



REGIONAL OFFICE FOR

World Health
Organization
South-East Asia

Immunization and
Vaccine Development
South-East Asia Region



EPI FACTSHEET 2020

SOUTH-EAST ASIA REGION



WHO South-East Asia Region

The Immunization and Vaccine Development (IVD) unit of the Department of Communicable Diseases Surveillance (CDS), World Health Organization (WHO), Regional Office for South-East Asia (SEARO), has been producing the Expanded Programme on Immunization (EPI) factsheets for all Member States of the South-East Asia (SEA) Region and the Region annually. The primary data sources of the EPI factsheet are the WHO-UNICEF joint reporting form (JRF) and the SEA Region annual EPI reporting form (AERF), in which each country officially reports EPI and vaccine preventable diseases related core information annually. The EPI factsheets 2020 are based on 2019 data reported to WHO SEARO by Member States.



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Regional demographic attributes

Figure 1. SEA regional population density by first administrative level*

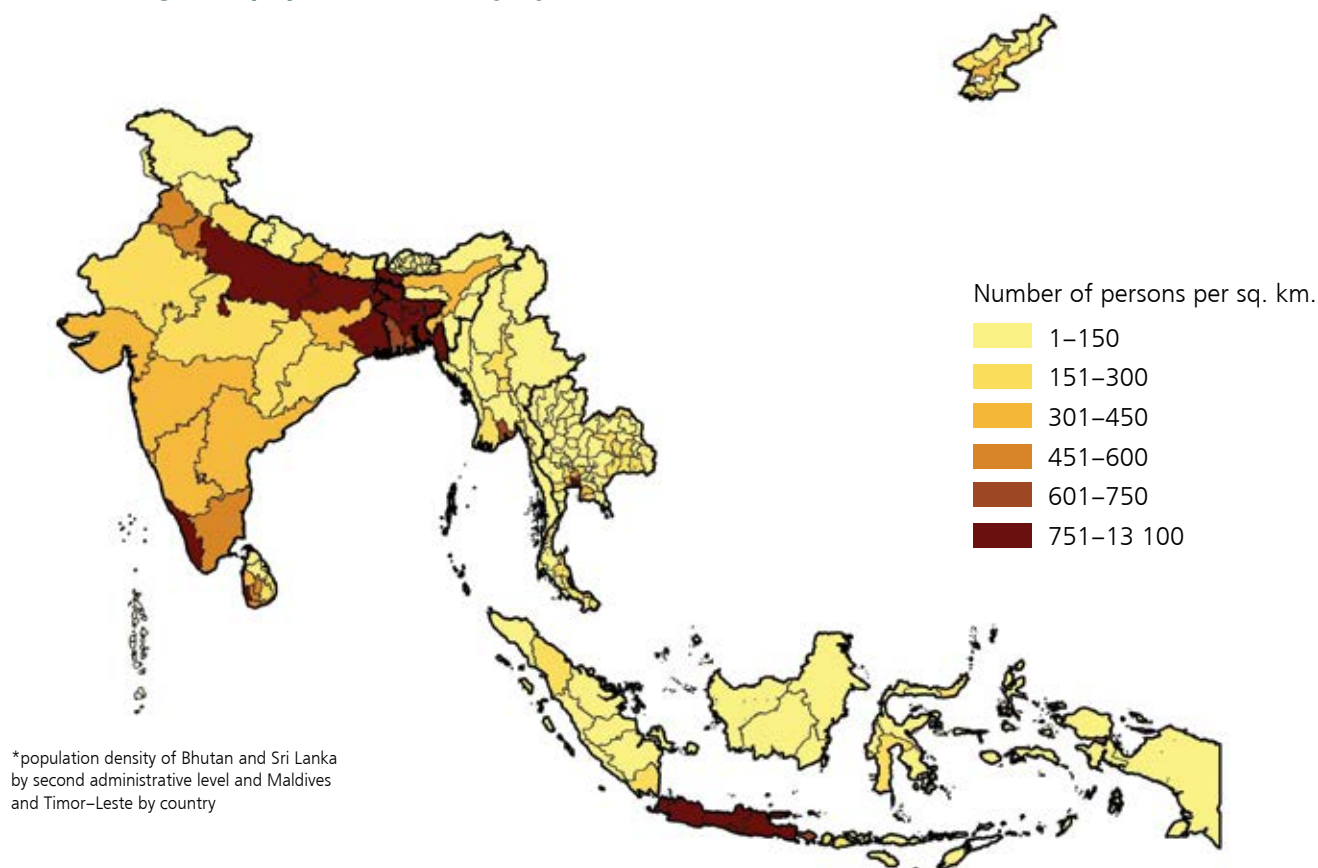


Table 1. Basic information by country, 2019

Country	2019 population ¹					Mortality ²				Administrative levels	
	Total population	Live births	Under 1 year	Under 5 years	Under 15 years	Neonatal mortality rate (per 1000 LB)	Infant mortality rate (per 1000 LB)	Under-5 mortality rate (per 1000 LB)	Maternal mortality ratio (per 100 000 LB)	Number of provinces/regions/divisions	Number of districts
Bangladesh	167 836 821	3 408 614	3 262 044	16 026 457	48 991 359	17.1	25.1	30.2	173	8	64
Bhutan	741 672	11 496	11 287	56 354	183 064	16.4	24.8	29.7	183	–	20
DPR Korea	25 404 298	325 605	322 449	1 669 047	5 052 142	9.7	13.7	18.2	89	11	209
India	1 340 018 117	27 192 790	26 297 590	153 673 454	440 835 286	22.7	29.9	36.6	145	36	704
Indonesia	268 074 565	4 766 582	4 674 643	23 604 923	70 635 883	12.7	21.1	25	177	34	514 ^a
Maldives	338 434	5 964	6 460	35 712	93 478	4.8	7.4	8.6	53	6	20
Myanmar	53 286 494	981 223	968 376	4 483 542	13 271 916	23.1	36.8	46.2	250	17	330 ^b
Nepal	29 411 592	640 789	621 565	2 997 766	8 661 475	19.9	26.7	32.2	186	7	77
Sri Lanka	22 034 594	329 754	318 373	1 878 943	5 527 333	4.5	6.4	7.4	36	9	26
Thailand	66 558 935	600 267	561 446	3 185 739	10 947 179	5	7.8	9.1	37	77	928
Timor-Leste	1 327 038	47 269	44 981	145 550	322 121	20.4	39.3	45.8	142	–	13
SEA Region	1 975 032 560	38 310 353	37 089 214	207 757 487	604 521 236	20.2	27.6	33.6	152	–	–

¹ SEA Region annual EPI reporting form, 2019

^a District & city

^b Township

² WHO, Global Health Observatory (GHO) data <http://apps.who.int/gho/data> accessed on 6 June 2020

Routine immunization systems and services are strengthened

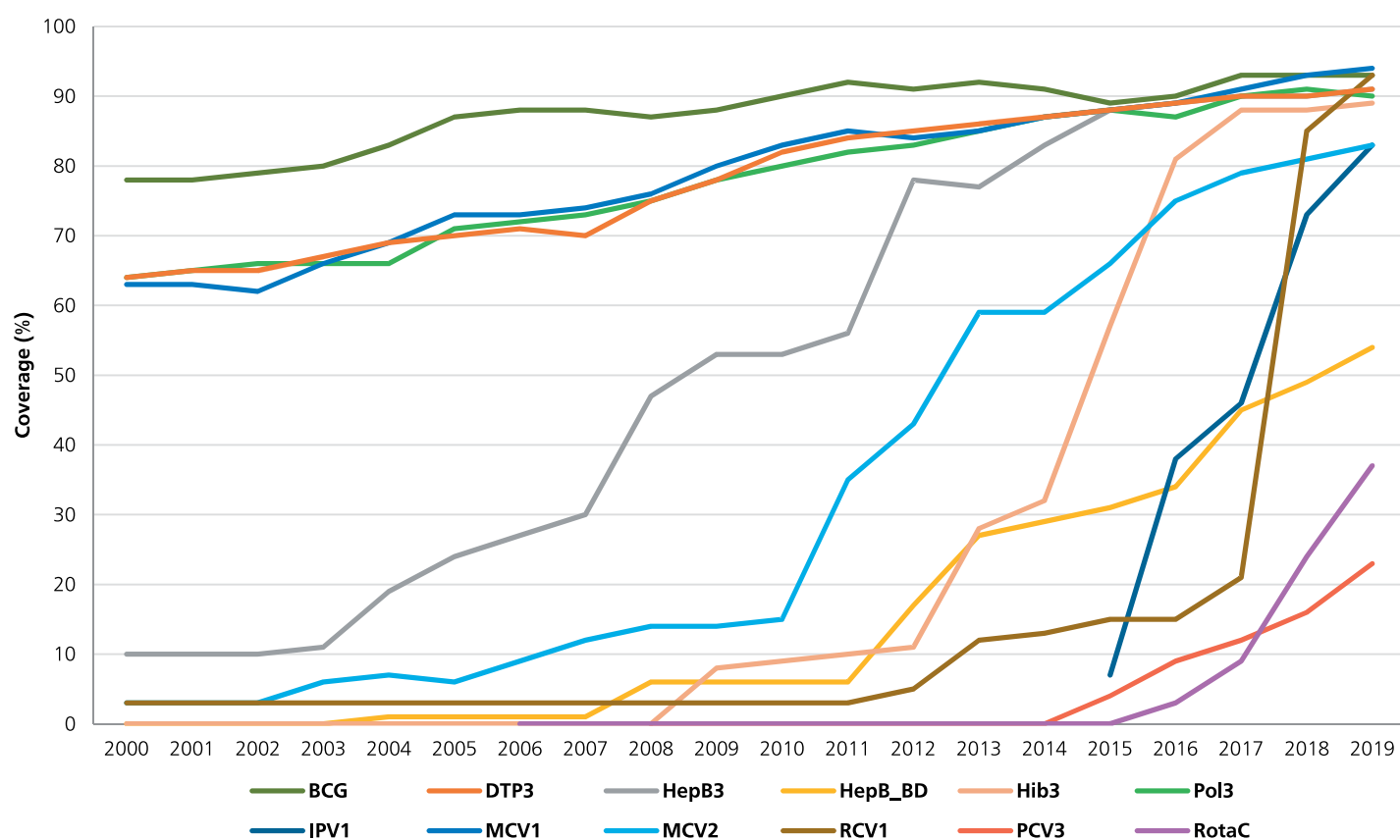
Table 2. Routine immunization schedules by country, 2019

Country	BCG	DTPHibHepB	MCV/MRCV	OPV/IPV	TT/Td	Vitamin A	Other vaccinations
Bangladesh	At birth	DTPHibHepB: 6W, 10W, 14W	MR: 9M, 15M	6W, 10W, 14W	Td: Females 15Y to 49Y (5 doses with an interval of + 1 month, + 6 months, + 1 year and + 1 year with preceding dose)	6–59M	PCV: 6W, 10W, 14W
Bhutan	At birth	HepB: At birth DTPHibHepB: 6W, 10W, 14W DTP: 24M	MMR: 9M, 24M	At birth 6W, 10W, 14W IPV: 14W	Td: 6Y, 12Y and during pregnancy (at first contact and one month later)	6M, 12M, 18M, 24M, 30M	HPV: Females 12 years and grade VI girls (two doses 6 months apart) PCV: 6W, 10W, 9M
DPR Korea	At birth	HepB: At birth DTPHibHepB: 6W, 10W, 14W	Measles: 9M, 15M	6W, 10W, 14W IPV: 14W	Td: 3M, 4M of pregnancy	6–59M	-
India	At birth	HepB: At birth DTPHibHepB: 6W, 10W, 14W DTP: 16-24M, 5-6Y	MR: 9-12M, 16-24M	At birth 6W, 10W, 14W, 16-24M IPV (fIPV): 6W, 14W	Td: 10Y and 16Y, 2 doses/booster for pregnant women	9 doses at 9 months, 16-18 months then 6 monthly till the age of 5 years	JE vaccine: 9M and 16-24M (JE endemic districts) PCV: 6W, 10W, 9M (subnational) Rotavirus: 6W, 14W, 14W
Indonesia	At birth	HepB: 0-24 hours of birth DTPHibHepB: 2M, 3M, 4M, 18M	MR: 9M, 18M, 7Y	1M, 2M, 3M, 4M IPV: 4M	DT: 6-7Y Td: 7-8Y, 9-10Y, 15-39Y (child bearing women)	6–59M	HPV: 11Y, 12Y (subnational) JE_LiveAtd: 10M (Bali province) PCV: 2M, 3M, 12M (subnational)
Maldives	At birth	HepB: At birth DTPHibHepB: 2M, 4M, 6M DTP booster: 4 years	MR: 9M MMR: 18M	2M, 4M, 6M and +15Y pilgrims IPV: 6M	Td: Females 15Y (+1M, +6M, +1Y, +1Y)	9M, 18M, 24M, 30M, 36M, 42M	Men ACWY: 135 conj- +15Y pilgrims YF: +15Y travellers HPV: 10 years (2 doses 6M apart)
Myanmar	Birth to 2M	HepB: At birth DTPHibHepB: 2M, 4M, 6M	MR: 9M, 18M	2M, 4M, 6M IPV: 4M	Td: First contact during pregnancy and 4 weeks later	6–59M	PCV: 2M, 4M, 6M JE_LiveAtd: 9M
Nepal	At birth	DTPHibHepB: 6W, 10W, 14W	MR: 9M, 15M	6W, 10W, 14W fIPV: 6W, 14W	Td: First contact pregnancy, +1M	6–59M, +6M	JE_LiveAtd: 12M PCV: 6W, 10W, 9M
Sri Lanka	At birth	DTPHibHepB: 2M, 4M, 6M DTP: 18M	MMR: 9M, 3Y	2M, 4M, 6M, 18M, 5Y IPV (fIPV): 2M, 4M	DT: 5Y aTd: 12Y (grade 7) TT: Pregnant women (2 doses in 1st pregnancy and 1 dose in subsequent 3 pregnancies)	6–36M	JE_LiveAtd: 1Y HPV: Girls in grade VI at school, on 10Y completion, 2 doses 6M apart
Thailand	At birth	HepB: At birth, 1M (new-born from HepB carrier mother) DTPHibHepB: 2M, 4M, 6M DTP: 1.5Y, 4Y	MMR: 9M, 2.5Y	2M, 4M, 6M, 1.5Y, 4Y IPV: 4M	Td: 12Y (grade 6), Pregnant women 1st contact, +1M, +6M (depending on vaccination history)	-	JE_LiveAtd: 1Y, 2.5Y Rotavirus: 2M, 4M, 6M (pilot in Sukhothai and Phetchabun provinces) HPV: females at grade V (2 doses 6M apart) Men ACWY: 135_conj - 9 months to 55 years (pilgrims from Thailand is the main target group, Thai travellers need to go to epidemic area: Africa, SA and the students in dormitory such as; USA/UK)
Timor-Leste	At Birth	HepB: At birth DTPHibHepB: 6W, 10W, 14W DTP: 18M DT: 6Y	MR: 9M, 18M	Birth 6W, 10W, 14W IPV: 14W	Td: Females 15Y-49Y (1st pregnancy contact, +1M, +6M, +1Y, +1Y)	6–36M (6M interval)	Rotavirus: 6W, 14W, 14W

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Figure 2. Immunization coverage by antigen, 2000–2019



Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

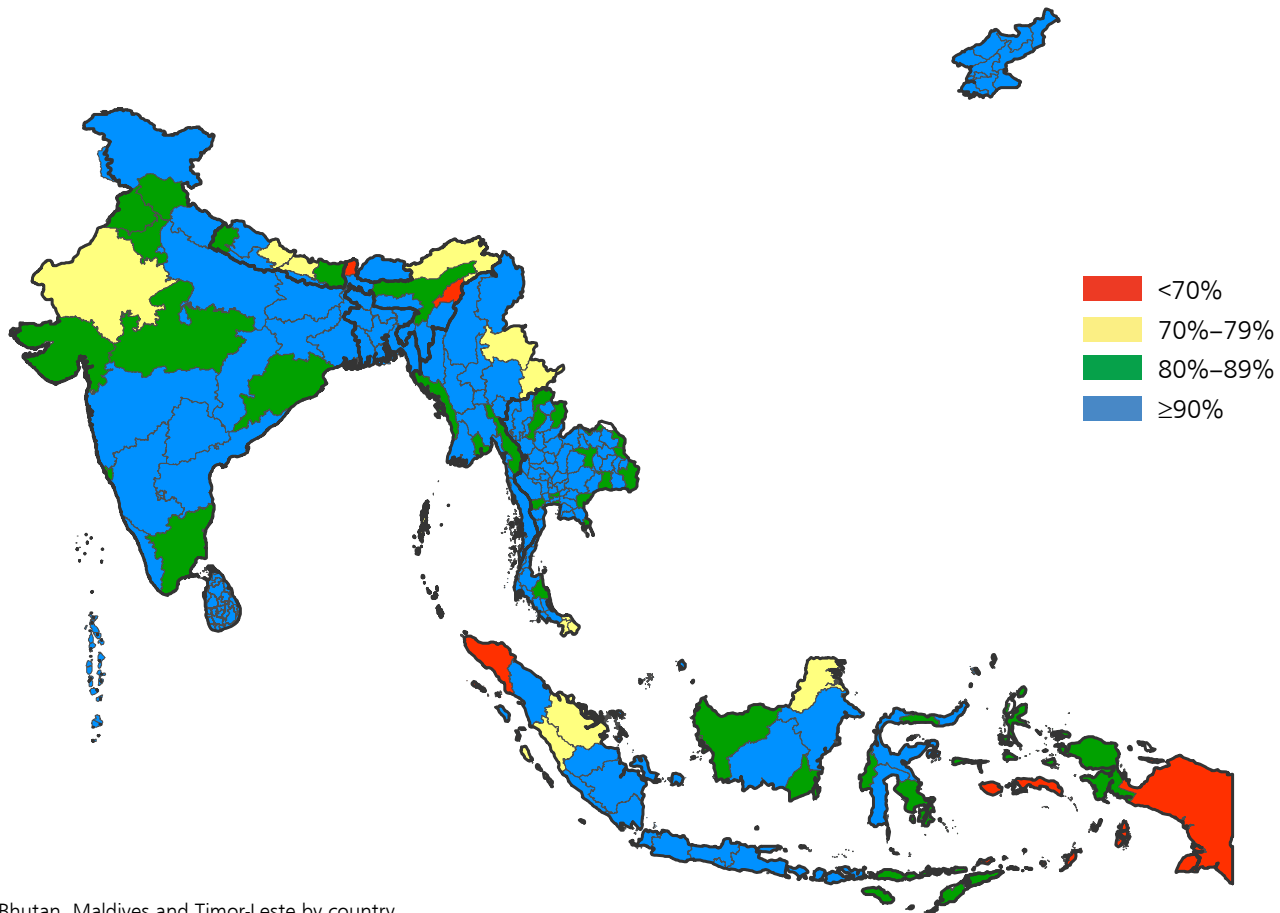
Table 3. Immunization coverage by country, 2016–2019

Country	BCG				HepB birth dose				DTP3				MCV1/MRCV1				MCV2/MRCV2			
	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019	2016	2017	2018	2019
Bangladesh	99	99	99	99	no birth dose				98	98	98	98	97	97	97	97	92	93	93	95
Bhutan	99	99	99	92	82	95	96	86	98	98	97	97	97	97	97	97	90	99	91	92
DPR Korea	97	98	96	96	98	98	98	98	96	97	97	97	99	99	98	98	98	98	99	98
India	89	92	92	92	47	54	54	56	88	89	90	91	88	90	93	95	76	80	82	84
Indonesia	90	93	92	90	ND	32	58	84	84	85	85	85	88	90	89	88	55	63	67	71
Maldives	99	99	99	99	ND	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
Myanmar	88	91	90	91	ND	1	7	17	90	89	91	90	91	83	93	84	86	80	87	80
Nepal	93	95	96	96	no birth dose				87	90	91	93	83	90	91	92	25	59	69	76
Sri Lanka	99	99	99	99	no birth dose				99	99	99	99	99	99	99	99	99	99	99	99
Thailand	99	99	99	99	ND	99	99	99	99	99	97	97	99	99	96	96	95	95	87	87
Timor-Leste	86	95	95	95	42	61	66	70	79	83	83	83	73	77	77	85	30	57	54	80
SEA Region	90	93	93	93	34	45	49	54	89	90	90	91	89	91	93	94	75	79	81	83

Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

ND = no data

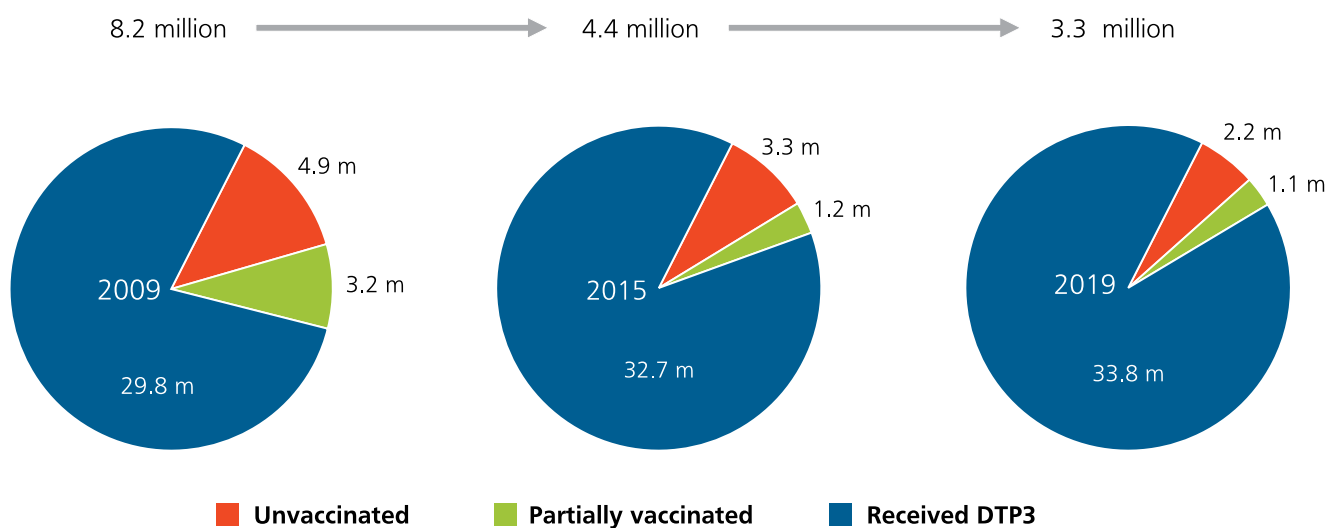
Figure 3. **DTP3 immunization coverage by first administrative level,* 2019**



*Bhutan, Maldives and Timor-Leste by country

Source: SEA Region annual EPI reporting form, 2019

Figure 4. **Decrease of un- and partially vaccinated children, 2009–2019**



Source: DTP coverage from WHO and UNICEF estimates, July 2020 revision and under-1 year population from SEA Region annual EPI reporting form

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Figure 5. While reaching more children with existing vaccines, range of protection increased through addition of vaccines

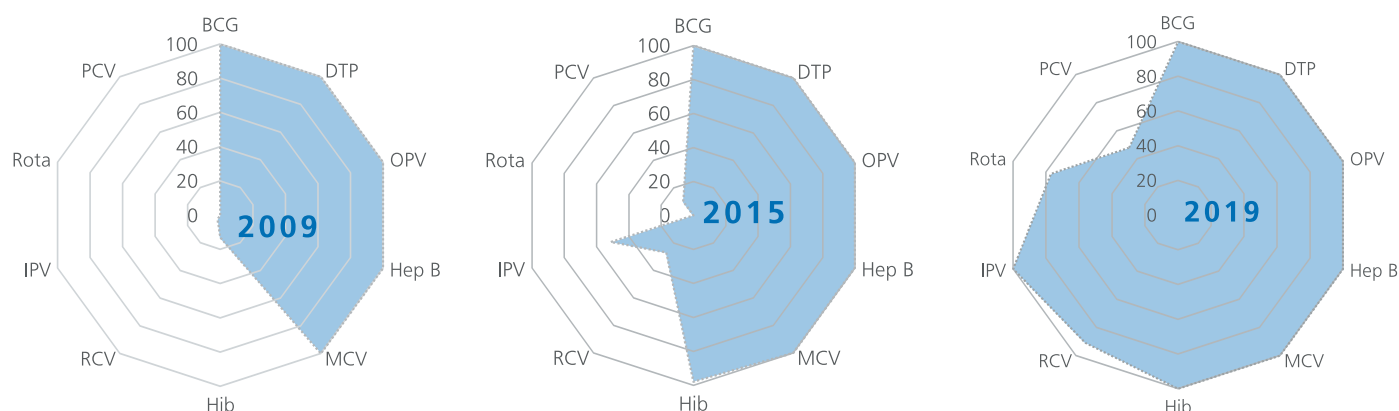


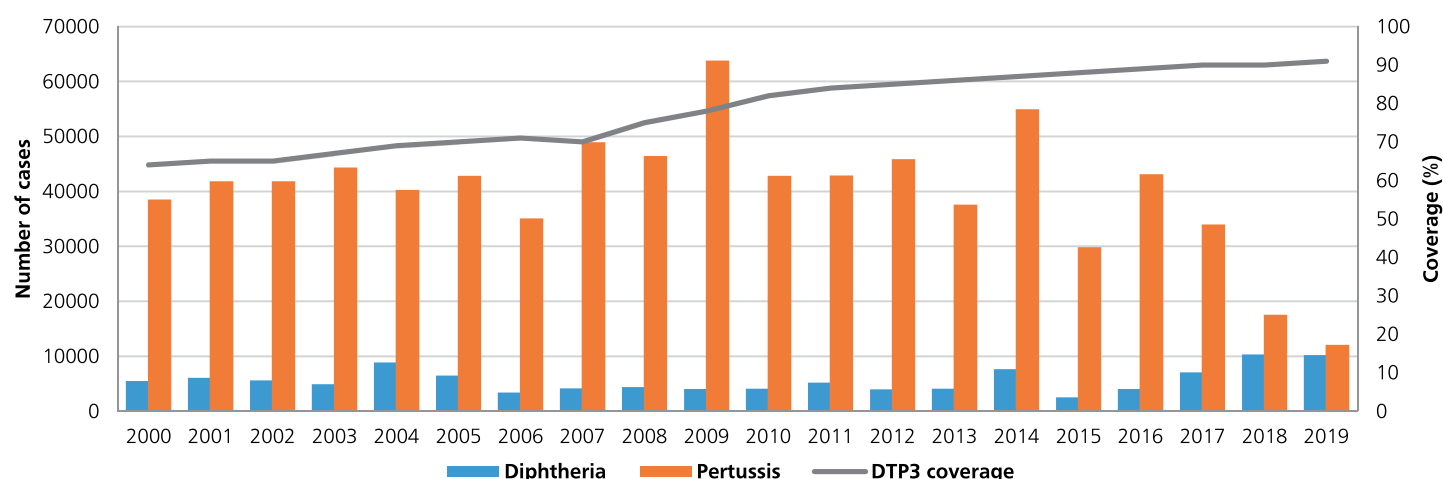
Table 4. Planning and management indicators by country, 2019

Country	Country multi year plan (cMYP) for immunization	National Immunization Technical Advisory Group	Government spending on vaccines	Government spending on routine immunization programme	Updated micro-plans that include activities to improve immunization coverage	Most recent EPI Coverage Evaluation Survey (CES)
Bangladesh	2018–2022	fully functional	38%	39%	64 districts (100%)	EPI CES 2019
Bhutan	2019–2023	fully functional	73%	42%	20 districts (100%)	National Health Survey 2012
DPR Korea	2016–2020	fully functional	15%	30%	209 districts (100%)	National Immunization Coverage Survey 2017
India	2018–2022	fully functional	100%	100%	704 districts (100%)	National Family Health Survey–4 2015–2016
Indonesia	2015–2019	fully functional	100%	98%	no data	Basic Health Survey 2018
Maldives	2020–2024	fully functional	100%	100%	20 atolls (100%)	Demographic Health Survey 2017
Myanmar	2017–2021	fully functional	29%	26%	330 districts (100%)	Demographic and Health Survey 2015–2016
Nepal	2017–2021	fully functional	28%	23%	77 districts (100%)	Demographic Health Survey 2016
Sri Lanka	2017–2022	fully functional	95%	no data*	26 districts (100%)	EPI coverage survey, Puttalam district 2017
Thailand	2017–2021	fully functional	no data	no data	928 districts (100%)	CES for routine and school-based immunization 2018
Timor-Leste	2016–2020	fully functional	86%	73%	13 districts (100%)	Vaccine coverage cluster survey 2018

Source: WHO/UNICEF JRF, 2019

* Integrated health systems provide all operational costs

Figure 6. DTP3 coverage, diphtheria and pertussis cases, 2000–2019



Source: WHO/UNICEF coverage estimates, July 2020, and WHO/UNICEF JRF and EPI/MoHFW; Diphtheria and pertussis cases from JRF 2000–2019

Table 5. Vaccine preventable diseases reported by country, 2017–2019

Country	2017							
	Polio	Diphtheria	Pertussis	Total tetanus (NT)	Measles	Rubella	Mumps	JE
Bangladesh	0	5	0	352 (96)	4 001	299	ND	19
Bhutan	0	0	15	0	66*	9	259	3
DPR Korea	0	0	0	0	0	0	0	0
India	0	5 293	23 766	4 946 (295)	13 401	2 856	ND	2 043
Indonesia	0	954	1 043	506 (25)	9 035	1 264	ND	281
Maldives	0	0	0	0	1*	1	6	0
Myanmar	0	68	4	61 (20)	1 293	6	ND	442
Nepal	0	728	9 092	880 (7)	99	21	61 228	63
Sri Lanka	0	0	0	15 (0)	1	1	252	23
Thailand	0	5	55	68 (0)	1 946	34	17	28
Timor-Leste	0	0	1	1 (1)	0	3	21	7
SEA Region	0	7 053	33 976	6 829 (444)	29 843	4 494	61 783	2 909

Country	2018							
	Polio	Diphtheria	Pertussis	Total tetanus (NT)	Measles	Rubella	Mumps	JE
Bangladesh	0	36 ^s	3	226 (84)	2 263	308	ND	96
Bhutan	0	0	8	0	18*	11	27	1
DPR Korea	0	0	0	0	0	0	0	0
India	0	8 788	13 208	7 000 (129)	19 474	2 328	ND	1 707
Indonesia	0 ^b	1 076	40	525 (14)	5 300	1 767	ND	ND
Maldives	0	0	1	0	1*	0	0	0
Myanmar	0	127	28	58 (22)	1 389	13	ND	126
Nepal	0	232	4 153	485 (2)	260	34	29 614	57
Sri Lanka	0	0	12	17 (0)	1*	0	290	29
Thailand	0	90	79	65 (0)	6 035	64	2 061	19
Timor-Leste	0	0	0	1 (1)	0	8	26	0
SEA Region	0	10 349	17 532	8 377 (252)	34 741	4 533	32 018	2 035

Country	2019							
	Polio	Diphtheria	Pertussis	Total tetanus (NT)	Measles	Rubella	Mumps	JE
Bangladesh	0	14	12	166 (49)	5 827 ^s	176	ND	86
Bhutan	0	1	2	0	2*	7	254	0
DPR Korea	0	0	0	0	0	0	0	0
India	0	9 622	11 875	7 071 (35)	10 430	3 404	ND	2 496
Indonesia	0	495	27	391 (17)	1 965	713	ND	ND
Maldives	0	0	0	0	0	0	0	0
Myanmar	0 ^b	22	30	58 (25)	5 252	28	ND	115
Nepal	0	0	0	546 (3)	430	44	0	71
Sri Lanka	0	0	5	18 (0)	49*	0	248	19
Thailand	0	70	99	44 (1)	5 012	142	2 553	4
Timor-Leste	0	0	7	0	22*	21	ND	23
SEA Region	0	10 224	12 057	8 294 (130)	28 989	4 535	3 055	2 814

Source: WHO UNICEF JRF (2017–2019)

^a Excludes 1 VDPV (Type 1) ^b Excludes 6 VDPV (Type 1)

^s 8 372 probable cases reported among the migrants in Cox's Bazar out of which 293 are confirmed cases

