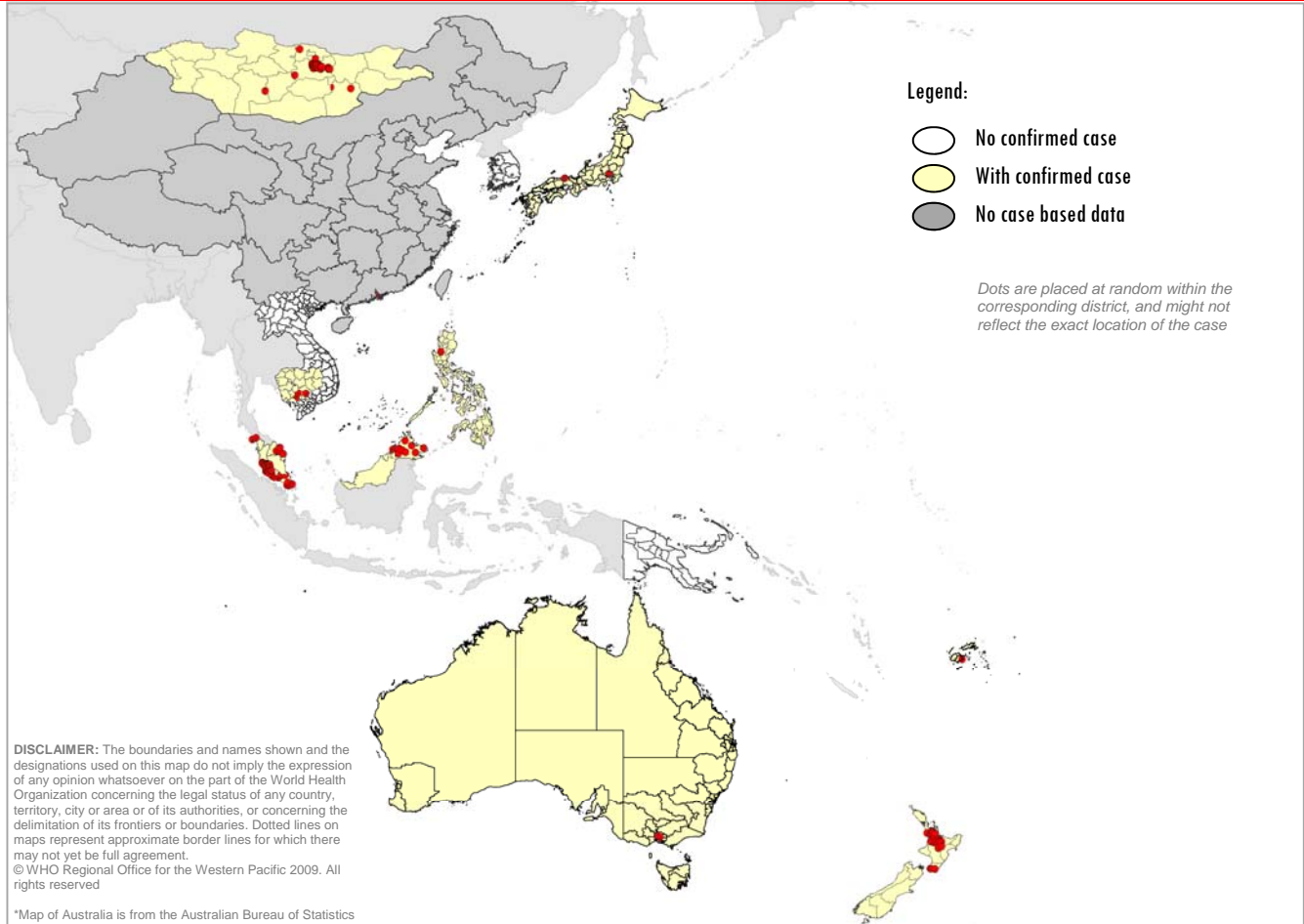


# MEASLES-RUBELLA

Figure 1. Distribution of confirmed measles cases with rash onset 1–30 June 2016, WHO Western Pacific Region



