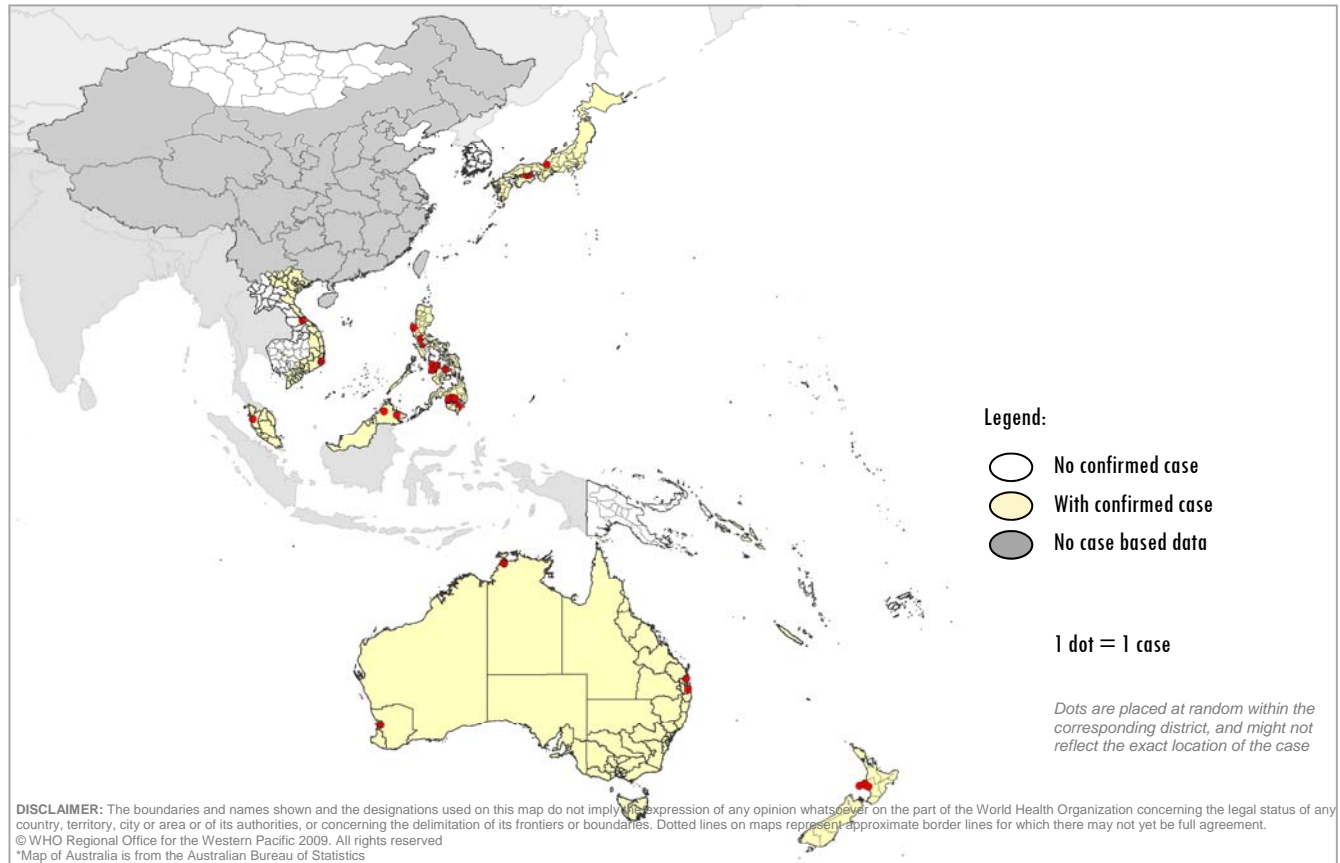


# MEASLES-RUBELLA

## Bulletin

Figure 1. Distribution of confirmed measles cases with rash onset 1–30 November 2014, WHO Western Pacific Region



