BANGLADESH

EPI FACTSHEET 2024

World Health Organization
REGIONAL OFFICE FOR South-East Asia

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Country Profile - 2023

Total population[1]	171,000,730
Live births[1]	3,360,164
Children <1 year[1]	3,269,440
Children <5 years[1]	17,476,275
Children <15 years[1]	49,214,010
Pregnant women[1]	3,765,734
Women of child bearing age[1] (WCBA) (15-49 years)	48,539,418
Neonatal mortality rate[2]	17.36 (per 1,000 LB)
Infant mortality rate[2]	24.07 (per 1,000 LB)
Under-five mortality rate[2]	28.78 (per 1,000 LB)
Maternal mortality ratio[2]	123 (per 100,000 LB)
Division/Province/State/Region	8
District	64
Upazilla/Sub-district	495
City Corporation	12
Union	4,671
Ward (APR)	13,848
Sub-Block (APR)	110,784
Population density[1] (per sq. km)	1,171
Population living in urban areas	38%
Population using at least basic drinking-water services[2]	98%
Population using at least basic sanitation services[2]	59.30%
Total expenditure on health as % of GDP[2]	0.40%
Births attended by skilled health personnel[2]	69.80%
Neonates protected at birth against NT[2]	98%
Children not covered by immunization programme (zero dose children)[3]	29,405

[1] SEAR annual EPI reporting form, 2023

[2] WHO, Global Health Observatory (GHO) data http://apps.who.int/gho/data accessed on 02 July 2024

[3] DTP1 coverage from WHO and UNICEF estimates of immunization coverage and UN estimated under one population

Essential Programme on Immunization milestones

1979	EPI launched on 07 April
1993	TT5 dose for WCBA started
2003	HepB vaccine introduced
2004	AD syringes introduced
2009	Pentavalent vaccine introduced
2012	MR vaccine and measles vaccine second dose introduced
2015	PCV introduced
2016	tOPV to bOPV switched on 23 April
2017	IPV to fIPV switched in November
2017	HPV demonstration projects launched on 16 April 2016 in 4 upazillas and 1 zone under Gazipur district which is being completed in 2017
2019	TT switched to Td in March
2023	HPV introduced

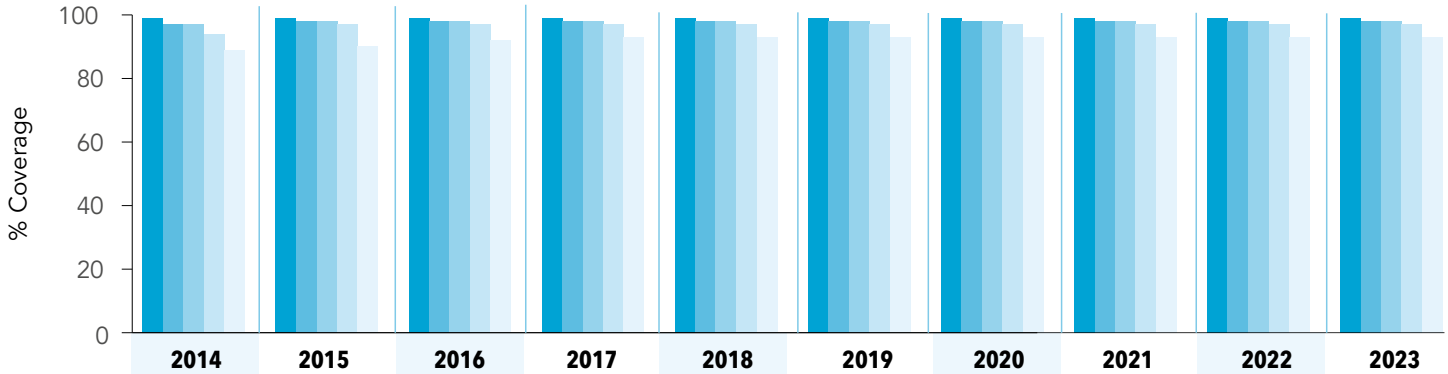
Source: cMYP 2018-2022 and EPI/MOHFW

Immunization schedule, 2023

BCG	Birth
DTP-Hib-HepB	6 weeks, 10 weeks and 14 weeks
OPV	6 weeks, 10 weeks and 14 weeks
PCV	6 weeks, 10 weeks and 14 weeks
IPV	6 weeks and 14 weeks
MR	38 weeks and 15 months
Td	Females 15 - 49 years (5 doses with an interval of + 1 month, + 6 months, + 1 year and + 1 year with preceding dose)
Vitamin A	6 to 59 months

Source: WHO/UNICEF JRF, 2023

National immunization coverage, 2014-2023



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
BCG	99	99	99	99	99	99	99	99	99	99
DTP3	97	98	98	98	98	98	98	98	98	98
OPV3	97	98	98	98	98	98	98	98	98	98
MCV1	94	97	97	97	97	97	97	97	97	97
MCV2	89	90	92	93	93	93	93	93	93	93

