



### EPI HISTORY

- EPI launched in 1977
- HepB vaccine introduced in 1997
- AD syringe introduced in 2002
- MCV2 introduced in 2004
- DTP-HepB vaccine introduced in 2004 (in phases)
- IPV introduced in one province in 2007
- Pentavalent vaccine introduced in four provinces in 2013 and gradually expended to all provinces by 2014
- tOPV to bOPV switched on 04 April 2016
- IPV vaccine launched in national routine immunization programme from July 2016.
- MR vaccine introduced 6 provinces in Java island during phase 1 from August 2017 and remaining 28 province from August 2018
- PCV introduced in 2 districts of NTT province from October 2017 and expand in another 2 districts
- JE (SA 14142) LiveAtd introduced in Bali province from March 2018
- HPV introduced in all districts of Jakarta Province, 2 districts of Yogyakarta and one district of East Java province

Source: cMYP 2015-2019 and EPI/MOH

*Disclaimer: The boundaries and names shown and the designations used on all the maps do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.*

**Table 1: Basic information 2018**

Total population <sup>1</sup>	265,015,313
Live births <sup>1</sup>	4,810,130
Children <1 year <sup>1</sup>	4,720,024
Children <5 years <sup>1</sup>	23,171,540
Children <15 years <sup>1</sup>	70,486,717
Pregnant women <sup>1</sup>	5,291,143
Women of child bearing age <sup>1</sup> (WCBA) (15-49 years)	52,506,926
Neonatal mortality rate <sup>2</sup>	12.4 (per 1,000 LB)
Infant mortality rate <sup>2</sup>	21.4 (per 1,000 LB)
Under-five mortality rate <sup>2</sup>	25.4 (per 1,000 LB)
Maternal mortality ratio <sup>2</sup>	126 (per 100,000 LB)
Division/Province/State/Region	34
District	514
Blocks	7165
Village	74,957
Population density <sup>1</sup> (per sq. km)	138
Population living in urban areas <sup>2</sup>	55%
Population using at least basic drinking-water services <sup>2</sup>	90%
Population using at least basic sanitation services <sup>2</sup>	68%
Total expenditure on health as % of GDP <sup>3</sup>	5%
Births attended by skilled health personnel <sup>2</sup>	93.6
Neonates protected at birth NT <sup>2</sup>	85%

<sup>1</sup> SEAR annual EPI reporting form, 2018

<sup>2</sup> WHO, Global Health Observatory (GHO) data <http://apps.who.int/gho/data> accessed on 19 May 2019;

<sup>3</sup> Ministry of Finance

**Table 2: Immunization schedule, 2018**

Vaccine	Age of administration
BCG	Birth
HepB	Birth 0 – 24 hours
DTP-Hib-HepB	2 months, 3 months, 4 months and 18 months
DT	6 to 7 years
Td	7 to 8 years, 8 to 9 years, 15 to 39 years (Child bearing women)
OPV	1 month, 2 months, 3 months and 4 months
IPV	4 months
Measles	9 months, 24 months and 7 years
MR	9 months, 18-24 months, 7 years (Java island)
HPV	11 year, 12 year ( Jakarta Province, 2 districts of Yogyakarta and one district of East Java province)
PCV	2 month, 3 month, 12 month (3 districts and Mataram city of NTT province)
JE_LiveAtd	10 months (Bali province)
Vitamin A	6 - 59 months