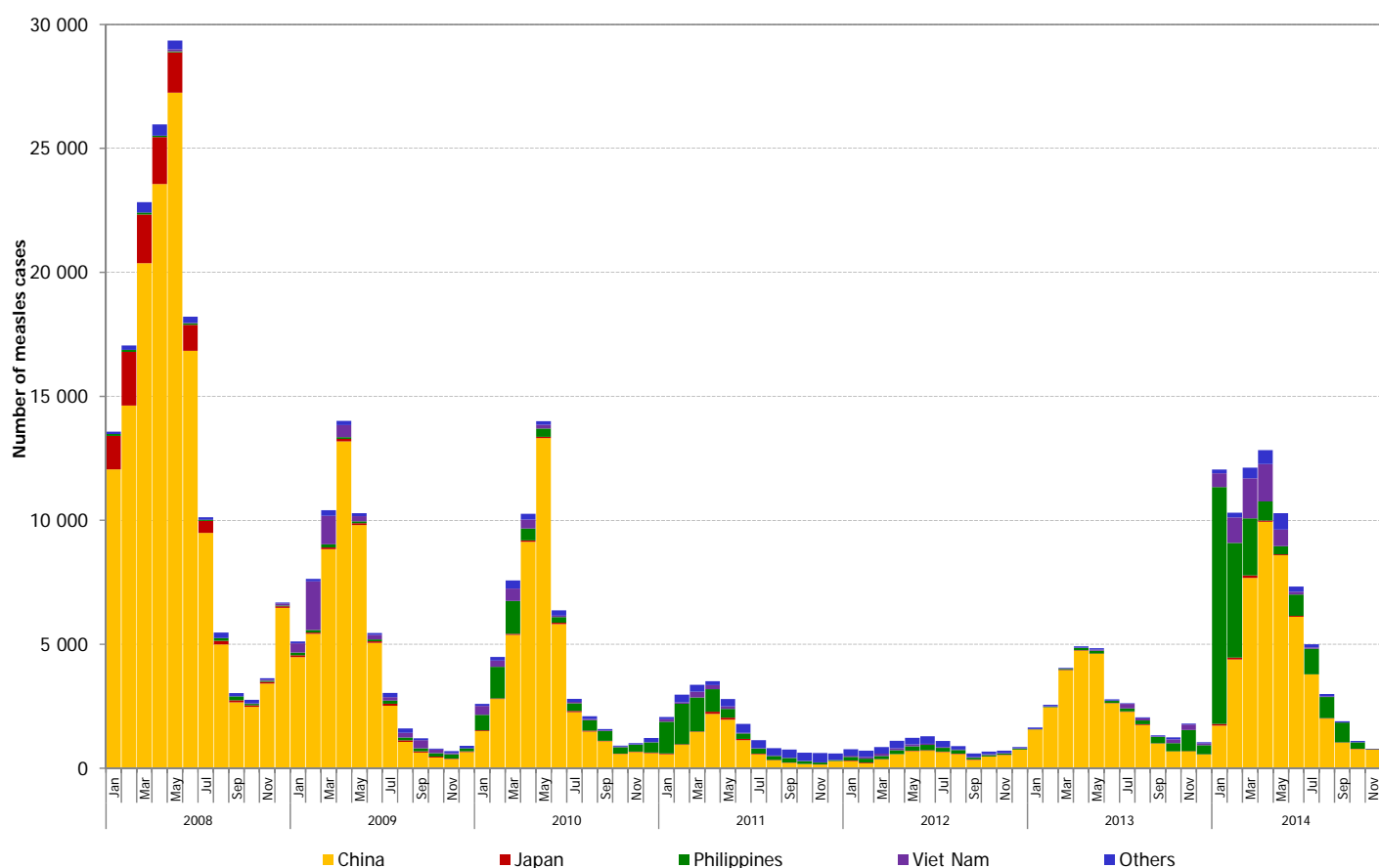
Source: Measles and rubella monthly country reports to the Western Pacific Regional Office by 20 December 2014

Table 1. Confirmed measles cases by month of onset, December 2013–November 2014, WHO Western Pacific Region

Country	2013	2014										
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Australia	13	78	61	36	15	23	34	32	23	2	17	5
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	552	1717	4387	7675	9936	8587	6113	3779	2007	1033	778	755
China, Hong Kong SAR	4	5	8	7	3	5	4	7	3	3	1	0
China, Macao SAR	0	0	0	0	0	0	1	0	0	0	0	0
Japan	13	73	78	102	60	37	38	12	19	5	1	4
Lao People's Democratic Republic	0	0	1	0	0	4	0	0	28	19	0	0
Malaysia	4	3	6	67	14	17	18	19	17	18	21	3
Mongolia	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	8	18	43	36	12	16	98	31	5	0	1	3
Papua New Guinea	4	3	17	204	435	389	1	1	0	0	0	0
Philippines	1436	9552	4624	2302	769	330	860	1031	850	809	260	16
Republic of Korea	3	5	29	59	70	204	44	25	3	2	1	0
Singapore	12	31	28	16	18	10	6	12	9	0	2	0
Viet Nam	143	559	1023	1615	1501	667	111	45	23	3	10	2
Pacific island countries and areas	0	0	0	0	0	0	1	8	6	3	2	0
<b>Western Pacific Region</b>	<b>2192</b>	<b>12044</b>	<b>10 305</b>	<b>12 119</b>	<b>12 833</b>	<b>10289</b>	<b>7329</b>	<b>5002</b>	<b>2993</b>	<b>1897</b>	<b>1094</b>	<b>788</b>

Source: Case based and aggregate data reports to the Western Pacific Regional Office by 20 December 2014

