86	74	108	106	83	71	66	38	48	37	20	0
KERALA	358	83	84	27	27	28	30	28	28	31	40	32	36	29	19	0
LAKSHADWEEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MADHYA PRADESH	2273	452	345	160	182	193	192	260	262	195	191	155	145	114	86	0
MAHARASHTRA	2728	504	540	176	180	230	351	317	283	251	209	163	211	188	141	0
MANIPUR	21	3	1	1	1	1	4	4	2	0	2	1	1	0	0	0
MEGHALAYA	26	2	1	2	2	2	2	3	4	5	4	0	1	0	0	0
MIZORAM	34	2	4	1	3	2	2	2	13	5	1	2	1	3	0	0
NAGALAND	18	2	3	3	1	0	0	1	4	5	1	1	2	1	0	0
ODISHA	1622	277	200	97	77	134	245	265	188	129	79	118	71	74	55	0
PONDICHERRY	17	4	2	1	2	1	1	0	1	1	5	1	1	1	0	0
PUNJAB	727	165	153	43	57	50	68	106	82	54	39	35	58	59	36	0
RAJASTHAN	1747	340	315	116	166	128	178	205	186	159	133	126	134	124	57	0
SIKKIM	4	2	3	0	0	1	1	0	0	0	0	0	1	1	1	0
TAMIL NADU	728	162	101	66	57	54	77	63	65	46	57	47	55	34	12	0
TELANGANA	404	72	62	28	36	49	54	51	42	22	17	23	18	20	24	0
TRIPURA	30	9	8	1	3	9	1	4	0	1	0	2	2	3	3	0
UTTAR PRADESH	14804	3302	2732	1000	1216	1113	1378	1789	1511	1163	1143	1086	1098	840	790	4
UTTARAKHAND	395	72	77	25	40	35	50	40	41	38	31	20	32	27	18	0
WEST BENGAL	2956	538	465	175	179	226	445	479	268	195	222	198	164	145	152	4
TOTAL	46597	9994	8093	3127	3695	3789	4917	5640	4591	3692	3395	3249	3181	2710	2193	9

"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	2	0	0	1	1	0
Andhra Pradesh	500	0	0	500	0	0	442	0	0	438	4	4	74	0	0	59	15	0
Arunachal Pradesh	20	0	0	20	0	0	21	0	0	21	0	0	3	0	0	2	1	0
Assam	322	0	0	322	0	0	371	0	0	370	1	1	55	0	0	38	17	0
Bihar	12595	0	1	12594	0	0	11099	1	2	10970	126	126	1900	0	0	1460	440	8
Chandigarh	81	0	0	81	0	0	87	0	0	87	0	0	6	0	0	4	2	0
Chhattisgarh	347	0	0	347	0	0	373	0	1	353	19	19	81	0	0	52	29	3
D & N Haveli	7	0	0	7	0	0	6	0	0	6	0	0	2	0	0	1	1	0
Daman & Diu	13	0	0	13	0	0	11	0	0	11	0	0	2	0	0	2	0	0
Delhi	860	1	0	859	0	0	825	0	0	806	19	19	159	0	0	120	39	2
Goa	27	0	0	27	0	0	29	0	0	29	0	0	4	0	0	3	1	0
Gujarat	893	0	0	893	0	0	1084	0	0	1059	25	25	205	0	0	152	53	2
Haryana	1017	0	0	1017	0	0	1000	0	0	975	25	25	177	0	0	147	30	2
Himachal Pradesh	124	0	0	124	0	0	180	0	0	173	7	7	13	0	0	11	2	0
Jammu & Kashmir	152	0	0	152	0	0	196	0	0	192	4	4	43	0	0	35	8	0
Jharkhand	1169	0	2	1167	0	0	1031	0	2	978	51	51	166	0	0	116	50	3
Karnataka	949	0	1	948	0	0	943	0	0	875	68	68	105	0	0	86	19	3
Kerala	355	0	0	355	0	0	358	0	0	353	5	5	84	0	0	73	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	2273	0	0	2200	73	73	345	0	0	253	92	7
Maharashtra	2463	0	0	2463	0	0	2728	0	1	2635	92	92	540	0	0	403	137	10
Manipur	31	0	0	31	0	0	21	0	0	20	1	1	1	0	0	1	0	0
Meghalaya	27	0	0	27	0	0	26	0	0	24	2	2	1	0	0	1	0	0
Mizoram	10	0	0	10	0	0	34	0	0	34	0	0	4	0	0	3	1	0
Nagaland	11	0	0	11	0	0	18	0	0	16	2	2	3	0	0	2	1	0
Odisha	1559	0	0	1559	0	0	1622	0	0	1605	17	17	200	0	0	149	51	3
Pondicherry	17	0	0	17	0	0	17	0	0	17	0	0	2	0	0	2	0	0
Punjab	670	0	0	670	0	0	727	0	0	710	17	17	153	0	0	118	35	3
Rajasthan	1665	0	1	1664	0	0	1747	0	0	1685	62	62	315	0	0	262	53	3
Sikkim	4	0	0	4	0	0	4	0	0	4	0	0	3	0	0	3	0	0
Tamil Nadu	707	0	0	707	0	0	728	0	0	719	9	9	101	0	0	94	7	0
Telangana	353	0	0	353	0	0	404	0	0	391	13	13	62	0	0	30	32	0
Tripura	45	0	0	45	0	0	30	0	0	30	0	0	8	0	0	5	3	0
Uttar Pradesh	14988	0	5	14983	0	0	14804	0	3	14647	154	154	2732	0	0	2146	586	24
Uttarakhand	342	0	0	342	0	0	395	0	0	394	1	1	77	0	0	58	19	0
West Bengal	2359	0	1	2358	0	0	2956	0	0	2929	27	27	465	0	0	339	126	5
TOTAL	46970	2	11	46957	0	0	46597	1	9	45761	826	826	8093	0	0	6231	1862	78