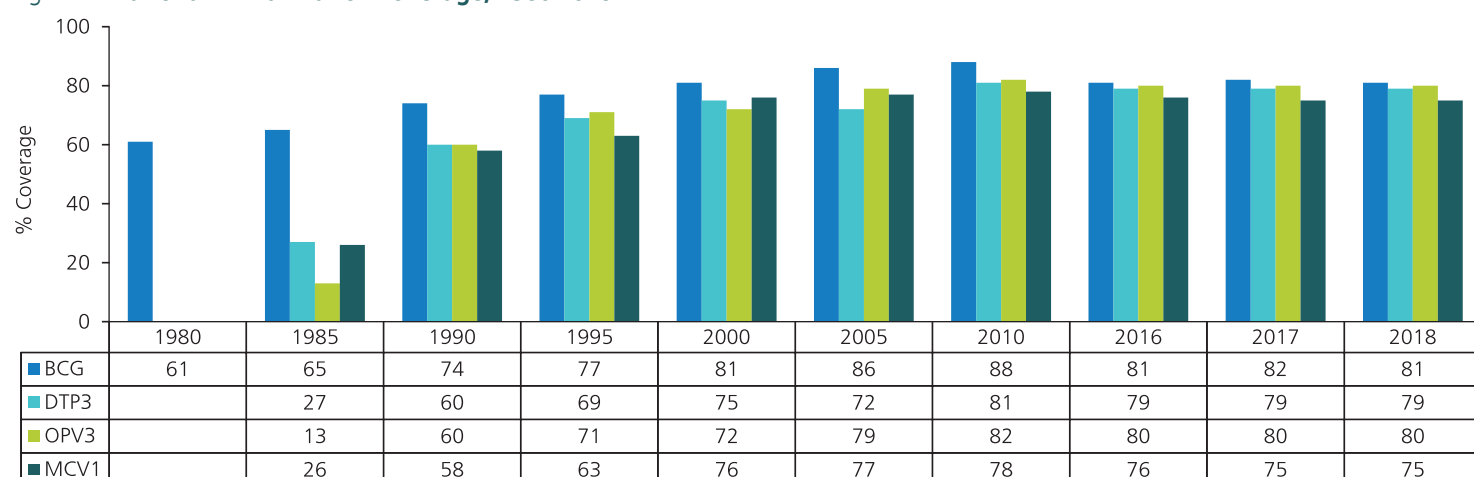
Source: WHO/UNICEF joint reporting form (JRF) 2018

**Table 3: Immunization system highlights**

cMYP for immunization	2015-2019
NTAGI	fully functional
Spending on vaccines financed by the government	no data
Spending on routine immunization programme financed by the government	93%
Updated micro-plans that include activities to improve immunization coverage	No data
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	Basic Health Survey - 2018
≥80% coverage for DTP-Hib-HepB3	338 districts (66%)
≥90% coverage for MCV1	247 districts (48%)
≥90% coverage for MCV2	86 districts (17%)
≥10% drop-out rate for DTP-Hib-HepB1 to DTP-Hib-HepB3	94 districts (18%)
Assessment of vaccine hesitancy at national level	2018

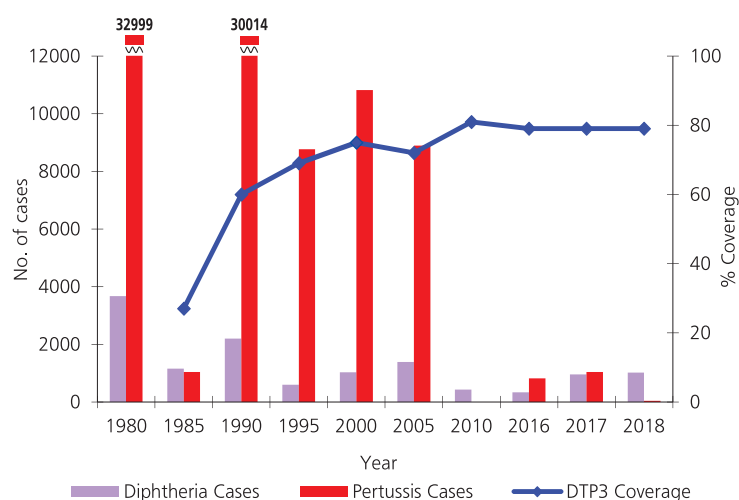
Source: WHO/UNICEF joint reporting form (JRF) 2018