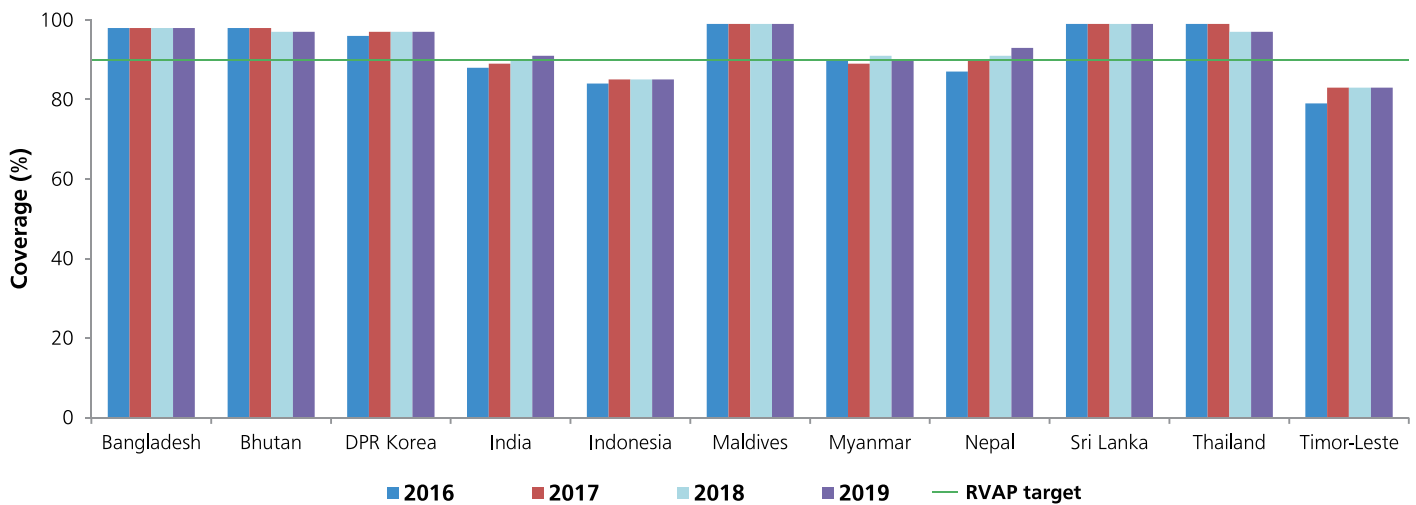
* Import and/or import related

ND = no data

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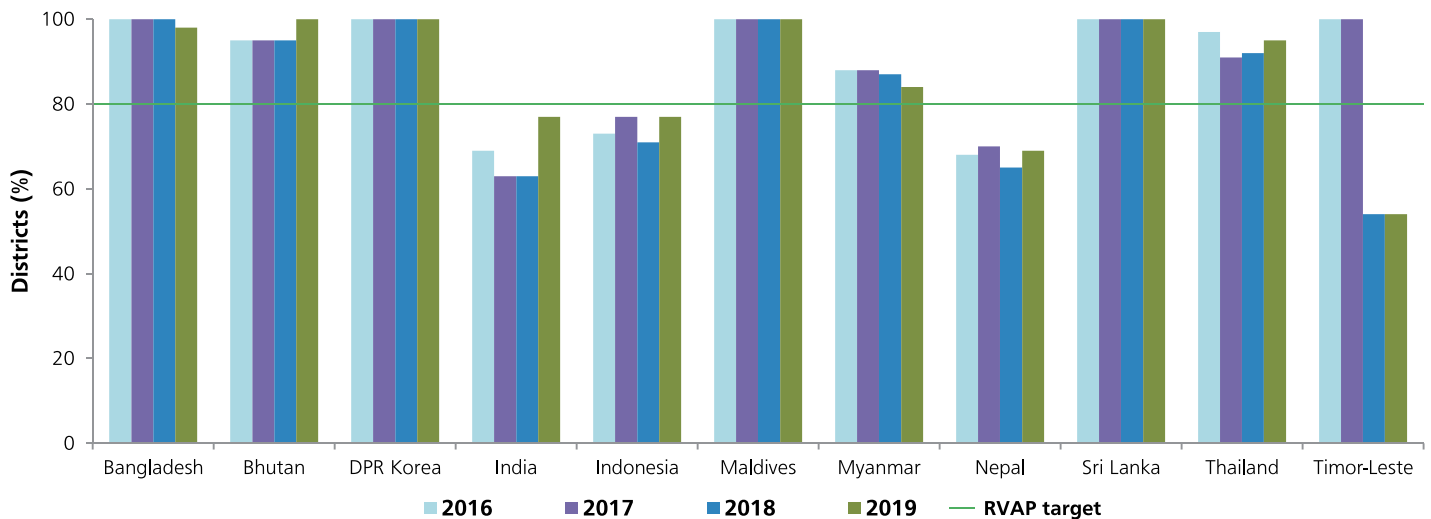
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Figure 7. DTP3 coverage by country, 2016–2019



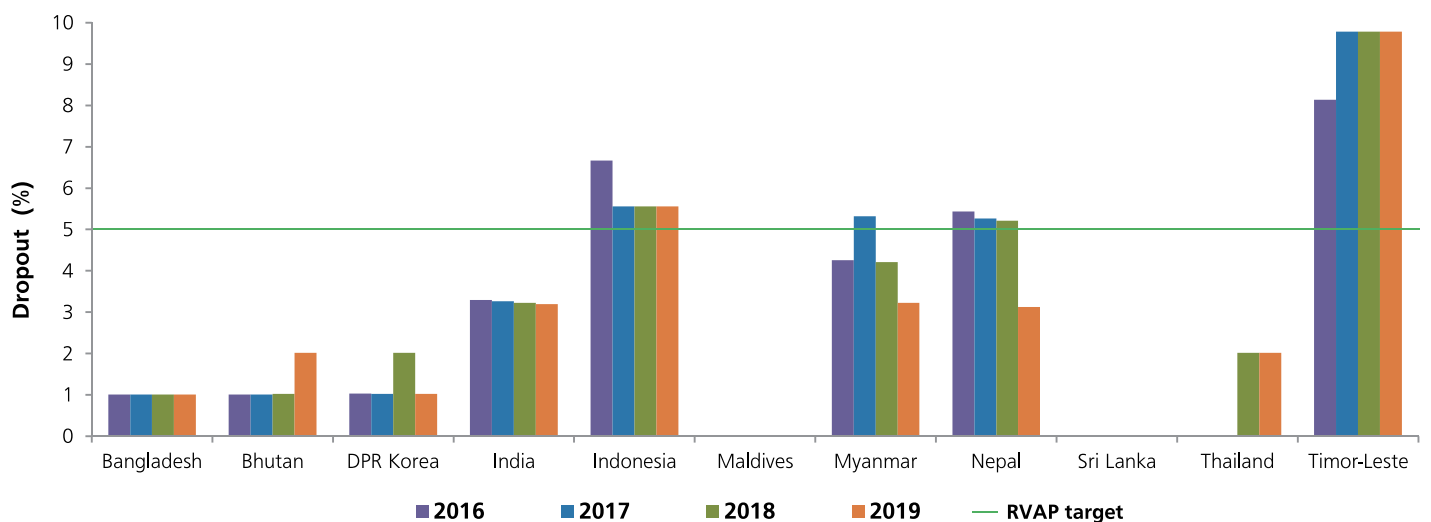
Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

Figure 8. Percentage districts achieving $\geq 80\%$ DTP3 coverage by country, 2016–2019



Source: WHO UNICEF JRF (Multiple years)

Figure 9. DTP1-DTP3 drop-out rate by country, 2016–2019



Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

Measles and rubella elimination

Figure 10. Progress towards measles and rubella elimination

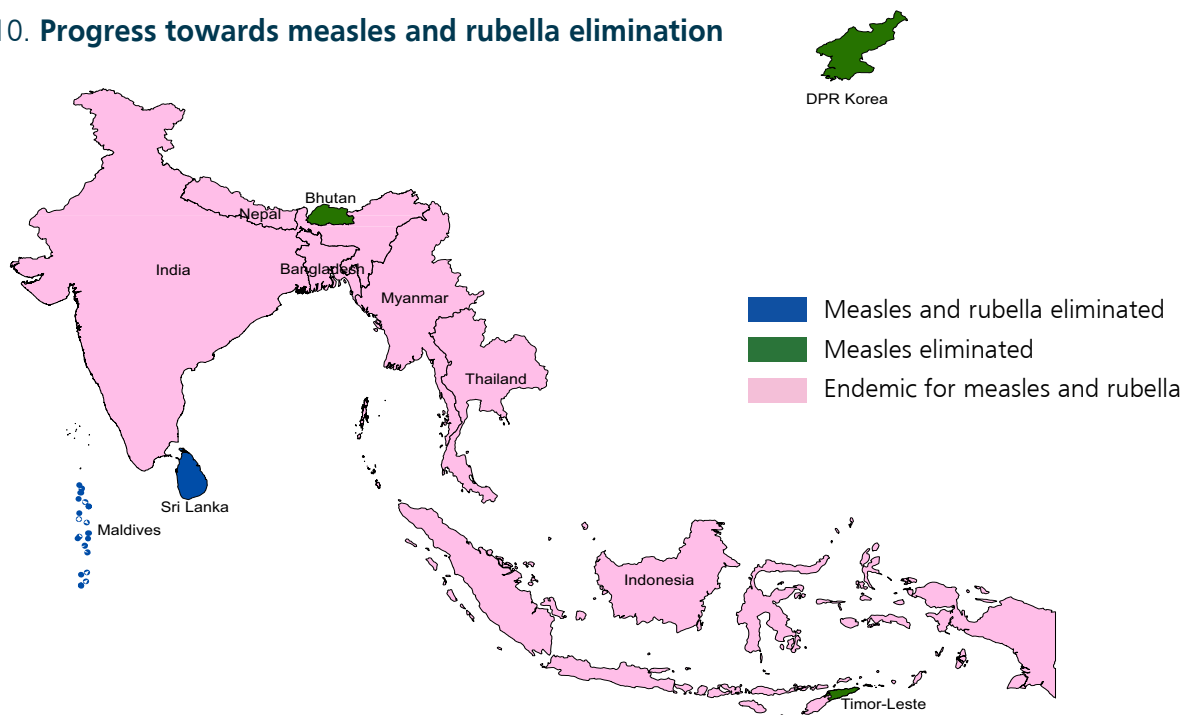
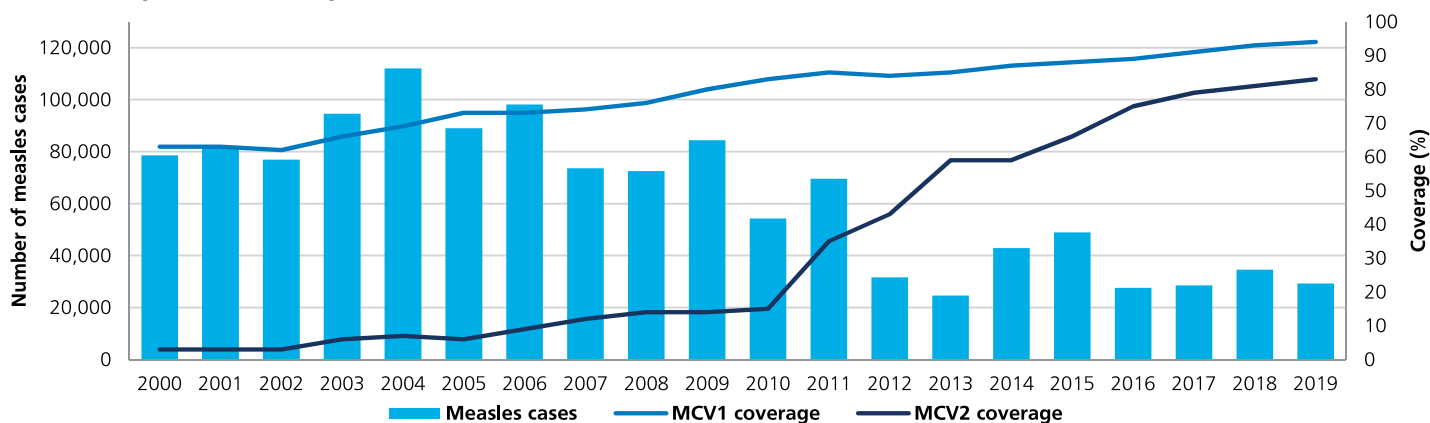
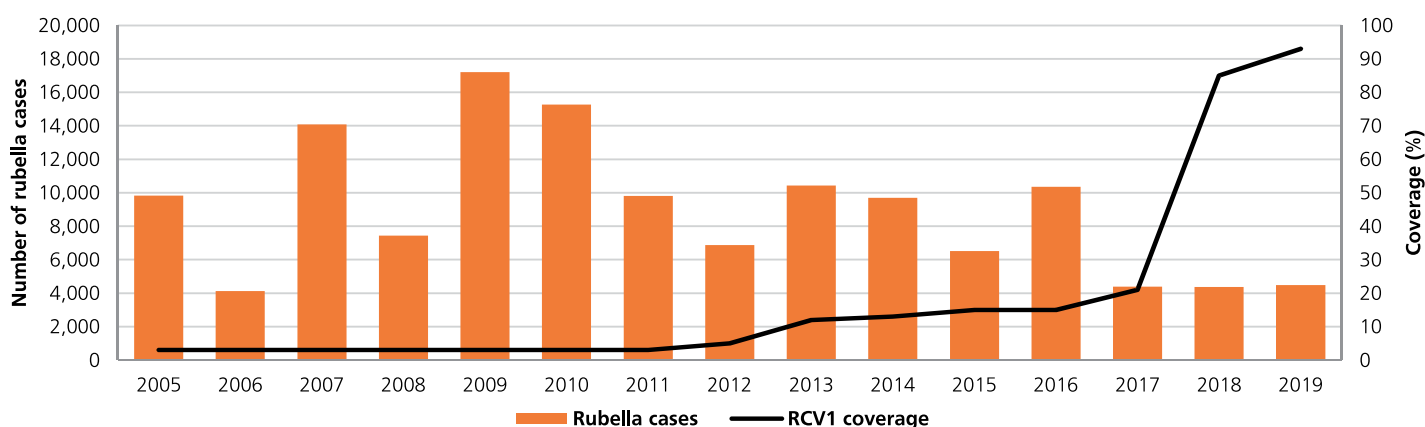


Figure 11. Measles cases and coverage of measles containing vaccine 1st and 2nd dose (MCV1; MCV2), 2000–2019



Source: WHO UNICEF coverage estimates, July 2020 and WHO UNICEF JRF and EPI/MoHFW; Measles cases from JRF 2000–2019

Figure 12. Rubella cases and rubella containing vaccine (RCV) coverage, 2005–2019

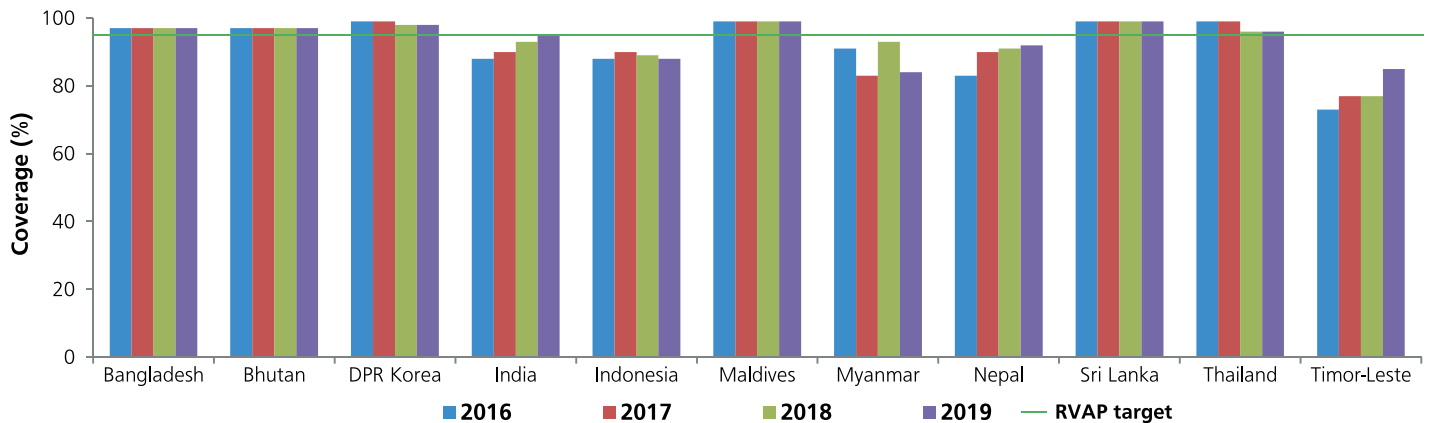


Source: WHO UNICEF coverage estimates, July 2020 and WHO UNICEF JRF and EPI/MoHFW; Rubella cases from JRF 2000–2019

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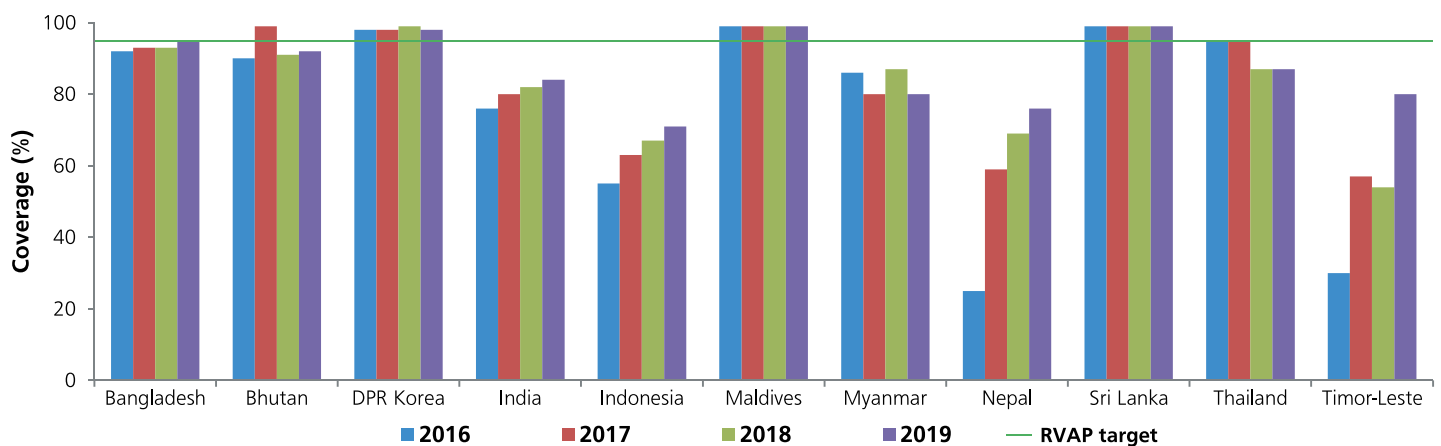
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Figure 13. MCV1 coverage by country, 2016–2019