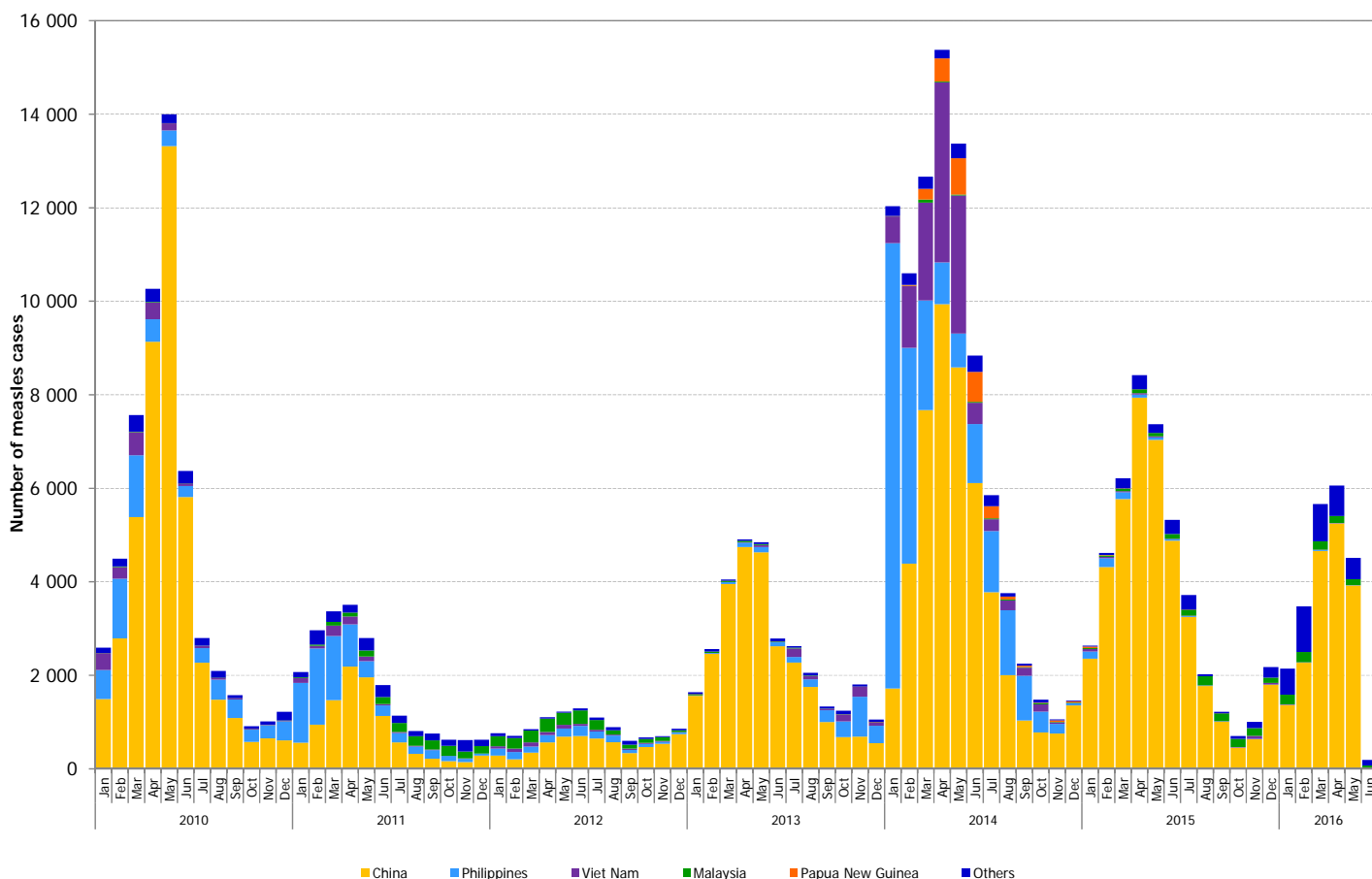
Source: Measles and rubella monthly country reports to the Western Pacific Regional Office by 20 July 2016

Table 1. Confirmed measles cases by month of rash onset, July 2015 – June 2016, WHO Western Pacific Region

Country/area	2015						2016					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Australia	3	7	9	0	4	5	6	15	16	10	5	3
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0	0	0
Cambodia	0	0	0	0	0	0	2	0	0	0	2	3
China	3249	1772	1011	453	635	1805	1366	2270	4663	5247	3923	2619
China, Hong Kong SAR	1	0	1	0	1	0	0	0	0	1	2	1
China, Macao SAR	0	0	0	0	0	0	0	0	0	0	0	0
Japan	1	1	1	3	3	1	1	2	2	0	3	2
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	129	197	165	175	167	110	206	221	178	152	125	70
Mongolia	301	32	16	53	116	216	544	947	767	598	377	71
New Zealand	0	0	0	0	0	1	1	5	2	20	34	29
Papua New Guinea	1	1	1	0	0	0	0	0	0	0	0	0
Philippines	18	9	7	7	6	1	6	4	19	6	5	1
Republic of Korea	1	0	0	0	0	0	0	2	2	1	0	0
Singapore	8	2	4	3	3	1	1	5	10	18	30	6
Viet Nam	8	4	2	9	67	35	7	4	4	3	2	0
Pacific island countries and areas	0	0	3	0	0	0	0	1	1	1	1	1
Western Pacific Region	3720	2025	1220	703	1002	2175	2140	3476	5664	6057	4509	2806

Source: Case based and aggregate data reports to the Western Pacific Regional Office by 20 July 2016

Figure 2. Confirmed measles cases by month of rash onset, WHO Western Pacific Region, 2010–2016 as of 20 July 2016



Source: Measles and rubella monthly country reports to WHO by 20 July 2016  
Includes laboratory confirmed, epi-linked and clinically confirmed cases for 2010–2012

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

Country/area	Year verified	2015					% of cases with known source of infection	2016					% of cases with known source of infection
		No. of confirmed cases	Source of infection					No. of confirmed cases	Source of infection				
			Imported	Import-related	Unknown/not reported	Endemic			Imported	Import-related	Unknown / not reported	Endemic	
Australia	2014	74	33	30	11	0	85.1%	55	15	7	33	0	40.0%
Brunei Darussalam	2015	4	1	3	0	0	100.0%	0	-	-	-	-	-
Cambodia	2015	0	-	-	-	-	-	7	0	0	7	0	0.0%
China	-	41 217	0	0	41 217	0	0.0%	20 088	0	0	20 088	0	0.0%
China, Hong Kong SAR	-	12	3	0	9	0	25.0%	4	1	0	3	0	25.0%
China, Macao SAR	2014	0	-	-	-	-	-	0	-	-	-	-	-
Japan	2015	32	16	10	6	0	81.3%	10	7	2	1	0	90.0%
Lao People's Democratic Republic	-	56	0	0	56	0	0.0%	0	-	-	-	-	-
Malaysia	-	1 302	2	0	516	617	0.2%	952	2	0	323	627	0.2%
Mongolia	2014	1 617	0	1 638	1	0	101.3%	3 304	0	3 304	0	0	100.0%
New Zealand	-	13	0	0	13	0	0.0%	91	0	0	91	0	0.0%
Papua New Guinea	-	53	0	0	53	0	0.0%	0	-	-	-	-	-
Philippines	-	688	0	0	688	0	0.0%	41	0	0	41	0	0.0%
Republic of Korea	2014	7	3	1	3	0	57.1%	5	4	1	0	0	100.0%
Singapore	-	39	9	1	29	0	25.6%	70	10	0	60	0	14.3%
Viet Nam	-	291	0	0	291	0	0.0%	20	0	0	20	0	0.0%
Pacific island countries and areas	-	20	0	0	20	0	0.0%	5	0	0	5	0	0.0%
<b>Total</b>		<b>45 425</b>	<b>67</b>	<b>1 683</b>	<b>42 913</b>	<b>617</b>	<b>3.9%</b>	<b>24 652</b>	<b>39</b>	<b>3 314</b>	<b>20 672</b>	<b>627</b>	<b>13.6%</b>