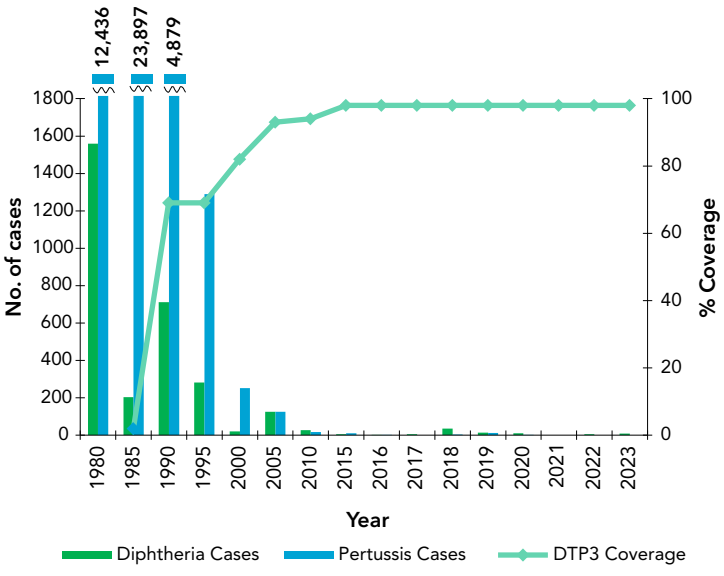
Source: WHO and UNICEF estimates of immunization coverage

Immunization system highlights

National Immunization Strategy (NIS)	2023-2027
NITAG	fully functional
Spending on vaccines financed by the government	17.5%
Spending on routine immunization programme financed by the government	20.9%
Updated micro-plans that include activities to improve immunization coverage	64 districts (100%)
National policy for health care waste management including waste from immunization activities	in place
National system to monitor AEFI	in place
Most recent EPI CES	2023
≥80% coverage for DTP-Hib-HepB3	64 districts (100%)
≥90% coverage for MCV1	64 districts (100%)
≥90% coverage for MCV2	64 districts (100%)
≥10% drop-out rate for DTP-Hib-HepB1 to DTP-Hib-HepB3	None

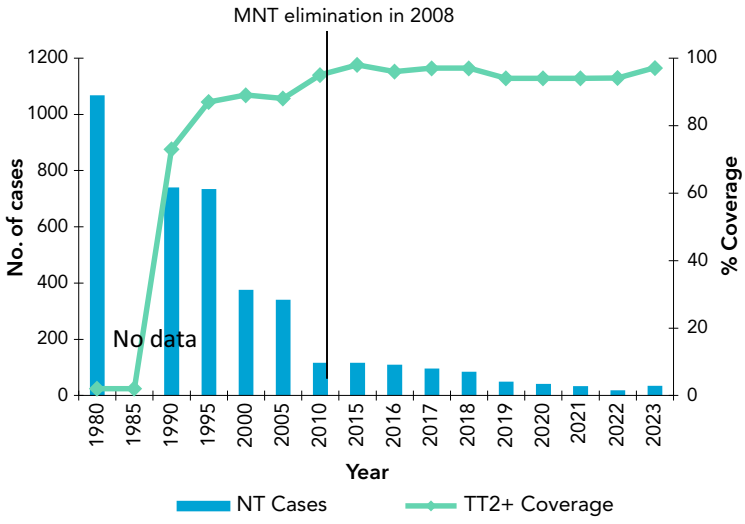
Source: WHO/UNICEF JRF, 2023

DTP3 coverage[1], diphtheria and pertussis cases[2], 1980-2023



[1] WHO and UNICEF estimates of immunization coverage
[2] WHO vaccine-preventable diseases: monitoring system 2023

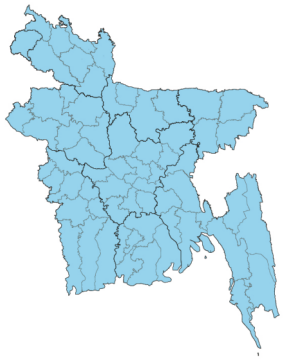
TT2+ coverage[1] and NT cases[2], 1980-2023



[1] Country official estimates, 1980-2023
[2] WHO vaccine-preventable diseases: monitoring system 2023

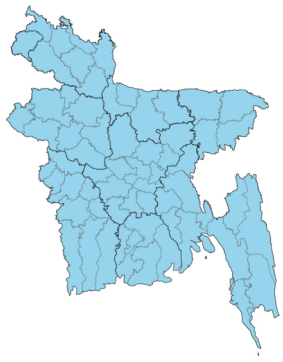
DTP-Hib-HepB3 coverage by district

2022



Source: SEAR annual EPI reporting form, 2022 (administrative data)

2023



Source: SEAR annual EPI reporting form, 2023 (administrative data)

Reported cases of vaccine preventable diseases, 2017-2023

Year	Polio	Diphtheria	Pertussis	NT (% of all tetanus)	Measles	Rubella	Mumps	JE	Clinical CRS	Lab confirmed CRS
2017	0	5	0	96 (27%)	4001	299	ND	19	188	11
2018	0	36*	3	85 (37%)	2,263	308	ND	96	215	6
2019	0	14	12	49 (42%)	5,479**	170	ND	85	175	3
2020	0	10	1	42 (68%)	2,412	66	ND	32	169	6
2021	0	0	0	33 (100%)	203	129	ND	82	208	10
2022	0	6	0	21 (100%)	311	236	ND	110	235	16
2023	0	9	0	35 (100%)	280	182	ND	31	349	12

