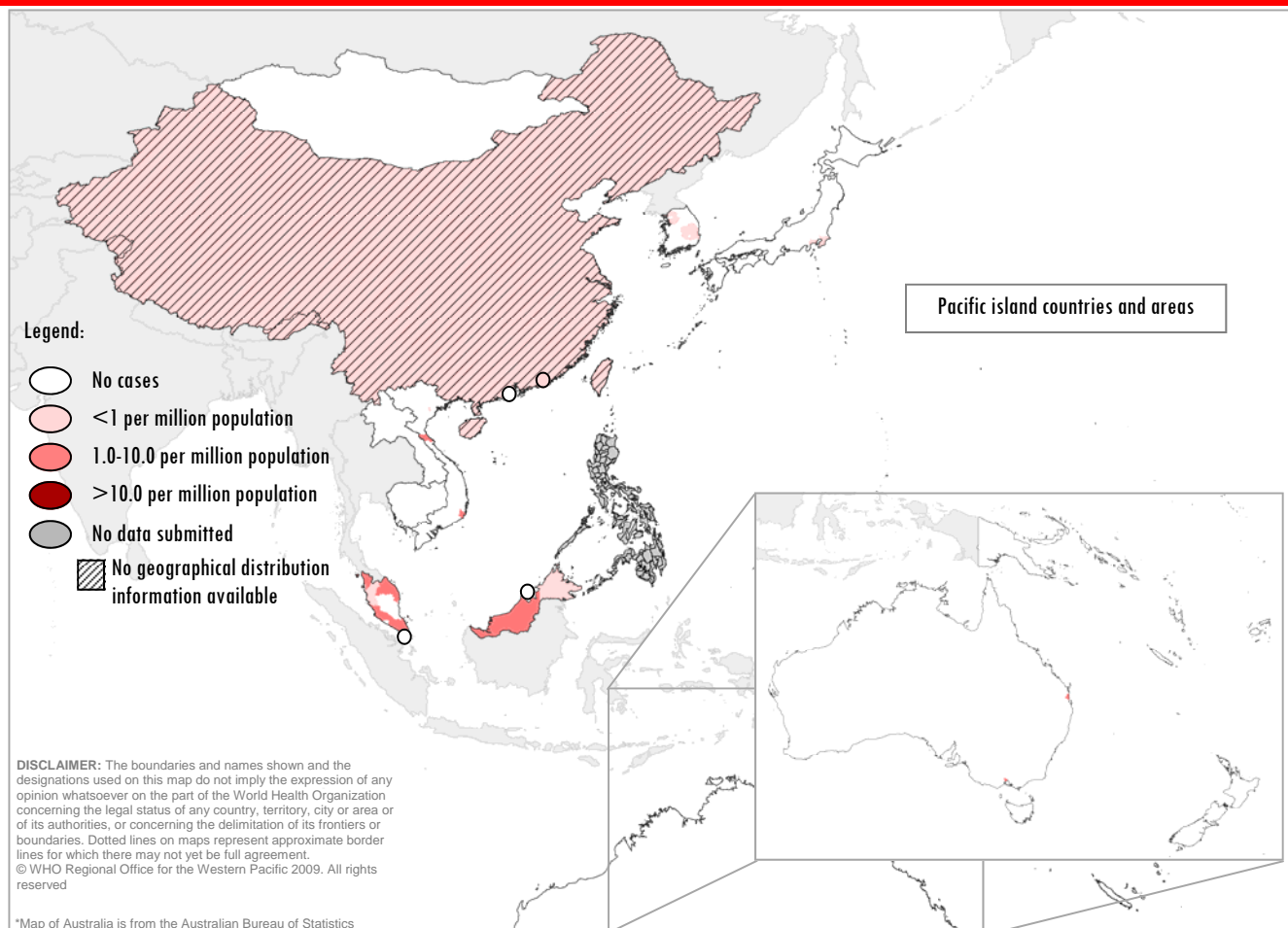


# MEASLES-RUBELLA

Figure 1. Incidence rate of total (confirmed and compatible) measles cases with rash onset 1–30 June 2018, WHO Western Pacific Region



Source: Measles and rubella monthly country reports to the Western Pacific Regional Office by 20 July 2018

Table 1. Numbers of confirmed and total (confirmed and compatible) measles cases by month of rash onset, January 2017–June 2018, WHO Western Pacific Region