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

Source: Measles and rubella monthly country reports to WHO by 20 July 2016

Table 3. Measles case classification and incidence by country and area, WHO Western Pacific Region, 2010–2016 as of 20 July 2016

Country/area	2011		2012		2013		2014		2015		2016										Rash onset of last confirmed measles case
	Total confirmed <sup>1</sup>	Measles incidence per 1 million pop.	Total confirmed <sup>1</sup>	Measles incidence per 1 million pop.	Total confirmed <sup>2</sup>	Measles incidence per 1 million pop.	Total confirmed <sup>2</sup>	Measles incidence per 1 million pop.	Total confirmed <sup>2</sup>	Measles incidence per 1 million pop.	Population (in millions) <sup>3</sup>	Suspected measles cases	Pending classification	Discarded cases <sup>4</sup>	Compatible cases	Confirmed measles cases				Deaths due to measles	
																Lab	Epi-linked	Total confirmed	Annualized measles incidence per 1 million pop.		
Australia	192	8.5	199	8.7	154	6.6	340	14.5	74	3.3	24.3	NA <sup>4</sup>	0	0	0	52	3	55	4.5	0	25-Jun-16
Brunei Darussalam	4	9.9	1	2.4	0	0.0	0	0.0	4	9.0	0.4	8	0	8	0	0	0	0	0.0	0	16-May-15
Cambodia	722	50.5	0	0.0	0	0.0	0	0.0	0	0.0	15.8	275	3	265	0	7	0	7	0.9	0	28-Jun-16
China	9 943	7.4	6 183	4.6	26 912	19.8	48 123	35.3	41 217	29.5	1382.3	49 867	1 544	27 293	942	20 047	41	20 088	29.1	16	30-Jun-16
China, Hong Kong SAR	12	1.7	8	1.1	34	4.7	46	6.3	12	1.6	7.3	77	0	72	1	4	0	4	1.1	0	7-Jun-16
China, Macao SAR	1	1.8	1	1.8	3	5.2	1	1.7	0	0.0	0.6	3	0	3	0	0	0	0	0.0	0	3-Jun-14
Japan	411	3.2	228	1.8	141	1.1	434	3.4	32	0.3	126.3	115	0	104	0	10	0	10	0.2	0	22-Jun-16
Lao People's Democratic Republic	113	18.0	36	5.6	68	10.5	70	10.7	56	8.0	6.9	404	211	193	0	0	0	0	0.0	0	16-Apr-15
Malaysia	1 603	54.4	1 868	63.7	177	5.9	213	7.0	1 302	43.3	30.8	3 691	490	2 192	57	930	22	952	61.9	0	27-Jun-16
Mongolia	0	0.0	0	0.0	0	0.0	0	0.0	1 617	566.4	3.0	29 767	110	935	25 418	2 768	536	3 304	2197.9	41	20-Jun-16
New Zealand	599	135.7	55	12.3	9	2.0	263	57.7	13	2.9	4.6	133	23	19	0	65	26	91	39.9	0	28-Jun-16
Papua New Guinea	0	0.0	0	0.0	7	1.0	2 589	345.9	53	6.9	7.8	15	0	13	2	0	0	0	0.0	0	21-Sep-15
Philippines	6 555	69.1	1 536	15.9	3777	38.5	23 708	237.6	688	6.8	102.3	857	49	592	175	39	2	41	0.8	0	1-Jun-16
Republic of Korea	43	0.9	2	0.0	107	2.2	442	9.0	7	0.1	50.5	151	14	132	0	5	0	5	0.2	0	24-Apr-16
Singapore	143	27.6	40	7.6	56	10.6	134	25.1	39	7.7	5.7	117	0	36	11	69	1	70	24.6	0	18-Jun-16
Viet Nam	745	8.4	637	5.9	895	9.9	12 223	133.5	291	3.1	94.4	521	18	423	60	20	0	20	0.4	0	18-Jun-16
Pacific island countries and areas <sup>5</sup>	2	1.0	0	0.0	0	0.0	273	83.4	20	6.1	3.3	209	3	201	0	5	0	5	3.1	0	9-Jun-16
Western Pacific Region	21 088	11.7	10 794	5.9	32 340	17.7	88 859	48.3	45 425	24.2	1866.3	86 210	2 465	32 481	26 666	24 021	631	24 652	26.4	57	

<sup>1</sup> Includes laboratory confirmed, epi-linked and clinically confirmed cases for 2009 to 2012.

<sup>2</sup> Includes laboratory confirmed and epi-linked confirmed cases from 2013 to 2016.

<sup>3</sup> United Nations, Department of Economic and Social Affairs, Population Division World Population Prospects.

<sup>4</sup> Australia reports confirmed cases only.