*8372 probable cases reported among the FDMN in Cox's Bazar out of which 293 are confirmed cases

**135 confirmed measles and 2 rubella cases reported among the FDMN in Cox's Bazar

Source: WHO/UNICEF JRF (multiple years) ND=No data

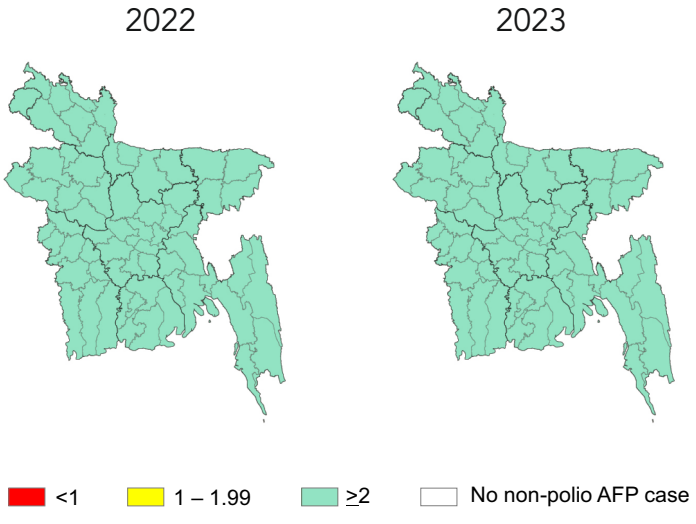
AFP surveillance performance indicators, 2017-2023

- Last polio case due to indigenous WPV reported from Dhaka district in August 2000
- Last polio case due to imported WPV reported from Sunamganj district in November 2006
- Environmental surveillance started in 2015 and is currently functioning at 8 sites

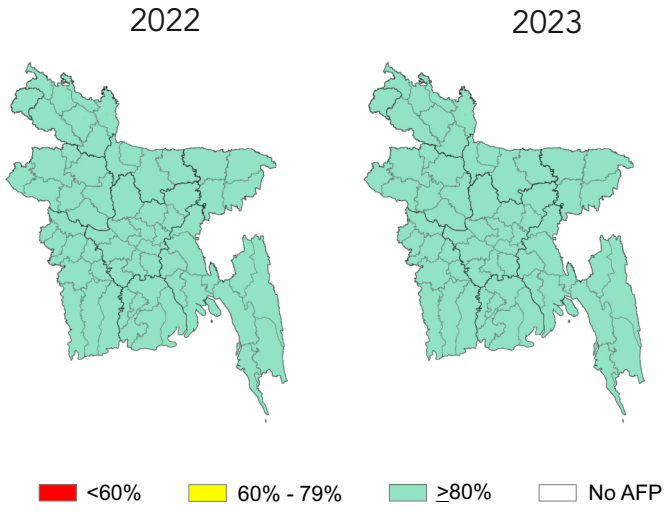
Indicator	2017	2018	2019	2020	2021	2022	2023
AFP cases[4]	1,361	1,404	1,429	1,214	1,234	1,264	1,486
Wild poliovirus confirmed cases	0	0	0	0	0	0	0
Vaccine derived poliovirus cases	0	0	0	0	0	0	0
Compatible cases	0	0	0	0	0	0	0
Non-polio AFP rate[1]	2.73	2.84	2.92	2.49	2.55	2.63	3.08
Adequate stool specimen collection percentage[2]	99%	99%	100%	100%	99%	99%	99%
Total stool samples collected	2,703	2,796	2,854	2,426	2,562	2,627	2,972
% NPEV isolation	19	16.3	19.7	15.5	16.4	13.8	12.2
% Timeliness of primary result reported[3]	88	97	97	94	95	98.5	98.5

[1] Number of discarded AFP cases per 100,000 children under 15 years of age.
[2] Percent with 2 specimens, 24 hours apart and within 14 days of paralysis onset.
[3] Results reported within 14 days of sample received at laboratory.
[4] Does not include number of AFP cases reported among FDMN in Cox's Bazar (2017-8; 2018-11; 2019-8; 2020-14).