**Figure 1: National immunization coverage, 1980-2018**



Source: WHO and UNICEF estimates of immunization coverage, July 2019 revision

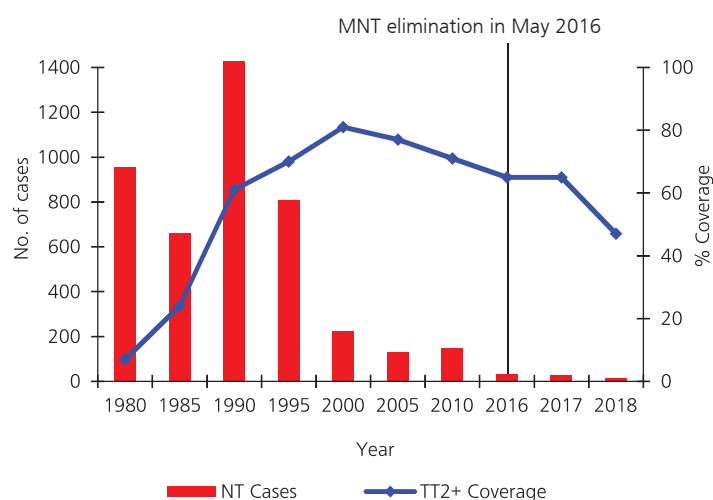
Figure 2: **DTP3 coverage<sup>1</sup>, diphtheria and pertussis cases<sup>2</sup>, 1980-2018**



<sup>1</sup> WHO and UNICEF estimates of immunization coverage, July 2019 revision

<sup>2</sup> WHO vaccine-preventable diseases: monitoring system 2019

Figure 3: **TT2+ coverage<sup>1</sup> and NT cases<sup>2</sup>, 1980-2018**



<sup>1</sup> Country official estimates, 1980-2018

<sup>2</sup> WHO vaccine-preventable diseases: monitoring system 2019

### DTP-Hib-HepB3 coverage by province

Figure 4: **2017**

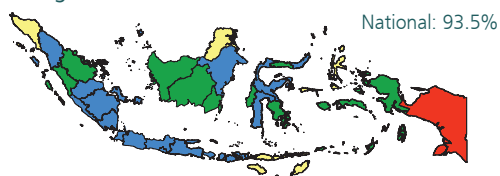
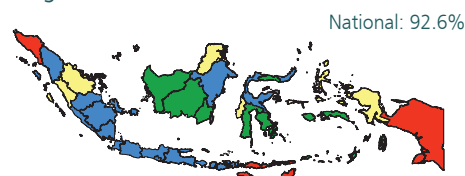


Figure 5: **2018**



Legend: <70% (red), 70% - 79% (yellow), 80% - 89% (green), ≥90% (blue)

Source: SEAR annual EPI reporting form, 2017 and 2018 (administrative data)

Table 4: **Reported cases of vaccine preventable diseases, 2013-2018**

Year	Polio	Diphtheria	Pertussis	NT (% of all tetanus)	Measles	Rubella	Mumps	JE	CRS
2013	0	775	2,976	78 (35%)	8,419	2,355	ND	ND	ND
2014	0	430	2,082	75 (7%)	12,943	3,542	ND	72	ND
2015	0	252	1,004	69 (ND)	9,863	826	ND	39	44
2016	0	342	826	33(6%)	6,962	1,238	ND	43	174
2017	0	954	1,043	25 (5%)	9,035	1,264	ND	281	532
2018	0 <sup>a</sup>	1,026	40	14 (3%)	5,300	1,767	ND	ND	188

Source: WHO/UNICEF JRF (multiple years)

<sup>a</sup> Excludes one type 1 VDPV

ND=No data

**Table 5: AFP surveillance performance indicators, 2013-2018**

- The last polio case due to WPV was reported from Tenggara district, Aceh on 20 February 2006.

Indicator	2013	2014	2015	2016	2017	2018
AFP cases	1,963	1,765	1,428	1,409	1,740	1,726
Wild poliovirus confirmed cases	0	0	0	0	0	0
Compatible cases	0	0	0	0	2	0
Non-polio AFP rate <sup>1</sup>	2.74	2.43	2.04	2.01	2.47	2.45
Adequate stool specimen collection per-centage <sup>2</sup>	88%	89%	92%	86%	82%	82%
Total stool samples collected	3,826	3,424	2,801	2,686	3,315	3,267
% NPEV isolation	9	7	7	7	8	7
% Timeliness of primary result reported <sup>3</sup>	99	98	99	98	96	96

<sup>1</sup> Number of discarded AFP cases per 100,000 children under 15 years of age.

<sup>2</sup> Percent with 2 specimens, 24 hours apart and within 14 days of paralysis onset.

<sup>3</sup> Results reported within 14 days of sample received at laboratory.