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	7.82	3.91	100	100
ANDHRA PRADESH	3.52	3.52	90	98	3.38	3.35	89	96	2.09	1.66	86	96
ARUNACHAL PR.	3.28	3.28	80	100	3.37	3.37	71	100	1.76	1.18	100	100
ASSAM	2.49	2.49	98	99	2.81	2.80	96	99	1.70	1.17	95	98
BIHAR	27.96	27.96	86	98	23.89	23.61	88	99	14.80	11.38	89	99
CHANDIGARH	18.12	18.12	98	100	19.16	19.16	95	100	4.82	3.22	67	100
CHHATTISGARH	3.33	3.33	65	93	3.40	3.21	63	94	2.71	1.74	73	100
D&N HAVELI	8.43	8.43	71	86	7.14	7.14	83	100	8.54	4.27	100	100
DAMAN & DIU	20.97	20.97	92	92	16.42	16.42	100	100	9.65	9.65	100	100
DELHI	16.01	15.99	82	97	15.10	14.75	81	97	10.62	8.02	84	97
GOA	6.65	6.65	89	100	7.04	7.04	93	100	3.55	2.67	100	100
GUJARAT	3.93	3.93	83	94	4.68	4.57	84	94	3.85	2.86	83	94
HARYANA	9.39	9.39	81	97	9.07	8.84	84	98	5.85	4.86	83	94
HIMACHAL PRADESH	5.53	5.53	80	99	7.93	7.62	87	97	2.34	1.98	92	100
JAMMU & KASHMIR	2.74	2.74	99	100	3.44	3.37	93	99	2.89	2.35	88	100
JHARKHAND	8.28	8.27	81	96	8.47	8.03	80	96	4.97	3.48	78	95
KARNATAKA	5.56	5.55	85	98	5.43	5.04	82	97	2.21	1.81	88	93
KERALA	4.25	4.25	88	98	4.18	4.12	90	100	3.62	3.15	98	100
LAKSHADWEEP	5.88	5.88	100	100	0.00	0.00	NA	NA	0.00	0.00	NA	NA
MADHYA PRADESH	7.27	7.27	84	98	7.10	6.87	82	98	3.93	2.88	83	98
MAHARASHTRA	7.55	7.55	86	98	8.29	8.00	83	98	6.02	4.49	83	98
MANIPUR	3.28	3.28	84	100	1.99	1.89	62	100	0.28	0.28	100	100
MEGHALAYA	2.09	2.09	85	100	1.95	1.80	77	96	0.25	0.25	100	100
MIZORAM	2.21	2.21	50	90	6.71	6.71	91	97	3.27	2.45	75	100
NAGALAND	1.52	1.52	82	91	2.82	2.50	67	89	1.53	1.02	100	100
ODISHA	12.29	12.29	88	98	12.83	12.70	88	99	5.69	4.24	85	98
PONDICHERY	4.27	4.27	100	100	4.17	4.17	94	94	2.30	2.30	100	100
PUNJAB	8.90	8.90	84	97	9.52	9.30	84	98	7.35	5.66	84	97
RAJASTHAN	6.93	6.92	84	97	7.14	6.88	82	95	4.74	3.94	88	96
SIKKIM	1.79	1.79	75	100	1.77	1.77	100	100	4.87	4.87	100	100
TAMIL NADU	3.86	3.86	93	99	3.95	3.90	95	99	2.13	1.98	97	98
TELANGANA	3.39	3.39	80	94	3.97	3.84	80	94	2.19	1.06	77	95
TRIPURA	2.91	2.91	89	100	1.85	1.85	77	100	2.31	1.44	88	88
UTTAR PRADESH	17.45	17.44	88	98	16.92	16.74	88	98	11.39	8.95	87	97
UTTARAKHAND	7.87	7.87	86	99	8.94	8.91	87	98	6.35	4.79	86	99
WEST BENGAL	7.29	7.29	90	98	9.44	9.35	93	99	5.61	4.09	86	97
TOTAL	10.78	10.77	86	98	10.63	10.44	87	98	6.86	5.28	87	97