<sup>5</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, 2015–2016 as of 20 July 2016

Country/area	2015				2016			
	Discarded non-measles rate per 100 000 pop	Second level units with ≥ 2 discarded cases per 100 000 pop (annualized)	Suspected cases with adequate investigation	Suspected cases with adequate blood specimens <sup>1</sup>	Annualized discarded non-measles rate per 100 000 pop	Second level units with ≥ 2 discarded cases per 100 000 pop (annualized)	Suspected cases with adequate investigation	Suspected cases with adequate blood specimens <sup>1</sup>
	≥ 2	≥ 80%	≥ 80%	≥ 80%	≥ 2	≥ 80%	≥ 80%	≥ 80%
Australia <sup>2</sup>	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data
Brunei Darussalam	4.5	100.0%	100.0%	95.8%	3.7	100.0%	100.0%	100.0%
Cambodia	4.4	91.7%	80.5%	98.7%	3.3	52.0%	89.8%	98.9%
China	4.5	83.9%	95.0%	85.7%	3.9	67.7%	95.8%	85.2%
China, Hong Kong SAR	2.1	100.0%	98.8%	97.7%	2.0	100.0%	100.0%	100.0%
China, Macao SAR	1.8	0.0%	100.0%	100.0%	1.0	0.0%	66.7%	100.0%
Japan	0.2	0.0%	Insufficient data	Insufficient data	0.2	0.0%	Insufficient data	Insufficient data
Lao People's Democratic Republic	8.1	88.2%	85.4%	85.7%	5.6	58.8%	99.8%	41.8%
Malaysia	12.9	87.5%	71.9%	82.6%	14.3	87.5%	82.9%	86.4%
Mongolia	52.5	81.8%	7.7%	13.6%	62.2	95.5%	7.3%	13.8%
New Zealand	0.5	Insufficient data	Insufficient data	Insufficient data	0.0	Insufficient data	Insufficient data	Insufficient data
Papua New Guinea	1.4	20.0%	60.8%	91.1%	0.0	5.0%	60.0%	100.0%
Philippines	1.4	29.4%	57.0%	69.7%	1.2	11.8%	64.3%	76.6%
Republic of Korea	0.6	0.0%	68.8%	74.5%	0.5	0.0%	92.1%	72.8%
Singapore	1.1	0.0%	92.0%	19.0%	1.3	0.0%	72.4%	12.9%
Viet Nam	2.0	15.6%	33.2%	55.4%	0.9	20.6%	63.7%	84.5%
Pacific island countries and areas	6.6	17.4%	0.0%	68.6%	12.4	17.4%	0.0%	77.0%
Western Pacific Region	4.0	40.0%	78.2%	73.5%	3.5	33.6%	64.2%	60.4%

<sup>1</sup> Excludes epidemiologically-linked cases.

<sup>2</sup> Reports only confirmed cases.

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, 2015–2016 as of 20 July 2016

Country/area	2014		2015		2016										
	Total confirmed	Rubella incidence per 1 million pop.	Total confirmed	Rubella incidence per 1 million pop.	Population (in millions) <sup>1</sup>	Investigated rubella cases	Pending classification	Discarded cases	Compatible cases	Confirmed rubella cases				Congenital rubella syndrome	
										Lab	Epi-linked	Total confirmed	Annualized rubella incidence per 1 million pop.		
Australia	-	-	-	-	24.31	-	-	-	-	-	-	-	-	-	-
Brunei Darussalam	0	0.0	0	0.0	0.43	8	0	8	0	0	0	0	0.0	-	
Cambodia	30	2.0	18	1.1	15.83	273	0	271	0	2	0	2	0.3	-	
China	11 887	8.7	8 245	5.9	1 382.32	49 867	-	-	-	-	-	3 847	5.6	-	
China, Hong Kong SAR	1	0.1	7	0.9	7.35	2	1	0	0	1	0	1	0.3	-	
China, Macao SAR	0	0.0	2	3.5	0.60	3	0	3	0	0	0	0	0.0	-	
Japan	-	-	2	0.0	126.32	17	0	15	0	2	0	2	0.0	-	
Lao People's Democratic Republic	18	2.8	24	3.4	6.92	404	211	172	0	3	18	21	6.1	-	
Malaysia	226	7.5	34	1.1	30.75	3 705	490	3 194	0	21	0	21	1.4	-	
Mongolia	0	0.0	28	9.8	3.01	2 678	10	2 665	0	3	0	3	2.0	-	
New Zealand	-	-	-	-	4.57	-	-	-	-	-	-	-	-	-	
Papua New Guinea	-	-	4	0.5	7.78	14	0	12	1	1	0	1	0.3	-	
Philippines	343	3.4	154	1.5	102.25	857	49	736	0	72	0	72	1.4	-	
Republic of Korea	2	0.0	2	0.0	50.50	151	14	135	0	2	0	2	0.1	-	
Singapore	0	0.0	1	0.2	5.70	10	0	10	0	0	0	0	0.0	-	
Viet Nam	50	0.5	862	9.2	94.44	472	19	298	14	141	0	141	3.0	-	
Pacific island countries and areas <sup>2</sup>	4	1.2	0	0.0	3.25	209	0	208	0	1	0	1	0.6	-	
Western Pacific Region	12 561	6.8	9 383	5.0	1 866.32	58 670	794	7 727	15	249	18	4 114	4.4	-	