#### Non-polio AFP rate by district

Figure 6: 2017

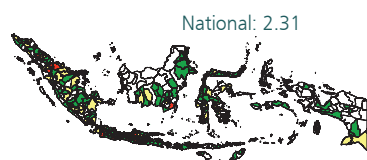
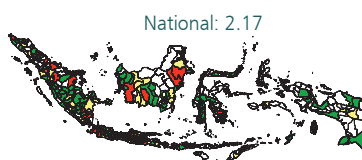


Figure 7: 2018



#### Adequate stool specimen collection percentage by district

Figure 8: 2017

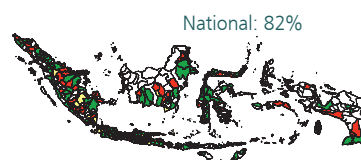
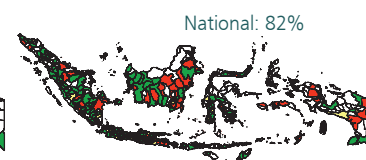


Figure 9: 2018



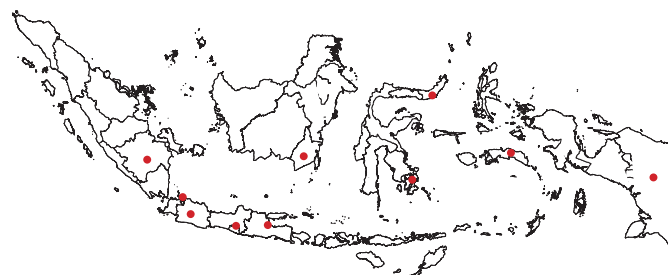
**Table 6: OPV SIAs**

Year	Antigen	Geographic coverage	Target age	Target population		Coverage (%)	
				Round 1	Round 2	Round 1	Round 2
2002	OPV	NID	<5 years	20,031,168		107	109
2005	OPV	NID	<5 years	23,426,156		95	98
2005	OPV	NID	<5 years	23,620,427		98	
2006	OPV	NID	<5 years	23,620,427		99	100
2006	OPV	SNID	<5 years	4,523,187	6,045,438	97	92
2007	OPV	SNID	<5 years	12,517,699		90	92
2009	OPV	SNID*	<5 years	2,052,067		97	
2010	OPV	SNID*	<5 years	4,322,178		92	
2011	OPV	SNID*	<5 years	13,958,095		98	
2016	OPV	NID	<5 years	23,721,004		96	
2018	OPV	SNID*	9 months to 15 years	1,189,876		79	

Source: WHO/UNICEF JRF (multiple years)

\* During measles/MR campaign

**Figure 10: Environmental surveillance sites for polio detection in 2018**



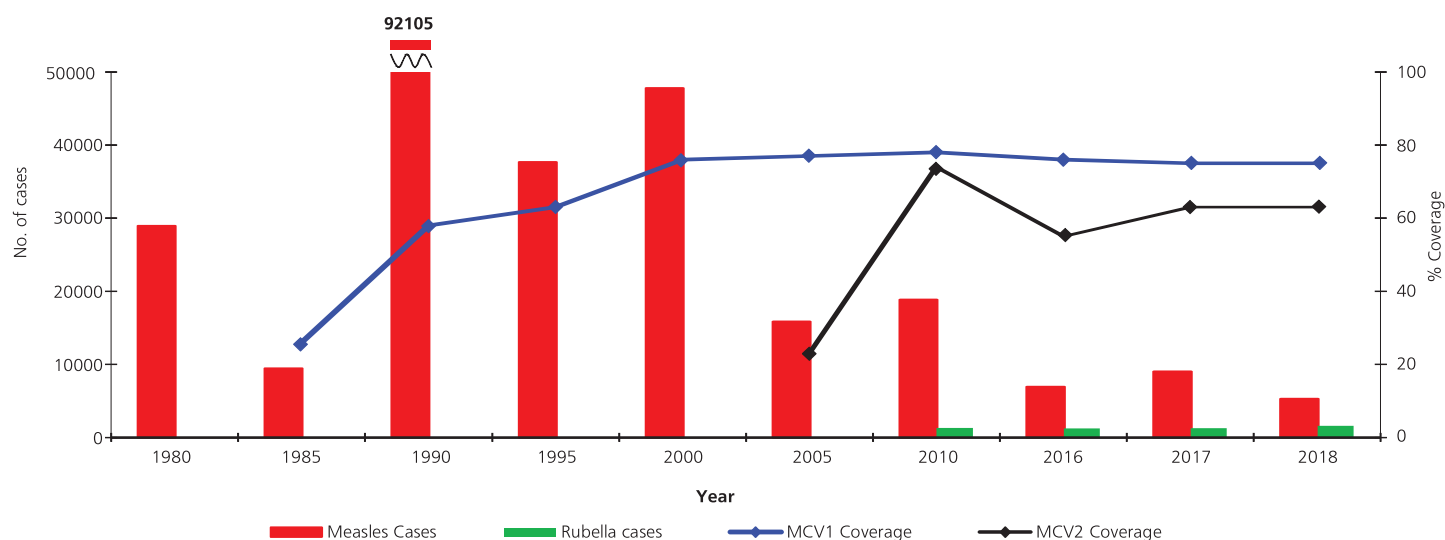
# Provinces	# sites	# samples tested	SL1	SL3	SL1 + SL3	VDPV	NPEV
10	10	115	0	2	0	0	30