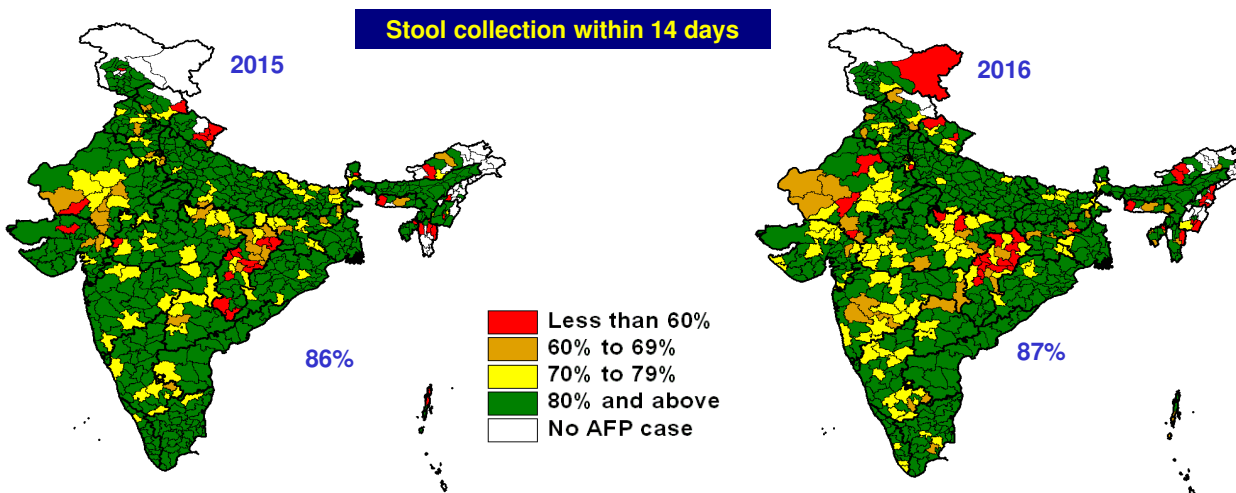
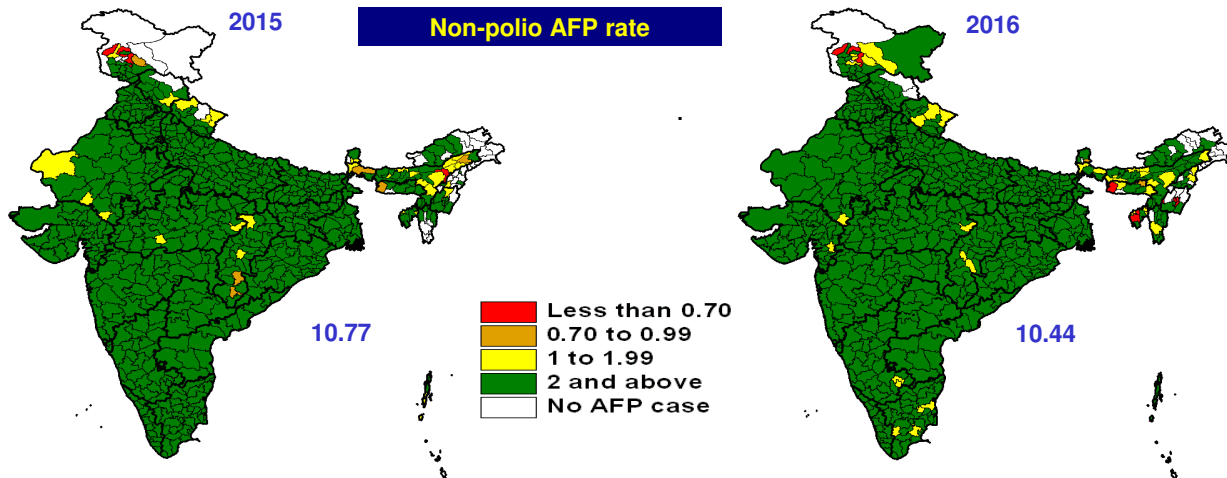
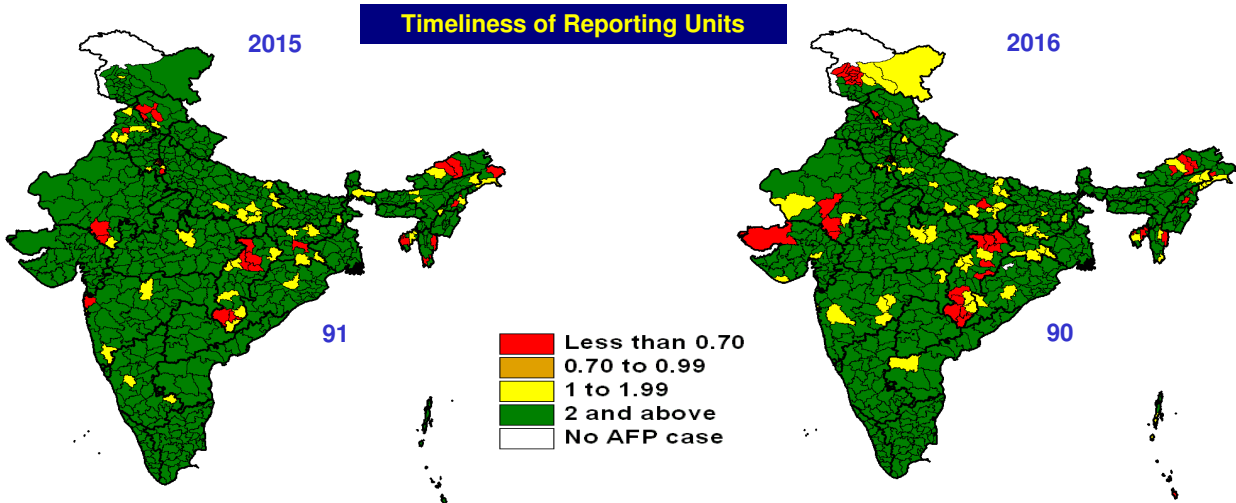