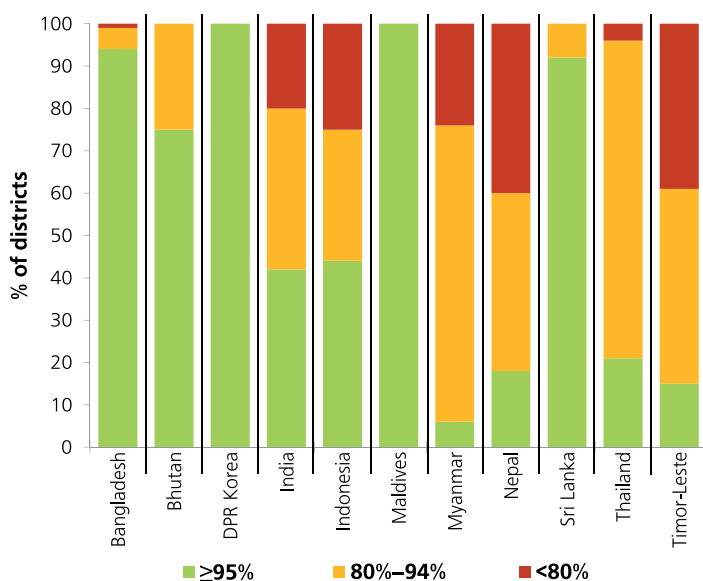
Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

Figure 14. MCV2 coverage by country, 2016–2019



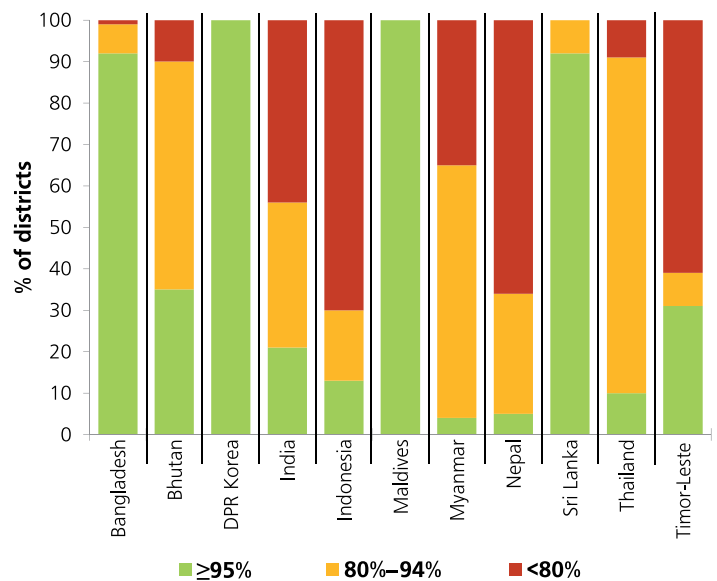
Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

Figure 15. Percentage of districts MCV1 coverage by country, 2019



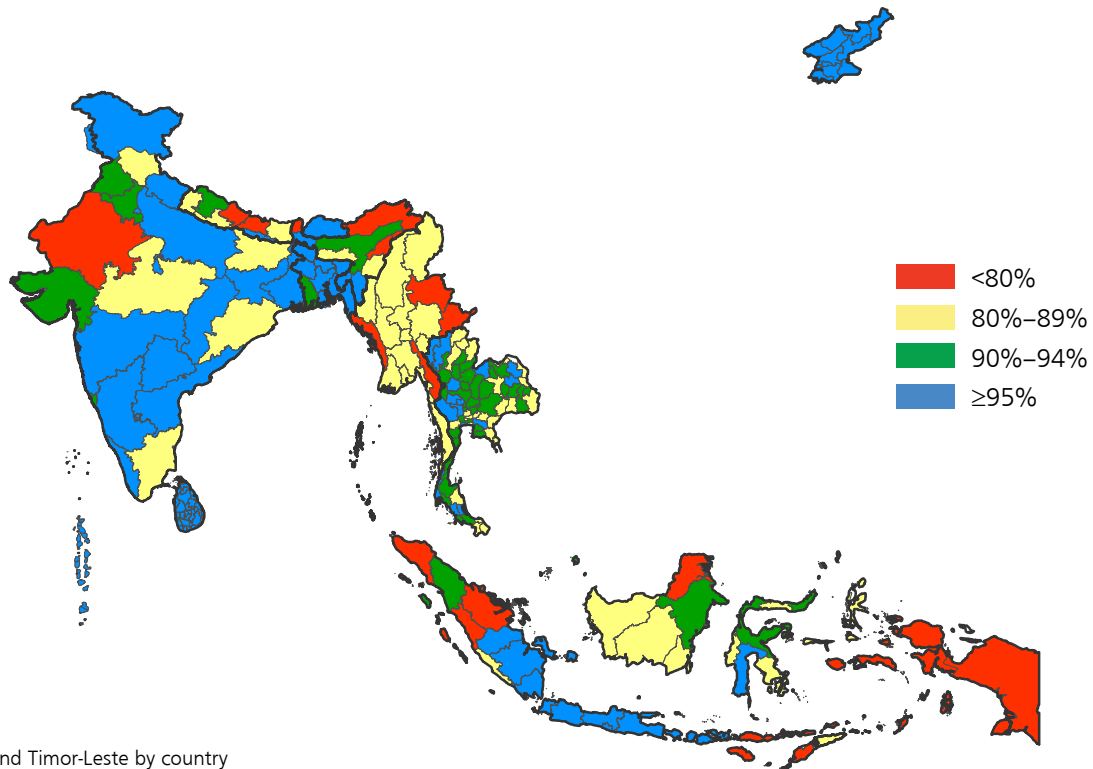
Source: WHO UNICEF JRF, 2019

Figure 16. Percentage of districts MCV2 coverage by country, 2019



Source: WHO UNICEF JRF, 2019

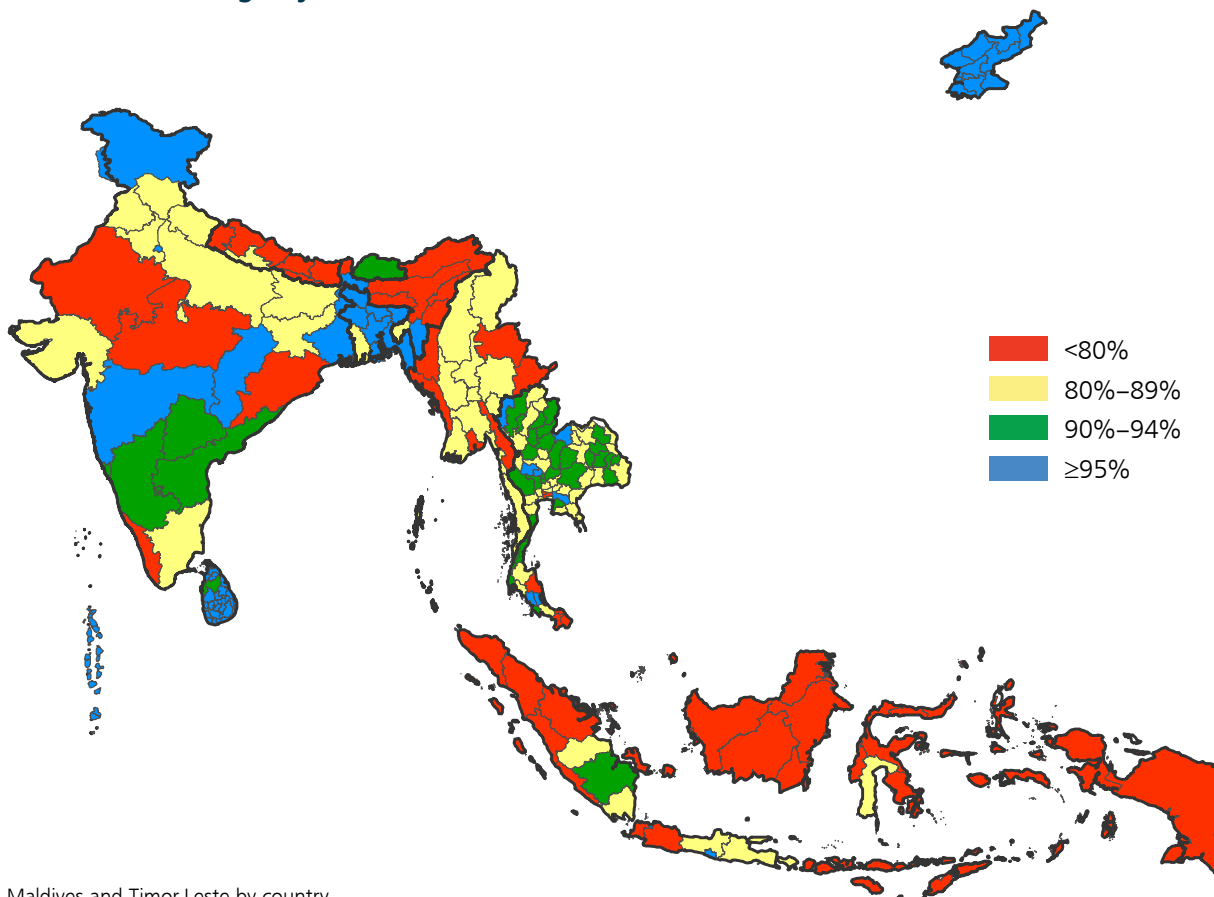
Figure 17. MCV1 coverage by first administrative level,* 2019



*Bhutan, Maldives and Timor-Leste by country

Source: SEA Region annual EPI reporting form, 2019

Figure 18. MCV2 coverage by first administrative level,* 2019



*Bhutan, Maldives and Timor-Leste by country

Source: SEA Region annual EPI reporting form, 2019

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Table 6. Measles and rubella surveillance performance indicators, 2019

Country	No. of suspected measles cases	Case classification (number)						Indicators				
		Measles			Rubella		Discarded non-measles non-rubella cases	Annual incidence of confirmed measles cases per million total population	Annual incidence of confirmed rubella cases per million total population	Proportion of all suspected measles and rubella cases that have had an adequate investigation initiated within 48 hours of notification	Non-measles, non-rubella discard rate per 100 000 population	Proportion of surveillance units reporting on time
		Lab-confirmed	Epi-linked	Clinically-confirmed	Lab-confirmed	Epi-linked						
Bangladesh	11 632	4 073	801	952	176	0	5 630	34.71	1.05	96%	3.35	99%
Bhutan	297	0	0	0	0	0	297	0.00	0.00	98%	39.72	ND
DPR Korea	510	0	0	0	0	0	510	0.00	0.00	100%	2.10	100%
India	28 702	4 810	3 426	2 507	2 090	1 375	14 494	7.79	2.51	53%	1.05	94%
Indonesia	8 828	639	22	1 304	710	3	5 099	7.41	2.69	65%	1.92	40%
Maldives	67	0	0	0	0	0	67	0.00	0.00	12%	18.40	100%
Myanmar	6 847	3 740	1 183	569	28	0	1 327	104.91	0.53	96%	2.53	95%
Nepal	2 101	372	55	4	44	0	1 626	14.65	1.50	99%	5.53	89%
Sri Lanka	389	49*	0	0	0	0	340	2.24	0.00	94%	1.55	99%
Thailand	9 383	3 586	705	1 082	130	0	3 880	82.90	2.01	38%	5.99	ND
Timor-Leste	451	23*	0	10	19	0	399	26.16	15.06	100%	31.63	100%

Source: MR surveillance database

*Import and/or import related

ND = no data

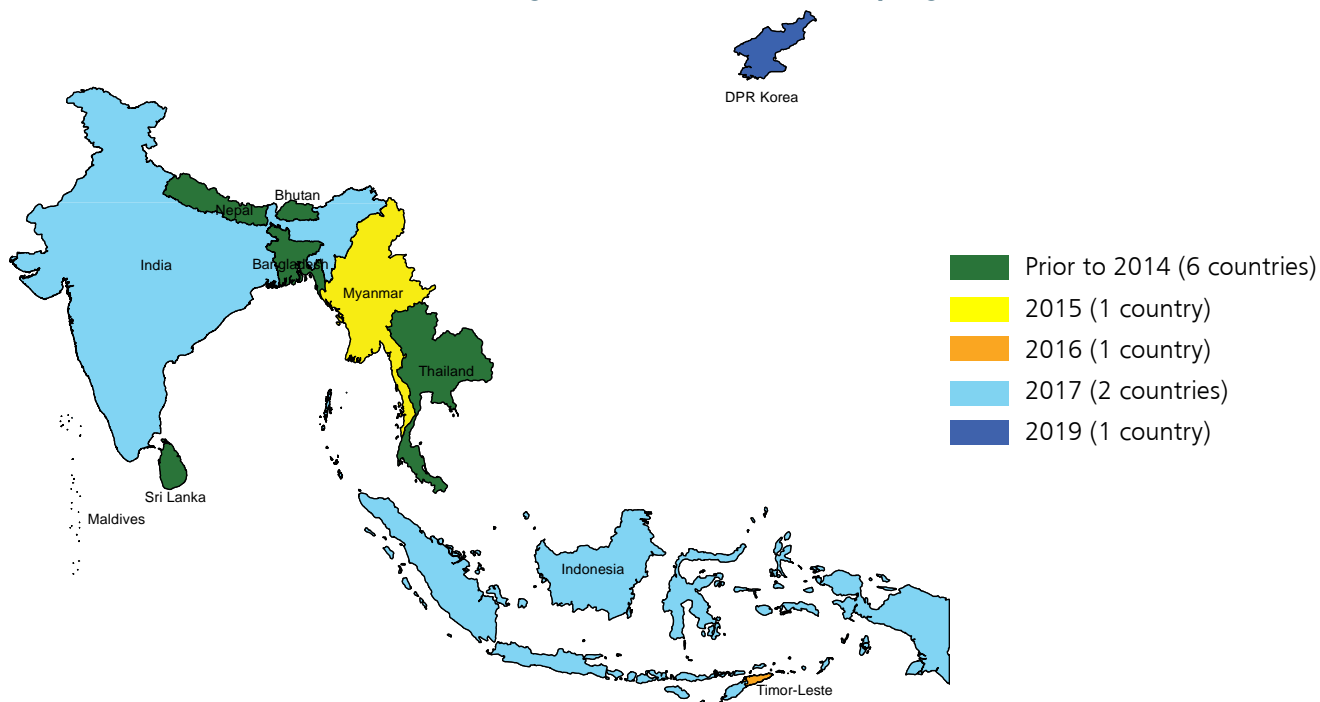
Table 7. Measles and rubella laboratory surveillance indicators, 2019

Country	Serum specimens collected from suspected measles cases		Specimens received at the laboratory within 5 days of collection		Specimens positive for measles IgM		Specimens positive for rubella IgM		Results reported by the laboratory within 4 days of receiving the specimen for serology	Genotypes detected	
	No.	%	No.	%	No.	%	No.	%	No.	Measles	Rubella
Bangladesh	10 086	87%	9 289	92%	4 190	45%	178	3%	86%	B3, D8	-
Bhutan	300	100%	118	39%	2	1%	8	3%	39%	-	-
DPR Korea	517	100%	517	100%	0	0%	0	0%	100%	-	-
India	18 611	66%	16 359	88%	4 212	23%	1 767	9%	84%	B3, D4, D8	-
Indonesia	7 384	84%	6 881	93%	544	7%	431	6%	74%	ND	ND
Maldives	66	100%	66	100%	1	1.50%	6	9.1%	100%	-	-
Myanmar	4 836	74%	4 204	87%	3 506	72%	31	3%	72%	D8, H1	ND
Nepal	2 026	96%	1 186	59%	365	18%	44	2%	64%	D4, D8	ND
Sri Lanka	389	100%	389	100%	38	10%	1	0.3%	95%	D8	ND
Thailand	7 533	81%	5 389	72%	3 433	84%	107	3%	98%	B3, D8, H1	1a, 1E
Timor-Leste	451	98%	451	100%	24	5%	24	5%	100%	ND	ND