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

# VACCINES PROTECT

## SUSTAIN. ACCELERATE. INNOVATE.

Figure 11: MCV1 & MCV2 coverage<sup>1</sup> and measles, rubella cases<sup>2</sup>, 1980-2018



<sup>1</sup> WHO and UNICEF estimates of immunization coverage, July 2019 revision

<sup>2</sup> WHO vaccine-preventable diseases: monitoring system 2019

### MCV1 coverage by province

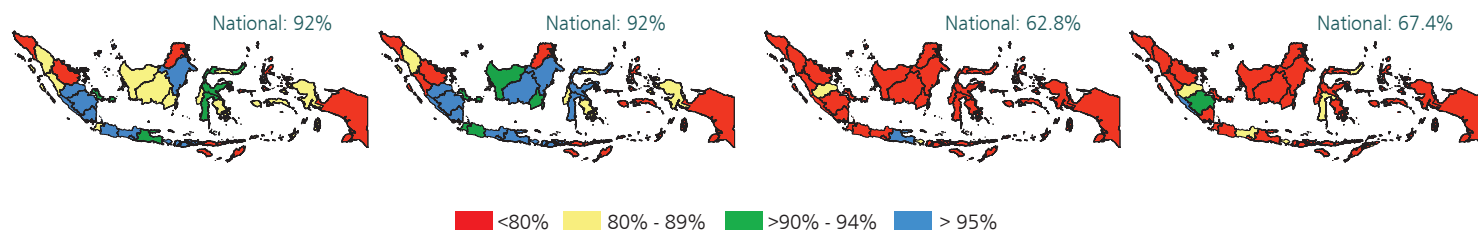
Figure 12: 2017

Figure 13: 2018

### MCV2 coverage by province

Figure 14: 2017

Figure 15: 2018



Source: SEAR annual EPI reporting form, 2017 and 2018 (administrative data)