Non-polio AFP rate by district



Adequate stool specimen collection % by district



Environmental surveillance sites for polio detection, 2020 - 2023

Year	#Provinces	#sites	#samples tested	SL1	SL3	SL1+SL3	VDPV	NPEV
2020	2	8	127	0	10	6	0	80
2021	2	8	120	15	17	8	0	67
2022	2	8	148	6	10	18	0	97
2023	2	14	208	22	45	6	0	114

Note: SL1: Sabin like type 1; SL3: Sabin like type 3; VDPV: Vaccine Derived Polio Virus; NPEV: Non Polio Entero Virus

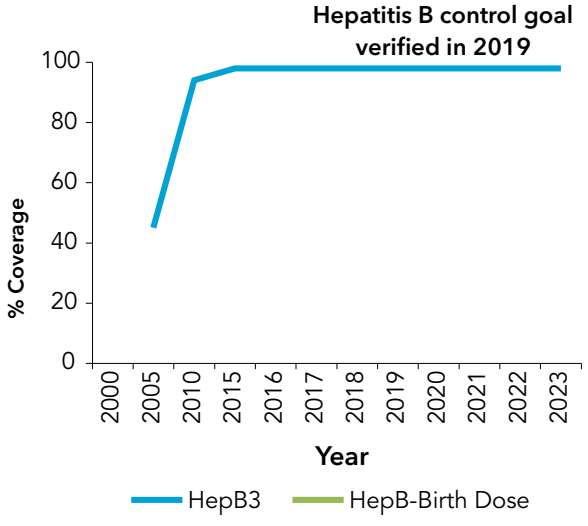
In 2023, one sample from each of the 4 sites were collected following a clinical trial by icddr,b in collaboration with CDC Atlanta

OPV SIAs

Year	Antigen	Geographic coverage	Target age	Target population		Coverage (%)	
				Round 1	Round 2	Round 1	Round 2
2011	tOPV	NID	<5 years	22,151,269	22,320,803	102	101
2012	OPV	NID	<5 years	22,019,556	22,073,699	101	101
2013	tOPV	NID	<5 years	20,530,418		101	-
2014	OPV	NID*	<5 years	20,631,077		99	-
2016	tOPV	Mop-up SNID	<5 years	114,979	115,355	101	101
2016	bOPV	Mop-up SNID	<5 years	118,272		98	-
2017	bOPV	Mop-up SNID	<5 years	47,165		153	

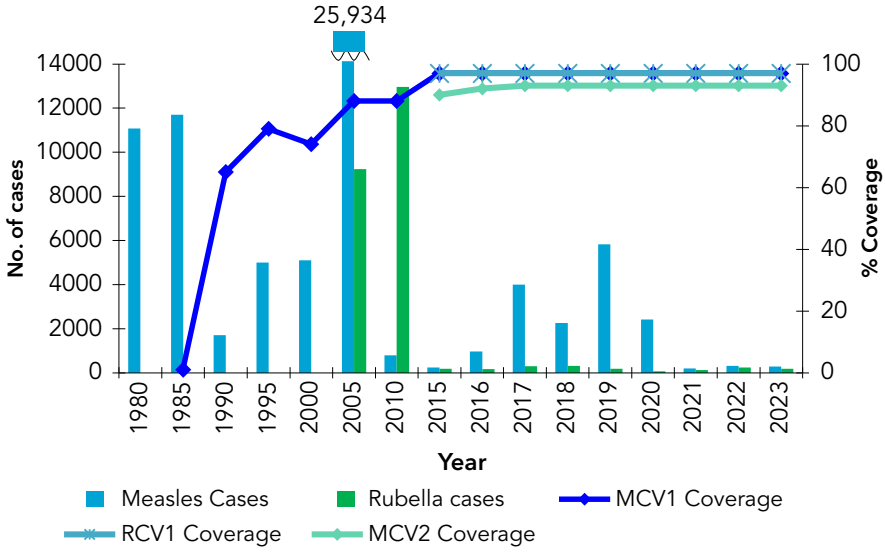
* One dose OPV given during MR campaign Source: WHO/UNICEF JRF (multiple years)

HepB3 and HepB birth dose immunization coverage[1], 2000-2023



[1] WHO and UNICEF estimates of immunization coverage

MCV1 & MCV2 coverage[1] and measles, rubella cases[2], 1980-2023

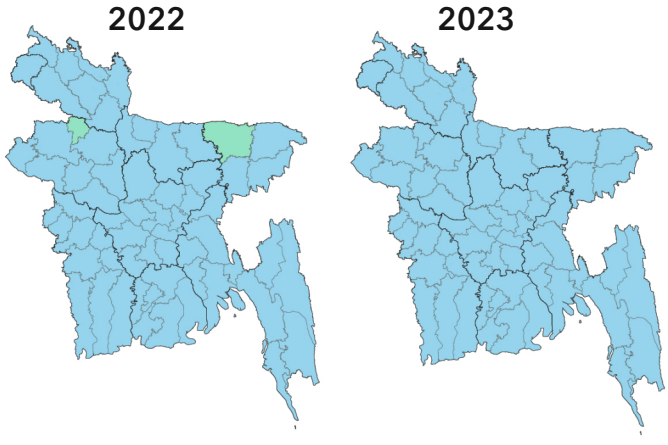


Note: MR1 and MR2 replaced MCV1 and MCV2 in 2012

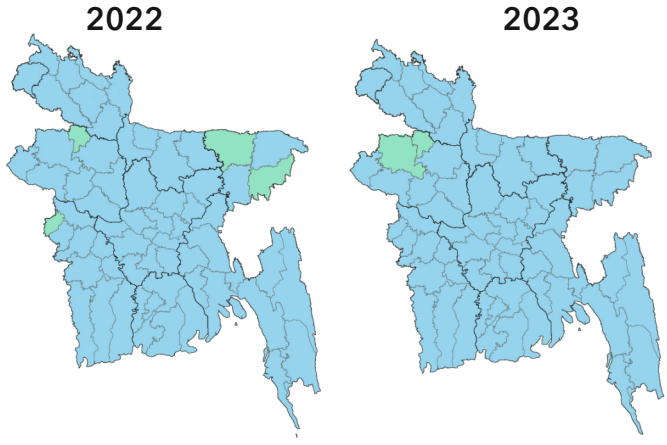
[1] WHO and UNICEF estimates of immunization coverage