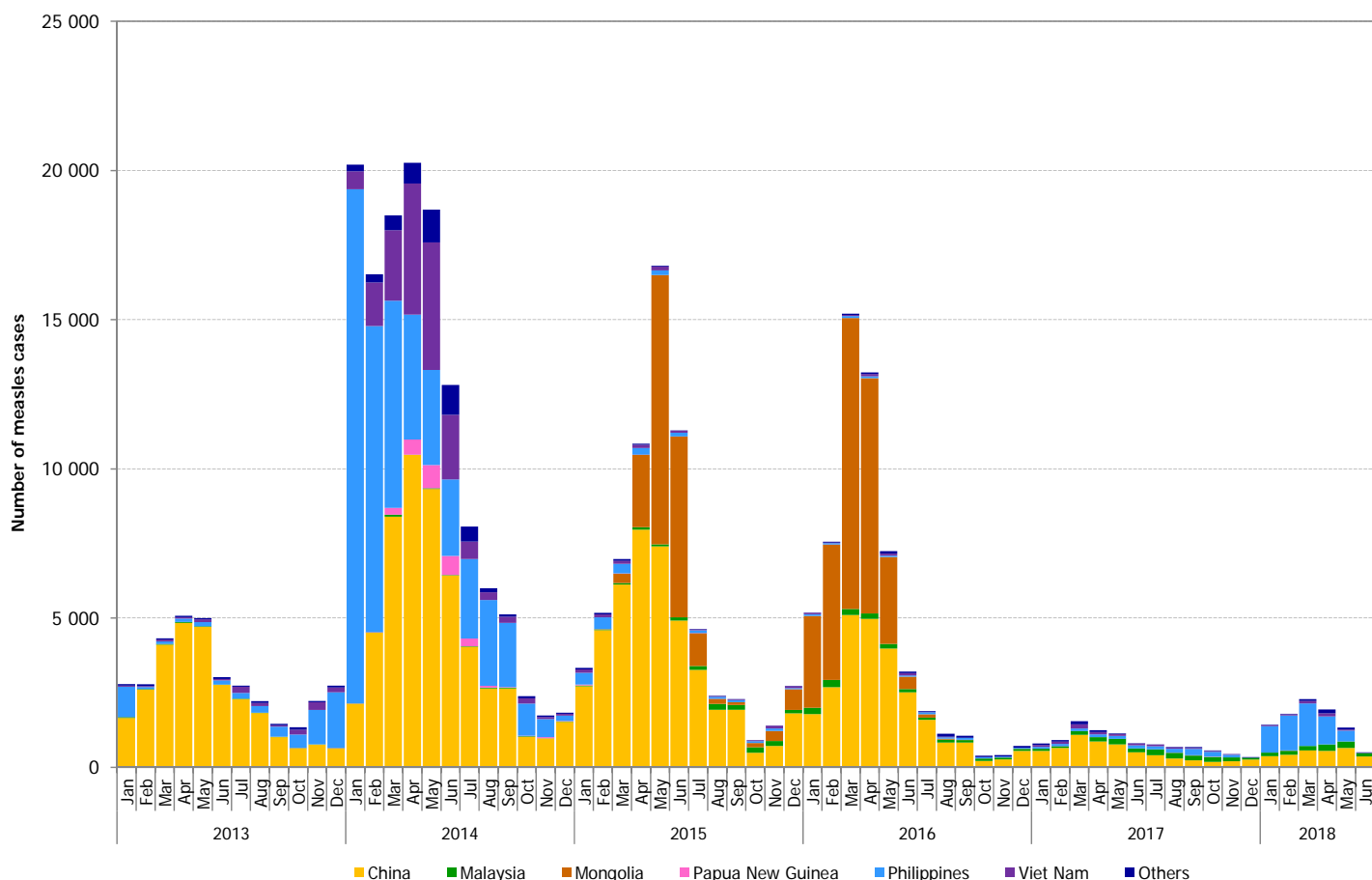
Country/area	2018											
	Jan		Feb		Mar		Apr		May		Jun	
	No. of confirmed	Total no. of cases	No. of confirmed	Total no. of cases	No. of confirmed	Total no. of cases	No. of confirmed	Total no. of cases	No. of confirmed	Total no. of cases	No. of confirmed	Total no. of cases
Australia <sup>1</sup>	3	3	2	2	30	30	10	10	4	4	2	2
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0	0	0
Cambodia	0	0	0	0	0	0	0	0	0	0	0	0
China	363	372	407	418	550	559	537	549	633	649	317	363
China, Hong Kong SAR	0	0	0	0	3	3	4	4	2	2	1	1
China, Macao SAR	0	0	0	0	0	0	0	0	1	1	0	0
Japan	1	1	7	7	20	20	86	92	43	44	10	10
Lao People's Democratic Republic	5	5	0	0	0	0	1	1	1	1	0	0
Malaysia	113	119	131	138	152	155	206	220	204	222	102	116
Mongolia	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	1	1	5	5	4	4	15	15	1	1	0	0
Papua New Guinea	0	0	3	3	0	0	0	0	0	0	0	0
Philippines	366	891	445	1179	506	1425	230	940	23	353	Not available	Not available
Republic of Korea	2	2	0	0	2	2	0	1	6	8	1	2
Singapore	4	4	3	3	6	6	7	7	5	5	0	0
Viet Nam	16	33	22	35	55	83	38	94	37	44	3	7
Pacific island countries and areas	0	0	0	0	0	0	0	0	0	0	0	0
<b>Western Pacific Region</b>	<b>874</b>	<b>1431</b>	<b>1025</b>	<b>1790</b>	<b>1328</b>	<b>2287</b>	<b>1134</b>	<b>1933</b>	<b>960</b>	<b>1334</b>	<b>436</b>	<b>501</b>

-- No data

<sup>1</sup> Reports only confirmed cases

Source: Case based and aggregate data reports to the Western Pacific Regional Office by 20 July 2018

Figure 2. Total (confirmed and compatible) measles cases by month of rash onset, WHO Western Pacific Region, 2013–2018 as of 20 July 2018



Source: Measles and rubella monthly country reports to WHO by 20 July 2018

Table 2. Status of verification of measles elimination, WHO Western Pacific Region

Country/area	Year verified	2016	2017					% of cases with known source of infection	2018					
		% of cases with known source of infection	No. of confirmed cases	Source of infection					No. of confirmed cases	Source of infection				% of cases with known source of infection
				Imported	Import-related	Endemic	Unknown / not reported			Imported	Import-related	Endemic	Unknown / not reported	
Australia	2014	49.5%	81	38	32	0	11	86.4%	51	27	16	0	8	84.3%
Brunei Darussalam	2015	100.0%	0	-	-	-	-	-	0	-	-	-	-	-
Cambodia	2015	0.0%	10	0	0	0	10	0.0%	0	-	-	-	-	-
China	-	0.0%	5 181	0	0	0	5 181	0.0%	2 807	0	0	0	2 807	0.0%
China, Hong Kong SAR	2016	11.1%	4	3	0	0	1	75.0%	10	4	0	0	6	40.0%
China, Macao SAR	2014	-	2	0	2	0	0	100.0%	1	1	0	0	0	100.0%
Japan	2015	81.6%	183	34	136	0	13	92.9%	167	18	137	0	12	92.8%
Lao People's Democratic Republic	-	0.0%	3	0	0	0	3	0.0%	7	0	0	0	7	0.0%
Malaysia	-	95.6%	1 624	5	0	1 056	563	65.3%	909	3	0	579	327	64.0%
Mongolia	-	100.0%	9	0	0	9	0	100.0%	0	-	-	-	-	-
New Zealand	2017	0.0%	14	0	0	0	14	0.0%	26	0	0	0	26	0.0%
Papua New Guinea	-	-	7	0	0	0	7	0.0%	6	0	0	0	6	0.0%
Philippines	-	28.4%	251	0	0	43	208	17.1%	1 578	41	9	930	598	62.1%
Republic of Korea	2014	100.0%	5	3	0	0	2	60.0%	11	3	2	0	6	45.5%
Singapore	-	75.7%	68	20	22	0	26	61.8%	25	7	0	0	18	28.0%
Viet Nam	-	0.0%	100	0	0	0	100	0.0%	162	0	0	0	162	0.0%
Pacific island countries and areas	-	0.0%	1	0	0	0	1	0.0%	0	-	-	-	-	-
<b>Total</b>		<b>18.2%</b>	<b>7 543</b>	<b>103</b>	<b>192</b>	<b>1 108</b>	<b>6 140</b>	<b>18.6%</b>	<b>5 760</b>	<b>104</b>	<b>164</b>	<b>1 509</b>	<b>3 983</b>	<b>30.9%</b>