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

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

"-" No data

<1 confirmed measles case / 1 000 000 population

1-9.9 confirmed measles case / 1 000 000 population

>= 10 confirmed cases / 1 000 000 population

No data

Green
Yellow
Red
Gray

**Table 6A. Measles and rubella laboratory testing, WHO Western Pacific Region, 2015 as of 20 February 2016**

Country/area	Laboratory	Measles and rubella			Measles												Rubella			
					Serology						Virus detection						Serum and blood (includes DBS)			
		Total number of samples received	Total number of samples tested	Total number of cases tested	Serum			Blood		% of samples with results ≤4 days	Measles Virus isolation/detection (swab, urine and others)		Measles Reverse Transcription-Polymerase Chain Reaction		Total number of lab confirmed cases	Serum		Blood		
					Samples tested for measles IgM	Measles IgM (+)	Measles IgM equiv	DBS samples received	No. (+)		No. of samples tested	No. of isolates	No. of samples tested	No. (+)		Samples tested for rubella IgM	Rubella IgM (+)	Rubella IgM equiv		
No.	No.	%	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	%	No.				
Australia	VIDRL	101	101	67	26	16	61.5	1	0	-	92.3	0	-	76	69	63	2	1	-	0
Brunei Darussalam	DLS	40	40	33	33	4	12.1	1	0	-	90.9	0	-	4	1	4	29	0	0.0	0
Cambodia	NIPH	712	712	712	608	0	0.0	0	104	0	96.6	0	-	0	-	0	712	18	2.5	0
China	CCDC	-	-	-	-	-	-	-	-	-	90.3	-	-	-	-	-	-	-	-	-
China, Hong Kong SAR	PHLC	613	613	506	540	13	2.4	13	0	-	89.1	7	6	70	15	18	522	12	2.3	0
China, Macao SAR	PHL	43	43	43	43	0	0.0	2	0	-	100.0	0	-	0	-	0	43	1	2.3	1
Japan	NIID	448	409	318	82	14	17.1	22	0	-	-	0	-	207	23	30	4	0	-	0
Lao People's Democratic Republic	NCLE	486	486	486	486	13	2.7	13	0	-	88.7	0	-	0	-	13	479	20	4.2	45
Malaysia	NPHL	6 949	6 949	5 962	5 599	1 697	30.3	130	0	-	71.3	881	50	0	-	1 722	3 791	58	1.5	42
Mongolia	NCCD	4 935	4 935	4 754	4 679	1 884	40.3	442	0	-	96.0	14	1	266	135	1 956	2 875	36	1.3	38
New Zealand	CHL	383	383	317	157	8	5.1	3	0	-	94.9	1	0	208	9	15	103	0	0.0	1
Papua New Guinea	CPHL	196	196	196	196	57	29.1	18	0	-	48.4	0	-	0	-	57	43	4	9.3	0
Philippines	RITM	2 498	2 461	2 514	2 396	641	26.8	88	59	9	80.1	51	10	51	20	646	1 793	90	5.0	85
Republic of Korea	KCDC	641	641	492	397	26	6.5	23	0	-	86.8	0	-	245	4	28	236	10	4.2	16
Singapore	SGH	600	607	572	136	12	8.8	0	0	-	97.1	143	0	0	0	12	303	6	2.0	0
Viet Nam national lab (Northern)	NIHE	309	309	311	305	52	17.0	10	0	-	93.8	4	0	4	0	52	258	8	3.1	5
Viet Nam national lab (Southern)	PI	1 340	1 340	1 308	1 304	134	10.3	49	0	-	96.5	36	0	36	0	134	1 304	654	50.2	31
Viet Nam subnational lab (Central)	PI	307	307	307	303	7	2.3	3	0	-	54.3	0	-	5	0	7	304	13	4.3	8
Viet Nam subnational lab (Highland)	IHE	43	43	43	43	7	16.3	0	0	-	55.8	0	-	0	0	7	43	2	4.7	1
Fiji	FCCDC	146	146	146	138	1	0.7	2	8	0	-	0	-	0	-	1	124	0	0.0	1
Vanuatu	FCCDC	87	87	87	49	15	30.6	2	38	4	-	0	-	0	-	19	87	0	0.0	0
<b>Total</b>		<b>20 877</b>	<b>20 808</b>	<b>19 174</b>	<b>17 520</b>	<b>4 601</b>	<b>26.3</b>	<b>822</b>	<b>209</b>	<b>13</b>	<b>83.6</b>	<b>1 137</b>	<b>67</b>	<b>1 172</b>	<b>276</b>	<b>4 784</b>	<b>13 055</b>	<b>933</b>	<b>7.1</b>	<b>274</b>