Source: SEA Region annual EPI reporting form, 2019

ND = no data

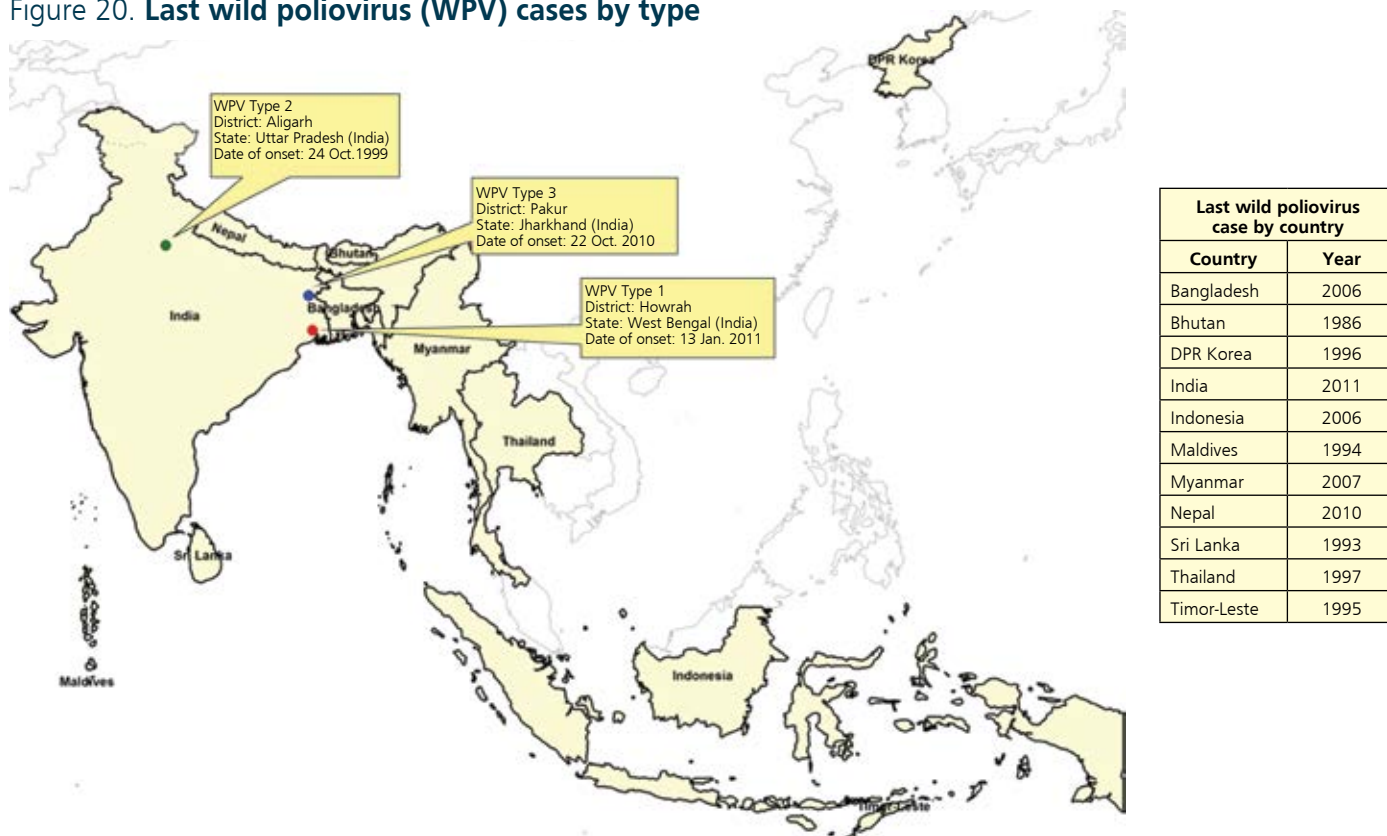
Figure 19. Rubella vaccine introduction through routine immunization programme



Maintaining polio-free status

- Polio-free certification status maintained since 2014
 - 2019 vaccine derived poliovirus (VDPV) type1 outbreak in Indonesia and Myanmar closed
- Annual review by Regional Certification Commission for Polio Eradication
- Poliovirus facility containment ongoing; 4 poliovirus essential facilities under national authorities for containment in 2 countries
- Polio transition work in progress

Figure 20. Last wild poliovirus (WPV) cases by type



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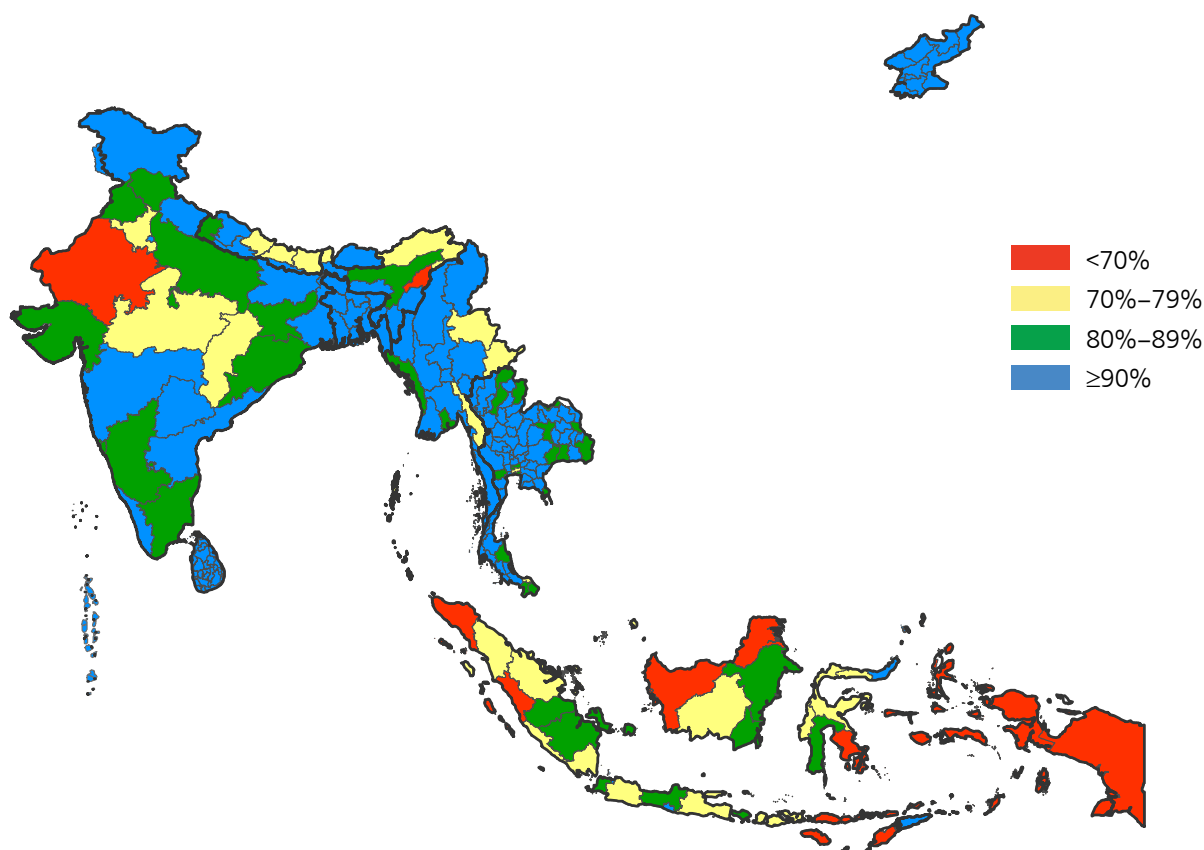
Table 8. Immunization coverage 3rd dose oral polio vaccine (OPV3) and inactivated polio vaccine (IPV), 2016–2019

Country	OPV3 coverage (%)				IPV coverage (%)			
	2016	2017	2018	2019	2016	2017	2018	2019
Bangladesh	98	98	98	98	11	17	75	92
Bhutan	97	97	97	97	90	35	97	96
DPR Korea	99	99	99	98	52	ND	65	98
India	86	89	90	90	47	50	75	82
Indonesia	85	88	87	85	2	47	62	76
Maldives	99	99	99	99	99	99	99	99
Myanmar	89	89	91	90	72	12	82	90
Nepal	85	90	91	92	77	16	16	80
Sri Lanka	99	99	99	99	99	99	99	99
Thailand	99	99	97	97	ND	93	95	97
Timor-Leste	79	83	83	90	48	80	81	85
SEA Region	87	90	91	90	38	46	73	83

Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

ND = no data

Figure 21. IPV immunization coverage by first administrative level,* 2019



Source: SEA Region annual EPI reporting form, 2019

*Bhutan, Maldives and Timor-Leste by country

Table 9. Acute flaccid paralysis (AFP) surveillance indicators by country, 2017–2019

Country	2017					2018					2019				
	AFP	WPV confirmed cases	VDPV cases	Non-polio AFP rate ^a	Adequate stool specimen collection percentage ^b	AFP	WPV confirmed cases	VDPV cases	Non-polio AFP rate ^a	Adequate stool specimen collection percentage ^b	AFP	WPV confirmed cases	VDPV cases	Non-polio AFP rate ^a	Adequate stool specimen collection percentage ^b
Bangladesh	1 361	0	0	2.73	99	1 404	0	0	2.84	99	1 429	0	0	2.92	100
Bhutan	10	0	0	4.04	80	8	0	0	3.24	88	6	0	0	2.93	83
DPR Korea	104	0	0	1.76	97	130	0	0	2.21	100	122	0	0	2.41	100
India	39 128	0	0 ²	8.92	86	35 990	0	0 ³	8.11	86	40 422	0	0	9.08	87
Indonesia	1 740	0	0	2.47	82	1 726	0	1	2.45	82	1 869	0	0	2.40	81
Maldives	7	0	0	7.40	71	7	0	0	7.40	43	8	0	0	6.34	63
Myanmar	396	0	0	2.94	95	335	0	0	2.50	94	420	0	6	3.11	90
Nepal	371	0	0	4.28	98	335	0	0	3.86	97	340	0	0	3.93	100
Sri Lanka	70	0	0	1.29	84	63	0	0	1.17	92	82	0	0	1.48	82
Thailand	198	0	0	1.71	68	241	0	0	2.02	68	277	0	0	2.22	71
Timor-Leste	5	0	0	1.08	60	0	0	0	0.00	0	5	0	0	0.83	20
SEA Region	43 390	0	0	7.17	87	40 239	0	1	6.60	86	44 980	0	6	7.33	87

^a Number of discarded AFP cases per 100 000 children under 15 years of age

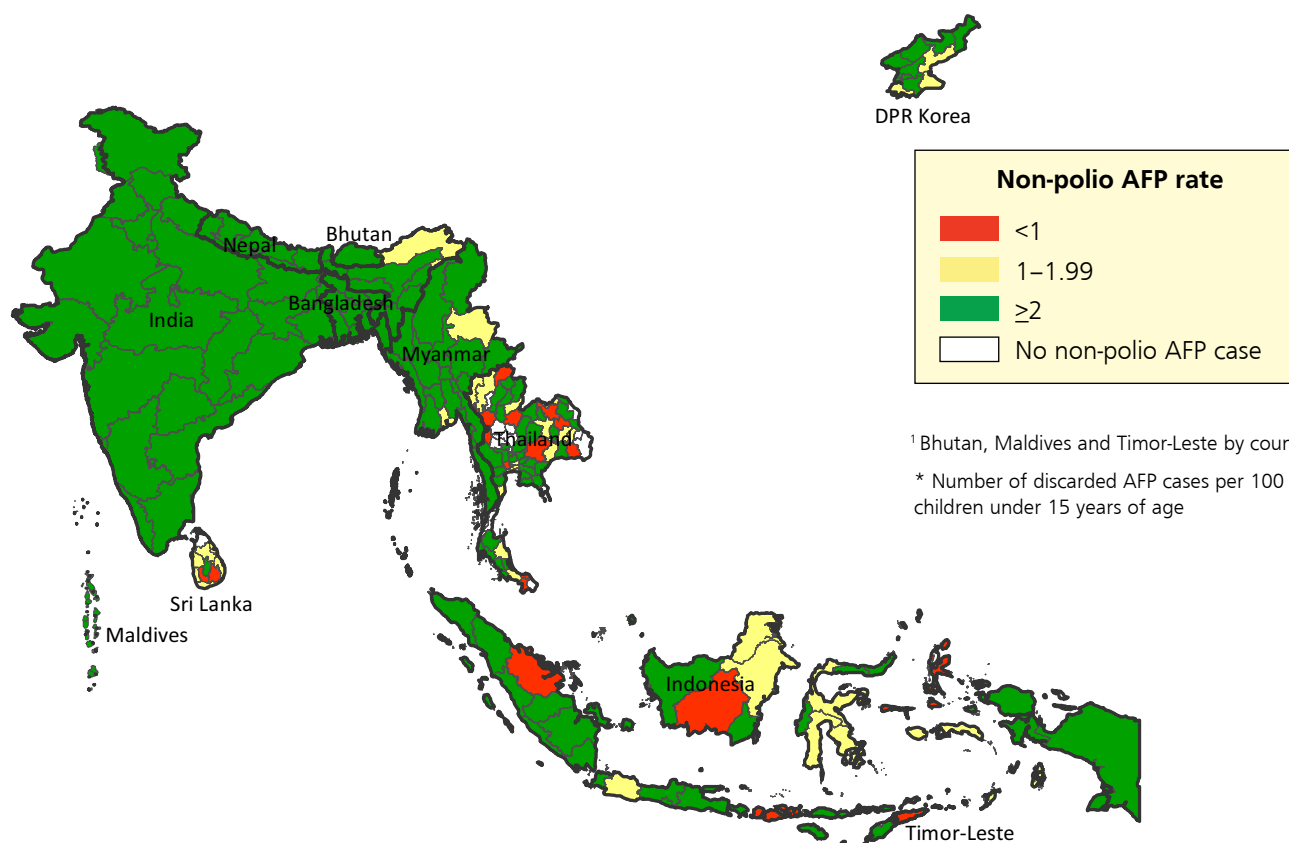
¹ Excludes one Type 2 VDPV specimen from sewage

^b Percentage with 2 specimens, 24 hours apart and within 14 days of paralysis onset

² Excludes one Type 3 VDPV specimen from sewage

Figure 22. AFP surveillance indicators by first administrative level,¹ 2019

Non-polio AFP rate*



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Percentage of adequate stool specimen collection**

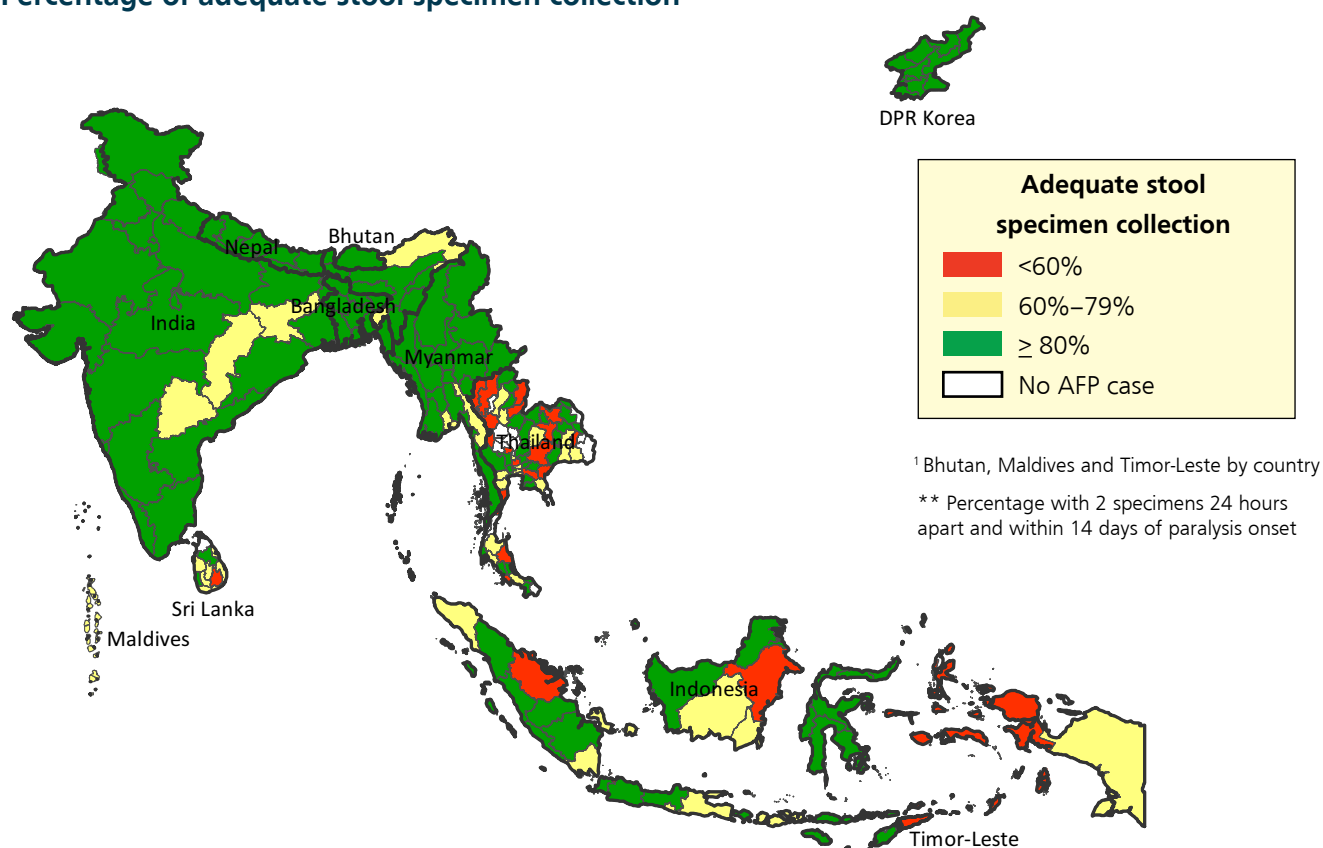


Table 10. Environmental surveillance for poliovirus detection, 2018–2019

Country	2018					2019				
	Number of sites	Number of samples collected	Number of WPVs detected	Number of VDPVs detected	Number of non-polio enterovirus (NPEV)	Number of sites	Number of samples collected	Number of WPVs detected	Number of VDPVs detected	Number of non-polio enterovirus (NPEV)
Bangladesh	8	124	0	0	72	20*	161	0	0	63
India	46	1 496	0	1	577	52	1 607	0	0	624
Indonesia	10	115	0	0	30	12	156	0	0	25
Myanmar	3	59	0	0	17	3	12	0	0	2
Nepal	5	123	0	0	47	5	123	0	0	58
Thailand	8	124	0	0	72	20	161	0	0	63
SEA Region	80	2 041	0	1	815	92	2 220	0	0	835