Blue No measles cases  
 Green ≥80%  
 Yellow 60–79%  
 Red <60%

Source: Measles and rubella monthly country reports to WHO by 20 July 2018

Table 3. Measles case classification and incidence by country and area, WHO Western Pacific Region, 2014–2018 as of 20 July 2018

Country/area	2014		2015		2016		2017		2018										Rash onset of last confirmed measles case	
	Total confirmed and compatible <sup>1</sup>	Measles incidence per 1 million pop.	Total confirmed and compatible <sup>1</sup>	Measles incidence per 1 million pop.	Total confirmed and compatible <sup>1</sup>	Measles incidence per 1 million pop.	Total confirmed and compatible <sup>1</sup>	Measles incidence per 1 million pop.	Population (in millions) <sup>2</sup>	Suspected measles cases	Pending classification	Discarded cases <sup>3</sup>	Confirmed and compatible measles cases					Deaths due to measles		
													Compatible cases	Lab	Epi-linked	Total confirmed and compatible	Annualized measles incidence per 1 million pop.			
Australia	340	14.5	74	3.1	99	4.1	81	3.3	24.8	51	0	0	0	51	0	0	51	4.1	0	24-Jun-18
Brunei Darussalam	0	0.0	4	9.6	1	2.4	0	0.0	0.4	13	0	13	0	0	0	0	0.0	0	7-Aug-16	
Cambodia	0	0.0	18 372	1183.9	56	3.6	10	0.6	16.2	518	44	474	0	0	0	0	0.0	0	8-Jun-17	
China	52 485	37.8	42 864	30.7	24 839	17.7	5 993	4.3	1415.0	18 372	615	12 935	103	2 783	24	2 910	4.1	1	30-Apr-18	
China, Hong Kong SAR	50	6.9	18	2.5	9	1.2	4	0.5	7.4	20	0	10	0	10	0	10	2.7	0	21-May-18	
China, Macao SAR	1	1.7	0	0.0	0	0.0	2	3.2	0.6	20	1	18	0	1	0	1	3.2	0	6-May-18	
Japan	454	3.5	35	0.3	157	1.2	187	1.5	127.2	1 137	61	902	7	167	0	174	2.7	0	30-Jun-18	
Lao People's Democratic Republic	70	10.6	56	8.4	8	1.2	3	0.4	7.0	446	91	348	0	2	5	7	2.0	0	11-May-18	
Malaysia	222	7.3	1 318	42.9	1 587	50.9	1 648	52.1	32.0	5 025	425	3 629	62	898	11	971	60.6	0	26-Jun-18	
Mongolia	0	0.0	20 374	6844.1	28 813	9517.4	9	2.9	3.1	178	67	111	0	0	0	0	0.0	0	5-May-17	
New Zealand	274	60.0	13	2.8	104	22.3	15	3.2	4.7	37	4	7	0	25	1	26	10.9	0	7-May-18	
Papua New Guinea	2 589	333.8	53	6.7	0	0.0	7	0.8	8.4	44	0	38	0	6	0	6	1.4	0	3-Jul-18	
Philippines	54 669	546.1	2 003	19.7	641	6.2	1 224	11.7	106.5	8 367	3 106	447	3 236	1 236	342	4 814	90.4	21	21-May-18	
Republic of Korea	442	8.8	7	0.1	18	0.4	7	0.1	51.2	443	9	419	4	11	0	15	0.6	0	2-Jun-18	
Singapore	171	31.4	45	8.1	157	27.9	81	14.2	5.8	72	0	47	0	25	0	25	8.6	0	27-May-18	
Viet Nam	16 741	180.9	884	9.4	368	3.9	588	6.2	96.5	925	215	412	136	162	0	298	6.2	1	5-Jul-18	
Pacific island countries and areas <sup>4</sup>	279	87.9	20	6.2	6	1.8	1	0.3	3.3	50	0	50	0	0	0	0	0.0	0	1-May-17	
<i>Fiji</i>	1	1.1	1	1.1	5	5.6	1	1.1	0.9	50	0	50	0	0	0	0	0.0	0	1-May-17	
<i>Federated States of Micronesia</i>	257	2470.8	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	26-Aug-14
<i>Guam</i>	1	6.2	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	14-Mar-14
<i>Solomon Islands</i>	15	26.1	-	-	1	1.7	0	0.0	0.6	-	-	-	-	-	-	-	-	-	-	21-Jan-16
<i>Vanuatu</i>	5	19.3	19	71.8	0	0.0	-	-	0.3	-	-	-	-	-	-	-	-	-	-	23-Sep-15
Western Pacific Region	128 786	68.9	67 768	36.0	56 868	30.1	9 860	5.2	1910.3	35 718	4 638	19 860	3 548	5 377	383	9 308	9.7	23		

<sup>1</sup> Includes compatible, laboratory confirmed and epi-linked confirmed cases

<sup>2</sup> United Nations, Department of Economic and Social Affairs, Population Division World Population Prospects 2017 revision.

<sup>3</sup> Australia reports confirmed cases only.

<sup>4</sup> Classification is provisional based on laboratory data only.