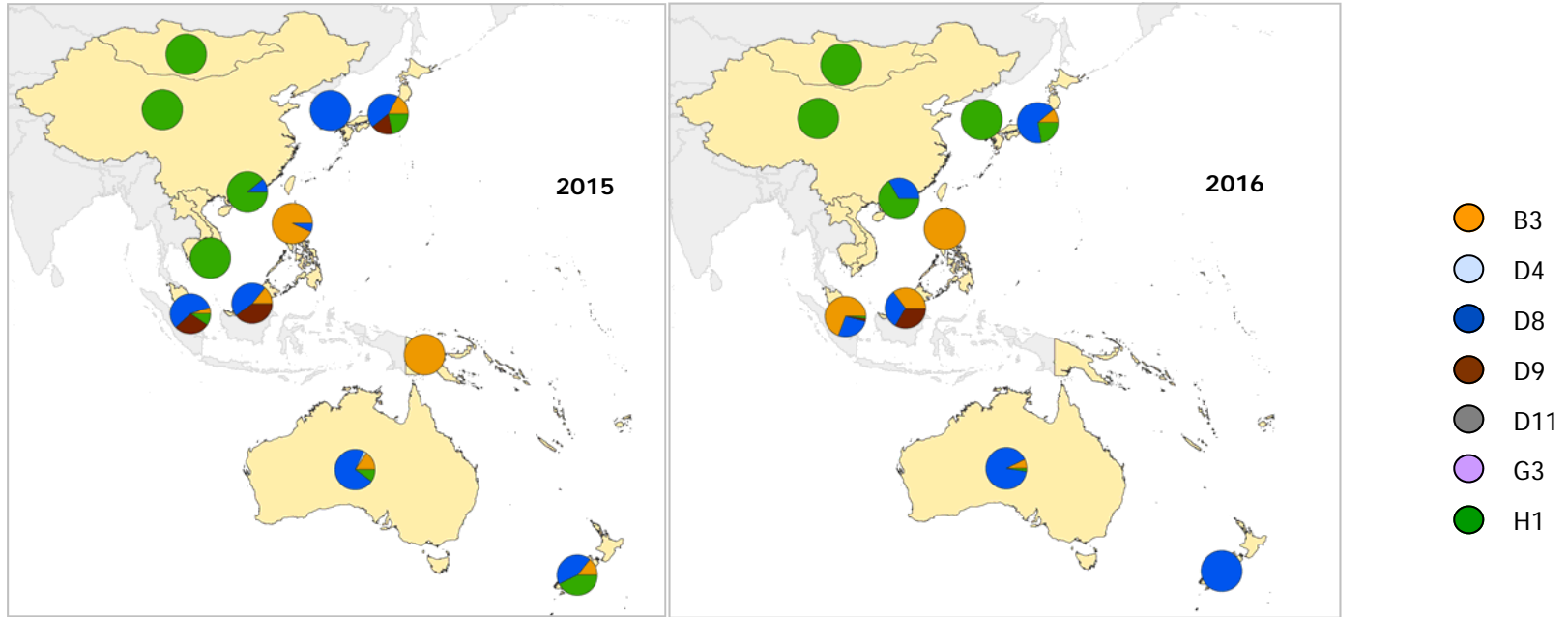
"-" No data

**Table 6B. Measles and rubella laboratory testing, WHO Western Pacific Region, 2016 as of 20 July 2016**

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			
		Samples tested for measles IgM	Measles IgM (+)	Measles IgM equiv	DBS samples			No. of samples tested	No. of isolates	No. of samples tested	No. (+)		No.	No.	%	No.				
No.	No.	%	No.	No. received	No. (+)	No. of samples tested	No. of isolates	No. of samples tested	No. (+)	No.	No.	%	No.							
Australia	VIDRL	59	59	38	17	12	70.6	3	0	-	81.3	0	-	33	30	34	7	2	28.6	0
Brunei Darussalam	DLS	10	10	8	8	0	0.0	0	0	-	87.5	0	-	0	-	0	8	0	0.0	0
Cambodia	NIPH	275	275	275	237	10	4.2	0	38	0	100.0	0	-	0	-	10	275	2	0.7	0
China	CCDC	-	-	-	-	-	-	-	-	-	90.7	-	-	-	-	-	-	-	-	-
China, Hong Kong SAR	PHLC	271	271	225	236	3	1.3	6	0	-	95.0	1	1	30	11	5	235	1	0.4	4
China, Macao SAR	PHL	17	17	17	17	2	11.8	0	0	-	100.0	0	-	0	-	2	17	2	11.8	0
Japan	NIID	162	162	86	32	5	15.6	8	0	-	-	0	-	63	9	10	3	1	-	1
Lao People's Democratic Republic	NCLE	147	147	147	147	0	0.0	1	0	-	91.2	0	-	0	-	0	147	4	2.7	7
Malaysia	NPHL	4 892	4 892	3 682	3 509	1 073	30.6	87	0	-	93.1	763	82	0	-	1 099	2 403	50	2.1	21
Mongolia	NCCD	9 292	9 292	9 258	9 043	4 898	54.2	944	0	-	99.8	1	0	236	142	5 022	5 832	25	-	10
New Zealand	CHL	491	491	420	139	20	14.4	10	0	-	98.6	1	0	192	38	66	87	1	1.1	0
Papua New Guinea	CPHL	14	14	14	14	0	-	0	0	-	14.3	0	-	0	-	0	14	0	0.0	1
Philippines	RITM	637	631	631	610	25	4.1	16	17	1	99.5	15	0	16	0	23	628	54	8.6	22
Republic of Korea	KCDC	296	296	145	180	21	11.7	15	0	-	74.6	0	-	112	4	23	117	13	11.1	6
Singapore	SGH	376	376	328	119	11	9.2	0	0	-	100.0	67	1	0	-	12	147	2	1.4	0
Viet Nam national lab (Northern)	NIHE	114	114	114	111	1	0.9	0	0	-	97.3	0	-	3	0	1	111	2	1.8	4
Viet Nam national lab (Southern)	PI	415	415	413	410	20	4.9	7	0	-	81.5	5	0	5	0	20	410	177	43.2	10
Viet Nam subnational lab (Central)	PI	87	87	87	87	1	1.1	0	0	-	59.8	0	-	0	-	1	87	5	5.7	2
Viet Nam subnational lab (Highland)	IHE	10	10	10	10	0	-	0	0	-	30.0	0	-	0	-	0	10	0	0.0	9
Fiji	FCCDC	212	212	212	198	5	2.5	3	13	0	-	0	-	0	-	5	212	1	0.5	0
<b>Total</b>		<b>17 777</b>	<b>17 771</b>	<b>16 110</b>	<b>15 124</b>	<b>6 107</b>	<b>40.4</b>	<b>1 100</b>	<b>68</b>	<b>1</b>	<b>96.8</b>	<b>853</b>	<b>84</b>	<b>690</b>	<b>234</b>	<b>6 333</b>	<b>10 750</b>	<b>342</b>	<b>3.2</b>	<b>97</b>

"-" No data

Figure 3. Measles genotype distribution of cases with rash onset in 2015 and 2016, WHO Western Pacific Region



The boundaries and names shown and the designations used on 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. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.  
© WHO Regional Office for the Western Pacific 2009. All rights reserved.