Note: Environmental surveillance started: India in 2002, Bangladesh in 2015, Indonesia and Thailand in 2016, Myanmar and Nepal in 2017

*In 2019, one sample from each of the 12 sites were collected following a clinical trial by icddr, b in collaboration with CDC Atlanta

Table 11. **National immunization days (NIDs)/Sub-national immunization days (SNIDs) by country**

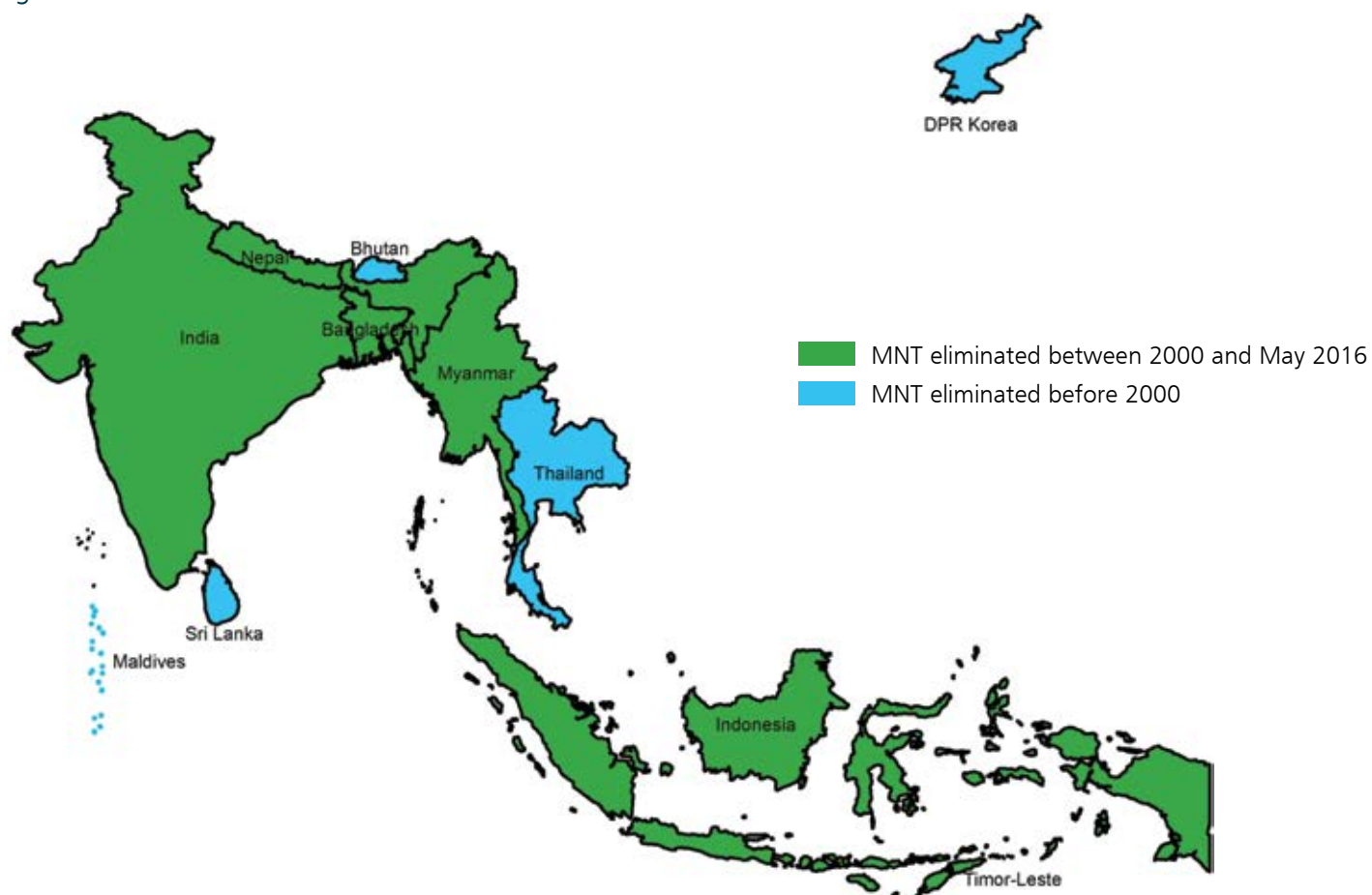
Country	Year of 1st NID	Total NIDs conducted	Most recent NID	Supplementary immunization activities in 2019
Bangladesh	1995	40	January 2014	No
Bhutan	1995	2	November 1995	No
DPR Korea	1997	12	November 2002	No
India	1995	43	March 2019	Yes
Indonesia	1995	14	March 2016	Yes
Maldives	1996	8	January 2001	No
Myanmar	1996	23	February 2016	Yes
Nepal	1996	27	January 2014	No
Sri Lanka	1995	8	December 2000	No
Thailand	1994	10	January 2000	Yes
Timor-Leste	1995*	11	July 2018	No

* SIA conducted while still part of Indonesia.

Elimination of maternal and neonatal tetanus (MNT) is sustained

- Regional elimination was achieved in 2016; five countries had already reached status by 2000
- Indonesia and Timor-Leste conducted national post-validation assessments
- For dual protection countries shifted to vaccinating women with tetanus diphtheria toxoid

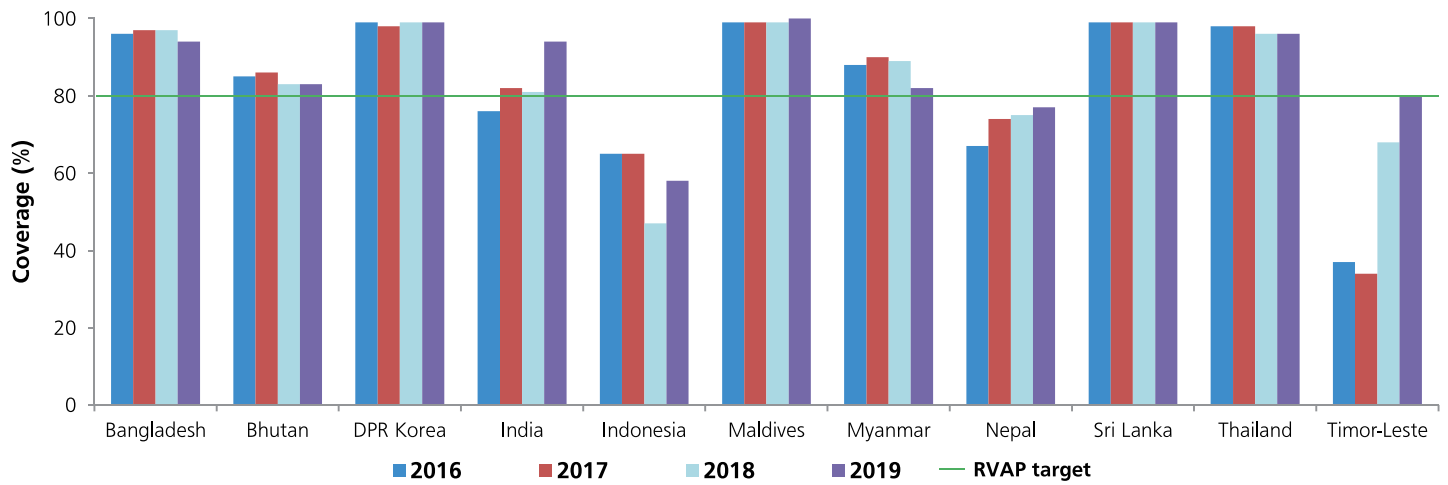
Figure 23. **MNT elimination timeline**



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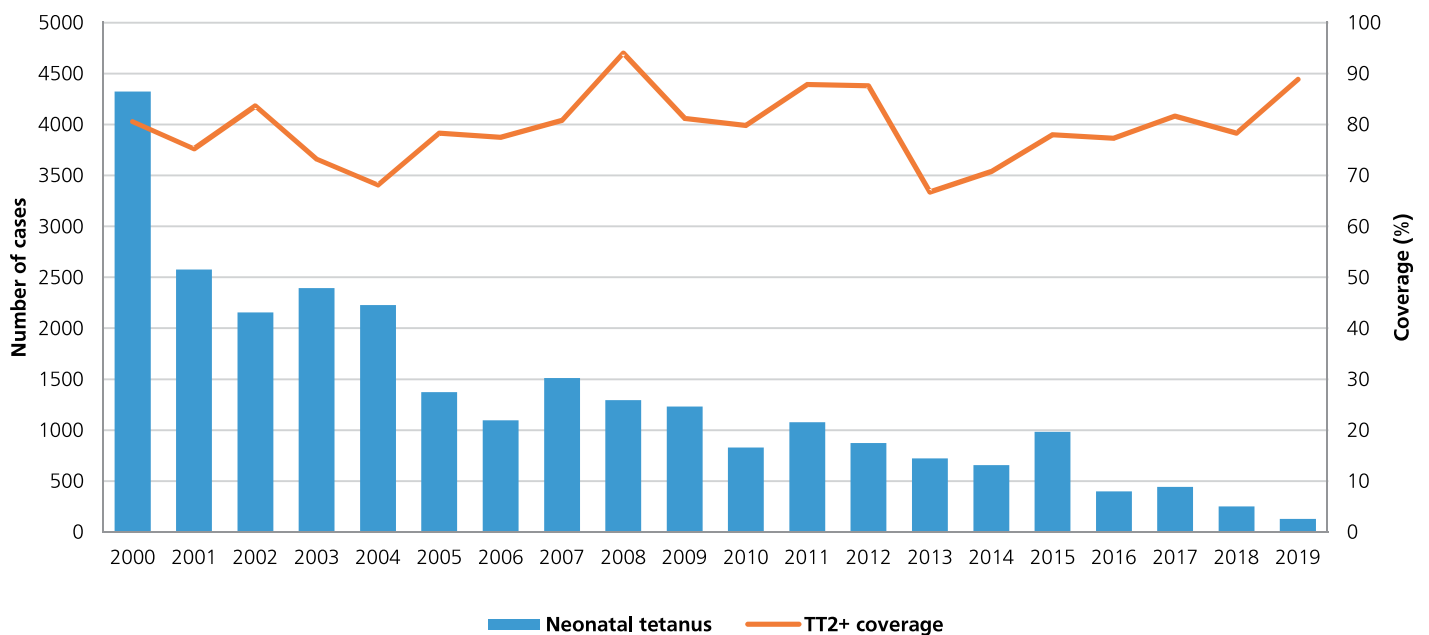
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Figure 24. Immunization coverage with 2 or more doses tetanus toxoid (TT2+), 2016–2019



Source: This data is based on official and administrative system as reported in the joint reporting form WHO UNICEF JRF (multiple years)

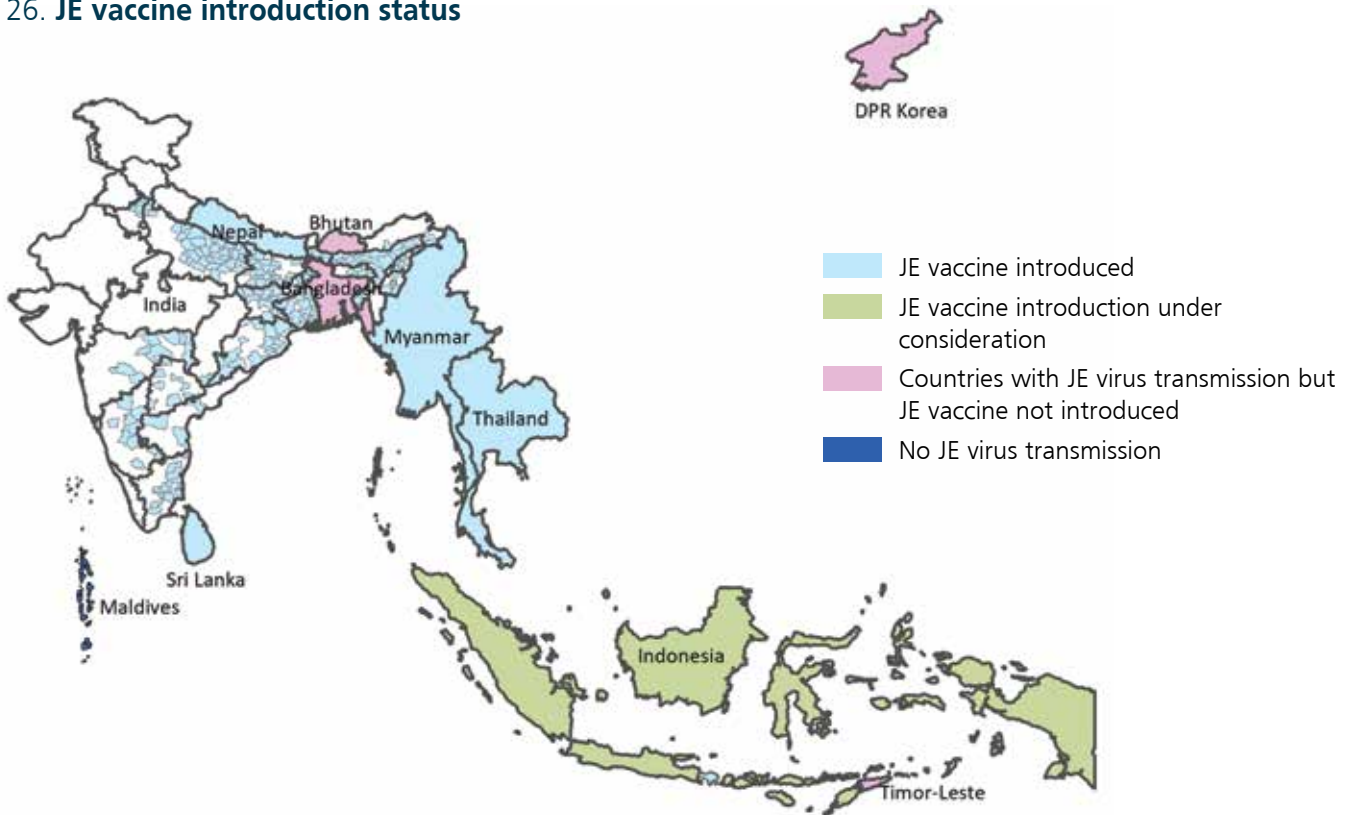
Figure 25. TT2+ coverage and neonatal tetanus cases, 2000–2019



Source: TT2+ coverage refers to country official estimates, diphtheria and pertussis cases from JRF 2000–2019