Green <1 confirmed measles case / 1 000 000 population  
 Yellow 1-9.9 confirmed measles case / 1 000 000 population  
 Red >= 10 confirmed cases / 1 000 000 population

**Table 4. Measles surveillance performance indicators by country and area, WHO Western Pacific Region, 2017–2018 as of 20 July 2018**

Country/area	2017				2018			
	Discarded non-measles rate per 100 000 pop	Second level units with ≥ 2 discarded cases per 100 000 pop [annualized] <sup>1</sup>	Suspected cases with adequate investigation	Suspected cases with adequate specimens for laboratory confirmation <sup>2</sup>	Annualized discarded non-measles rate per 100 000 pop	Second level units with ≥ 2 discarded cases per 100 000 pop [annualized] <sup>1</sup>	Suspected cases with adequate investigation	Suspected cases with adequate specimens for laboratory confirmation <sup>2</sup>
	≥ 2	≥ 80%	≥ 80%	≥ 80%	≥ 2	≥ 80%	≥ 80%	≥ 80%
Australia <sup>3</sup>	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data
Brunei Darussalam	4.2	Not applicable	100.0%	100.0%	6.0	Not applicable	100.0%	100.0%
Cambodia	5.4	80.0%	81.9%	78.8%	5.8	68.0%	79.5%	99.8%
China	2.1	64.5%	97.8%	91.5%	1.8	35.5%	97.6%	90.8%
China, Hong Kong SAR	0.1	Not applicable	100.0%	100.0%	0.0	Not applicable	100.0%	90.0%
China, Macao SAR	2.6	Not applicable	83.3%	100.0%	5.7	Not applicable	65.0%	100.0%
Japan	0.4	0.0%	Insufficient data	Insufficient data	1.4	2.1%	Insufficient data	Insufficient data
Lao People's Democratic Republic	7.1	64.7%	82.1%	85.1%	10.0	88.2%	80.5%	83.4%
Malaysia	19.8	93.8%	84.4%	91.3%	22.7	87.5%	89.5%	88.2%
Mongolia	4.7	13.6%	88.3%	93.5%	7.1	45.5%	98.3%	94.9%
New Zealand	0.4	Insufficient data	Insufficient data	Insufficient data	0.3	Insufficient data	Insufficient data	Insufficient data
Papua New Guinea	0.5	10.0%	70.6%	84.3%	0.9	5.0%	43.2%	50.0%
Philippines	1.9	29.4%	46.0%	69.3%	0.8	11.1%	65.5%	56.0%
Republic of Korea	0.5	0.0%	71.2%	84.9%	1.6	12.5%	71.1%	67.9%
Singapore	1.4	Not applicable	65.8%	67.1%	1.6	Not applicable	104.2%	81.9%
Viet Nam	1.5	49.2%	55.5%	72.3%	0.9	14.3%	75.2%	64.6%
Pacific island countries and areas <sup>4</sup>	2.8	4.3%	87.5%	82.3%	3.0	5.0%	46.0%	84.0%
Western Pacific Region	2.2	36.4%	89.9%	89.2%	11.0	28.1%	87.3%	81.4%

<sup>1</sup> This indicator is not applicable for countries which have no second-level administrative units

<sup>2</sup> Adequate specimen defined as blood specimen collected within 28 days of rash onset or other specimen (throat swab, nasopharyngeal swab, cerebrospinal fluid, urine) collected within 5 days of rash onset; excludes epidemiologically-linked cases.

<sup>3</sup> Reports only confirmed cases

<sup>4</sup> Surveillance performance indicators refer to all the Pacific island countries and areas as one epidemiological block; each country is considered as second level unit

Green Reached or surpassed target

Yellow Nearly reached target: 1.00–1.99 for non-measles suspected case rate; 10.1–25% for percent clinically confirmed cases; 60–79% for other indicators

Red Substantially below target

Table 5. Rubella case classification and incidence by country and area, WHO Western Pacific Region, 2014–2018 as of 20 July 2018

Country/area	2014		2015		2016		2017		2018										
	Total confirmed and compatible	Rubella incidence per 1 million pop.	Total confirmed and compatible	Rubella incidence per 1 million pop.	Total confirmed and compatible	Rubella incidence per 1 million pop.	Total confirmed and compatible	Rubella incidence per 1 million pop.	Population (in millions) <sup>1</sup>	Investigated for rubella	Pending classification	Discarded cases	Confirmed and compatible rubella cases					Congenital rubella syndrome	
													Compatible cases	Lab	Epi-linked	Total confirmed and compatible	Annualized rubella incidence per 1 million pop.		
Australia	-	-	-	-	-	-	-	-	24.77	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	0	0.0	0	0.0	0	0.0	0	0.0	0.43	13	0	13	0	0	0	0	0	0.0	-
Cambodia	31	2.0	18	1.2	4	0.3	7	0.4	16.25	518	44	474	0	0	0	0	0	0.0	-
China	11 887	8.6	8 245	5.9	4 476	3.2	1 601	1.1	1 415.05	18 372	615	12 935	143	1 722	47	1 912	2.7	-	
China, Hong Kong SAR	1	0.1	12	1.7	3	0.4	1	0.1	7.43	4	0	0	1	3	0	4	1.1	-	
China, Macao SAR	0	0.0	2	3.3	1	1.6	0	0.0	0.63	19	1	18	0	0	0	0	0.0	-	
Japan	-	-	2	0.0	3	0.0	5	0.0	127.19	181	0	177	0	4	0	4	0.1	-	
Lao People's Democratic Republic	18	2.7	24	3.6	40	5.9	12	1.7	6.96	446	92	346	0	7	1	8	2.3	-	
Malaysia	226	7.5	34	1.1	68	2.2	113	3.6	32.04	5 069	425	4 581	0	63	0	63	3.9	-	
Mongolia	0	0.0	28	9.4	27	8.9	13	4.2	3.12	112	0	112	0	0	0	0	0.0	-	
New Zealand	-	-	-	-	-	-	-	-	4.75	0	-	-	-	-	-	-	-	-	
Papua New Guinea	-	-	4	0.5	2	0.2	1	0.1	8.42	44	0	43	0	1	0	1	0.2	-	
Philippines	343	3.4	154	1.5	165	1.6	448	4.3	106.51	8 305	3 106	5 140	0	59	0	59	1.1	-	
Republic of Korea	2	0.0	2	0.0	3	0.1	2	0.0	51.16	443	3	439	0	1	0	1	0.0	-	
Singapore	0	0.0	1	0.2	0	0.0	3	0.5	5.79	12	0	12	0	0	0	0	0.0	-	
Viet Nam	50	0.5	972	10.4	350	3.7	126	1.3	96.49	818	307	461	31	19	0	50	1.0	-	
Pacific island countries and areas <sup>2</sup>	4	1.3	1	0.3	1	0.3	4	1.2	3.32	50	8	42	0	0	0	0	0.0	-	
<i>Fiji</i>	4	4.5	1	1.1	1	1.1	4	4.4	0.91	50	8	42	0	0	0	0	0.0	-	
<i>Solomon Islands</i>	-	-	-	-	-	-	0	0.0	0.62	0	-	-	-	-	-	-	-	-	
<i>Vanuatu</i>	0	0.0	0	0.0	0	0.0	-	-	0.28	0	-	-	-	-	-	-	-	-	
Western Pacific Region	675	0.4	1 253	0.7	667	0.4	2 336	1.2	1910.32	34 406	4 601	24 793	175	1 879	48	2 102	2.2	-	

<sup>1</sup> United Nations, Department of Economic and Social Affairs, Population Division World Population Prospects 2017 revision

<sup>2</sup> Classification is provisional based on laboratory data only.