Table 3: Primary isolation results of AFP cases

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	1094	62	5	119	782	126	0	2191
NIV, Bangalore	723	41	4	90	497	91	0	1427
ERC, Mumbai	828	71	3	61	629	64	0	1649
IoS, Kolkata	962	57	0	58	792	55	0	1904
NCDC, Delhi	1234	82	8	88	1000	56	0	2459
CRI, Kasauli	355	8	0	41	297	9	0	713
KIPM, Chennai	718	21	1	86	595	15	0	1420
SGPGI, Lucknow	1574	91	4	143	1145	191	0	3143
TOTAL	7488	433	25	686	5737	607	0	14906

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	6108	239	26	1127	4716	0	0	12220
NIV, Bangalore	4396	192	35	1200	2969	0	0	8802
ERC, Mumbai	4953	158	14	1190	3591	0	0	10057
IoS, Kolkata	7156	93	21	1011	6031	0	0	14321
NCDC, Delhi	6947	212	20	888	5827	0	0	13897
CRI, Kasauli	2070	35	0	278	1757	0	0	4161
KIPM, Chennai	5123	90	9	953	4071	0	0	10239
SGPGI, Lucknow	8819	283	29	1551	6956	0	0	17628
TOTAL	45572	1302	154	8198	35918	0	0	91325