[2] WHO vaccine-preventable diseases: monitoring system 2023

MR1 coverage by district



MR2 coverage by district



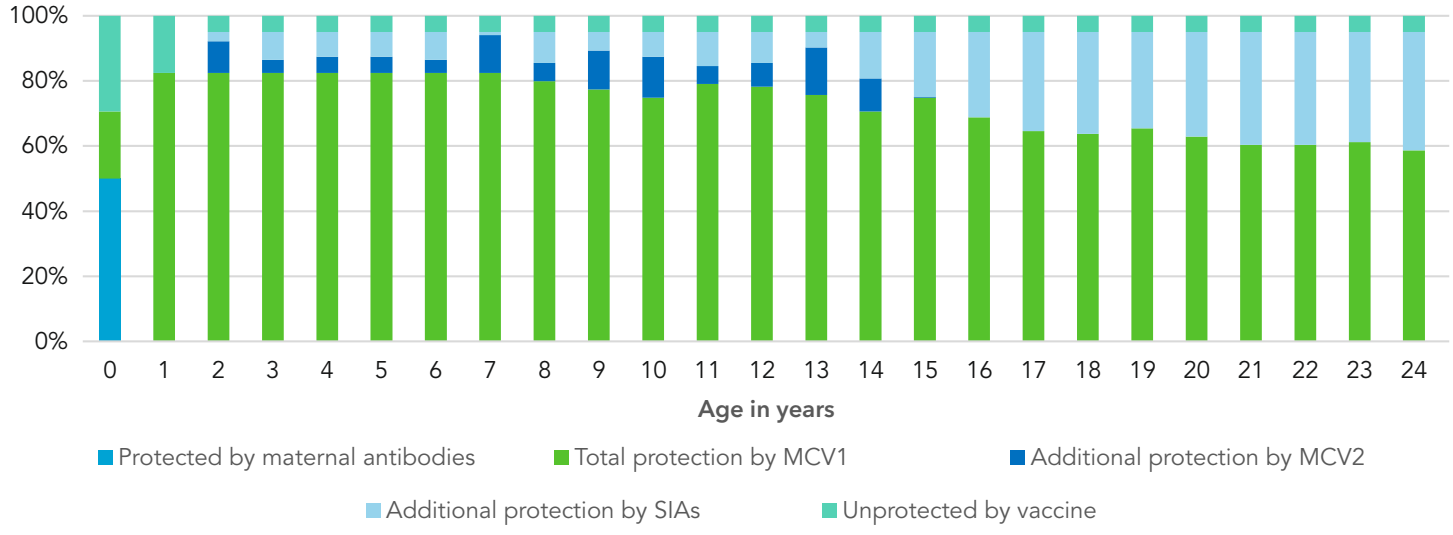
Source: SEAR annual EPI reporting form, 2022 and 2023 (administrative data)

MCV/MR SIAs

Year	Antigen	Geographic Coverage	Target group	Target	Coverage (%)
2005	MCV	2 districts	9 months to 10 years	1,481,321	93
2006	MCV	nationwide	9 months to 10 years	34,199,590	100
2010	MCV	nationwide	9 months to 5 years	18,136,066	100
2014	MR	nationwide	9 months to 15 years	52,745,231	102
2016	MR	subnational	9 months to <5 years	99,489	101
2017	MR	subnational	9 months to <5 years	1,556,818	100
2017	MR	subnational	6 months to <15 years	121,530	112
2020-21	MR	National	9 months to 10 years	35,337,521	104