"-" No data

Green	<1 confirmed measles case / 1 000 000 population
Yellow	1-9.9 confirmed measles case / 1 000 000 population
Red	>= 10 confirmed cases / 1 000 000 population
Gray	No data

**Table 6A. Measles and rubella laboratory testing, WHO Western Pacific Region, 2017**

Country/area	Laboratory	Measles and rubella			Measles													Rubella				
					Serology						Total number of lab confirmed cases	Virus detection						Serum and blood (includes DBS)				
		Serum			Blood		% of samples with results ≤4 days	Measles Virus isolation/detection (swab, urine and others)		Measles Reverse Transcription-Polymerase Chain Reaction		Samples tested for rubella IgM	Rubella IgM (+)			Rubella IgM equiv						
		No.	No.	%	No.	%		No. received	No. (+)	No. of samples tested			No. of isolates	No. of samples tested	No. (+)	No.	No.	%	No.	%		
Australia	VIDRL	84	84	69	13	7	53.8	1	8%	0	-	84.6	1	0	73	71	68	1	0	-	0	-
Brunei Darussalam	DLS	20	20	20	20	0	0.0	2	10%	0	-	100.0	0	-	0	-	0	20	0	0.0	0	0%
Cambodia	NIPH	929	929	929	774	10	1.3	0	0%	155	0	80.6	0	-	0	-	10	928	5	0.5	0	0%
China	CCDC	-	-	-	-	-	-	-	-	-	-	91.2	-	-	-	-	-	-	-	-	-	-
China, Hong Kong SAR	PHLC	289	289	242	248	4	1.6	5	2%	0	-	94.0	7	3	43	9	5	239	0	0.0	2	1%
China, Macao SAR	PHL	65	65	65	65	3	4.6	4	6%	0	-	100.0	0	-	6	2	3	65	0	0.0	1	2%
Japan	NIID	1 120	1 120	601	157	44	28.0	22	14%	0	-	-	0	-	516	173	183	8	0	-	0	0%
Lao People's Democratic Republic	NCLE	409	409	409	409	2	0.5	9	2%	0	-	81.6	0	-	0	-	2	409	12	2.9	14	3%
Malaysia	NPHL	11 946	11 946	9 069	8 672	1 874	21.6	223	3%	0	-	95.5	1 807	129	0	-	1 922	6 479	186	2.9	176	3%
Mongolia	NCCD	640	640	640	634	3	0.5	13	2%	0	-	100.0	0	-	6	0	3	611	7	1.1	29	5%
New Zealand	CHL	325	325	299	123	4	3.3	9	7%	0	-	98.4	0	-	181	10	10	121	0	0.0	1	1%
Papua New Guinea	CPHL	51	51	51	49	7	14.3	0	0%	0	-	80.4	0	-	0	-	6	45	1	2.2	2	4%
Philippines	RITM	2 964	2 964	2 948	2 873	188	6.5	27	1%	70	10	97.2	172	6	221	30	220	2 862	313	10.9	129	5%
Republic of Korea	KCDC	529	529	448	350	39	11.1	22	6%	0	-	77.3	0	-	149	2	39	197	33	16.8	27	14%
Singapore	NPHL	549	549	565	102	11	10.8	0	0%	0	-	100.0	45	20	458	52	62	96	12	12.5	0	0%
Viet Nam national lab (Northern)	NIHE	620	620	620	611	15	2.5	6	1%	0	-	97.9	8	1	9	0	16	611	18	2.9	36	6%
Viet Nam national lab (Southern)	PI	366	366	342	333	10	3.0	5	2%	0	-	88.9	33	0	33	0	10	333	52	15.6	20	6%
Viet Nam subnational lab (Central)	PI	214	214	214	213	0	-	2	1%	0	-	37.6	0	-	1	0	0	213	3	-	2	1%
Viet Nam subnational lab (Highland)	IHE	65	65	65	65	0	-	0	0%	0	-	33.8	0	-	0	-	0	65	0	0.0	0	0%
Fiji	FCCDC	93	93	93	85	1	1.2	0	0%	4	0	-	0	-	0	-	1	88	4	4.5	2	2%
<b>Total</b>		<b>21 278</b>	<b>21 278</b>	<b>17 689</b>	<b>15 796</b>	<b>2 222</b>	<b>14.1</b>	<b>350</b>	<b>2%</b>	<b>229</b>	<b>10</b>	<b>93.4</b>	<b>2 073</b>	<b>159</b>	<b>1 696</b>	<b>349</b>	<b>2 560</b>	<b>13 391</b>	<b>646</b>	<b>4.8</b>	<b>441</b>	<b>3%</b>

