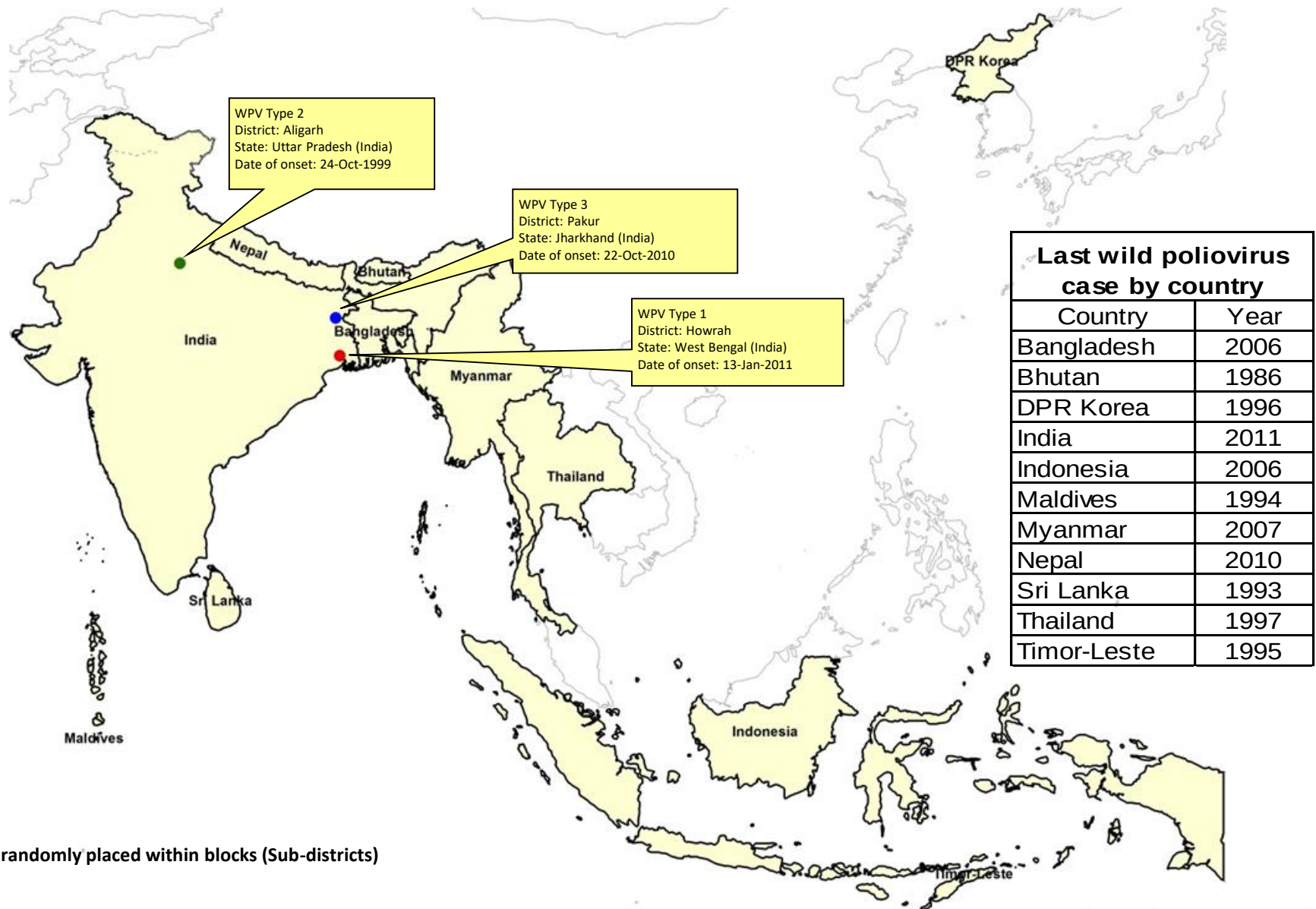


**Monthly Vaccine Preventable Disease and
Immunization Update
Published: April 12, 2018**

Immunization and Vaccine Development (IVD) SEARO

***Protecting People from Vaccine
Preventable Diseases***

Last wild poliovirus case by type, SEAR



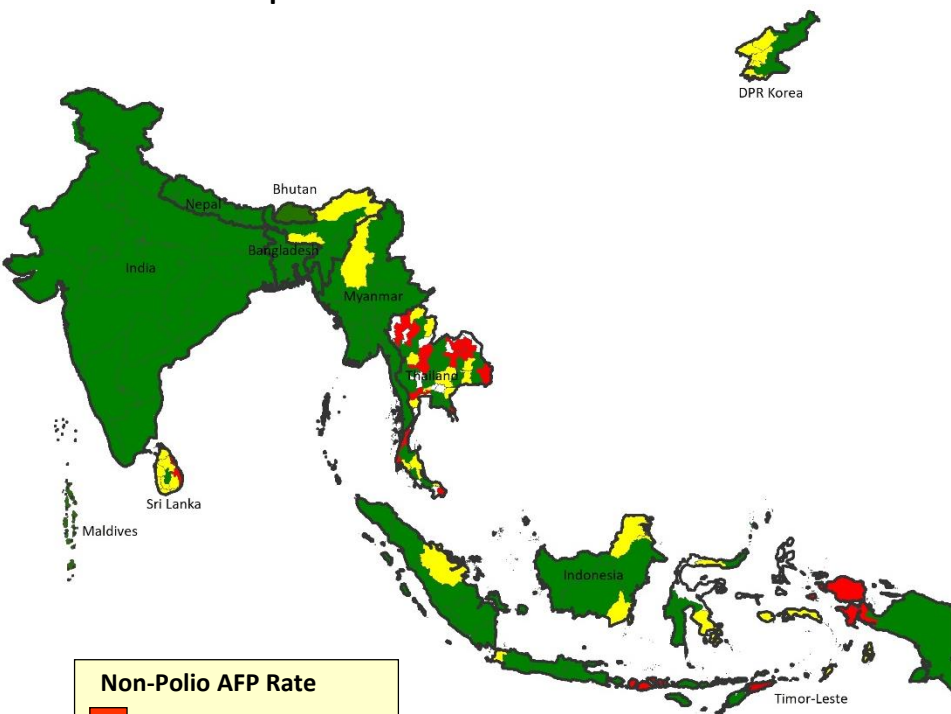
*Dots are randomly placed within blocks (Sub-districts)

Vaccine Derived Poliovirus (VDPV) cases, SEAR-2018

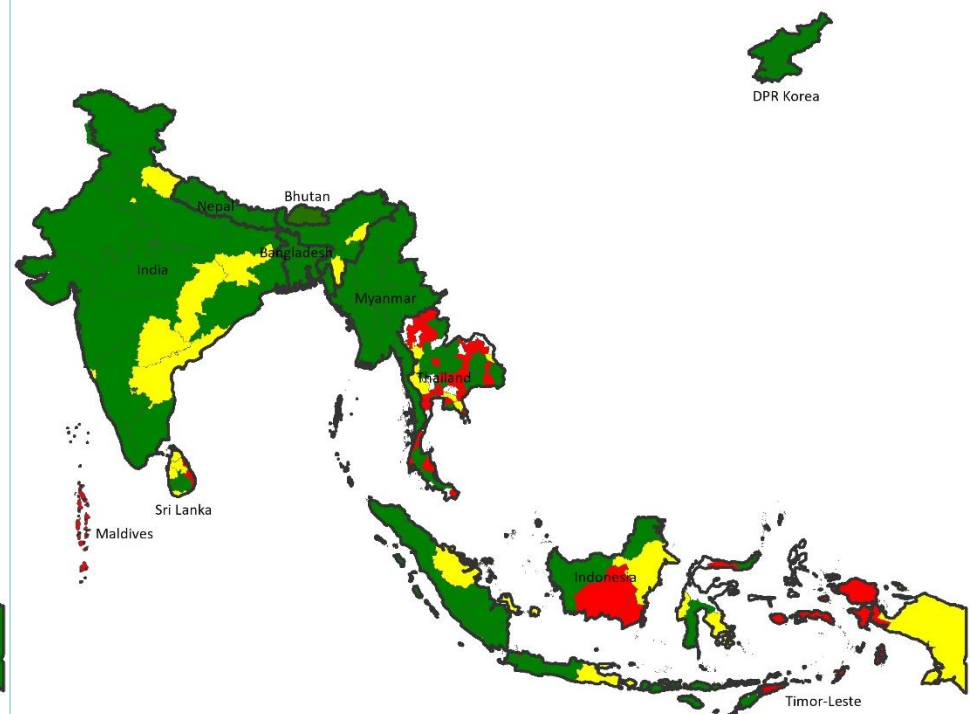


AFP Surveillance Indicators by First Administrative Level*, 2018

Non-polio AFP Rate



% Adequate Stool Specimen Collection



*Bhutan, Maldives & Timor-Leste by country

Total AFP Cases = 404626
Non-Polio AFP Rate = 6.48
Adequate Stool specimen = 85%
Countries reporting AFP cases = 10 (91%)

* Number of discarded AFP cases per 100,000 children under 15 years of age.

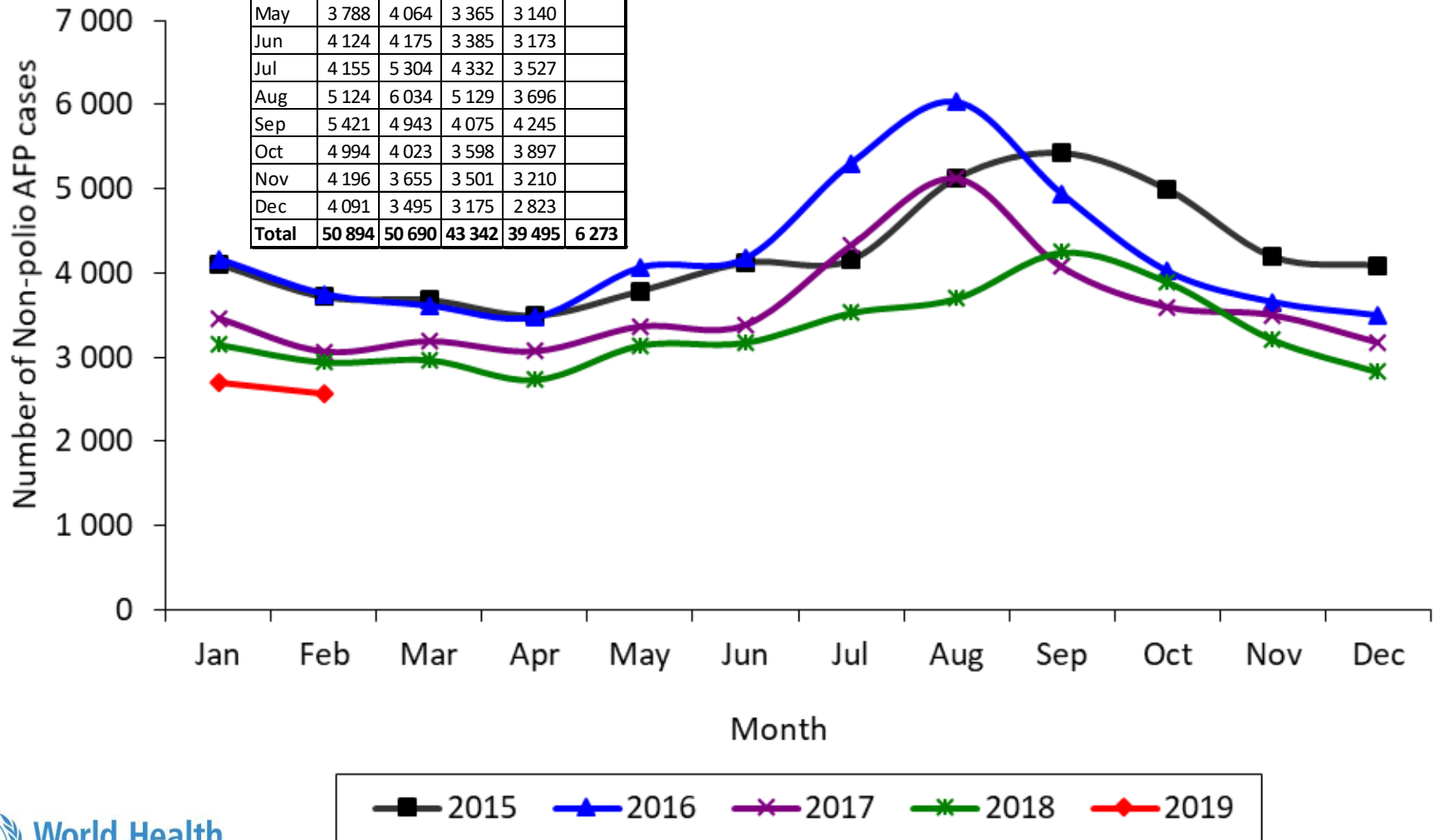
** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

Note: Some AFP cases may still be pending final classification.