Table 7. Measles genotype distribution of cases with rash onset in July 2015 to June 2016, WHO Western Pacific Region

Country/area	2015														2016																																									
	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	D4	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D4	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1	B3	D8	D9	H1										
Australia		1				3					2			2	1	1					4								12	1	2	7			1	8			6										5							
Brunei Darussalam																																																								
Cambodia																				2																																				
China			184			112				37					16					14					43				86			253	1	517			1	182		3																
China, Hong Kong SAR																																				1	2																			
China, Macao SAR																																																								
Japan			1			1					1				1					2					4				1			2		1				2	1			2	1													
Lao People's Democratic Republic																																																								
Malaysia		1				2	3			1	2	3		2	9	11			6	11	11				2			13	7	6		4	5	8			1	4	3																	
Mongolia			3				1								1						1								16			23		9				18																		
New Zealand																								1					1								6				7															
Papua New Guinea																																																								
Philippines																																					1																			
Republic of Korea																																					1																			
Singapore		3	2			1				2					1					2					1			1				1		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 2016 and the Measles Nucleotide Sequence online database (MeANS).



Figure 4. Rubella genotype distribution of cases with rash onset in 2015 and 2016, WHO Western Pacific Region

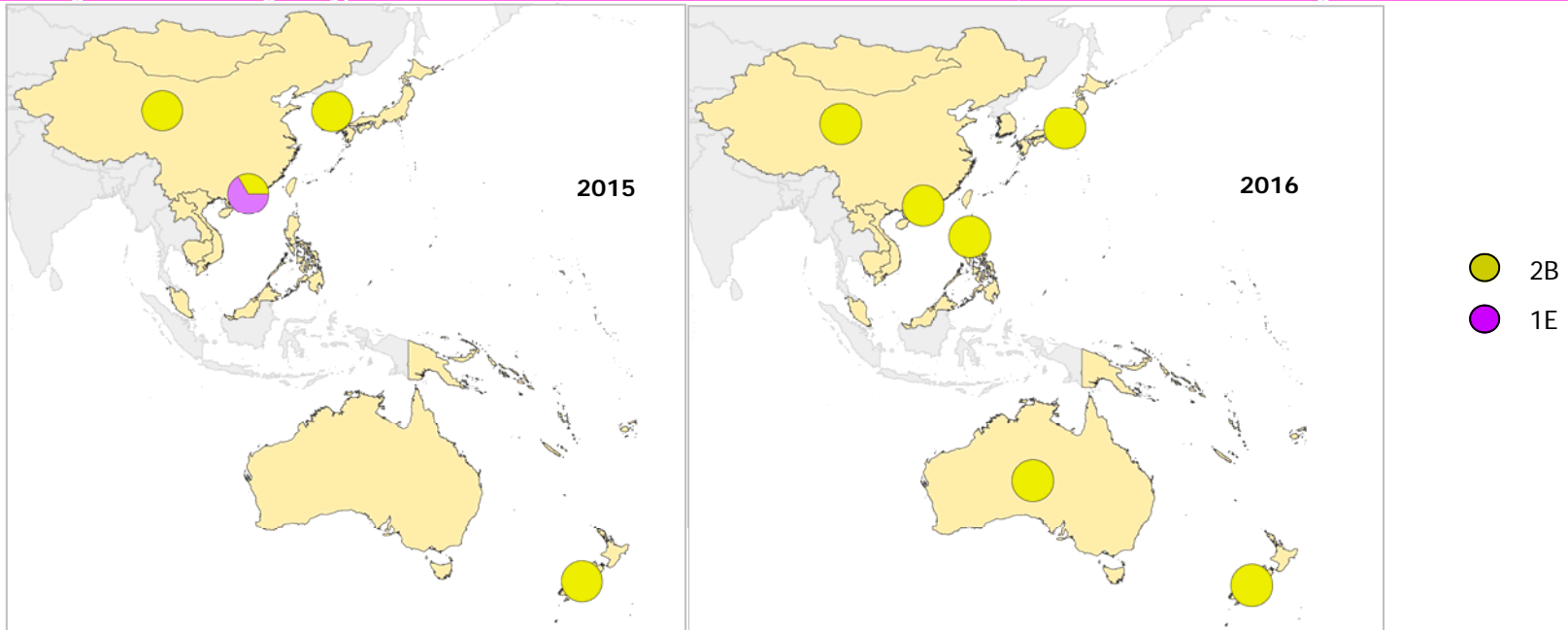


Table 8. Rubella genotype distribution of cases with rash onset in July 2015 to June 2016, WHO Western Pacific Region

Country/area	2015						2016																	
	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
Australia																								
Brunei Darussalam																								
Cambodia																								
China	1			1			1					2	1	9	8									
China, Hong Kong SAR																							1	
China, Macao SAR																								
Japan																								
Lao People's Democratic Republic																								
Malaysia																								
Mongolia																								
New Zealand															1		1					1		
Papua New Guinea																								
Philippines																								
Republic of Korea																								
Singapore																								
Viet Nam																								
Pacific island countries and areas																								

Sources: Includes all cases reported to the Western Pacific Regional Office by 20 July 2016