"-" No data

**Table 6B. Measles and rubella laboratory testing, WHO Western Pacific Region, 2018 as of 20 July 2018**

Country/area	Laboratory	Measles and rubella			Measles													Rubella					
					Serology						Virus detection				Total number of lab confirmed cases	Serum and blood (includes DBS)							
		Serum			Blood		% of samples with results ≤4 days	Measles Virus isolation/detection (swab, urine and others)		Measles Reverse Transcription-Polymerase Chain Reaction		Samples tested for rubella IgM	Rubella IgM (+)			Rubella IgM equiv							
		No.	No.	%	No.	%		No. received	No. (+)	No. of samples tested	No. of isolates		No. of samples tested	No. (+)		No.	No.	%	No.	%			
Australia	VIDRL	54	54	41	9	9	100.0	0	0%	0	-	66.7	0	-	45	45	41	0	-	-	-	-	-
Brunei Darussalam	DLS	13	13	13	13	0	0.0	0	0%	0	-	100.0	0	-	0	-	0	13	0	0%	0	0%	
Cambodia	NIPH	409	409	409	412	0	0.0	0	0%	62	0	47.8	0	-	0	-	0	410	0	0%	0	0%	
China	CCDC	-	-	-	-	-	-	-	-	-	-	91.2	-	-	-	-	-	-	-	-	-	-	-
China, Hong Kong SAR	PHLC	302	302	240	223	10	4.5	3	1%	0	-	89.0	5	1	77	9	13	200	5	3%	4	2%	
China, Macao SAR	PHL	91	91	91	91	2	2.2	3	3%	0	-	100.0	0	-	3	1	2	90	7	8%	0	0%	
Japan	NIID	1 824	1 614	927	190	20	10.5	25	13%	0	-	-	0	-	702	159	169	4	1	-	0	-	
Lao People's Democratic Republic	NCLE	373	373	373	352	2	0.6	5	1%	0	-	95.5	0	-	0	-	2	349	7	2%	23	7%	
Malaysia	NPHL	7 960	7 960	5 606	5 339	1 057	19.8	151	3%	0	-	94.0	1 253	89	0	-	1 083	3 362	146	4%	94	3%	
Mongolia	NCCD	157	157	157	157	0	0.0	0	0%	0	-	100.0	0	-	0	-	0	156	1	1%	0	0%	
New Zealand	CHL	277	277	235	60	9	15.0	1	2%	0	-	95.0	1	0	199	24	27	27	0	0%	3	11%	
Papua New Guinea	CPHL	39	39	39	39	3	7.7	0	0%	0	-	84.6	0	-	0	-	3	39	1	3%	0	0%	
Philippines	RITM	6 968	6 968	6 883	6 539	1 118	17.1	34	1%	106	6	13.6	974	174	978	719	1 713	4 207	69	2%	31	1%	
Republic of Korea	KCDC	436	436	332	309	31	10.0	32	10%	0	-	61.1	6	1	161	26	51	202	24	12%	31	15%	
Singapore	NPHL	321	321	316	26	4	15.4	0	0%	0	-	100.0	21	6	215	25	29	24	2	8%	0	0%	
Viet Nam national lab (Northern)	NIHE	458	458	414	300	116	38.7	12	4%	0	-	98.3	157	0	165	120	204	300	14	5%	7	2%	
Viet Nam national lab (Southern)	PI	137	137	130	121	5	4.1	0	0%	0	-	94.2	16	0	16	0	5	121	10	8%	5	4%	
Viet Nam subnational lab (Central)	PI	135	135	135	133	0	0.0	1	1%	0	-	56.1	0	-	2	0	1	133	2	2%	0	0%	
Viet Nam subnational lab (Highland)	IHE	21	21	21	21	0	0.0	0	0%	0	-	9.5	0	-	0	-	0	21	0	0%	0	0%	
Fiji	FCCDC	53	47	47	47	0	0.0	3	6%	6	0	No data	0	-	0	-	0	47	0	0%	2	4%	
<b>Total</b>		<b>20 028</b>	<b>19 812</b>	<b>16 409</b>	<b>14 381</b>	<b>2 386</b>	<b>16. 6</b>	<b>270</b>	<b>2%</b>	<b>174</b>	<b>6</b>	<b>74.4</b>	<b>2 433</b>	<b>271</b>	<b>2 563</b>	<b>1 128</b>	<b>3 343</b>	<b>9 705</b>	<b>289</b>	<b>3%</b>	<b>200</b>	<b>2%</b>	

"-" No data

Figure 3. Measles genotype distribution of cases with rash onset in 2017 and 2018, WHO Western Pacific Region

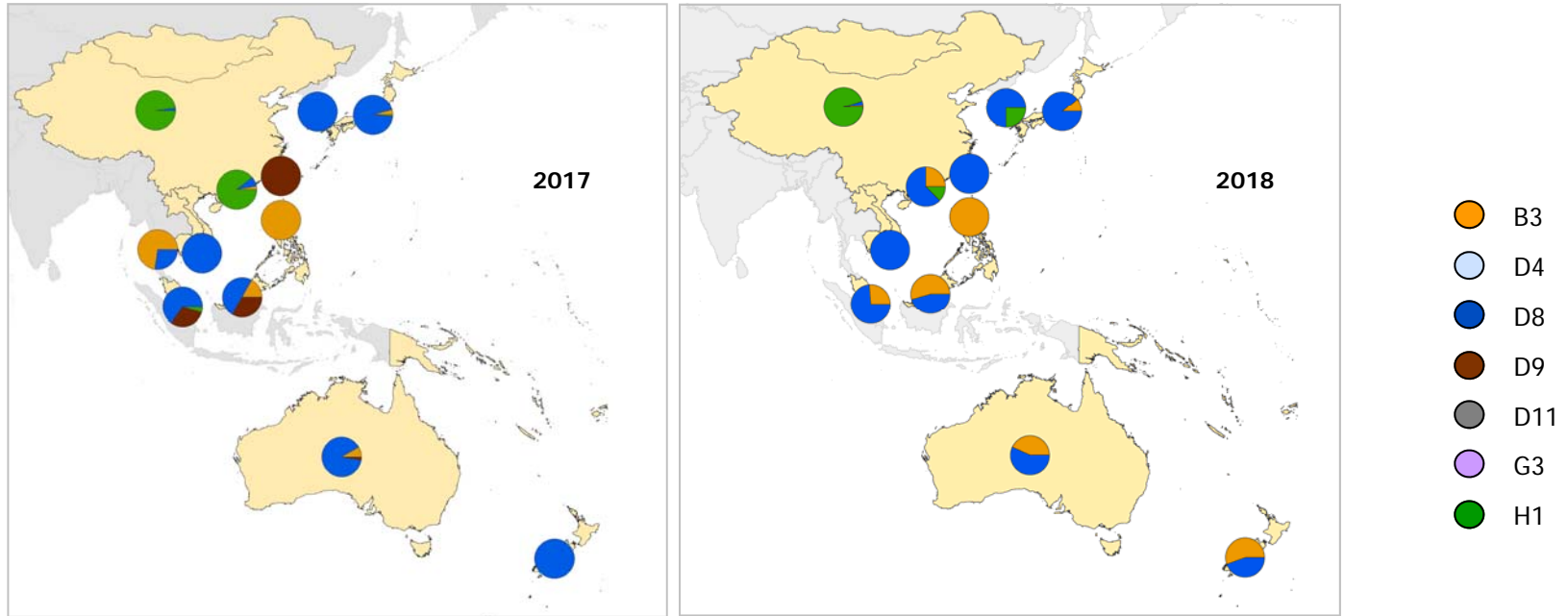


Table 7. Measles genotype distribution of cases with rash onset in July 2017 to June 2018, WHO Western Pacific Region