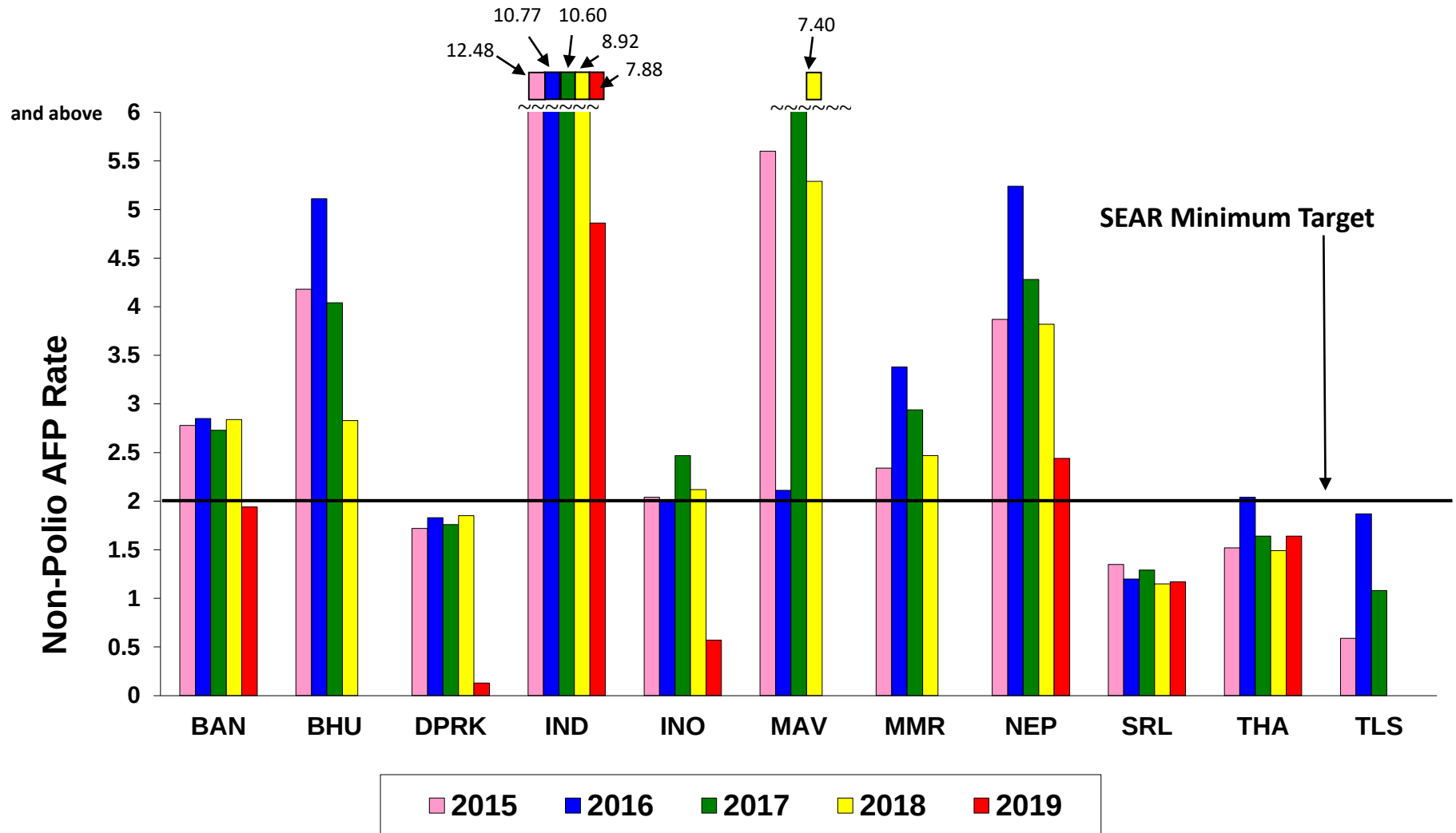
Non-polio AFP Cases by Month of Onset

SEAR, 2014-2018

Month	2015	2016	2017	2018	2019
Jan	4 106	4 166	3 461	3 149	2 705
Feb	3 718	3 749	3 064	2 941	2 572
Mar	3 680	3 610	3 188	2 965	996
Apr	3 497	3 472	3 069	2 729	
May	3 788	4 064	3 365	3 140	
Jun	4 124	4 175	3 385	3 173	
Jul	4 155	5 304	4 332	3 527	
Aug	5 124	6 034	5 129	3 696	
Sep	5 421	4 943	4 075	4 245	
Oct	4 994	4 023	3 598	3 897	
Nov	4 196	3 655	3 501	3 210	
Dec	4 091	3 495	3 175	2 823	
Total	50 894	50 690	43 342	39 495	6 273

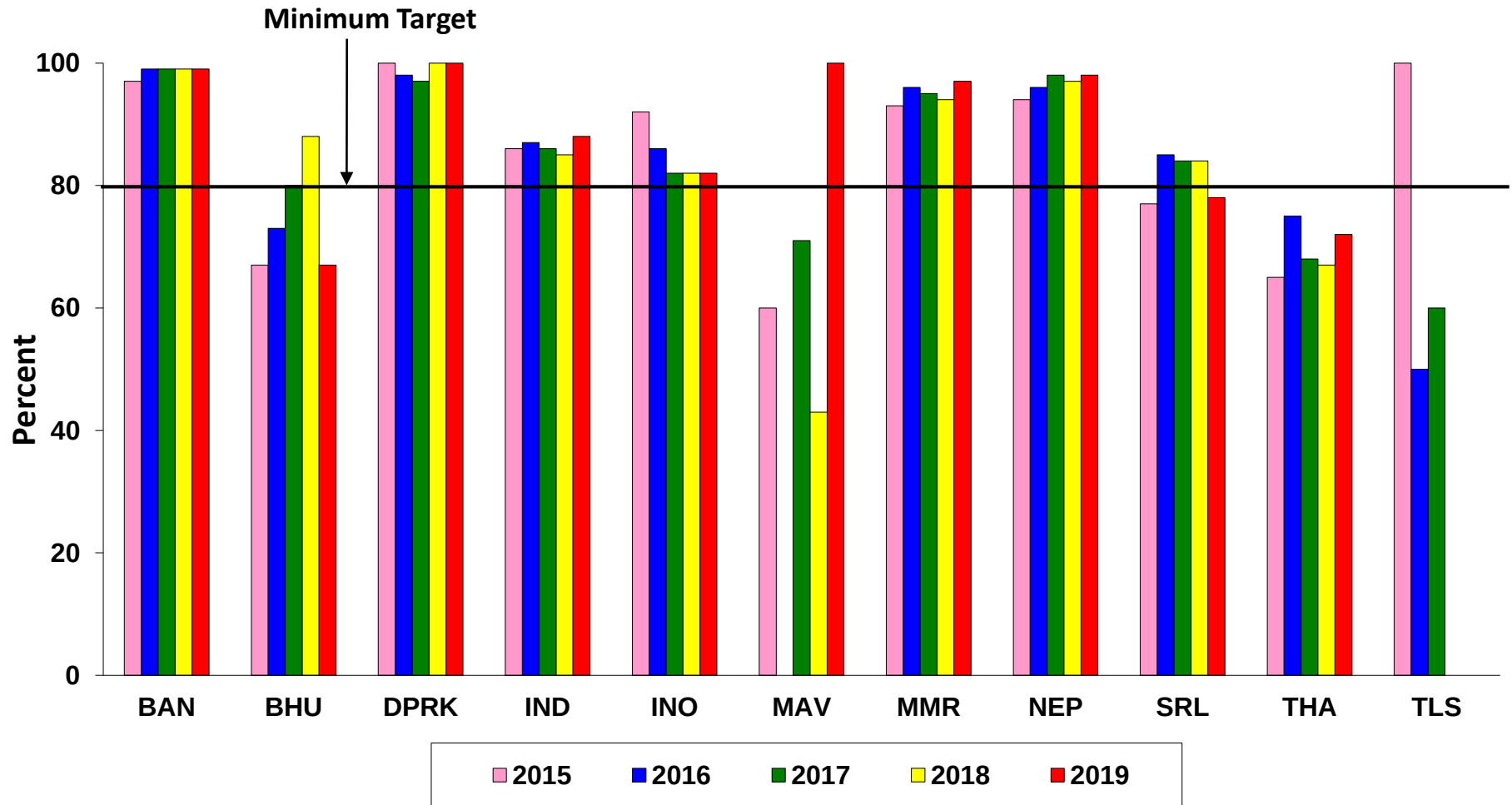


Non-polio AFP Rate* SEAR, 2015–2019



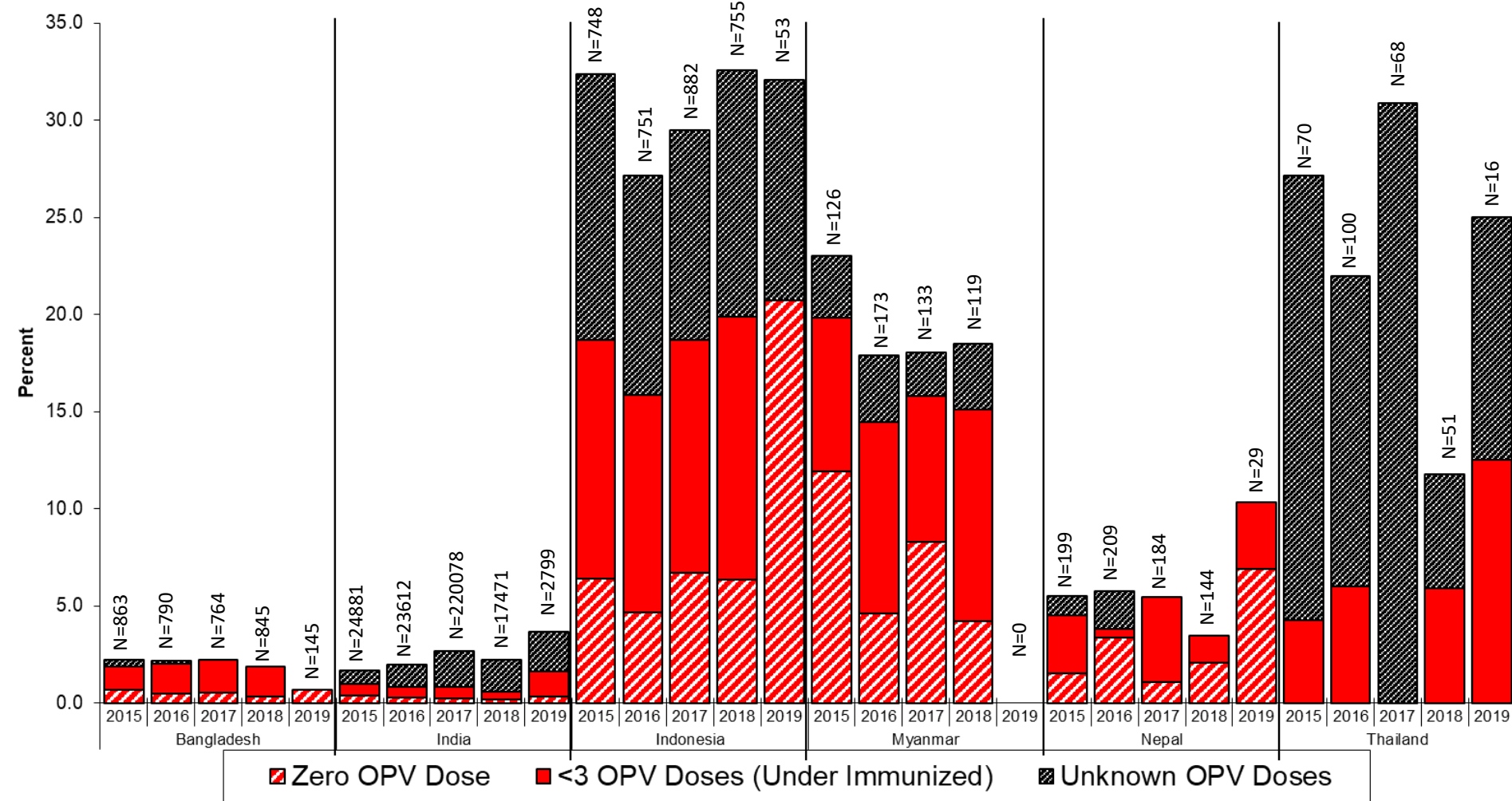
* Number of discarded AFP cases per 100,000 children under 15 years of age

Percent Adequate Stool Specimen Collection* SEAR, 2015-2019

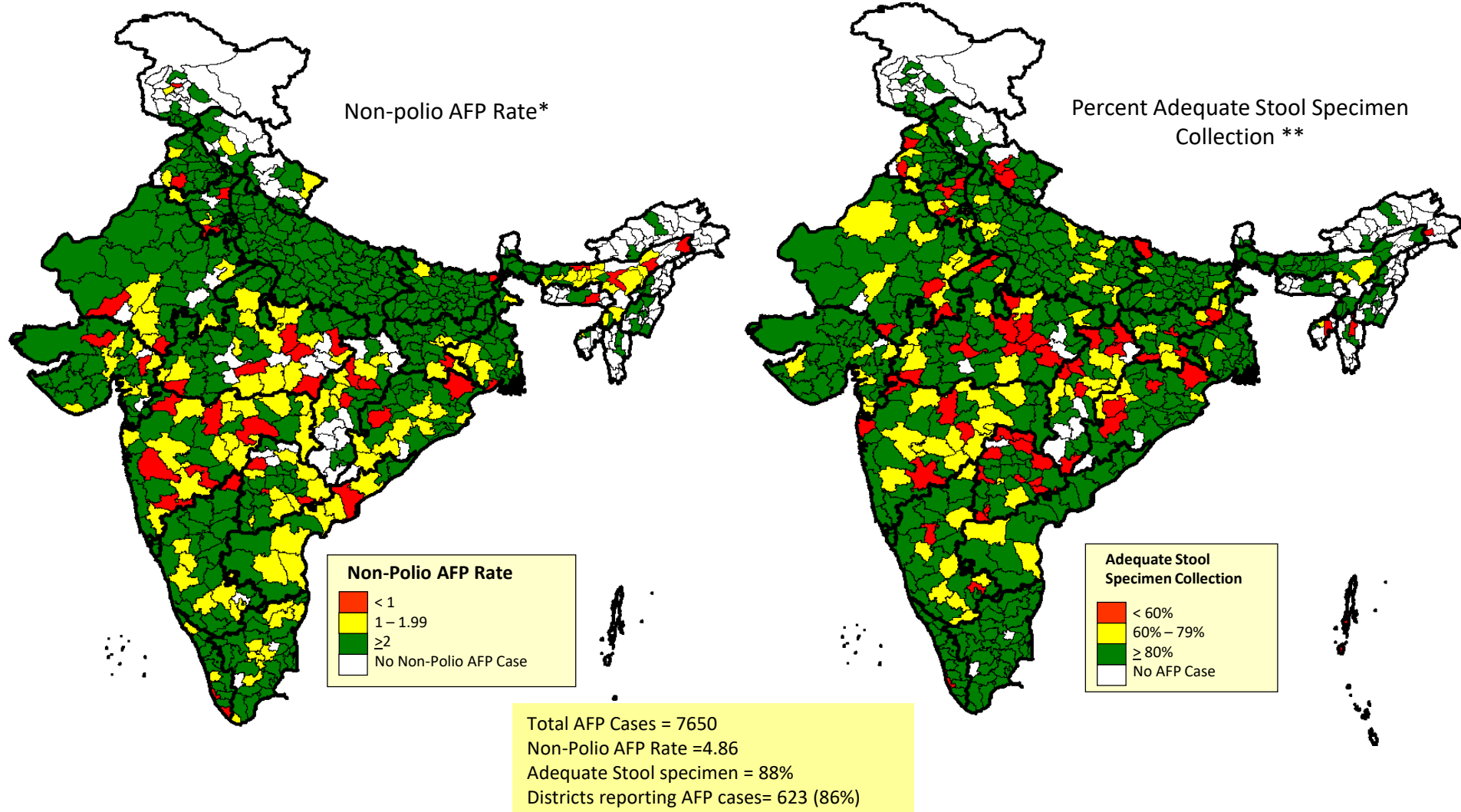


*Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

Percent of Non-Polio AFP Cases Under Immunized for OPV (6 Months to 5 Yrs), SEAR, 2015-2019