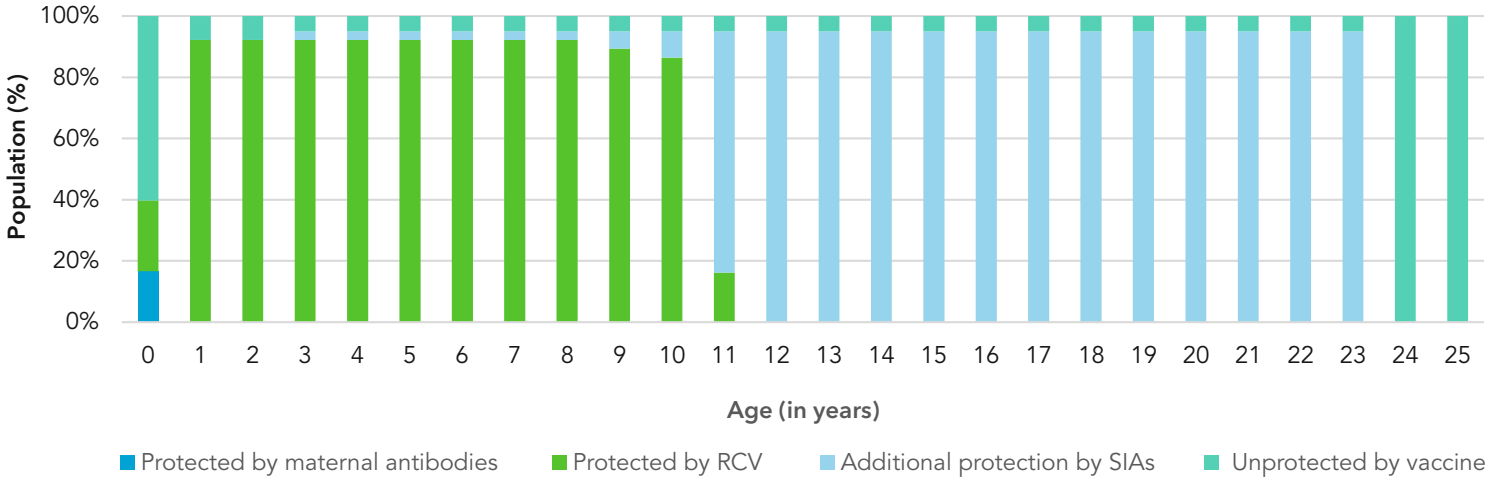
Source: WHO/UNICEF JRF (multiple years)

Immunity against measles - immunity profile by age in 2022*



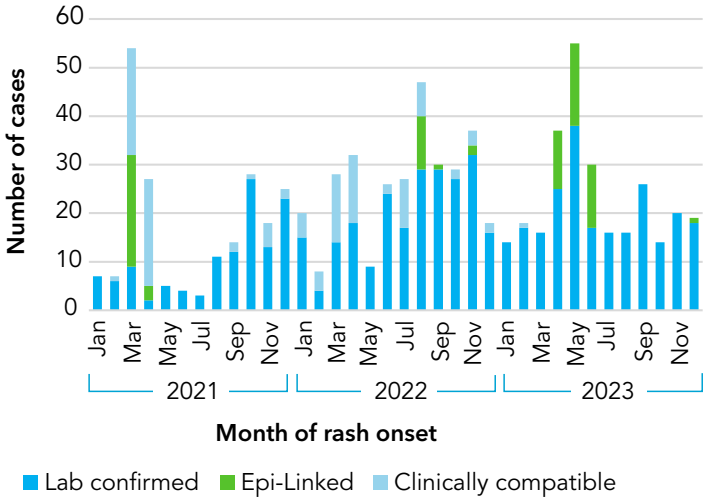
*Modelled using MSP tool ver 2

Immunity against rubella through vaccination - immunity profile by age in 2022*



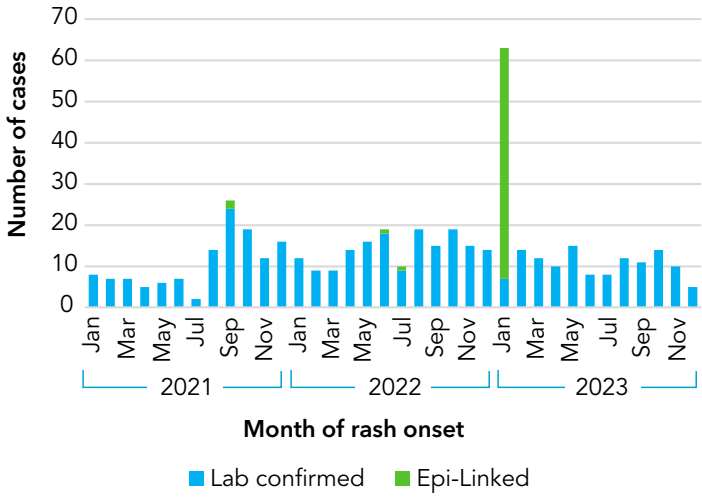
*Modelled using WHO and UNICEF estimates and JRF (multiple years) and does not include immunity due to natural infection