Control of Japanese encephalitis (JE) is accelerated

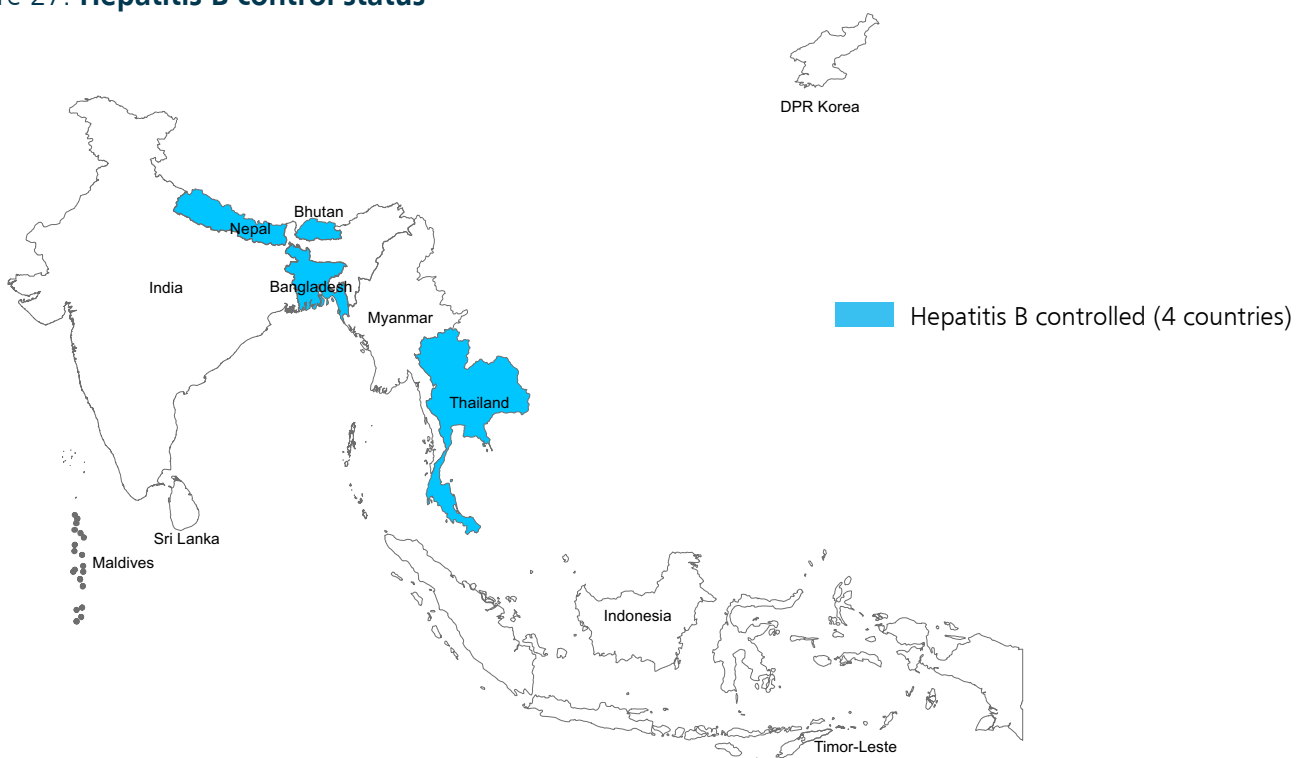
Figure 26. JE vaccine introduction status



Control of hepatitis B is accelerated

- Regional Expert Panel for Verification of Hepatitis B Control established in 2019
- Regional guidelines for verification of achievement of hepatitis B control target through immunization in place
- Four countries verified for having achieved the 2020 control target of $\leq 1\%$ hepatitis B surface antigen (HBsAg) in children 5 years old

Figure 27. Hepatitis B control status



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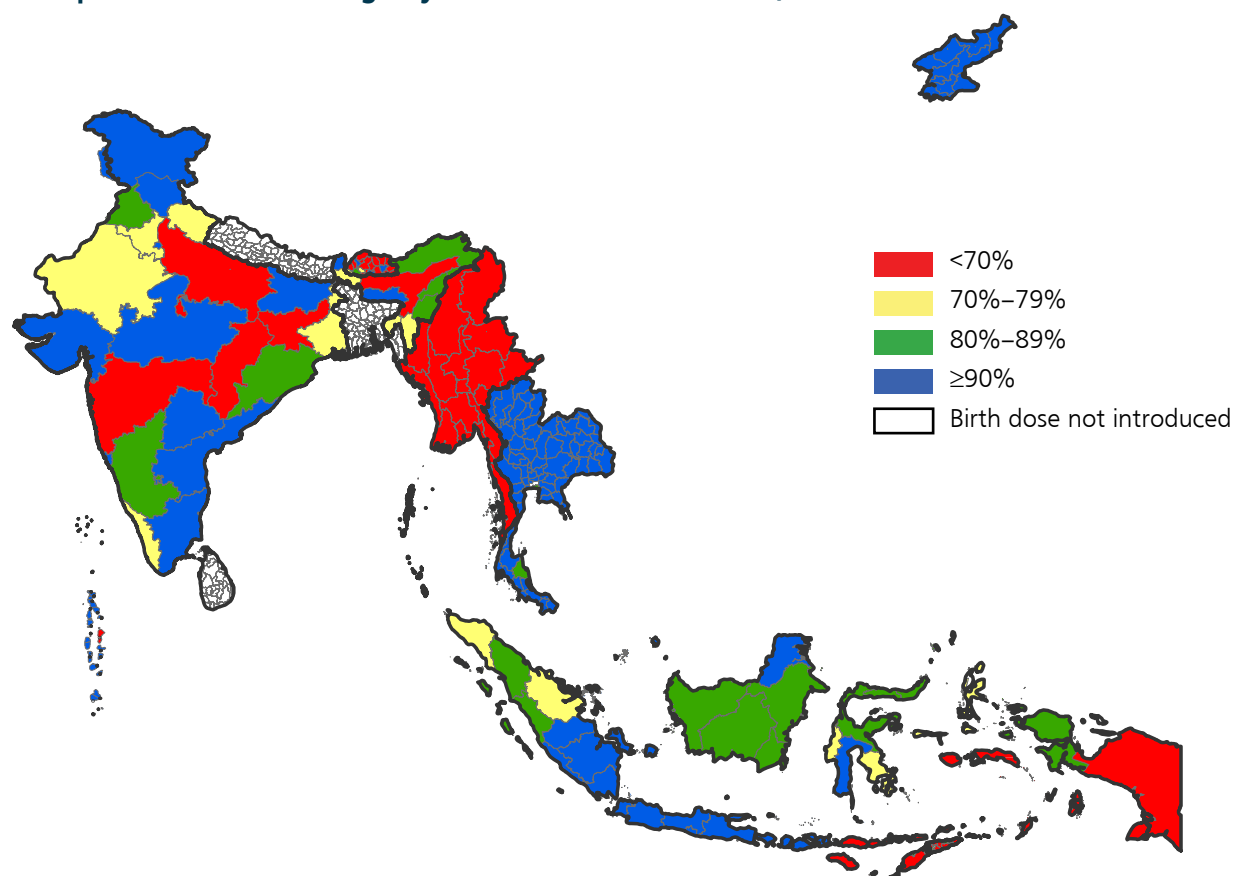
Table 12. Immunization coverage of 3rd dose hepatitis B vaccine (HepB3) and HepB birth dose by country, 2016–2019

Country	HepB3				HepB birth dose			
	2016	2017	2018	2019	2016	2017	2018	2019
Bangladesh	98	98	98	98	no birth dose			
Bhutan	98	98	97	97	82	95	96	86
DPR Korea	96	97	97	97	98	98	98	98
India	88	89	90	91	47	54	54	56
Indonesia	84	85	85	85	ND	32	58	84
Maldives	99	99	99	99	ND	99	99	99
Myanmar	90	89	91	90	ND	1	7	17
Nepal	87	90	91	93	no birth dose			
Sri Lanka	99	99	99	99	no birth dose			
Thailand	99	99	97	97	ND	99	99	99
Timor-Leste	79	83	83	83	42	61	66	70
SEA Region	89	90	90	91	34	45	49	54

Source: WHO and UNICEF estimates of immunization coverage, July 2020 revision

ND = no data

Figure 28. HepB birth dose coverage by first administrative level, 2019



Source: SEA Region annual EPI reporting form, 2019

Introduction of new vaccines and related technologies is accelerated

- Rotavirus vaccine (RV) introduced in Myanmar (February 2020), Thailand (February 2020) and Nepal (July 2020)
- Human papillomavirus (HPV) vaccine introduced in Myanmar (October 2020)

Figure 29. HPV introduction status

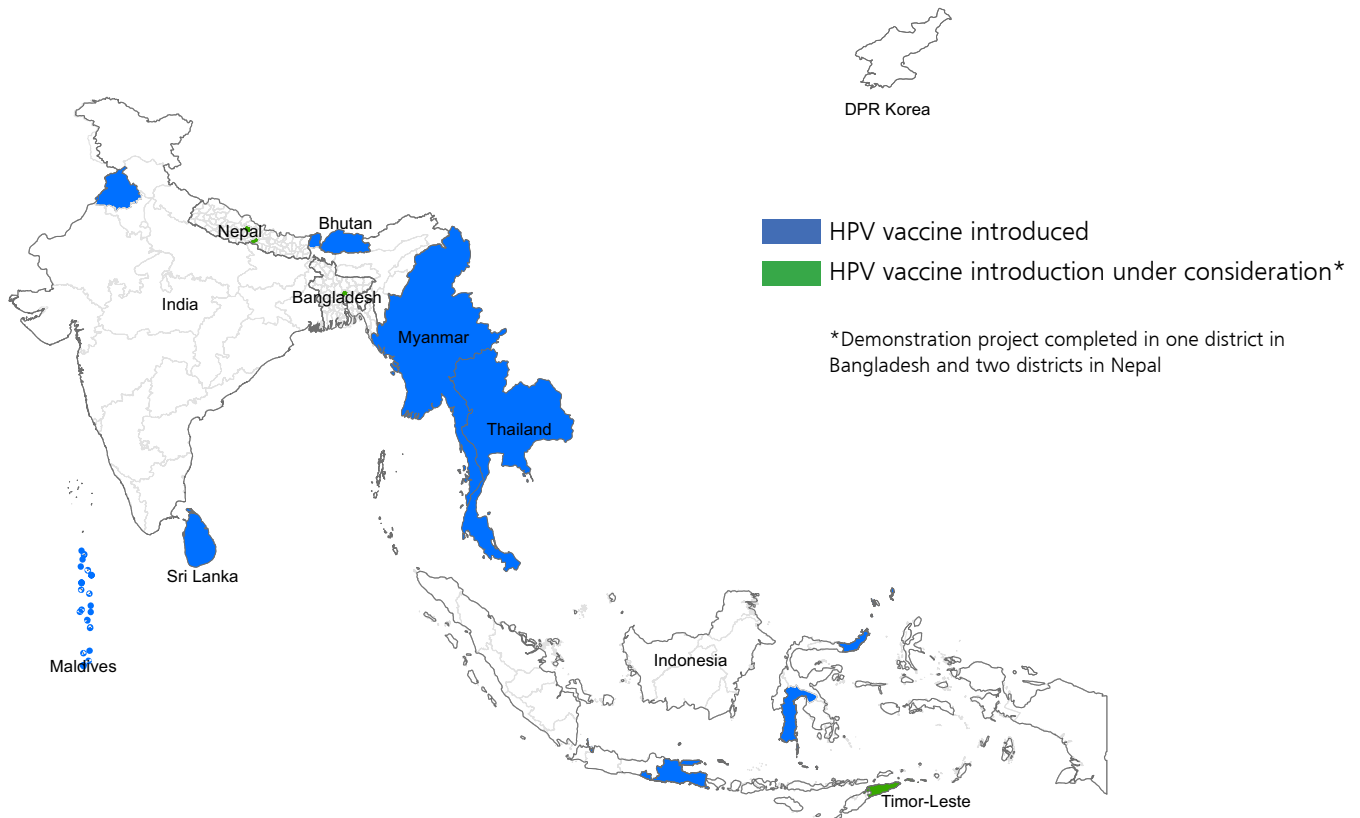
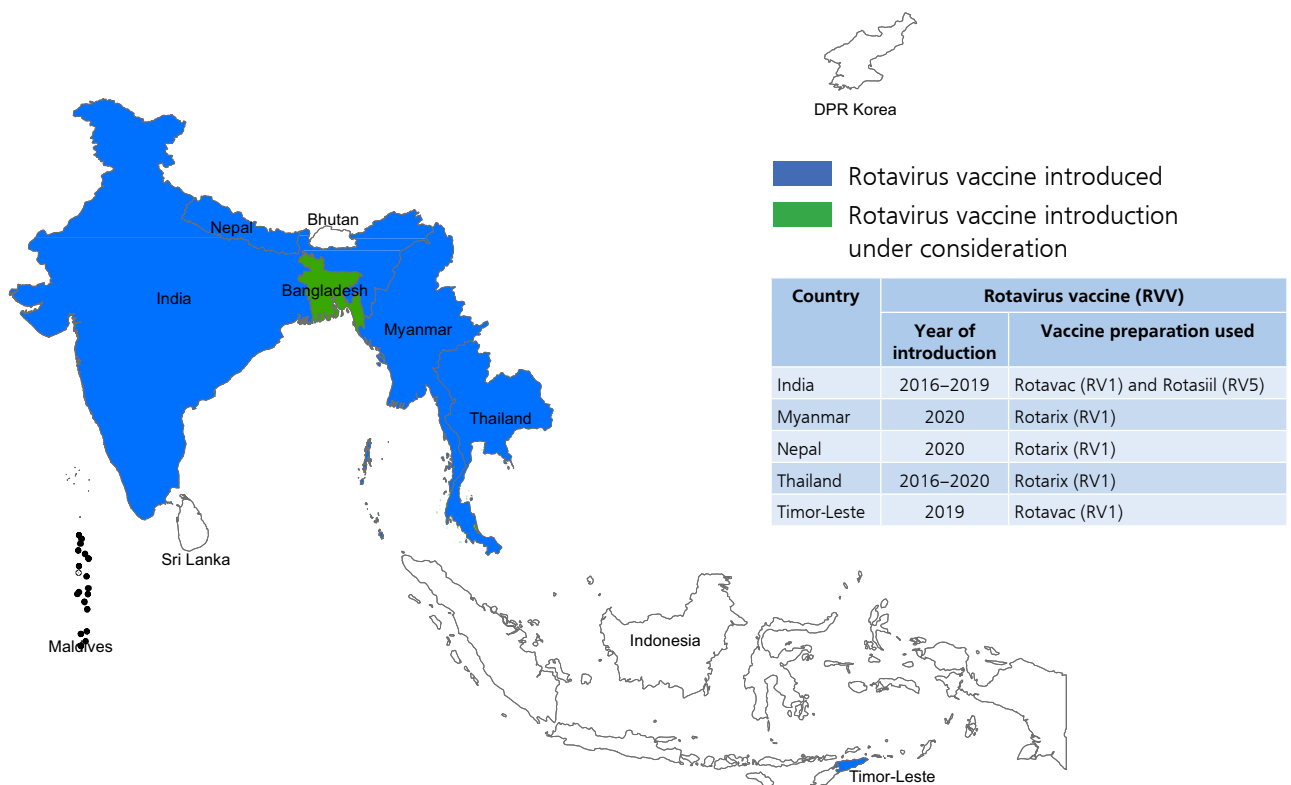


Figure 30. RV vaccine introduction status



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Figure 31. Pneumococcal conjugate vaccine (PCV) introduction status