AFP Surveillance Indicators by District India, 2019

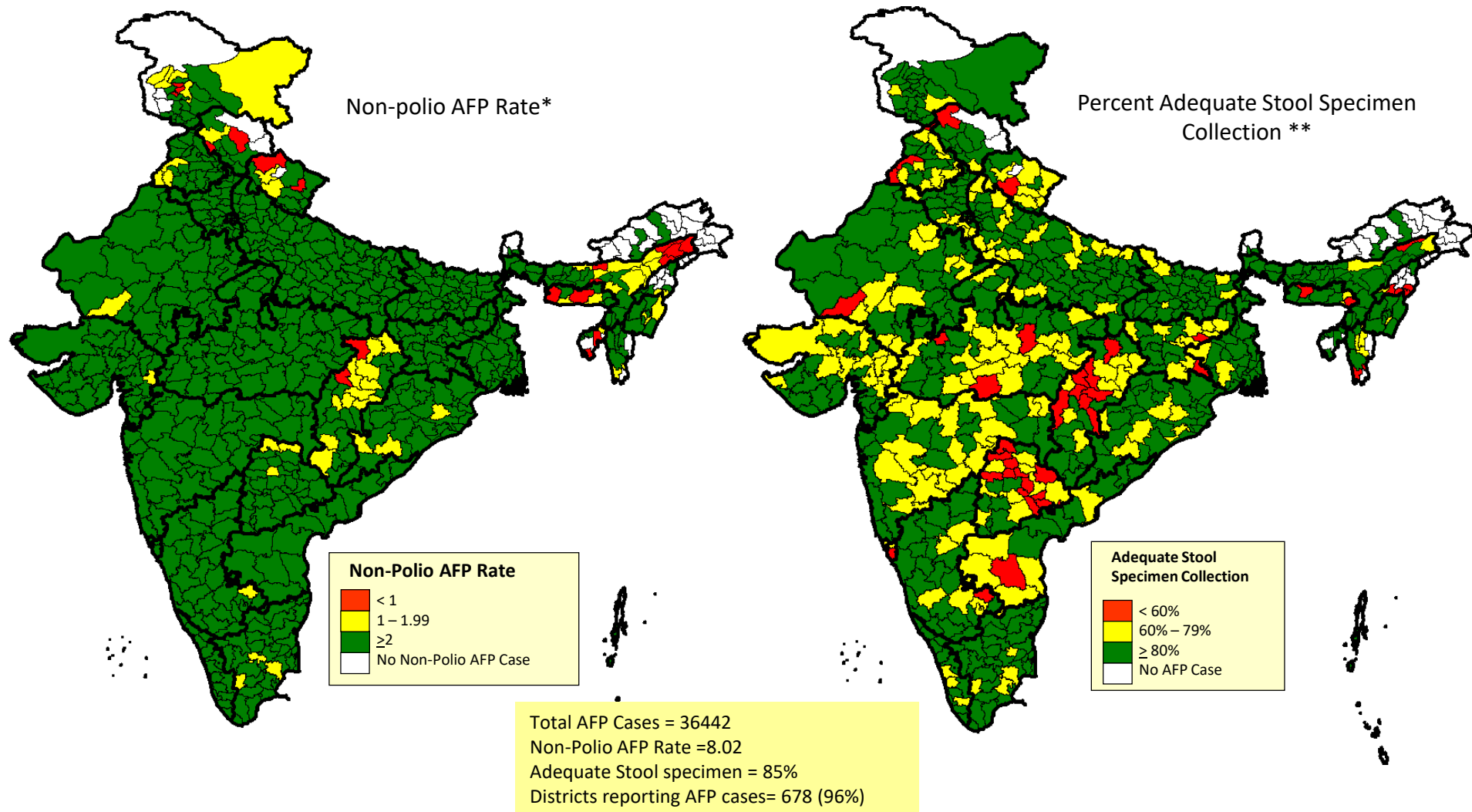


* Number of discarded AFP cases per 100,000 children under 15 years of age (annualized by week 14, 2019)

** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

Note: Some AFP cases may still be pending final classification.

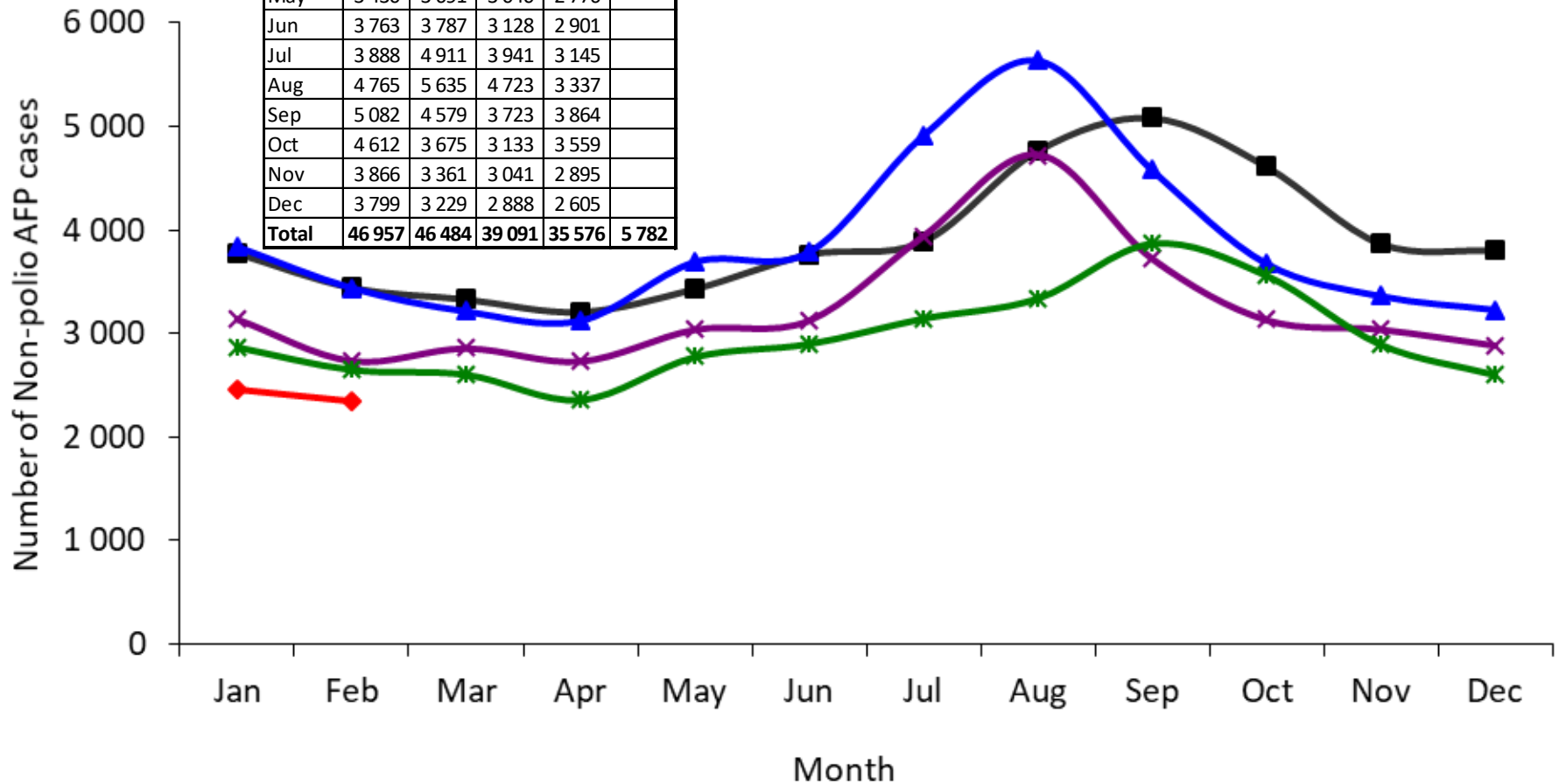
AFP Surveillance Indicators by District India, 2018



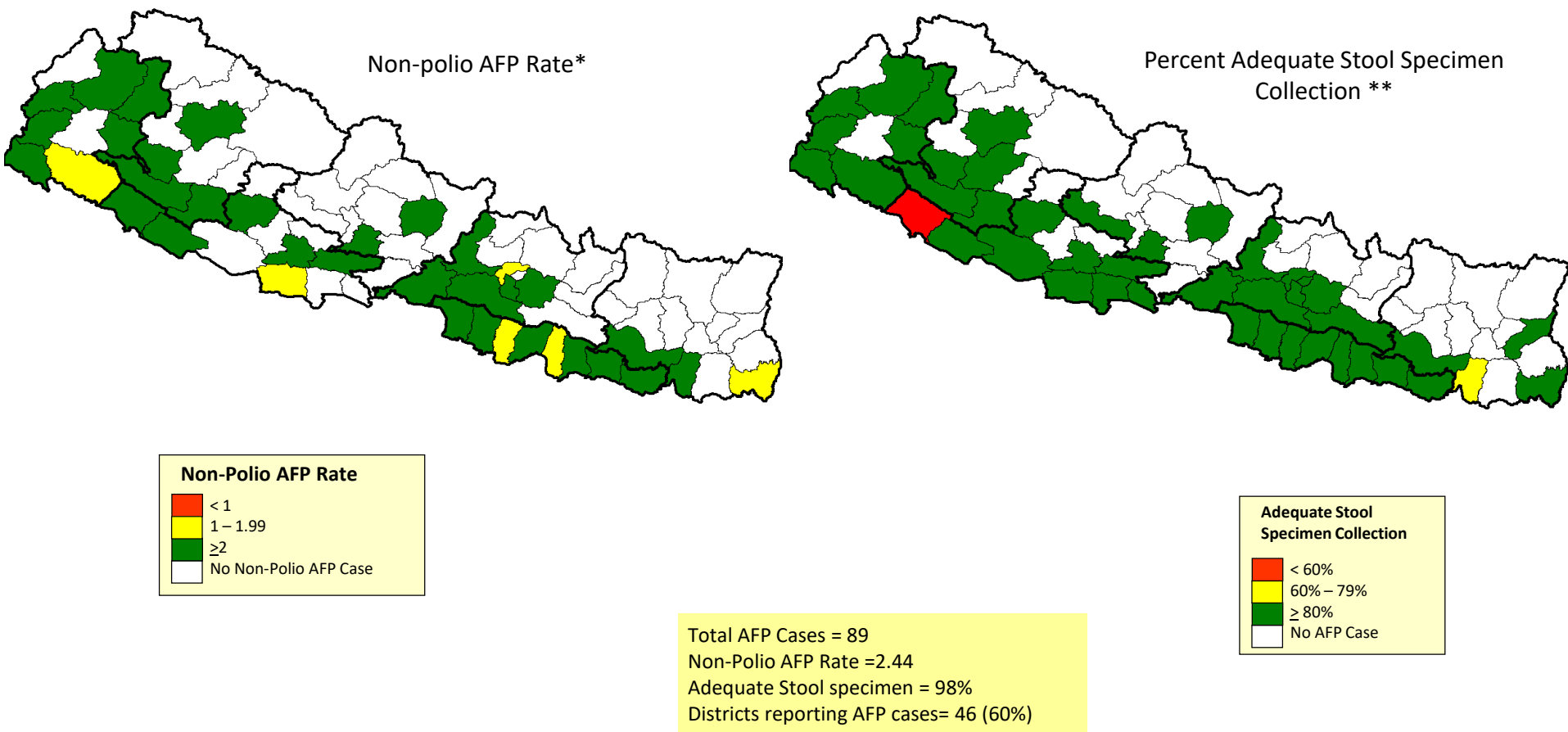
* Number of discarded AFP cases per 100,000 children under 15 years of age
 ** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.
 Note: Some AFP cases may still be pending final classification.

Non-polio AFP Cases by Month of Onset India, 2015-2019

Month	2015	2016	2017	2018	2019
Jan	3 774	3 838	3 140	2 870	2 461
Feb	3 442	3 440	2 739	2 653	2 348
Mar	3 329	3 214	2 860	2 607	973
Apr	3 207	3 124	2 735	2 364	
May	3 430	3 691	3 040	2 776	
Jun	3 763	3 787	3 128	2 901	
Jul	3 888	4 911	3 941	3 145	
Aug	4 765	5 635	4 723	3 337	
Sep	5 082	4 579	3 723	3 864	
Oct	4 612	3 675	3 133	3 559	
Nov	3 866	3 361	3 041	2 895	
Dec	3 799	3 229	2 888	2 605	
Total	46 957	46 484	39 091	35 576	5 782



AFP Surveillance Indicators by District Nepal, 2019

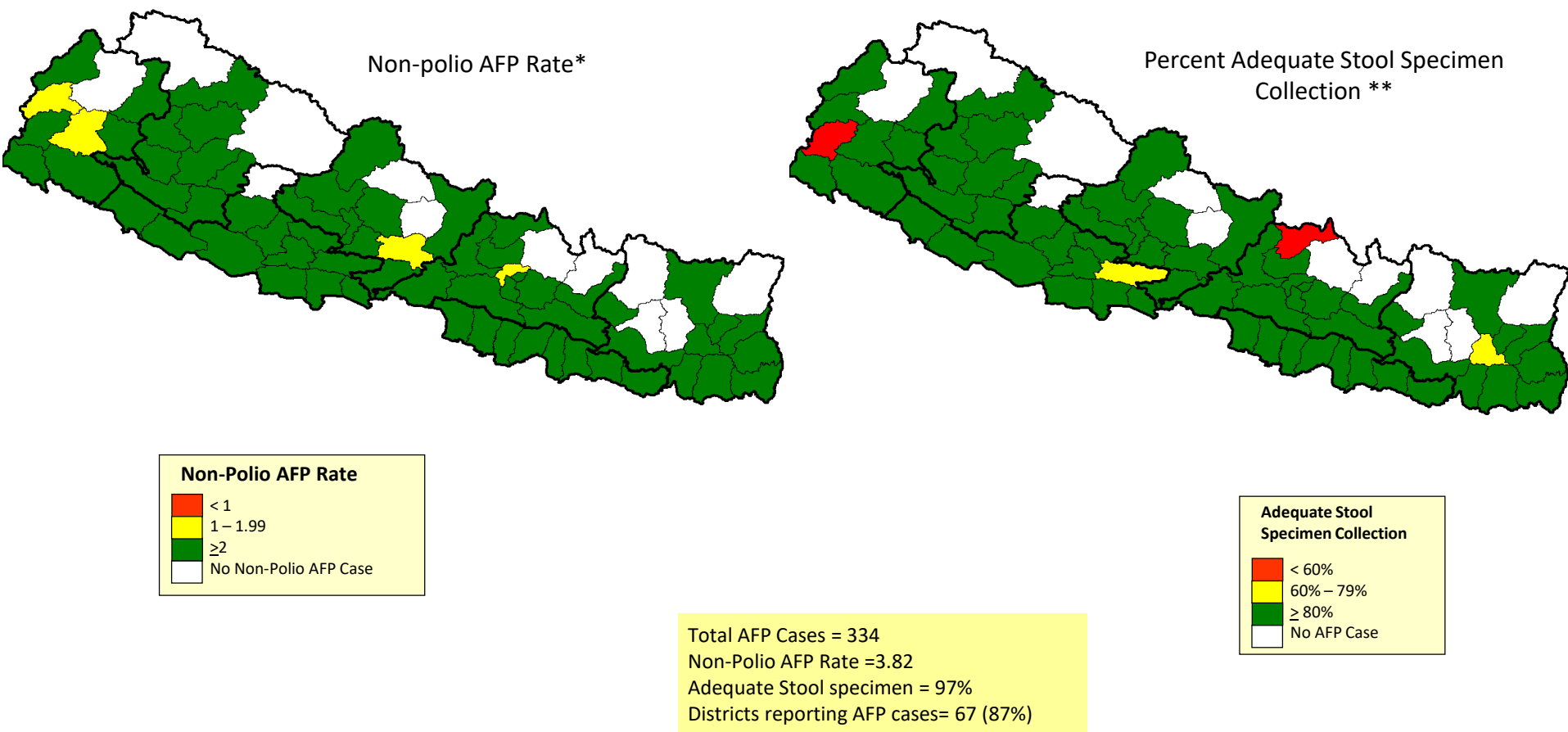


* Number of discarded AFP cases per 100,000 children under 15 years of age (annualized by week 14, 2019)

** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

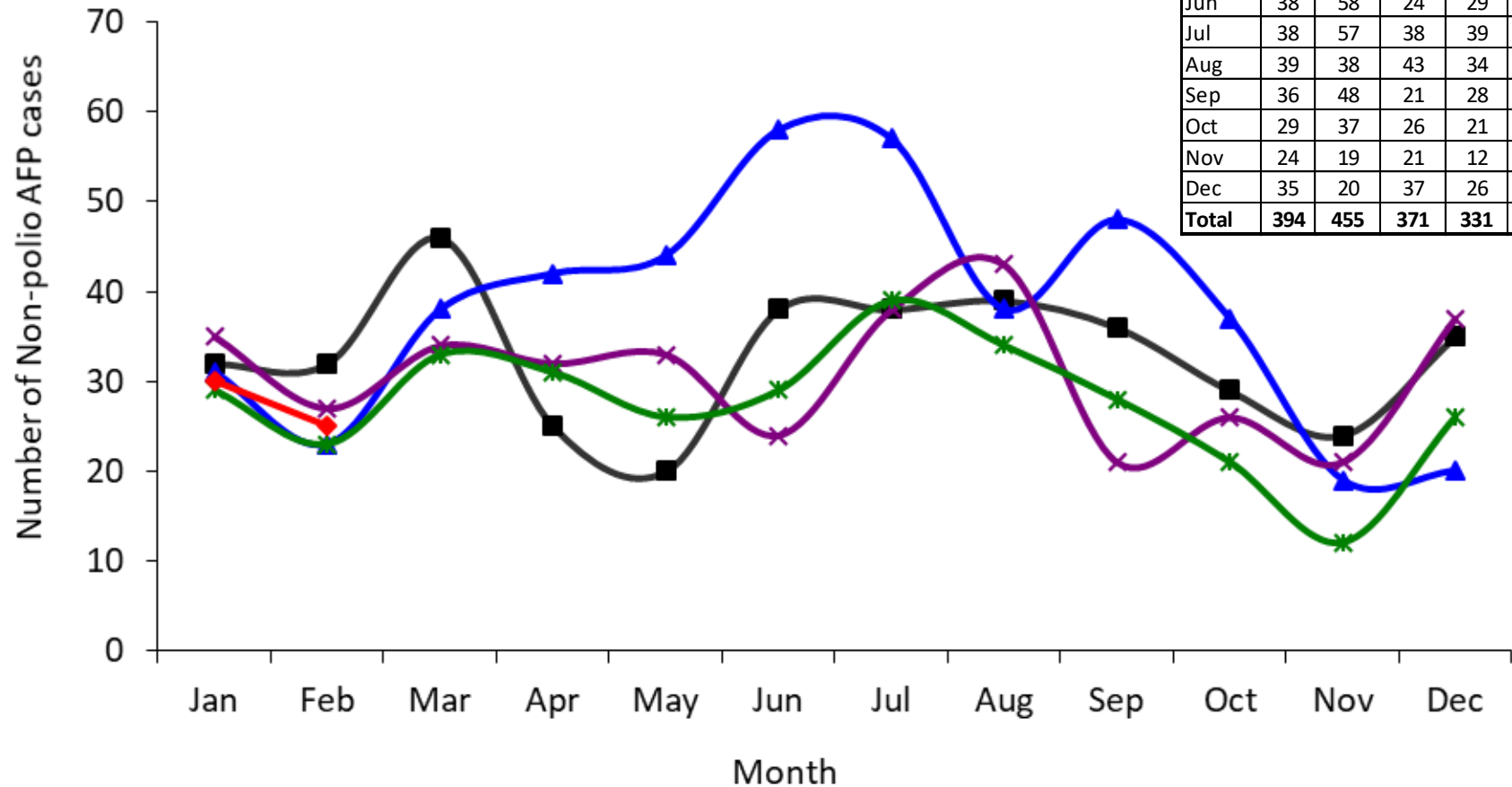
Note: Some AFP cases may still be pending final classification.

AFP Surveillance Indicators by District Nepal, 2018



* Number of discarded AFP cases per 100,000 children under 15 years of age
** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.
Note: Some AFP cases may still be pending final classification.

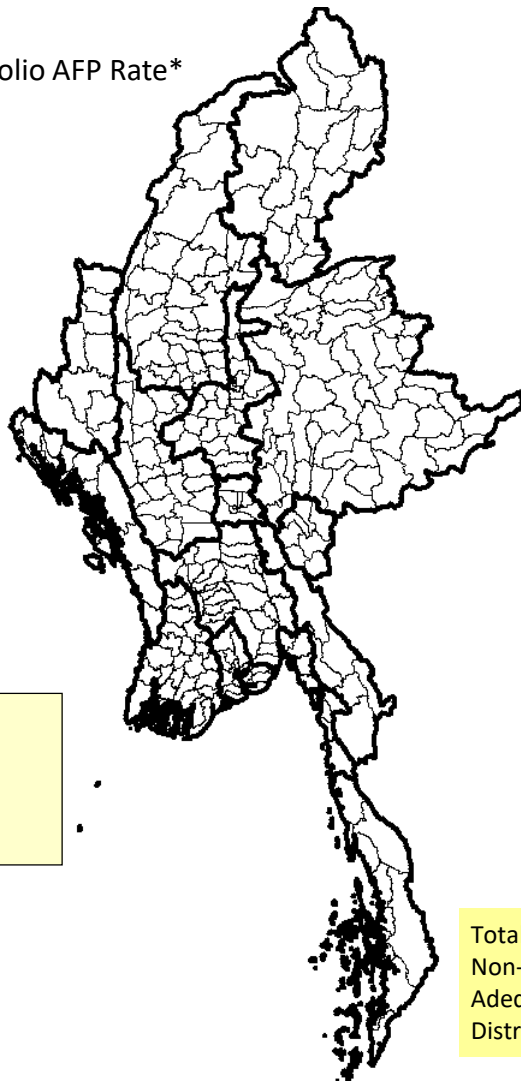
Non-polio AFP Cases by Month of Onset Nepal, 2015-2019



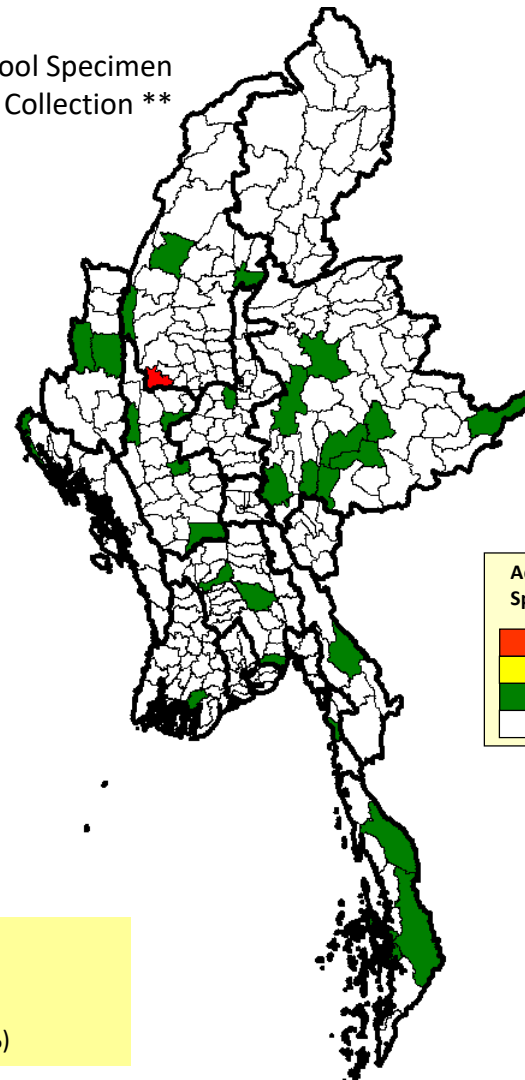
Month	2015	2016	2017	2018	2019
Jan	32	31	35	29	30
Feb	32	23	27	23	25
Mar	46	38	34	33	2
Apr	25	42	32	31	
May	20	44	33	26	
Jun	38	58	24	29	
Jul	38	57	38	39	
Aug	39	38	43	34	
Sep	36	48	21	28	
Oct	29	37	26	21	
Nov	24	19	21	12	
Dec	35	20	37	26	
Total	394	455	371	331	57

AFP Surveillance Indicators by Province Myanmar, 2019

Non-polio AFP Rate*



Percent Adequate Stool Specimen Collection **



Total AFP Cases = 34
Non-Polio AFP Rate = 0
Adequate Stool specimen = 97%
Districts reporting AFP cases = 31 (9%)

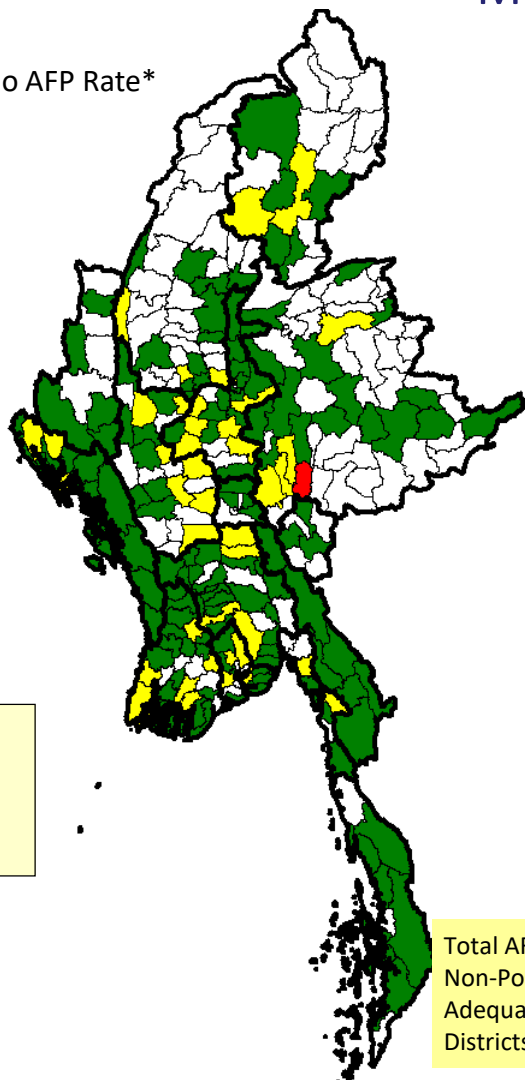
* Number of discarded AFP cases per 100,000 children under 15 years of age (annualized by week 14, 2019)

** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

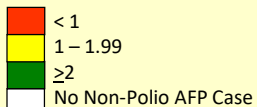
Note: Some AFP cases may still be pending final classification.