Country/area	2017																2018																																			
	Jul				Aug				Sep				Oct				Nov				Dec				Jan				Feb				Mar				Apr				May				Jun							
	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1								
Australia					2	1			2	2			1	10			4	2			1				1	2			1				10	9			2	6			1	4			1							
Brunei Darussalam																																																				
Cambodia																																																				
China				17				20				16	2	8			1	5						11				14				23	3	39	1		12	1			5											
China, Hong Kong SAR									1																				1	1			2	1			2				1											
China, Macao SAR				2																																					1											
Japan	2					8							8																1	5			2	4			9				11				1	8			1	4		
Lao People's Democratic Republic																																																				
Malaysia																													4	5			1				1															
Mongolia																																																				
New Zealand																													1				4				2	2			7	1			1							
Papua New Guinea																																																				
Philippines					2				1				1				2								17				4				19				12															
Republic of Korea																																																				
Singapore	1	1			1				3	1				2				1				5	1		1	4							2				2	2			1	3			1	2						
Viet Nam													3					9																																		
Pacific island countries and areas																																																				

Sources: Includes all cases reported to the Western Pacific Regional Office by 20 July 2018 and the Measles Nucleotide Surveillance online database (MeANS).



Figure 4. Rubella genotype distribution of cases with rash onset in 2017 and 2018, WHO Western Pacific Region

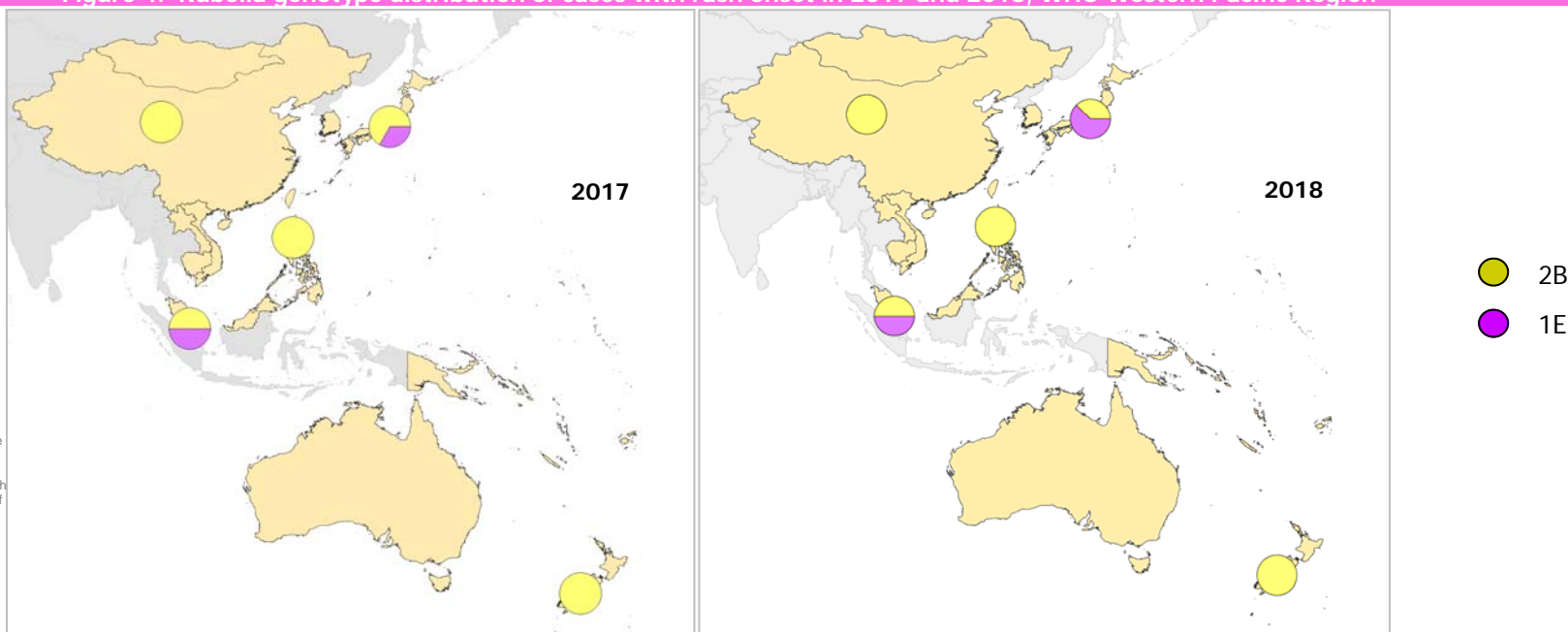


Table 8. Rubella genotype distribution of cases with rash onset in July 2017 to June 2018, WHO Western Pacific Region

Country/area	2017												2018																							
	Jul			Aug			Sep			Oct			Nov			Dec			Jan			Feb			Mar			Apr			May			Jun		
	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J	2B	1E	1J			
Australia																																				
Brunei Darussalam																																				
Cambodia																																				
China																1						3				1	4		16	5						
China, Hong Kong SAR																																				
China, Macao SAR																																				
Japan										1						1									2				1	1						
Lao People's Democratic Republic																																				
Malaysia																																				
Mongolia																																				
New Zealand																																				
Papua New Guinea																																				
Philippines	4																																			
Republic of Korea																																				
Singapore					1			1				1															1									
Viet Nam																																				
Pacific island countries and areas																																				

Sources: Includes all cases reported to the Western Pacific Regional Office by 20 July 2018 and the Rubella Nucleotide Surveillance online database (RubeNS).