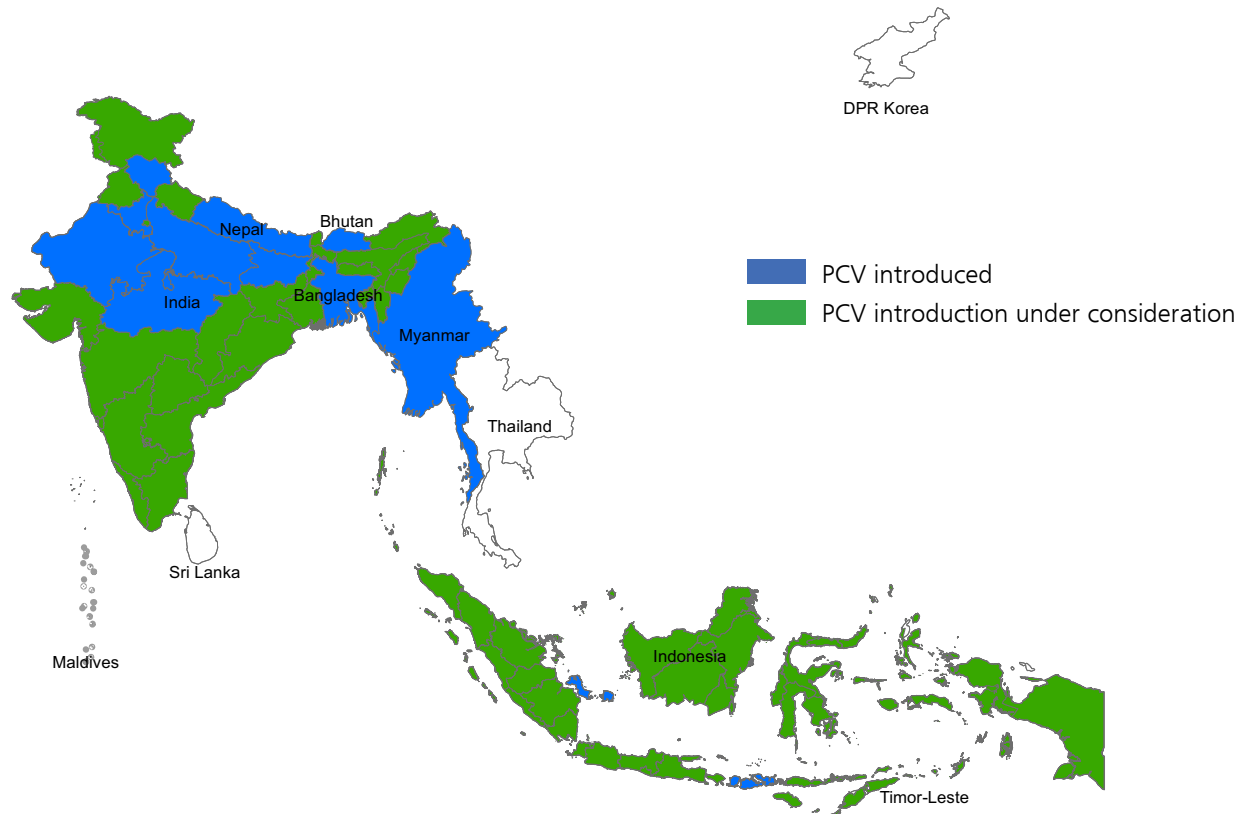
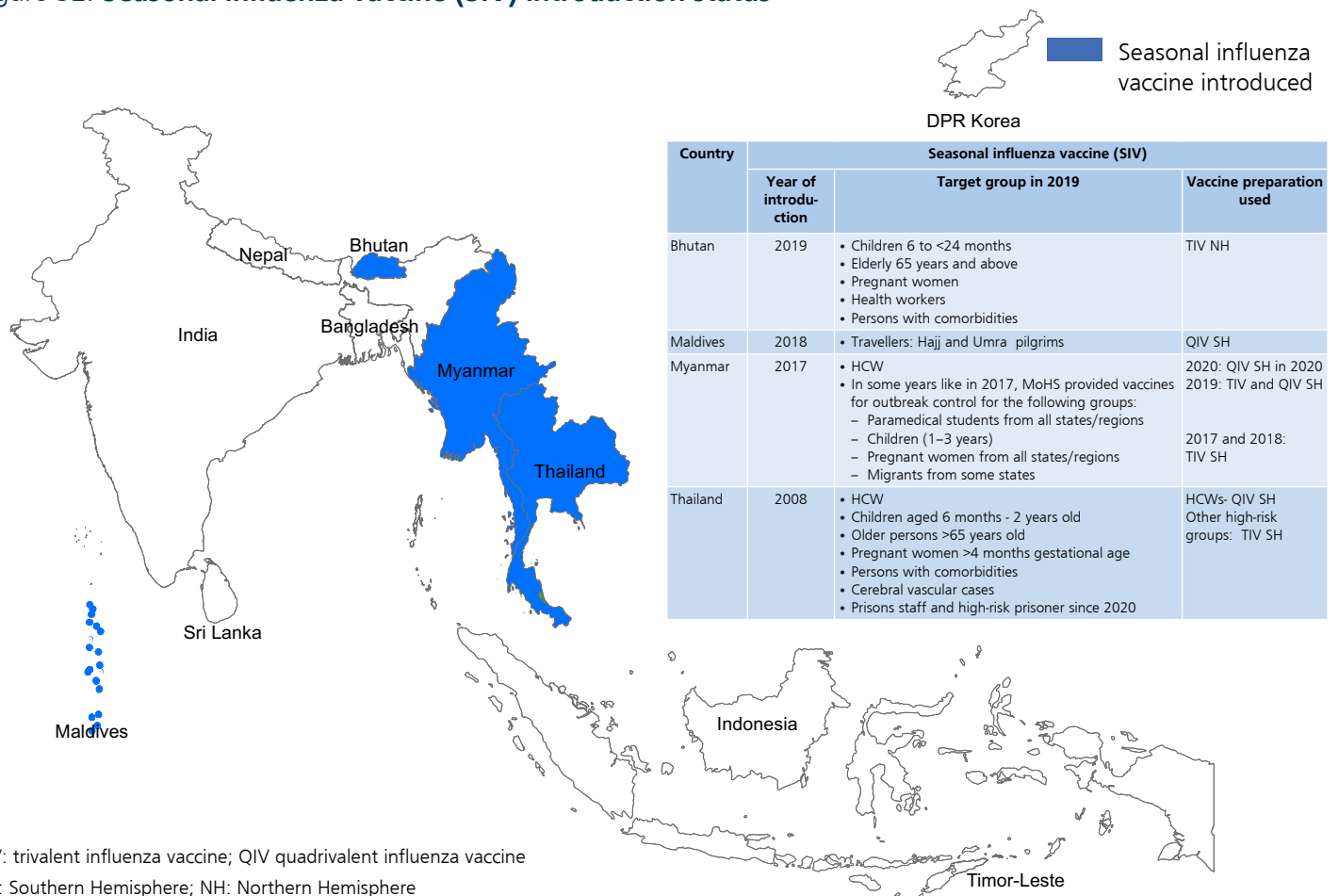


Figure 32. Seasonal influenza vaccine (SIV) introduction status



TIV: trivalent influenza vaccine; QIV quadrivalent influenza vaccine
SH: Southern Hemisphere; NH: Northern Hemisphere

Access to high-quality vaccines is ensured

Table 13. Vaccine safety by country

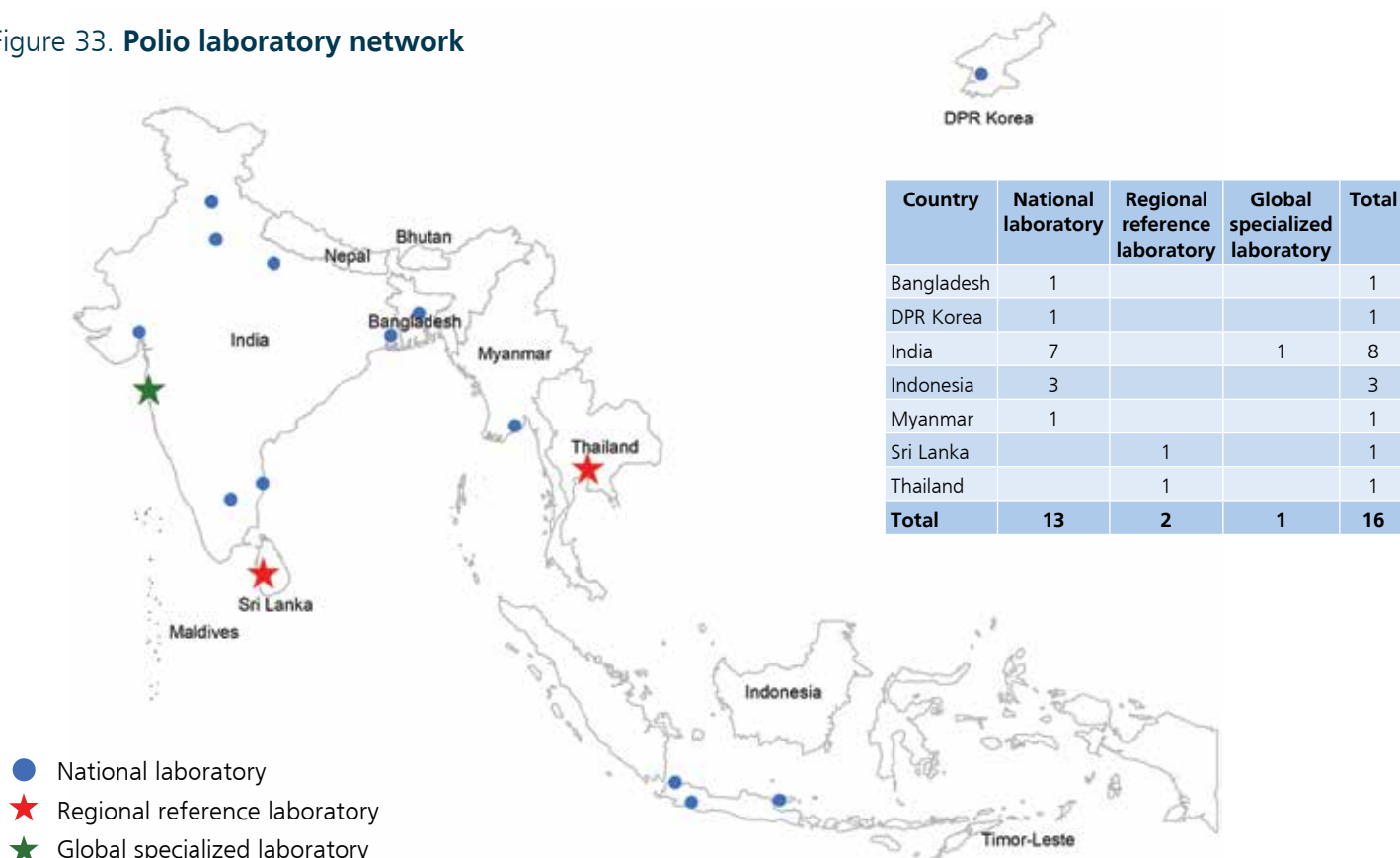
Country	Activities being implemented		Adverse events following immunization (AEFI)		
	Immunization injection safety	Vaccine Adverse Events Review Committee	National system to monitor AEFI	Number of AEFI reported	Of the total adverse events reported, number of serious cases
Bangladesh	Yes	Yes	Yes	2 014	69
Bhutan	Yes	Yes	Yes	16	3
DPR Korea	Yes	Yes	Yes	18 338	89
India	Yes	Yes	Yes	3 396	3 396
Indonesia	Yes	Yes	Yes	58 674	87
Maldives	Yes	Yes	Yes	4	0
Myanmar	Yes	Yes	Yes	1 272	31
Nepal	Yes	Yes	Yes	1 943	20
Sri Lanka ¹	Yes	Yes	Yes	ND	673
Thailand	Yes	Yes	Yes	ND	14
Timor-Leste	Yes	Yes	Yes	1	1

Source: WHO UNICEF JRF, 2019 and SEA Region annual EPI reporting form 2019

¹ adverse events following immunization; Sri Lanka AEFI data do not reflect cases but events

Laboratory network for vaccine preventable diseases

Figure 33. Polio laboratory network



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Figure 34. Measles and rubella laboratory network

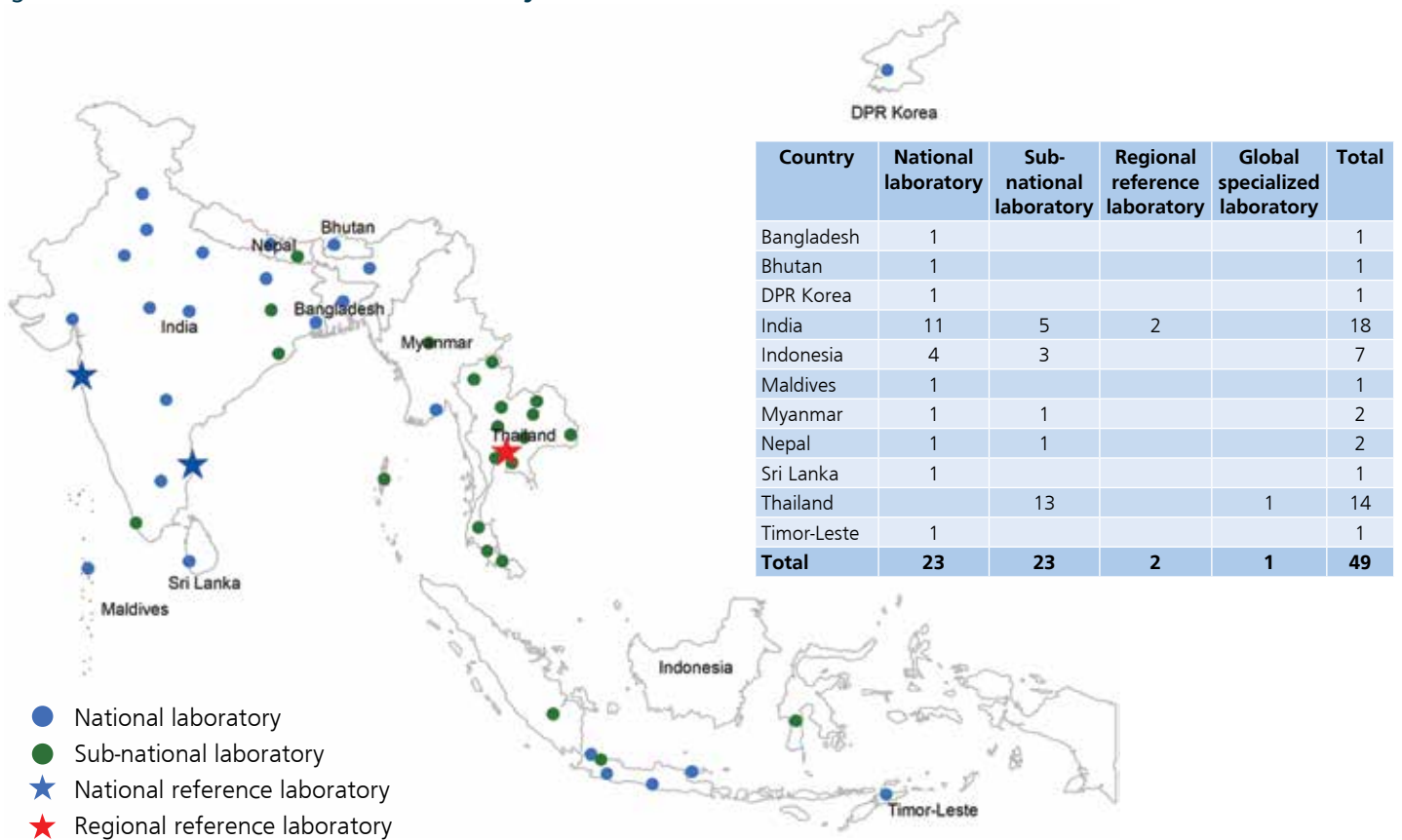
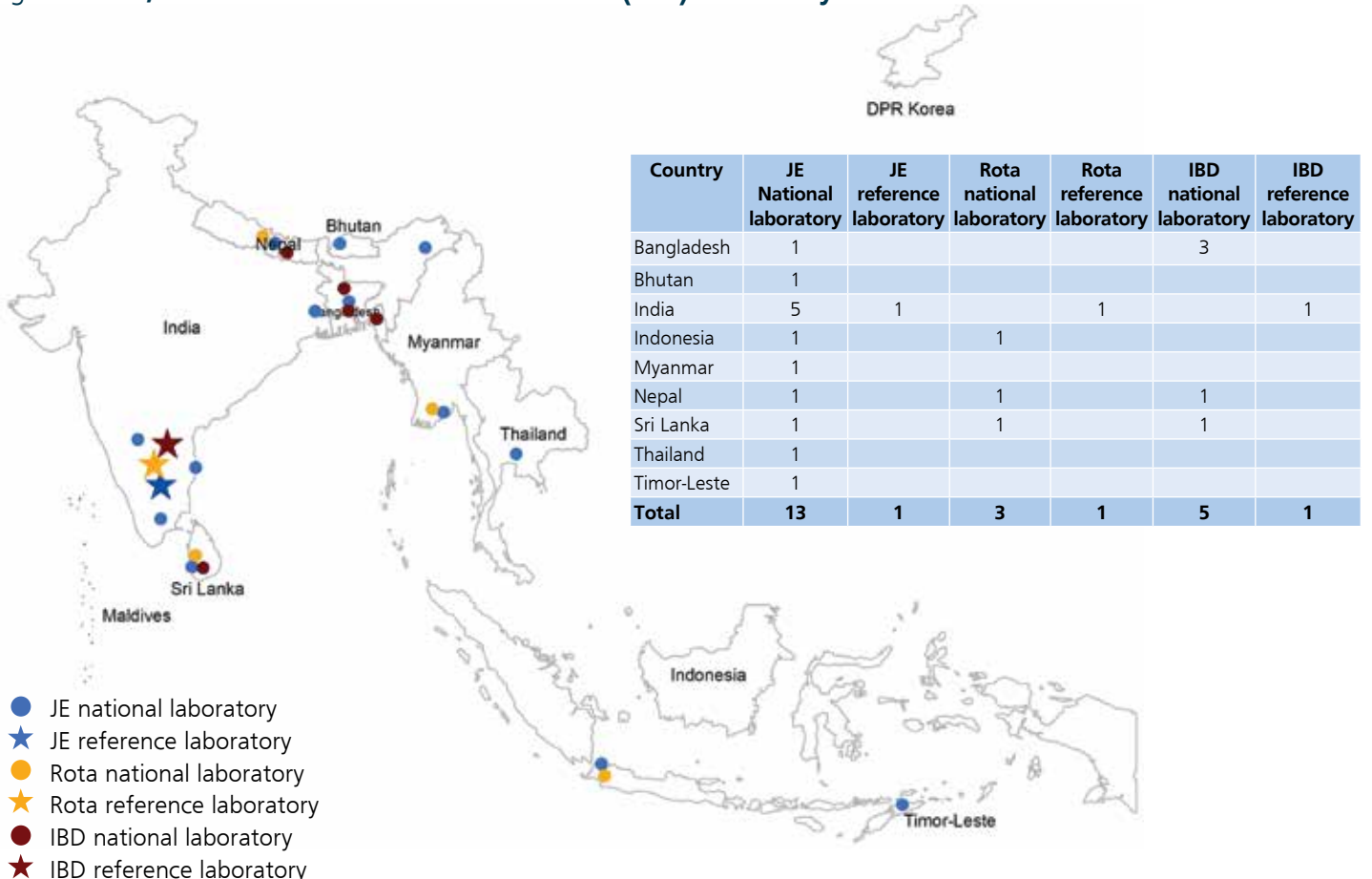


Figure 35. JE, rota and invasive bacterial disease (IBD) laboratory network



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