AFP Surveillance Indicators by Province Myanmar, 2018

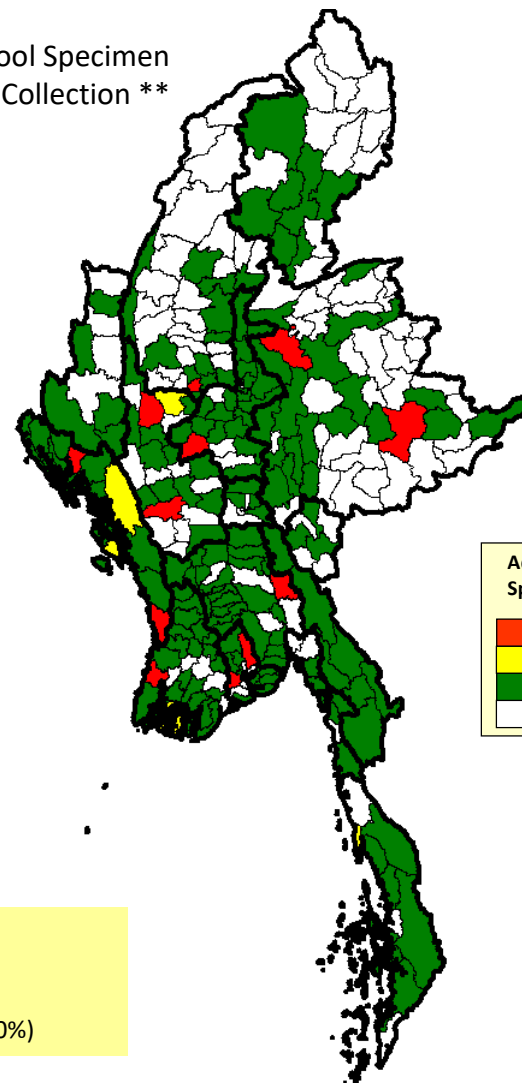
Non-polio AFP Rate*



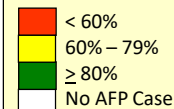
Non-Polio AFP Rate



Percent Adequate Stool Specimen Collection **



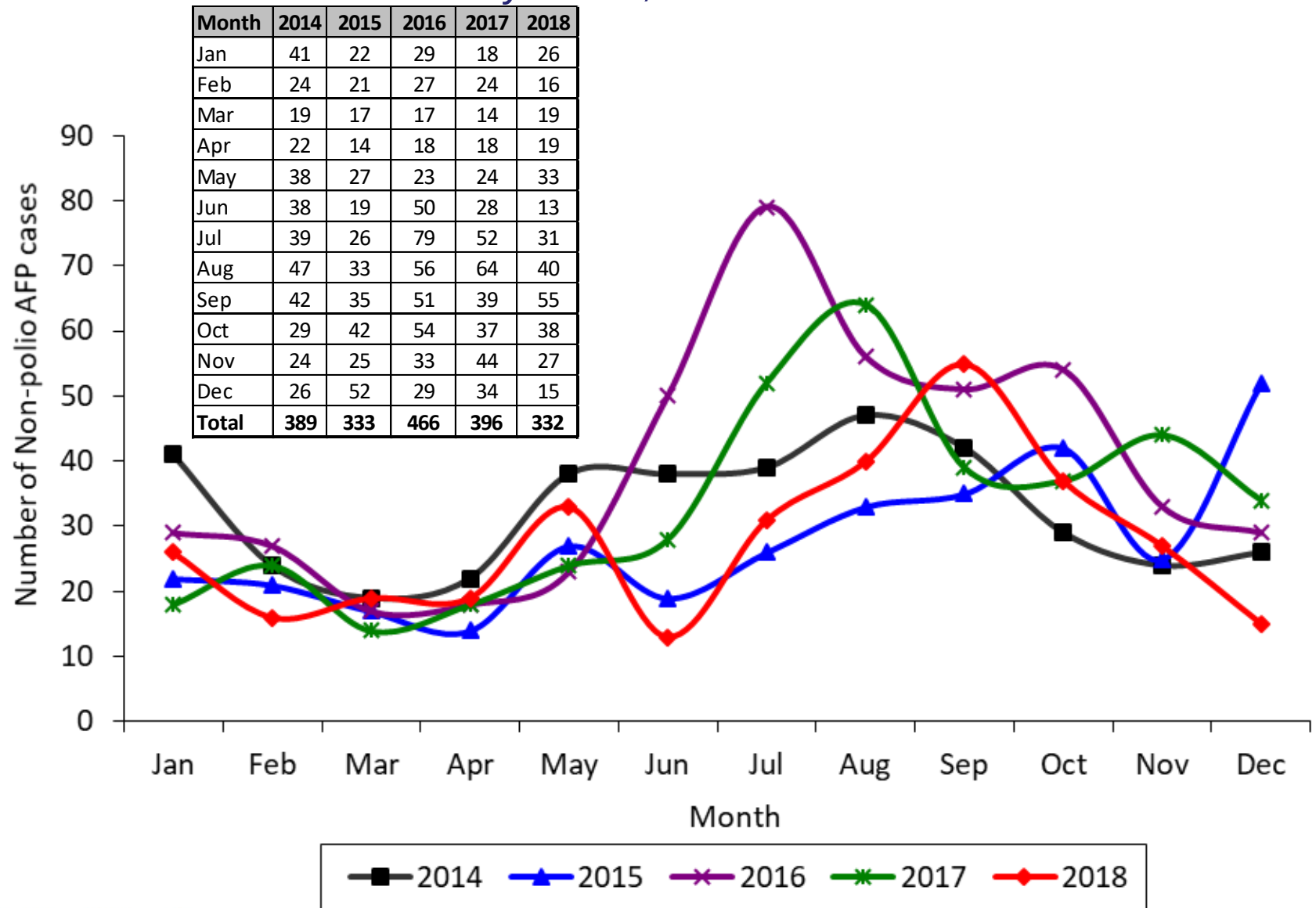
Adequate Stool Specimen Collection



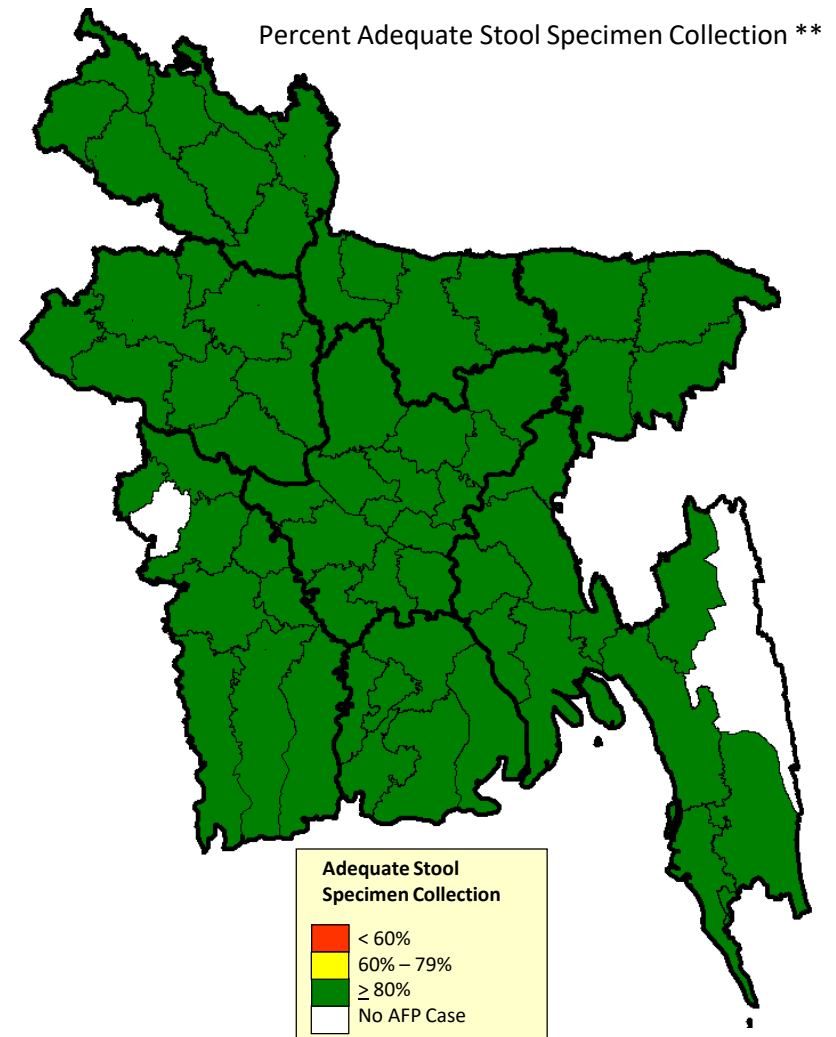
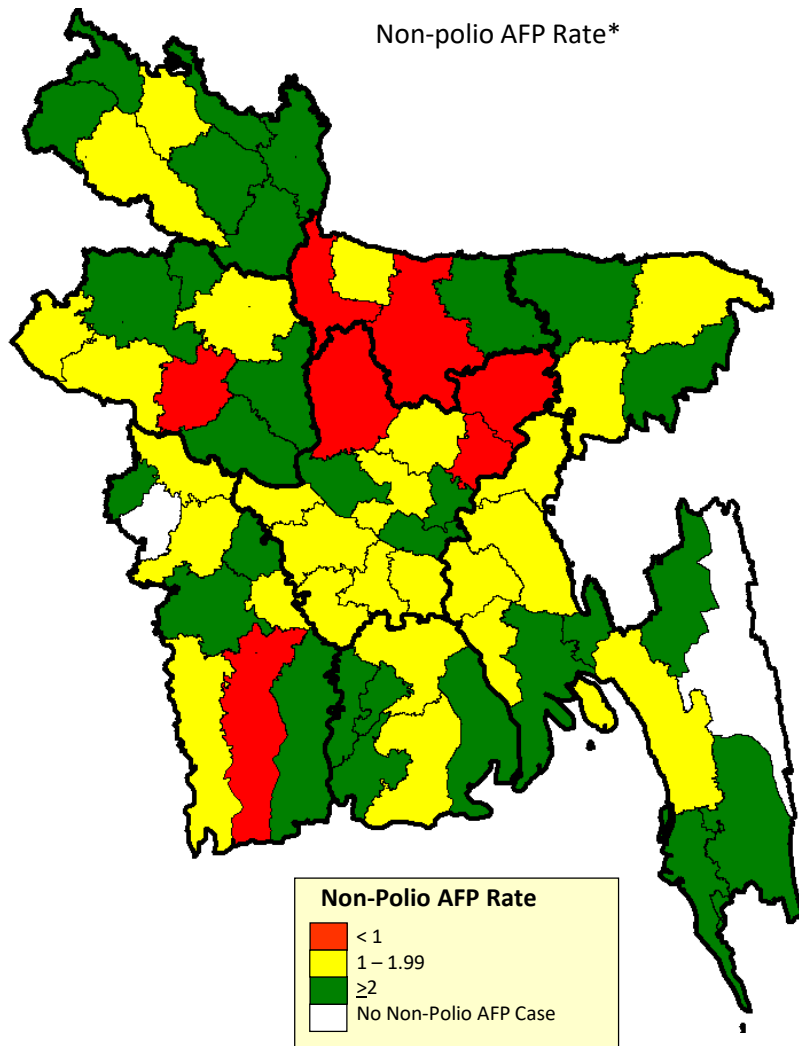
Total AFP Cases = 335
Non-Polio AFP Rate = 2.47
Adequate Stool specimen = 94%
Districts reporting AFP cases= 197 (60%)

* Number of discarded AFP cases per 100,000 children under 15 years of age
** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.
Note: Some AFP cases may still be pending final classification.

Non-polio AFP Cases by Month of Onset Myanmar, 2014-2018



AFP Surveillance Indicators by District Bangladesh, 2019



* Number of discarded AFP cases per 100,000 children under 15 years of age (annualized by week 14, 2019)

** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

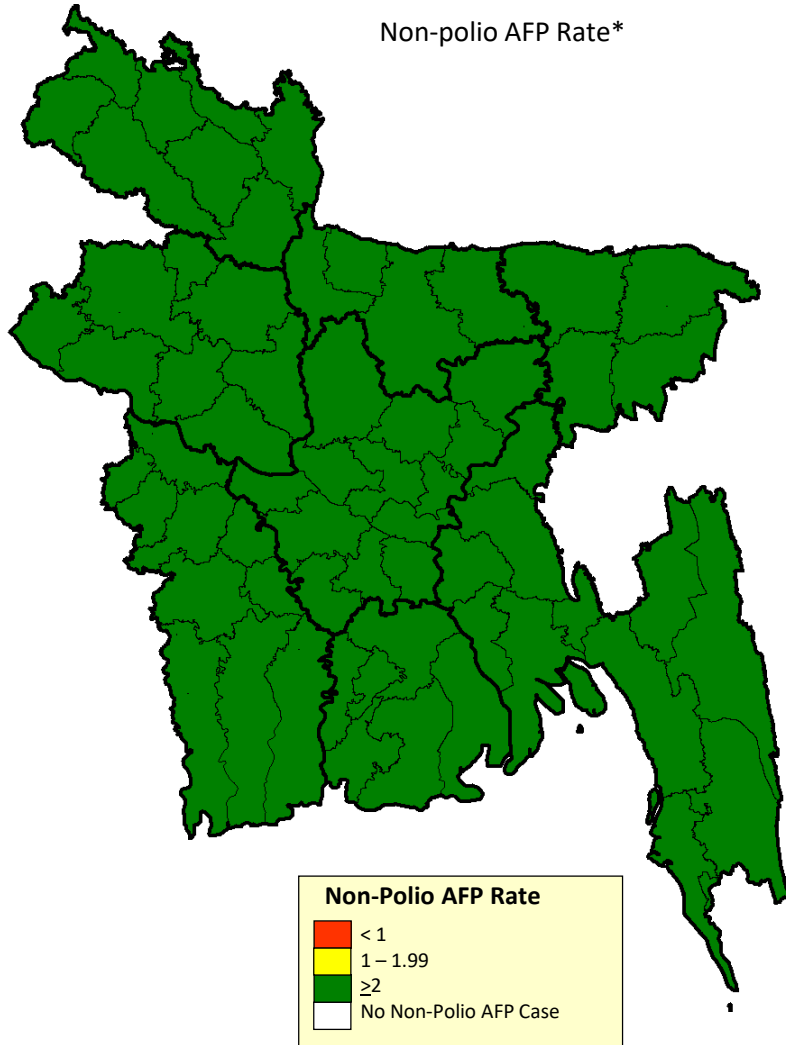
Note: Some AFP cases may still be pending final classification.

Total AFP Cases = 372
Non-Polio AFP Rate = 1.94
Adequate Stool specimen = 99%
Districts reporting AFP cases = 62 (97%)