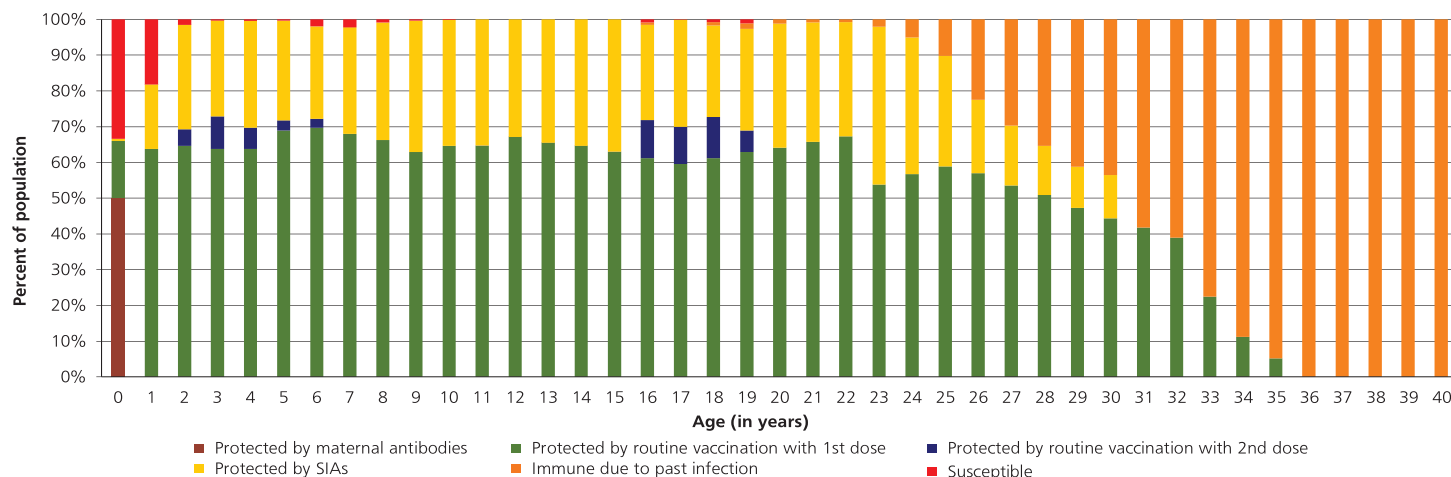
Table 7: MCV SIAs

Year	Geographic Coverage	Target group	Target	Coverage %
2000	Subnational	6 to 12 years	6,665,950	95
2003	Subnational	6 to 12 years	1,030,445	95
2004	Subnational	6 to 12 years	2,180,918	94
2005	Subnational	6 months to 15 years	5,515,324	94
2006	Subnational	6 months to 5 years	3,978,096	93
2006	Subnational	6 to 12 years	3,161,323	96
2007	Subnational	6 months to 12 years	2,692,912	106
2007	Subnational	6 to 12 years	2,569,350	102
2007	Subnational	6 to 59 months	14,916,592	93
2008	Subnational	1 to 3 years	11,203	78
2009	Subnational	9 to 59 months	1,763,122	97
2010	Subnational	9 to 59 months	3,619,024	92
2011	Subnational	9 to 59 months	11,843,093	98
2016	Subnational	9 to 59 months	4,222,172	86
2017	Subnational	9 months to 15 years	34,964,386	101
2018	Subnational	9 months to 15 years	31,963,154	73

Source: WHO/UNICEF JRF (multiple years)