**Table 9A. Completeness and timeliness of epidemiologic reporting, WHO Western Pacific Region, 2017–2018**

Country	2017		2018 <sup>1</sup>							
	Completeness <sup>2</sup>	Timeliness <sup>3</sup>	Jan	Feb	Mar	Apr	May	Jun	Completeness <sup>2</sup>	Timeliness <sup>3</sup>
Australia	100%	100%	08 Feb	08 Mar	10 Apr	16 May	12 Jun	09 Jul	100%	83%
Brunei Darussalam	100%	100%	07 Feb	06 Mar	07 Apr	07 May	05 Jun	07 Jul	100%	100%
Cambodia	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
China	100%	75%	13 Feb	12 Mar	15 Apr	16 May	05 Jul	12 Jul	100%	83%
China, Hong Kong SAR	100%	100%	06 Feb	06 Mar	09 Apr	07 May	06 Jun	09 Jul	100%	100%
China, Macao SAR	100%	100%	08 Feb	08 Mar	04 Apr	07 May	06 Jun	09 Jul	100%	100%
Japan	100%	92%	09 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
Lao People's Democratic Republic	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
Malaysia	100%	100%	08 Feb	09 Mar	06 Apr	10 May	10 Jun	10 Jul	100%	100%
Mongolia	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
New Zealand	100%	100%	08 Feb	07 Mar	10 Apr	08 May	06 Jun	05 Jul	100%	100%
Papua New Guinea	100%	92%	-	14 Mar	17 Apr	10 May	08 Jun	17 Jul	83%	33%
Philippines	58%	25%	02 Mar	-	27 Apr	22 May	21 Jun	-	67%	0%
Republic of Korea	100%	92%	08 Feb	10 Mar	10 Apr	10 May	10 Jun	13 Jul	100%	83%
Singapore	100%	92%	08 Feb	10 Mar	07 Apr	10 May	07 Jun	07 Jul	100%	100%
Viet Nam	100%	92%	09 Feb	09 Mar	10 Apr	09 May	08 Jun	09 Jul	100%	100%
Pacific island countries and areas	100%	67%	16 Feb	10 Mar	07 Apr	14 May	08 Jun	13 Jul	100%	83%
Completeness	98%		94%	94%	100%	100%	100%	94%	97%	
Timeliness		92%	82%	88%	88%	88%	88%	82%		86%

<sup>1</sup> National measles surveillance monthly reports from June 2018.

Legend: black = timely report; red = untimely report

<sup>2</sup> Completeness is defined as the number of reports received by the end of the (day) of the following month; Pacific island countries and areas and China may report to the Regional Office by the 15th (or the next working day) of the

**Table 9B. Completeness and timeliness of laboratory reporting, WHO Western Pacific Region, 2017–2018**

Country/area	2017		2018 <sup>1</sup>								Genotype results by source of data			
	Completeness <sup>2</sup>	Timeliness <sup>3</sup>	Jan	Feb	Mar	Apr	May	Jun	Completeness <sup>2</sup>	Timeliness <sup>3</sup>	Measles		Rubella	
											MeaNS	Submission to WPRO	Rubens	Submission to WPRO
Australia	100%	100%	07 Feb	01 Mar	04 Apr	04 May	07 Jun	06 Jul	100%	100%	34	38	0	0
Brunei Darussalam	100%	100%	05 Feb	01 Mar	31 Mar	07 May	30 May	30 Jun	100%	100%	0	0	0	0
Cambodia	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%	0	0	0	0
China	100%	100%	06 Feb	06 Mar	02 Apr	02 May	05 Jun	02 Jul	100%	100%	19	98	18	17
China, Hong Kong SAR	100%	100%	06 Feb	06 Mar	10 Apr	07 May	07 Jun	09 Jul	100%	100%	7	8	0	2
China, Macao SAR	100%	100%	08 Feb	09 Mar	06 Apr	08 May	10 Jun	06 Jul	100%	100%	1	1	0	0
Japan	100%	92%	09 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%	4	47	4	0
Lao People's Democratic Republic	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%	0	0	0	0
Malaysia	100%	100%	09 Feb	09 Mar	11 Apr	14 May	02 Jul	10 Jul	100%	67%	11	0	0	0
Mongolia	100%	83%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%	0	0	0	0
New Zealand	100%	100%	08 Feb	07 Mar	10 Apr	08 May	05 Jun	05-Jul	100%	100%	18	18	0	0
Papua New Guinea	100%	67%	08 Feb	10 Mar	04 Apr	10 May	08 Jun	04 Jul	100%	100%	0	0	0	0
Philippines	100%	92%	10 Feb	10 Mar	10 Apr	09 May	13 Jun	10 Jul	100%	83%	35	35	0	0
Republic of Korea	100%	100%	09 Feb	09 Mar	10 Apr	10 May	08 Jun	10 Jul	100%	100%	3	10	0	0
Singapore	100%	100%	08 Feb	10 Mar	07 Apr	10 May	07 Jun	07 Jul	100%	100%	15	19	1	1
Viet Nam national lab (Northern)	100%	100%	09 Feb	05 Mar	09 Apr	09 May	06 Jun	10 Jul	100%	100%	33	16	0	0
Viet Nam national lab (Southern)	100%	100%	08 Feb	08 Mar	09 Apr	09 May	10 Jun	09 Jul	100%	100%	0	0	0	0
Viet Nam subnational lab (Central)	100%	100%	09 Feb	05 Mar	09 Apr	09 May	06 Jun	10 Jul	100%	100%	0	0	0	0
Viet Nam subnational lab (Highland)	100%	100%	09 Feb	05 Mar	09 Apr	09 May	06 Jun	10 Jul	100%	100%	0	0	0	0
Fiji	100%	75%	16 Feb	16 Mar	07 Apr	14 May	08 Jun	13 Jul	100%	67%	0	0	0	0
Completeness	100%		100%	100%	100%	100%	100%	100%	100%		180	290	23	20
Timeliness		95%	95%	95%	100%	95%	90%	100%		96%				

<sup>1</sup> National measles laboratory monthly reports from June 2018.

<sup>2</sup> Completeness is defined as the number of reports received by the end of the reporting month divided by the number of expected reports for the year.

<sup>3</sup> National measles and rubella laboratories should submit monthly reports by the 10th (or the next working day) of the following month.

**Expanded Programme on Immunization  
Regional Office for the Western Pacific  
World Health Organization**

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*Please send your comments and monthly data before the 10th of the month to:*

***WPROEPIdata@who.int***

*More detailed information available in the  
Regional and country profile of measles elimination*