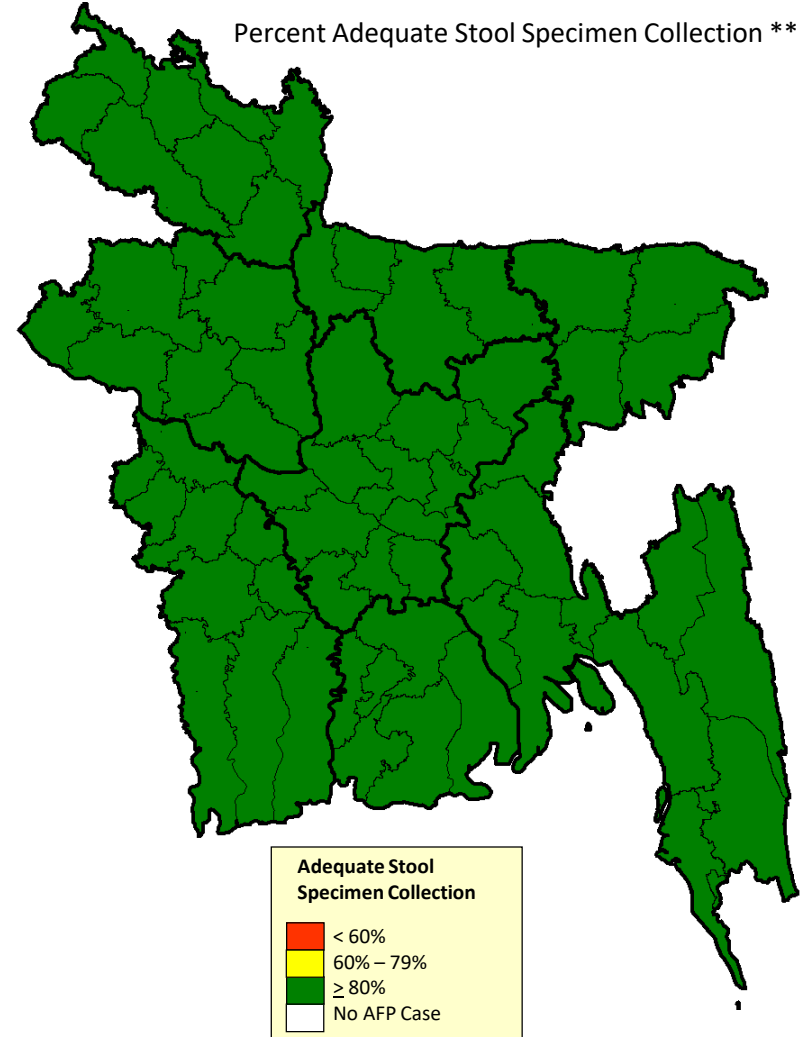
Data as of 08 April 2019

AFP Surveillance Indicators by District Bangladesh, 2018

Non-polio AFP Rate*



Percent Adequate Stool Specimen Collection **



* Number of discarded AFP cases per 100,000 children under 15 years of age

** Percentage with 2 specimens 24 hours apart and within 14 days of paralysis onset.

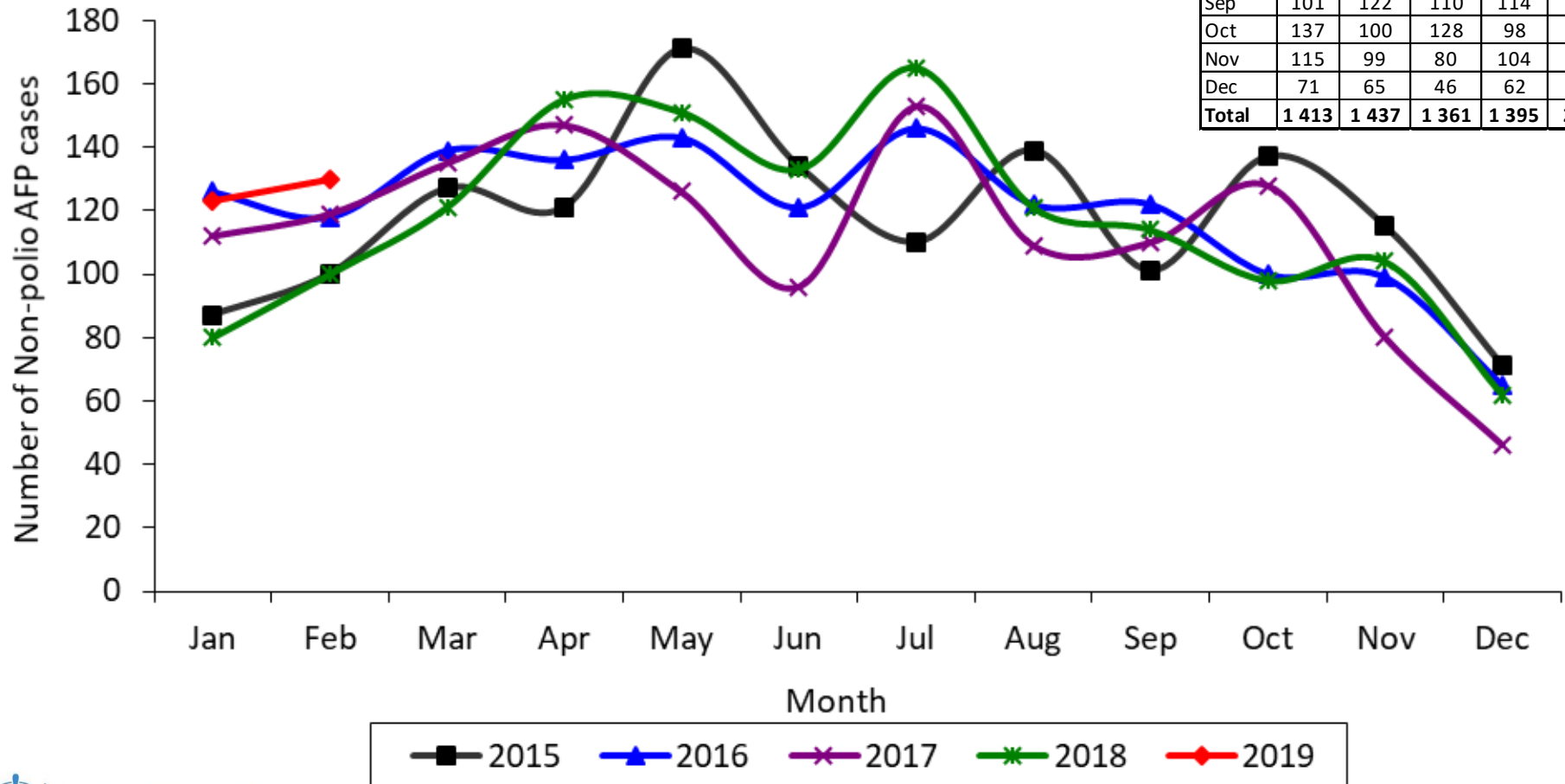
Note: Some AFP cases may still be pending final classification.

Total AFP Cases = 1404
Non-Polio AFP Rate = 2.83
Adequate Stool specimen = 99%
Districts reporting AFP cases = 64 (100%)

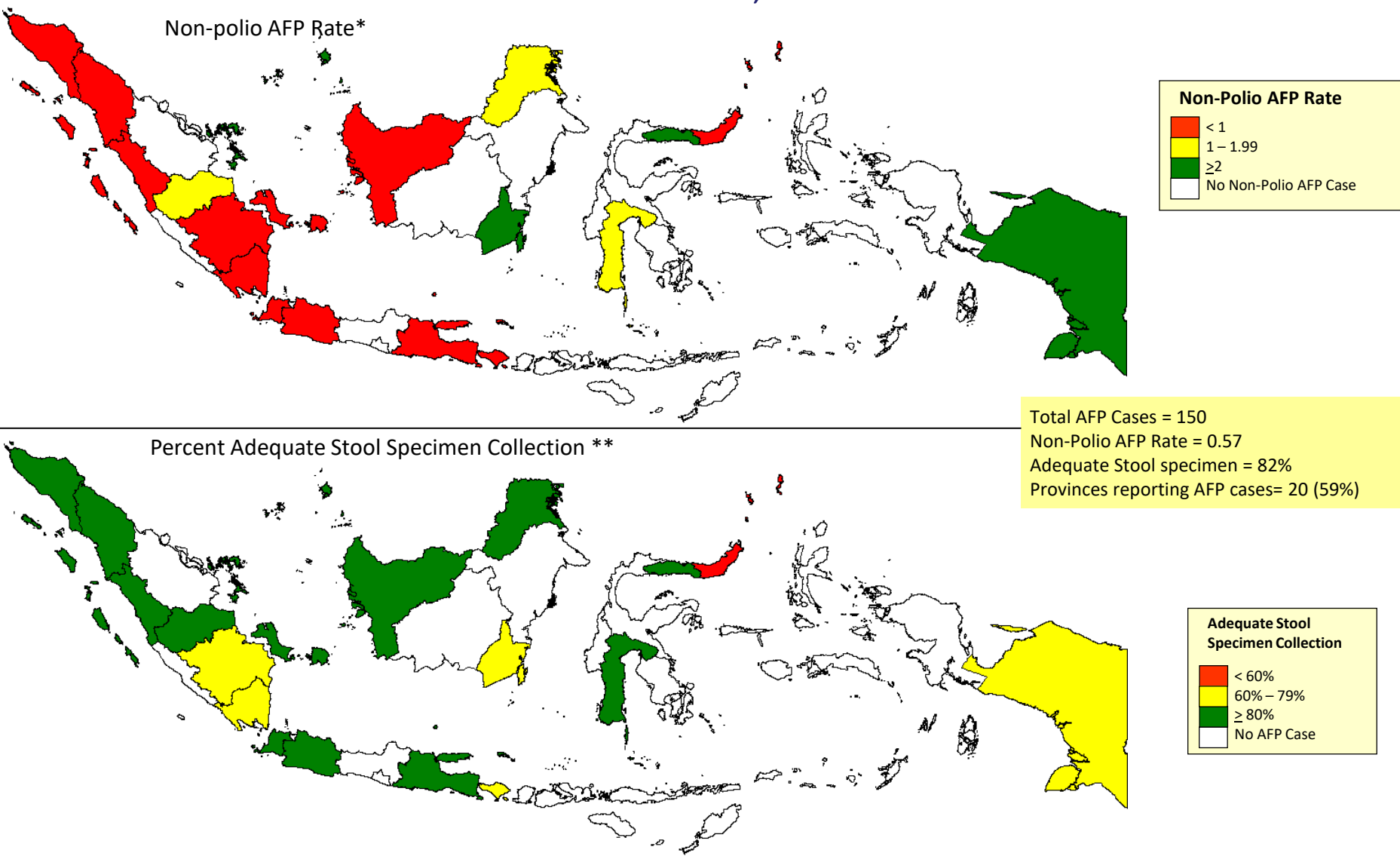
Data as of 08 April 2019

Non-polio AFP Cases by Month of Onset Bangladesh, 2015-2019

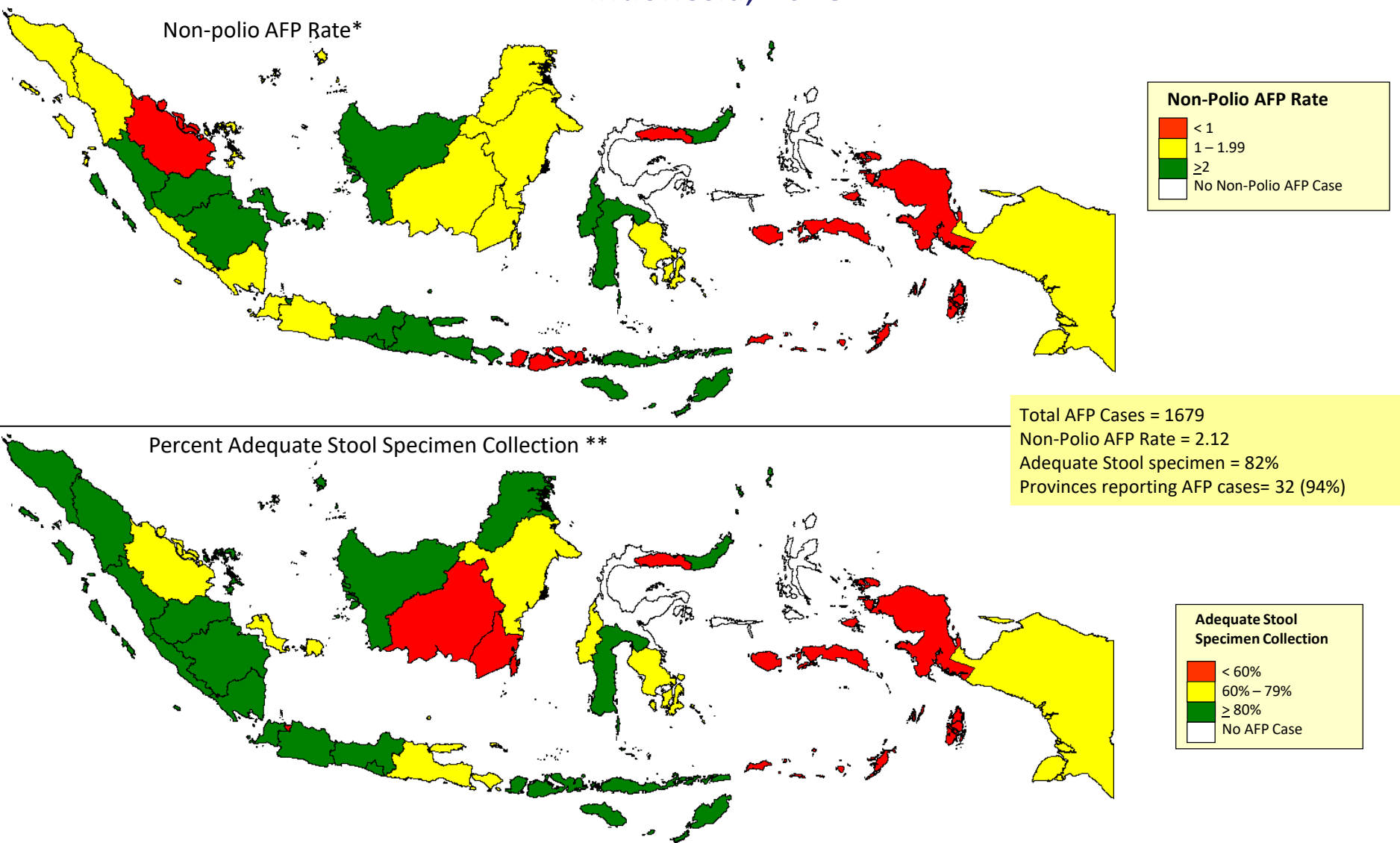
Month	2015	2016	2017	2018	2019
Jan	87	126	112	80	123
Feb	100	118	119	100	130
Mar	127	139	135	121	3
Apr	121	136	147	155	
May	171	143	126	151	
Jun	134	121	96	133	
Jul	110	146	153	165	
Aug	139	122	109	121	
Sep	101	122	110	114	
Oct	137	100	128	98	
Nov	115	99	80	104	
Dec	71	65	46	62	
Total	1 413	1 437	1 361	1 395	256