Confirmed measles cases* by month 2021-2023



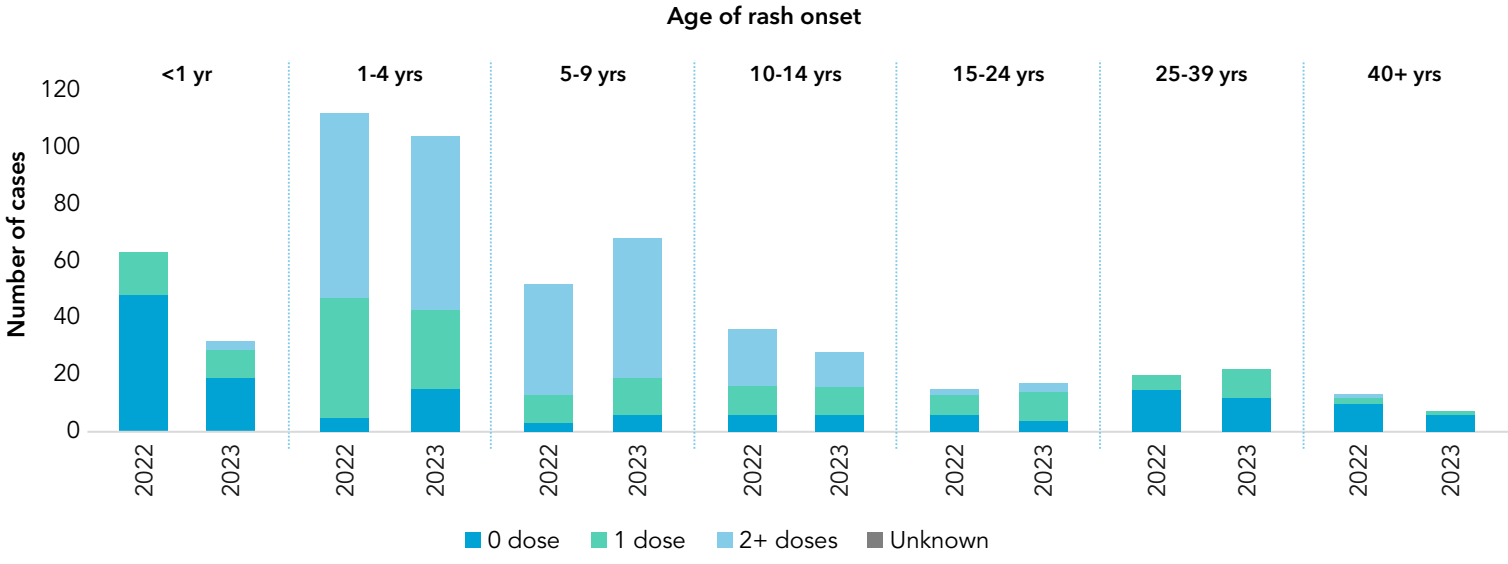
*Includes laboratory confirmed, epidemiologically linked and c linically compatible cases
Source: SEAR measles case-based data

Confirmed rubella cases* by month 2021-2023



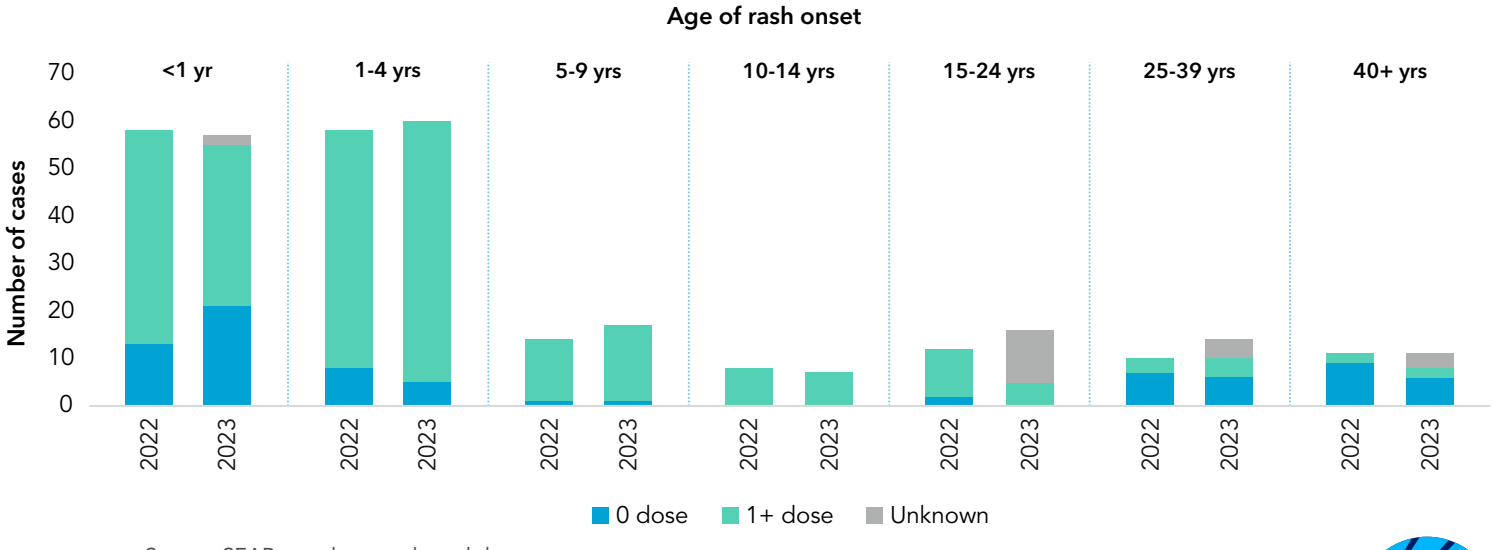
*Includes laboratory confirmed and epidemiologically linked cases
Source: SEAR measles case-based data

Vaccination status of confirmed (laboratory, Epi linked and clinically compatible) measles cases, by age in 2022 and 2023



Source: SEAR measles case-based data

Vaccination status of confirmed (laboratory and Epi linked) rubella cases, by age in 2022 and 2023