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

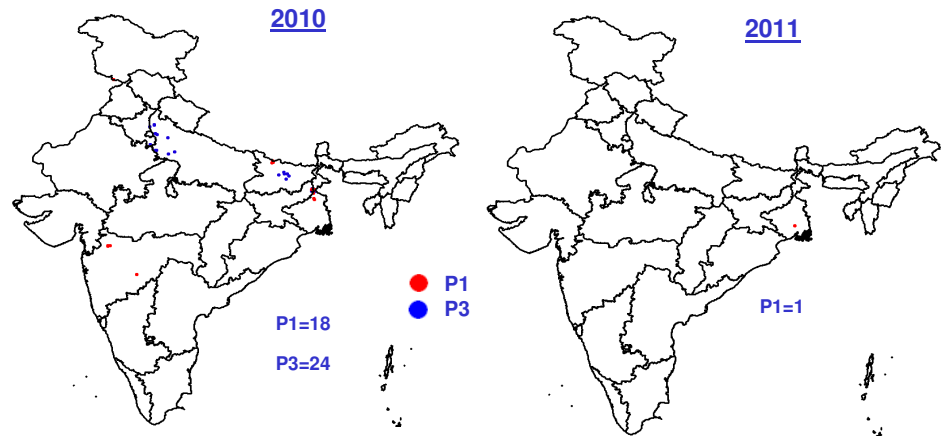
2017																		
Polio Laboratories	Number of AFP cases referred for ITD	Number of AFP cases with ITD result as														Number of cases pending for		
		Wild poliovirus				Vaccine poliovirus				VDPV			NPEV by PCR	Non enterovirus	Negative	<=7 days	8-14 days	>14 days
		Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3	Mix	Type 1	Type 2	Type 3						
ERC, Mumbai	73	0	0	0	0	23	0	26	19	0	0	0	3	0	0	2	0	0
IoS, Kolkata	57	0	0	0	0	18	0	14	25	0	0	0	0	0	0	0	0	0
NCDC, Delhi	90	0	0	0	0	25	0	32	32	0	0	0	0	0	0	1	0	0
KIPM, Chennai	21	0	0	0	0	3	0	15	3	0	0	0	0	0	0	0	0	0
NIV, Bangalore	46	0	0	0	0	19	0	13	11	0	0	0	3	0	0	0	0	0
SGPGI, Lucknow	96	0	0	0	0	21	0	43	23	0	0	0	4	5	0	0	0	0
BJMC, Ahmedabad	67	0	0	0	0	23	0	22	19	0	0	0	3	0	0	0	0	0
CRI, Kasauli	8	0	0	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0
TOTAL	458	0	0	0	0	139	0	166	132	0	0	0	13	5	0	3	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	115	0	0	0	0	27	18	35	34	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	227	0	0	0	0	57	24	68	70	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	264	0	0	0	0	78	25	74	86	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	1456	0	0	0	0	349	195	445	392	0	1	0	37	37	0	0	0	0

Most recent Wild Polio Virus case by State

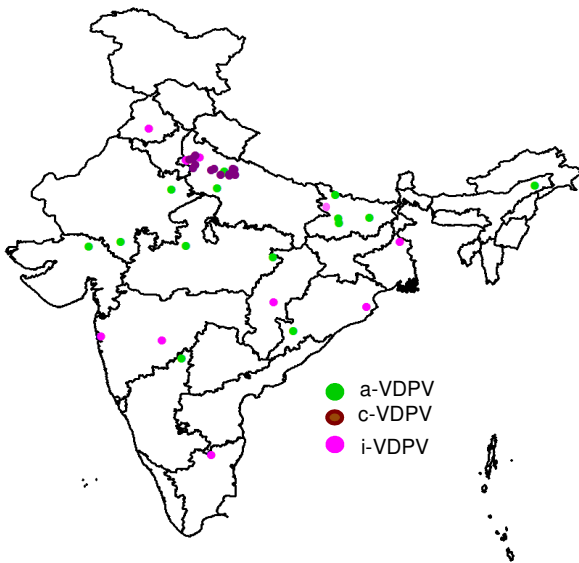
State	Date of most recent polio case	Type
West Bengal	13-Jan-11	P1
Jharkhand	22-Oct-10	P3
Maharashtra	16-Sep-10	P1
Bihar	01-Sep-10	P1
Uttar Pradesh	21-Apr-10	P3
Jammu & Kashmir	07-Feb-10	P1
Haryana	13-Jan-10	P3
Rajasthan	27-Nov-09	P3
Uttarakhand	06-Nov-09	P3
Himachal Pradesh	17-Oct-09	P3
Punjab	13-Oct-09	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
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