AFP Surveillance Indicators by Province Indonesia, 2019

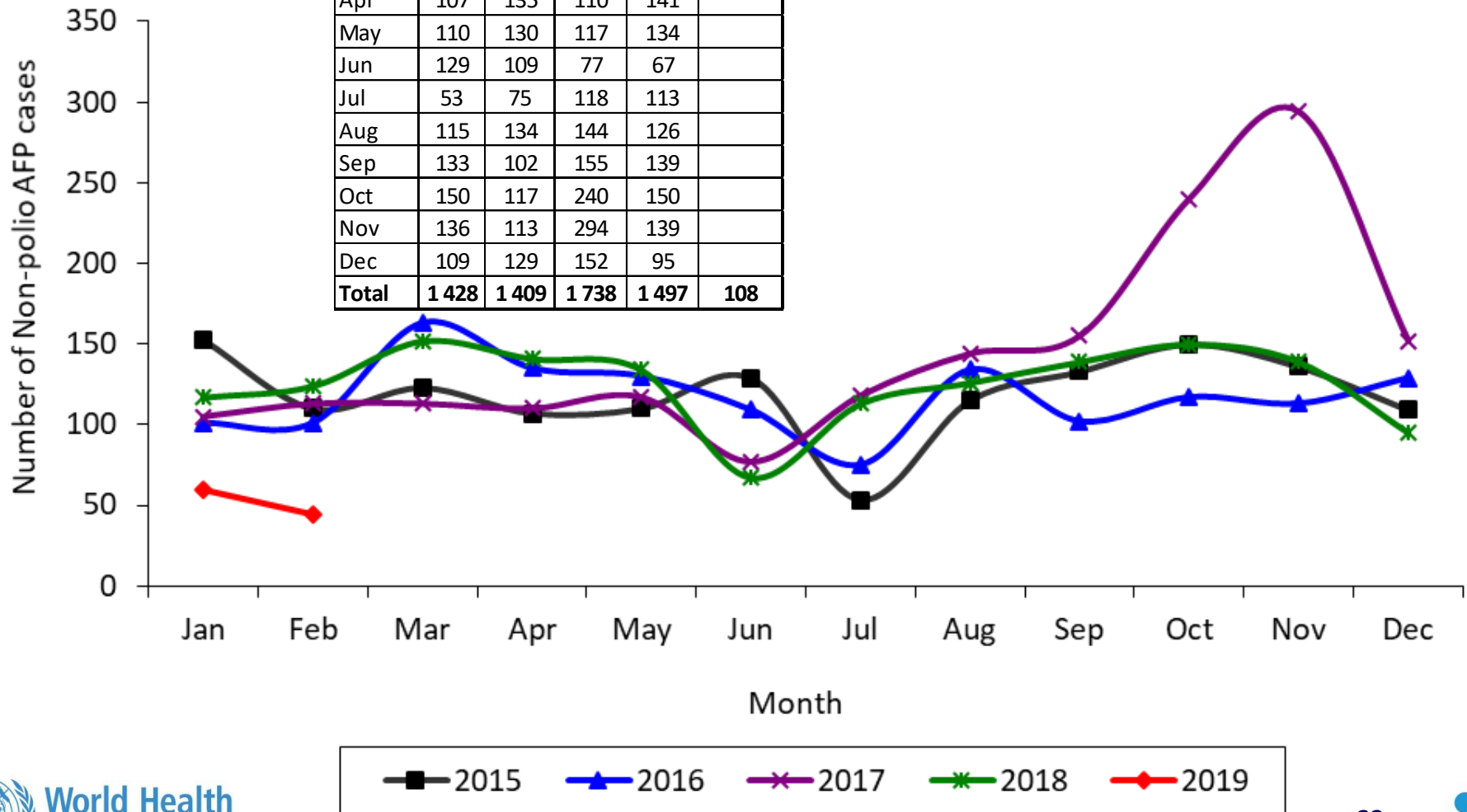


AFP Surveillance Indicators by Province Indonesia, 2018



Non-polio AFP Cases by Month of Onset Indonesia, 2015-2019

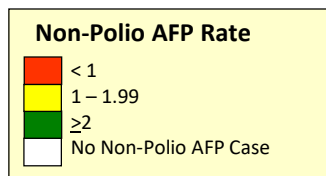
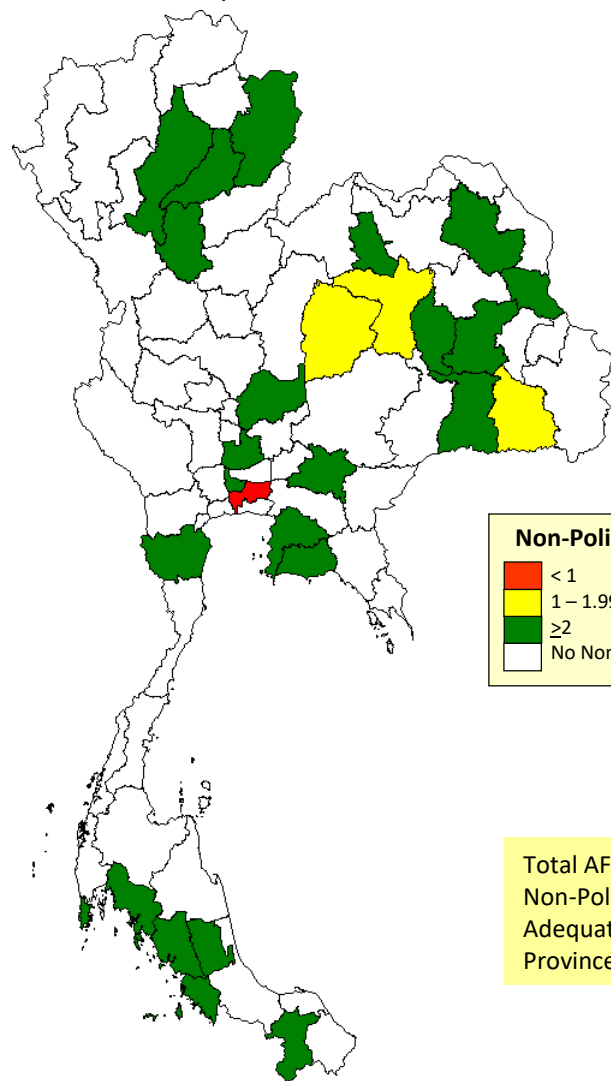
Month	2015	2016	2017	2018	2019
Jan	153	101	105	117	60
Feb	110	101	113	124	44
Mar	123	163	113	152	4
Apr	107	135	110	141	
May	110	130	117	134	
Jun	129	109	77	67	
Jul	53	75	118	113	
Aug	115	134	144	126	
Sep	133	102	155	139	
Oct	150	117	240	150	
Nov	136	113	294	139	
Dec	109	129	152	95	
Total	1 428	1 409	1 738	1 497	108



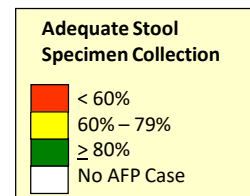
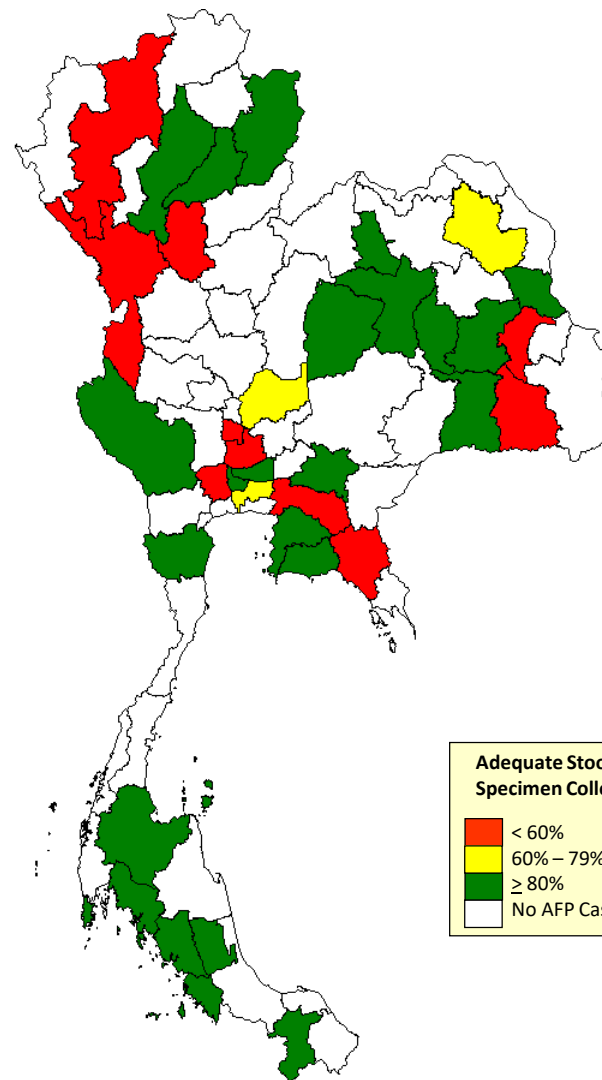
AFP Surveillance Indicators by Province Thailand, 2019

Annualized Non-polio AFP Rate*

Percent Adequate Stool Specimen Collection **



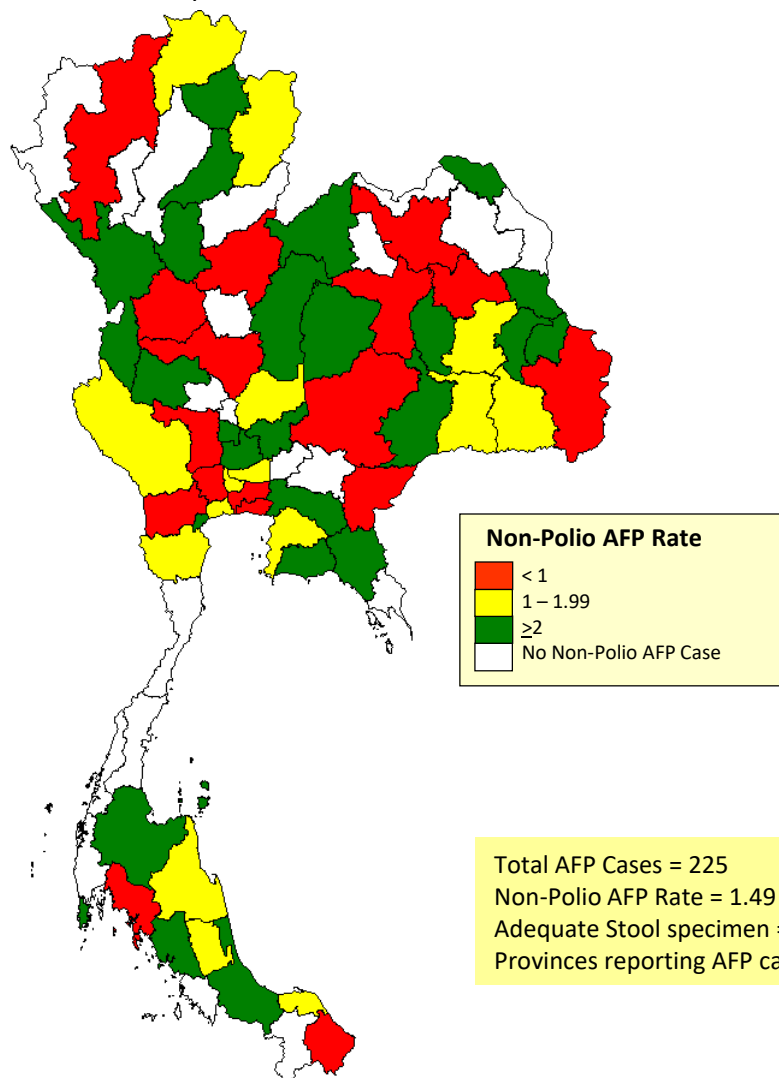
Total AFP Cases = 82
Non-Polio AFP Rate = 1.64
Adequate Stool specimen = 72%
Provinces reporting AFP cases= 39 (51%)



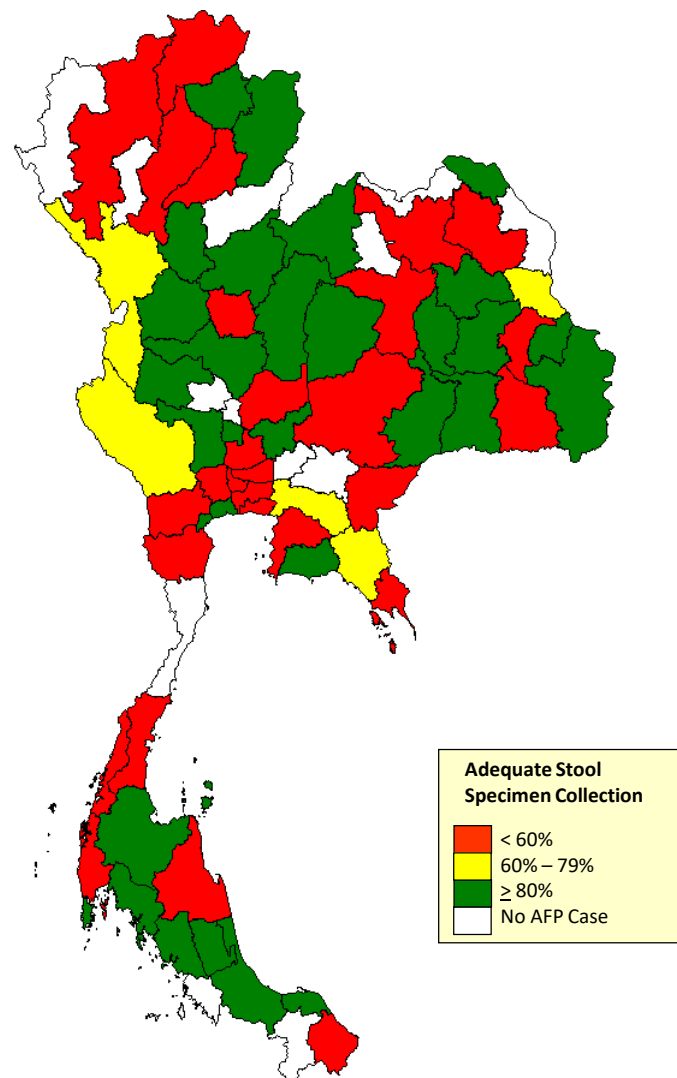
AFP Surveillance Indicators by Province Thailand, 2018

Annualized Non-polio AFP Rate*

Percent Adequate Stool Specimen Collection **

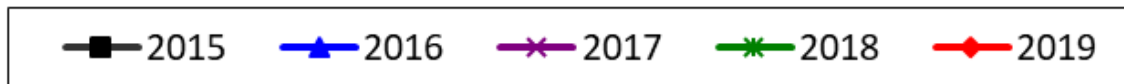
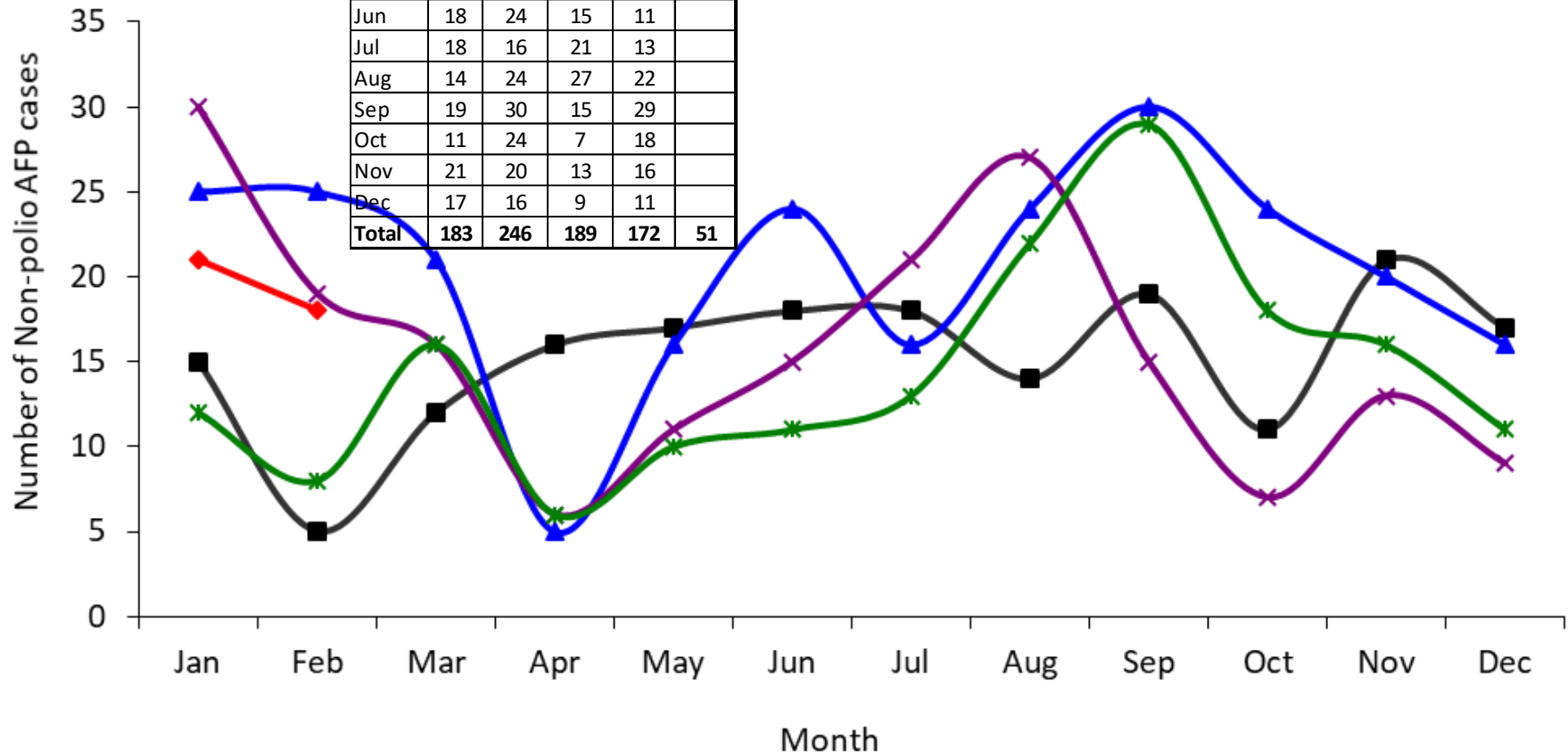