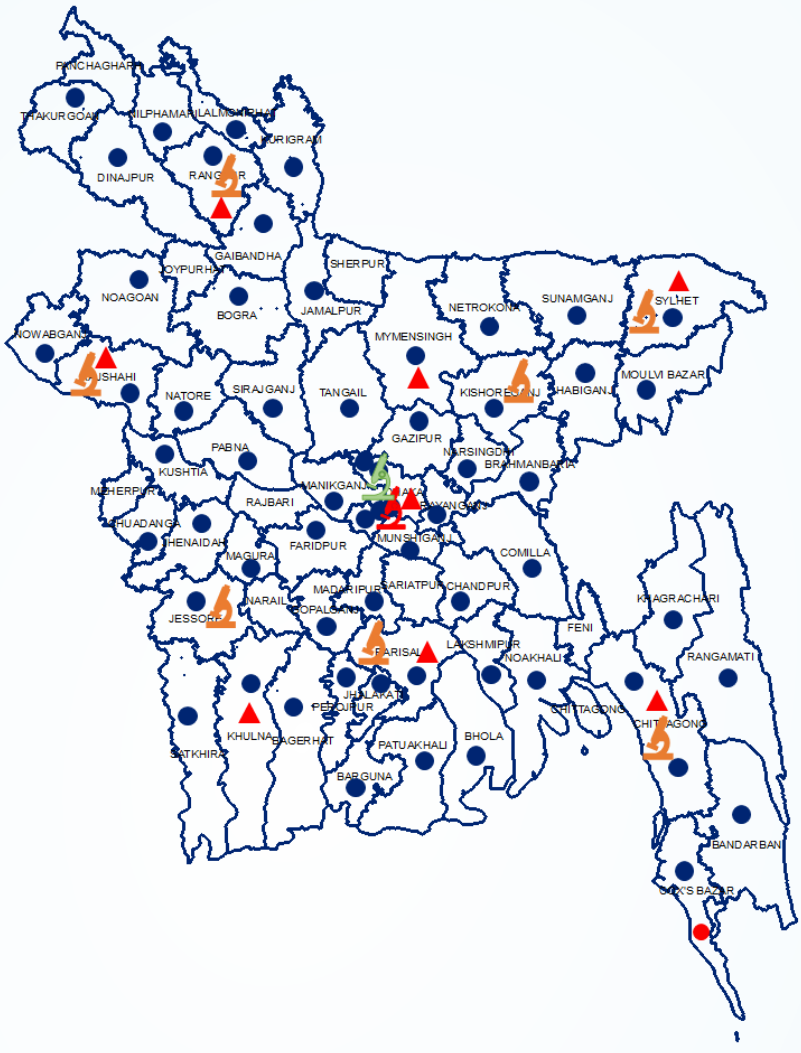
Source: SEAR measles case-based data

Summary of measles surveillance indicators, 2021-2023

Indicator	Target	2021	2022	2023
Number of suspected measles cases		4,081	6,408	7,346
Confirmed measles cases	0	203	311	280
Lab confirmed	0	122	234	237
Epi - Linked	0	26	14	42
Clinically-compatible	0	55	63	1
Confirmed rubella cases	0	129	171	182
Lab confirmed	0	127	169	126
Epi-Linked	0	2	2	56
Discarded non-measles non-rubella cases		3,749	5,926	6,883
Percentage of suspected cases with adequate investigation initiated within 48 hours of notification	≥ 80%	97	97	97
Reporting rate of non-measles non-rubella cases to national level per 100,000 population	≥ 2	2.17	3.38	3.92
Percentage of second-level administrative units reporting at least 2 non-measles non-rubella cases per 100,00 population	≥ 80%	68	99	100
Percentage of surveillance units reporting measles and rubella data to the national level on time, even in theabsence of cases	≥ 80%	98	98	98
Percentage of specimens received at the laboratory within 5 days of collection	≥ 80%	82.1	100	99
Percentage of IgM results reported to the national public health authorities by the laboratory within 4 days of receipt of specimens	≥ 80%	100	100	98
Genotypes detected				
Measles				
Rubella		—	—	—

Source: SEAR Annual EPI Reporting Form (multiple years) ND=No data

Network of WHO supported surveillance and immunization medical officers and laboratories



	Institute of Epidemiology, Disease Control and Research (IEDCR	
	- National Japanese encephalitis (JE) l aboratory	1
	Institute of Public Health	1
	- National polio laboratory	1
	- National measles/rubella laboratory	
	Hospital Based Rotavirus & Intussusception Surveillance Sites: - Rajshahi Medical College Hospital (RMCH) - Jahurul Islam Medical College Hospital (JIMCH) Kishoregonj - Jalalabad Ragib-Rabeya Medical College Hospital (JRRMCH) - Jashore General Hospital (Jashore) Jashore - Sher-e- Bangla Medical College Hospital (SBMCH) Barishal - Rangpur Medical College Hospital (RpMCH) Rangpur - Chattogram Medical College Hospital (CMCH)	8
●	Surveillance and Immunization Medical Officer (SIMO)	61
▲	Divisional Coordinator (DC)	7
●	Emergency Surveillance and Immunization Team-Cox's Bazar	4

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