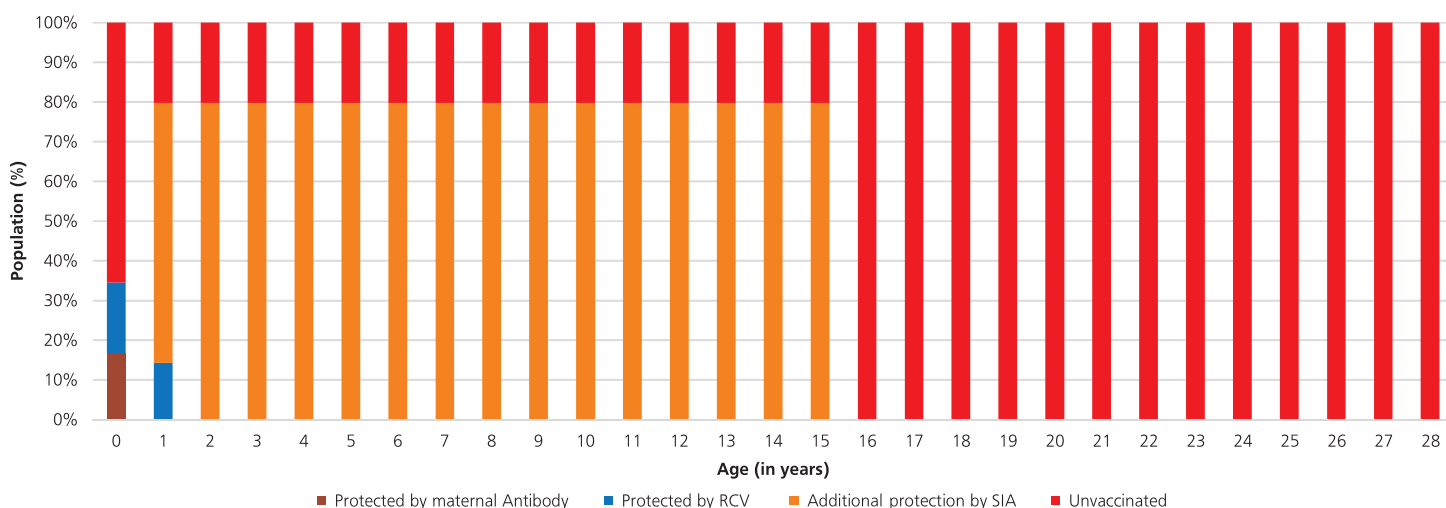


Figure 16: Immunity against measles - immunity profile by age in 2018\*



\*Modeled using MSP tool ver 2

Figure 17: Immunity against rubella through vaccination - immunity profile by age in 2018\*



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

Figure 18: Sub-national risk assessment - measles and rubella

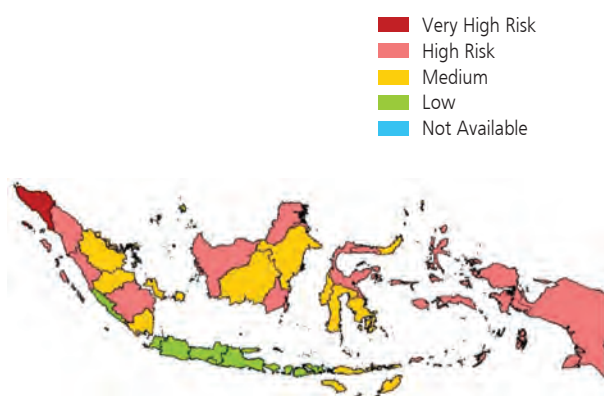
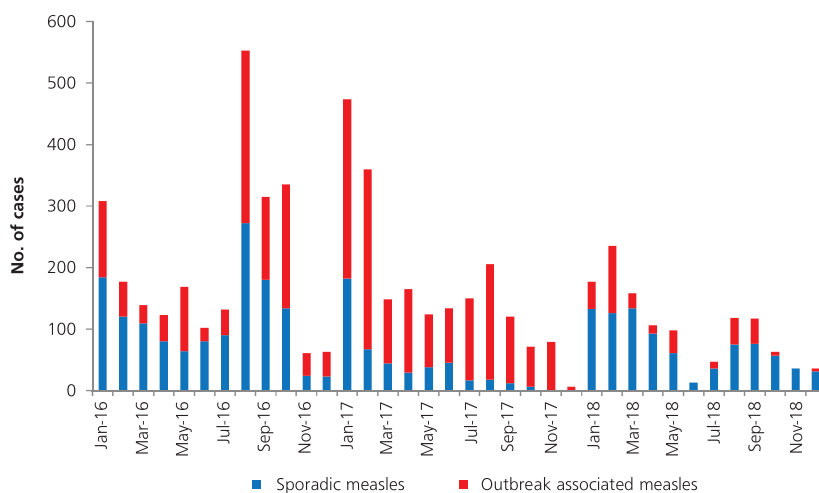