Total AFP Cases = 225
Non-Polio AFP Rate = 1.49
Adequate Stool specimen = 67%
Provinces reporting AFP cases= 65 (84%)



Non-polio AFP Cases by Month of Onset Thailand, 2015-2019

Month	2015	2016	2017	2018	2019
Jan	15	25	30	12	21
Feb	5	25	19	8	18
Mar	12	21	16	16	12
Apr	16	5	6	6	
May	17	16	11	10	
Jun	18	24	15	11	
Jul	18	16	21	13	
Aug	14	24	27	22	
Sep	19	30	15	29	
Oct	11	24	7	18	
Nov	21	20	13	16	
Dec	17	16	9	11	
Total	183	246	189	172	51



VPD Reporting, 2019

Country	Routine Reporting of clinically suspected measles cases					Suspected measles outbreaks				Laboratory Confirmed ¹						Number of Cases				Number of Cases of AEFI ²	Date of last report	# reports expected	% Completeness	% Timeliness
	# Cases	# Deaths	# Tested for serology	# Measles +ve	# Rubella +ve	# Outbreaks	# Outbreaks Investigated	# Cases	# Deaths	Measles Outbreaks		Rubella Outbreaks		Mixed Outbreaks		Neonatal Tetanus	Diphtheria	Pertussis	Encephalitis					
										# Outbreaks	# Cases	# Outbreaks	# Cases	# Outbreaks	# Cases									
Bangladesh	547	0	540	180	11	43	43	448	0	16	121	0	0	1	8	8	1	0	214	129	14-Mar-19	2	100	100
Bhutan	33	0	33	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	18-Mar-19	2	100	100
DPR Korea	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	2	0	0
India	6 303	37	NR	NR	NR	150	105	1 477	9	68	943	11	128	1	6	NR	NR	NR	NR	NR	25-Mar-19	2	100	0
Indonesia	900	0	835	107	126	11	11	66	0	2	14	3	12	1	9	2	27	0	NR	NR	25-Mar-19	2	100	50
Maldives	14	0	8	0	0	14	14	14	0	0	0	0	0	0	0	0	0	0	0	0	07-Mar-19	2	100	100
Myanmar	1 708	0	1 681	1 018	2	34	34	649	0	31	507	0	0	0	0	3	11	0	0	0	25-Mar-19	2	100	50
Nepal	230	0	178	37	3	2	2	19	0	2	17	0	0	0	0	0	NR	NR	154	0	21-Mar-19	2	100	50
Sri Lanka	37	0	33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	48	1 187	16-Mar-19	2	100	100
Thailand	2 237	7	1 839	895	20	24	24	410	0	20	402	0	0	0	0	NR	NR	NR	NR	67	25-Mar-19	2	100	50
Timor-Leste	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	19-Mar-19	2	100	50
Total	12 024	44	5 162	2 238	164	278	233	3 083	9	139	2 004	14	140	3	23	13	39	8	421	1 385				

¹ At least 5 blood samples should be collected and tested from each outbreak.

² Adverse Events Following Immunization; Sri Lanka AEFI data do not reflect cases but events.

³ Monthly VPD and AEFI reports due to SEARO/WHO on or before 15th of each month.

NR=No report

VPD Reporting, 2018

Country	Routine Reporting of clinically suspected measles cases					Suspected measles outbreaks				Laboratory Confirmed ¹						Number of Cases				Number of Cases of AEFI ²	Date of last report	# reports expected	% Completeness	% Timeliness
	# Cases	# Deaths	# Tested for serology	# Measles +ve	# Rubella +ve	# Outbreaks	# Outbreaks Investigated	# Cases	# Deaths	Measles Outbreaks		Rubella Outbreaks		Mixed Outbreaks		Neonatal Tetanus	Diphtheria	Pertussis	Encephalitis					
										# Outbreaks	# Cases	# Outbreaks	# Cases	# Outbreaks	# Cases									
Bangladesh	4 835	5	4 801	1 432	234	110	110	1 369	0	34	464	5	53	7	57	78	30	3	1 432	2 170	17-Feb-19	12	100	92
Bhutan	339	0	339	15	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	14-Jan-19	12	100	92
DPR Korea	502	0	502	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	18-Feb-19	12	8	0
India	52 308	165	NR	NR	NR	2 436	1 459	24 542	153	925	16 533	122	1 939	14	225	NR	NR	NR	NR	NR	25-Mar-19	12	92	25
Indonesia	9 545	0	5 316	850	1 496	86	86	857	0	31	333	39	383	8	79	14	1 755	2	NR	28 745	25-Mar-19	12	83	25
Maldives	32	0	32	1	2	1	32	32	0	1	1	0	0	0	0	0	0	0	0	0	07-Jan-19	12	83	83
Myanmar	1 266	0	1 251	728	13	38	38	642	1	27	564	0	0	0	0	22	184	28	0	0	15-Feb-19	12	100	0
Nepal	1 316	0	1 289	131	34	10	10	153	2	6	97	0	0	0	0	2	NR	NR	1 153	26	17-Feb-19	12	100	83
Sri Lanka	168	0	137	7	4	0	0	0	0	0	0	0	0	0	0	0	0	31	151	10 374	15-Jan-19	12	100	92
Thailand	7 216	23	6 118	3 619	54	144	144	5 139	23	132	5 058	1	17	1	2	0	17	143	794	863	25-Mar-19	12	92	58
Timor-Leste	163	0	160	0	8	0	0	0	0	0	0	0	0	0	0	1	7	0	0	4	21-Feb-19	12	83	33
Total	77 690	193	19 945	6 783	1 853	2 825	1 879	32 734	179	1 156	23 050	167	2 392	30	363	117	1 993	207	3 530	42 221				

¹ At least 5 blood samples should be collected and tested from each outbreak.

² Adverse Events Following Immunization; Sri Lanka AEFI data do not reflect cases but events.

³ Monthly VPD and AEFI reports due to SEARO/VD on or before 15th of each month.

NR=No report

Measles and Rubella Serology (IgM), 2019

Country	Laboratories	Number of Serum Samples Received	Number Tested	Results				% Measles Results Reported within 4 Days
				Measles +ve		Rubella +ve		
				#	%	#	%	
Bangladesh	Dhaka	633	633	201	31.8	11	2.5	94.6
Bhutan	Thimphu	33	35	0	0.0	2	5.7	60.0
DPR Korea	Pyongyang	89	89	0	0.0	0	0.0	100.0
India	Ahmedabad	26	22	14	63.6	0	0.0	100.0
	Bengaluru	197	166	34	20.5	10	7.6	62.7
	Bhopal	9	9	8	88.9	1	100.0	100.0
	Chandigarh	29	29	0	0.0	1	3.4	96.6
	Chennai	231	86	30	34.9	9	16.1	104.7
	Delhi	11	11	6	54.5	0	0.0	100.0
	Guwahati	16	10	5	50.0	0	0.0	100.0
	Hyderabad	53	53	6	11.3	3	6.4	83.0
	Jaipur	20	20	15	75.0	3	60.0	100.0
	Kolkata	640	640	278	43.4	93	25.7	99.7
	Lucknow	147	120	36	30.0	2	2.4	100.0
	Manipal	39	24	6	25.0	1	5.6	87.5
	Mumbai	40	30	1	3.3	8	27.6	96.7
	Patna	563	561	320	57.0	29	12.0	87.5
India Total		2021	1781	759	42.6	160	15.7	91.9
Indonesia	Bandung	95	95	2	2.1	2	2.2	100.0
	Jakarta	434	434	116	26.7	53	16.7	99.1
	Palembang	48	48	1	2.1	8	17.0	100.0
	Surabaya	199	199	19	9.5	24	13.3	0.0
	Yogyakarta	437	437	2	0.5	14	3.2	6.2
Indonesia Total		1213	1213	140	11.5	101	9.4	49.5
Maldives	Male	13	13	0	0.0	1	7.7	61.5
Myanmar	Mandalay	123	123	108	87.8	0	0.0	100.0
	Yangon	1677	1569	1305	83.2	5	1.9	100.0
Myanmar Total		1800	1692	1413	83.5	5	1.8	100.0
Nepal	Kathmandu	222	222	49	22.1	3	1.7	97.7
Sri Lanka	Colombo	56	56	1	1.8	0	0.0	92.9
Thailand	Bangkok	288	288	137	47.6	2	1.3	100.0
	Chiang Mai	60	60	26	43.3	1	2.9	100.0
	Chiang Rai	37	37	12	32.4	0	0.0	100.0
	Chon Buri	95	95	36	37.9	0	0.0	100.0
	Khon Kaen	52	52	22	42.3	1	3.3	100.0
	Nakhon Sawan	0	0	0	NR	0	NR	NR
	Nakhonratchasima	25	25	17	68.0	2	25.0	100.0
	Phitsanulok	53	53	32	60.4	1	4.8	100.0
	Samut Songkhram	86	86	40	46.5	1	2.2	100.0
	Songkhla	1044	1044	632	60.5	4	1.0	100.0
	Surat Thani	7	7	2	28.6	0	0.0	100.0
	Trang	48	48	13	27.1	1	2.9	100.0
	Ubon Ratchathani	57	57	21	36.8	2	5.6	100.0
	Udon Thani	9	9	2	22.2	0	0.0	100.0
Thailand Total		1861	1861	992	53.3	15	1.7	100.0
Timor-Leste	Dili	12	0	0	NR	0	NR	NR
TOTAL		7953	7595	3555	46.8	298	7.4	89.2

Source: Reported by SEAR Measles Laboratory Network

NR=No Report

Measles and Rubella Serology (IgM), 2018

Country	Laboratories	Number of Serum Samples Received	Number Tested	Results				% Measles Results Reported within 4 Days
				Measles +ve		Rubella +ve		
				#	%	#	%	
Bangladesh	Dhaka	5740	5740	1701	29.6	289	7.2	93.2
Bhutan	Thimphu	427	405	18	4.4	11	2.8	91.1
DPR Korea	Pyongyang	475	475	0	0.0	0	0.0	0.0
India	Ahmedabad	328	298	163	54.7	32	23.7	61.4
	Bengaluru	725	587	130	22.1	20	4.4	60.6
	Bhopal	196	165	120	72.7	4	8.9	86.7
	Chandigarh	360	360	203	56.4	11	7.0	47.5
	Chennai	1365	322	59	18.3	92	35.0	73.0
	Delhi	369	369	237	64.2	14	10.6	35.2
	Guwahati	170	160	110	68.8	6	12.0	15.6
	Hyderabad	313	311	15	4.8	29	9.8	43.1
	Jaipur	358	358	215	60.1	12	8.4	32.7
	Kolkata	2627	2624	1139	43.4	495	33.3	45.0
	Lucknow	3584	3211	1771	55.2	173	12.0	26.5
	Manipal	23	16	1	6.3	0	0.0	93.8
	Mumbai	980	740	457	61.8	52	18.4	40.8
	Patna	1288	1288	526	40.8	69	9.1	12.2
India Total		12686	10809	5146	47.6	1009	17.8	37.0
Indonesia	Bandung	263	251	2	0.8	24	9.6	98.8
	Jakarta	2350	1636	232	14.2	616	43.9	75.1
	Palembang	427	241	10	4.1	209	90.5	100.0
	Surabaya	1489	1277	401	31.4	359	41.0	85.7
	Yogyakarta	1306	1306	29	2.2	123	9.6	98.4
Indonesia Total		5835	4711	674	14.3	1331	33.0	86.9
Maldives	Male	32	32	2	6.3	1	3.3	75.0
Myanmar	Mandalay	66	66	30	45.5	1	2.8	100.0
	Yangon	1450	1445	846	58.5	19	3.2	100.0
Myanmar Total		1516	1511	876	58.0	20	3.1	100.0
Nepal	Kathmandu	1373	1353	171	12.6	36	3.0	56.5
Sri Lanka	Colombo	143	143	8	5.6	6	4.4	85.3
Thailand	Bangkok	1716	1716	915	53.3	13	1.6	100.0
	Chiang Mai	211	211	132	62.6	1	1.3	98.1
	Chiang Rai	69	69	5	7.2	0	0.0	100.0
	Chon Buri	257	257	103	40.1	1	0.6	100.0
	Khon Kaen	73	73	29	39.7	0	0.0	100.0
	Nakhon Sawan	13	13	3	23.1	0	0.0	84.6
	Nakhonratchasima	64	64	24	37.5	0	0.0	100.0
	Phitsanulok	112	112	54	48.2	3	5.2	100.0
	Samut Songkhram	214	214	108	50.5	3	2.8	100.0
	Songkhla	2908	2908	1836	63.1	21	2.0	100.0
	Surat Thani	15	15	3	20.0	0	0.0	100.0
	Trang	69	69	11	15.9	0	0.0	100.0
	Ubon Ratchathani	146	146	61	41.8	3	3.5	100.0
	Udon Thani	190	190	68	35.8	5	4.1	100.0
Thailand Total		6057	6057	3352	55.3	50	1.8	99.9
Timor-Leste	Dili	165	165	1	0.6	9	5.5	100.0
TOTAL		34449	31401	11949	38.1	2762	14.2	71.5

Source: Reported by SEAR Measles Laboratory Network

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