**Table 9A. Completeness and timeliness of epidemiologic reporting, WHO Western Pacific Region, 2014–2016**

Country	2014		2015		2016 <sup>1</sup>							
	Completeness	Timeliness	Completeness	Timeliness	Jan	Feb	Mar	Apr	May	Jun	Completeness <sup>2</sup>	Timeliness <sup>3</sup>
Australia	100%	92%	100%	100%	04 Feb	09 Mar	07 Apr	06 May	06 Jun	10 Jul	100%	100%
Brunei Darussalam	100%	100%	100%	100%	09 Feb	07 Mar	07 Apr	09 May	06 Jun	05 Jul	100%	100%
Cambodia	100%	100%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
China	100%	67%	100%	92%	14 Feb	10 Mar	12 Apr	15 May	15 Jun	12 Jul	100%	100%
China, Hong Kong SAR	100%	100%	100%	100%	05 Feb	10 Mar	08 Apr	09 May	10 Jun	07 Jul	100%	100%
China, Macao SAR	100%	100%	100%	100%	05 Feb	08 Mar	05 Apr	05 May	08 Jun	06 Jul	100%	100%
Japan	100%	17%	100%	92%	06 Feb	02 Mar	09 Apr	04 May	10 Jun	10 Jul	100%	100%
Lao People's Democratic Republic	100%	100%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
Malaysia	100%	92%	100%	100%	05 Feb	08 Mar	08 Apr	10 May	10 Jun	10 Jul	100%	100%
Mongolia	100%	100%	100%	100%	06 Feb	10 Mar	09 Apr	11 May	15 Jun	10 Jul	100%	67%
New Zealand	100%	100%	100%	100%	09 Feb	07 Mar	08 Apr	09 May	10 Jun	08 Jul	100%	100%
Papua New Guinea	92%	58%	100%	58%	11 Feb	01 Apr	10 Apr	11 May	14 Jun	21 Jul	83%	17%
Philippines	100%	100%	100%	92%	11 Feb	10 Mar	05 Apr	10 May	08 Jun	13 Jul	100%	67%
Republic of Korea	100%	100%	100%	100%	05 Feb	08 Mar	07 Apr	02 May	10 Jun	08 Jul	100%	100%
Singapore	100%	92%	100%	100%	02 Feb	08 Mar	07 Apr	10 May	10 Jun	09 Jul	100%	100%
Viet Nam	100%	100%	100%	92%	05 Feb	09 Mar	07 Apr	09 May	10 Jun	13 Jul	100%	83%
Pacific island countries and areas	100%	100%	100%	100%	10 Feb	10 Mar	08 Apr	10 May	10 Jun	07 Jul	100%	100%
Completeness	100%		100%		100%	100%	100%	100%	100%	100%	100%	
Timeliness		90%		96%	88%	94%	100%	82%	88%	82%		89%

<sup>1</sup> National measles surveillance monthly reports from June 2016.

Legend: black = timely report; red = untimely report

<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> Countries and areas should submit reports by the 10th (or the next working 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 following month.

**Table 9B. Completeness and timeliness of laboratory reporting, WHO Western Pacific Region, 2014–2016**

Country/area	2014		2015		2016 <sup>1</sup>							
	Completeness	Timeliness	Completeness	Timeliness	Jan	Feb	Mar	Apr	May	Jun	Completeness <sup>2</sup>	Timeliness <sup>3</sup>
Australia	100%	100%	100%	100%	04 Feb	04 Mar	08 Apr	03 May	02 Jun	07 Jul	100%	100%
Brunei Darussalam	100%	100%	100%	100%	02 Feb	01 Mar	06 Apr	07 May	04 Jun	04 Jul	100%	100%
Cambodia	100%	100%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
China	100%	100%	100%	100%	05 Feb	08 Mar	08 Apr	10 May	03 Jun	06 Jul	100%	100%
China, Hong Kong SAR	100%	100%	100%	100%	05 Feb	08 Mar	06 Apr	09 May	07 Jun	06 Jul	100%	100%
China, Macao SAR	100%	100%	100%	100%	05 Feb	09 Mar	05 Apr	06 May	10 Jun	07 Jul	100%	100%
Japan	100%	42%	100%	92%	06 Feb	02 Mar	09 Apr	04 May	10 Jun	10 Jul	100%	100%
Lao People's Democratic Republic	100%	100%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	100%	100%
Malaysia	100%	83%	100%	75%	12 Feb	10 Mar	10 Apr	09 May	14 Jun	05 Jul	100%	67%
Mongolia	100%	100%	100%	75%	03 Mar	10 Mar	10 Apr	10 May	10 Jun	13 Jul	83%	67%
New Zealand	100%	100%	100%	100%	09 Feb	07 Mar	08 Apr	09 May	10 Jun	08-Jul	100%	100%
Papua New Guinea	100%	92%	100%	75%	12 Feb	15 Mar	10 Apr	12 May	16 May		83%	17%
Philippines	100%	92%	100%	100%	05 Feb	10 Mar	10 Apr	06 May	07 Jun	13 Jul	100%	83%
Republic of Korea	100%	100%	100%	100%	04 Feb	10 Mar	08 Apr	10 May	10 Jun	08 Jul	100%	100%
Singapore	100%	100%	100%	100%	05 Feb	04 Mar	07 Apr	07 Jun	08 Jun	05 Jul	100%	100%
Viet Nam (central)	82%	73%	100%	67%	05 Feb	11 Mar	10 Apr	10 May	06 Jun	04 Jul	100%	83%
Viet Nam (highlands)	91%	82%	100%	67%	05 Feb	11 Mar	11 Apr	10 May	06 Jun	04 Jul	100%	83%
Viet Nam (northern)	100%	83%	100%	67%	05 Feb	11 Mar	12 Apr	10 May	06 Jun	04 Jul	100%	83%
Viet Nam (southern)	100%	100%	100%	100%	02 Feb	09 Mar	06 Apr	06 May	07 Jun	06 Jul	100%	100%
Fiji	100%	100%	100%	100%	10 Feb	10 Mar	08 Apr	10 May	10 Jun	07 Jul	100%	100%
Completeness	99%		100%		100%	100%	100%	100%	100%	95%	99%	
Timeliness		92%		91%	94%	80%	100%	95%	90%	85%		89%

<sup>1</sup> National measles laboratory monthly reports from June 2016.

Legend: black = timely report; red = untimely report

<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**

P.O. Box 2932, 1000 Manila, Philippines  
Tel. No. (63 2) 5288001  
Fax No. (63 2) 5211036, 5260279

Please send your comments and monthly data before the 10th of the month to:  
[WPREPIdata@who.int](mailto:WPREPIdata@who.int)