Figure 19: Sporadic and outbreak associated measles cases\* by month, 2016-2018



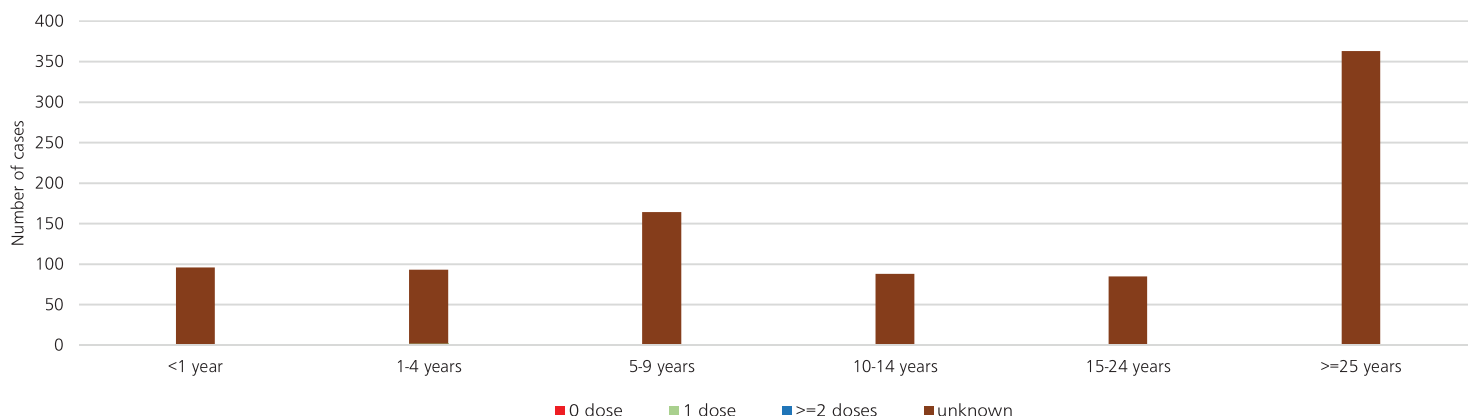
\*Includes laboratory confirmed and epidemiologically linked cases

Source: SEAR Monthly VPD reports

# VACCINES PROTECT

## SUSTAIN. ACCELERATE. INNOVATE.

Figure 20: Vaccination status of confirmed (laboratory, epi-linked and clinically compatible) measles cases, by age in 2018



Source: SEAR measles case-based data

Table 8: Surveillance performance indicator for measles and rubella, 2013-2018

Year	No. of Suspected Measles	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	Discarded non-measles non-rubella incidence per 100,000 total population	Proportion of provinces reporting at least two discarded non-measles non-rubella cases per 100,000 total population	Proportion of sub-national surveillance units reporting to the national level on time
		Lab-confirmed	Epi-Linked	Clinically-confirmed	Lab-confirmed	Epi-Linked							
Target →								-	-	80%	2	80%	80%
2013	11,521	747	ND	ND	742	ND	1,376	3.01	2.93	ND	0.54	ND	60.22
2014	12,943	2,241	ND	ND	906	ND	2,606	8.85	3.58	ND	1.03	ND	22.06
2015	13,890	1,194	ND	ND	1,474	ND	2,566	4.71	5.8	ND	1.01	ND	37.76
2016	14,011	2,541	ND	5,495	1,193	ND	2,474	9.82	4.61	ND	0.96	ND	ND
2017	16,615	1,532	731	6,772	926	338	934	5.85	3.54	21.8	0.36	ND	44.8
2018	9,768	828	153	4302	1475	117	2893	19.9	6.0	41.7	1.09	ND	55.1

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

Table 9: Performance of laboratory surveillance, 2013-2018

Year	Serum specimen collected from suspected measles cases	Serum specimen received in laboratory within 5 days of collection	Specimen positive for measles IgM		Specimen positive for rubella IgM		% Results within 4 days of receipt	Genotypes detected	
	No. (%)	No. (%)	No.	%	No.	%		Measles	Rubella
2013	5,169 (45)	5,169 (45)	996	20	1,042	25	97	ND	ND
2014	8,448 (65)	8,448 (69)	5,194	62	1,140	36	60	ND	ND
2015	11,608 (84)	11,608 (83)	2,511	22	4,239	47	4	ND	ND
2016	15,939	15,939	4,946	41	1,899	16	57	ND	ND
2017	14,803 (89)	5,169 (35)	4,509	31	3,770	25	46	ND	ND
2018	5,849 (60)	1,842 (31)	674	12	1,331	24	82	ND	ND

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

Figure 21: Laboratory network



- Polio, measles & rubella laboratories
  - National Institute of Health Research and Development (NIHRD), Jakarta
  - Biofarma, Bandung
  - Public Health Laboratory, Surabaya
  - NIHRD, Jakarta
  - Public Health Laboratory, Denpasar

- Measles & rubella laboratory
  - Public Health Laboratory, Yogyakarta
  - Public Health Laboratory, Palembang
  - Public Health Laboratory, Makassar
  - Public Health Laboratory, Jakarta

Source: EPI Indonesia

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