Figure 2. Measles cases by month of onset, WHO Western Pacific Region, 2008–2014<sup>1</sup>



Source: Measles and rubella monthly country reports to WHO by 20 December 2014  
<sup>1</sup> Includes laboratory confirmed, epi-linked and clinically confirmed cases for 2008–2012

Table 2. Schedule of activities for measles and rubella, WHO Western Pacific Region

Countries and areas	Measles 2nd dose introduction	Rubella introduction	Post introduction evaluation	Supplementary immunization activities
Australia	1994 (MMR)	1971		
Brunei Darussalam	1988 (MMR)	1984		
Cambodia	2012 (M)	2013		
China	1986 (MMR)	1998		
China, Hong Kong SAR	1997 (MMR)	1978		
China, Macao SAR	1990 (MMR)	1985		
Japan	2006 (MR)	1989		
Lao People's Democratic Republic		2012		
Malaysia	2002 (M)	1998		
Mongolia	1989 (MMR)	2009		
New Zealand	1992 (MMR)	1979		
Papua New Guinea	2015	2015		April–September 2015 (MR, 9m to <15y)
Philippines	2010 (MMR)	2010		
Republic of Korea	1997 (MMR)	1982		
Singapore	1998 (MMR)	1990		
Viet Nam	2006 (M)	2014		October 2014–June 2015 (MR, 9m to <15y)
Pacific island countries and areas				

**Table 3. Measles case classification and incidence by country and area, WHO Western Pacific Region, 2010–2014 <sup>1</sup>**

Country	2010		2011		2012		2013		2014 <sup>1</sup>										Rash onset of last confirmed measles case
	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.	Total confirmed <sup>2</sup>	Measles incidence per 1 million pop.	Population (in millions) <sup>3</sup>	Suspected measles cases	Confirmed measles cases			Annualized measles incidence per 1 million	Compatible cases	Discarded cases <sup>5</sup>	Pending classification	Deaths due to measles	
											Lab	Epi-linked	Total						
Australia	70	3.3	192	8.5	199	8.7	154	6.6	23.50	N/A <sup>4</sup>	308	18	326	15.1	0	0	0	0	23-Nov-14
Brunei Darussalam	0	0.0	4	9.9	1	2.4	0	0.0	0.43	16	0	0	0	0.0	0	15	0	0	24-Jul-12
Cambodia	1 156	76.8	722	50.5	0	0.0	0	0.0	14.84	535	0	0	0	0.0	0	520	15	0	15-Nov-11
China	38 159	28.5	9 943	7.4	6 183	4.6	26912	19.8	1 364.77	107 024	46 647	120	46 767	37.4	4 193	55 508	556	26	31-Oct-14
China, Hong Kong SAR	11	1.6	12	1.7	8	1.1	34	4.7	7.35	195	46	0	46	6.8	4	144	0	0	3-Oct-14
China, Macao SAR	0	0.0	1	1.8	1	1.8	3	5.2	0.59	13	1	0	1	1.8	0	12	0	0	3-Jun-14
Japan	432	3.4	411	3.2	228	1.8	141	1.1	126.23	1 031	417	12	429	3.7	18	581	3	0	18-Nov-14
Lao People's Democratic Republic	153	23.8	113	18.0	36	5.6	68	10.5	6.54	390	52	0	52	8.7	0	203	135	0	19-Oct-14
Malaysia	74	2.7	1 603	54.4	1 868	63.7	177	5.9	30.25	4 372	171	32	203	7.3	27	3 489	586	1	9-Nov-14
Mongolia	7	2.6	0	0.0	0	0.0	0	0.0	2.93	132	0	0	0	0.0	0	132	0	0	19-Jun-10
New Zealand	48	11.2	599	135.7	55	12.3	9	2.0	4.55	315	164	99	263	63.0	11	37	9	0	18-Nov-14
Papua New Guinea	0	0.0	0	0.0	0	0.0	7	1.0	7.49	4 543	1 048	2	1 050	153.0	4	994	2 495	0	6-Jul-14
Philippines	6 388	68.2	6 555	69.1	1 536	15.9	3777	38.5	99.77	57 564	10 914	10 489	21 403	234.0	31 954	3 291	916	110	17-Nov-14
Republic of Korea	111	2.3	43	0.9	2	0.0	116	2.4	48.95	1 593	433	9	442	9.9	2	1 107	8	0	12-Oct-14
Singapore	54	11.2	143	27.6	40	7.6	56	10.6	5.34	249	132	0	132	27.0	37	80	0	0	23-Oct-14
Viet Nam	1 826	20.5	745	8.4	637	5.9	895	9.9	91.56	17 267	4 481	1 087	5 568	66.3	1 045	2 363	8 266	2	5-Nov-14
Pacific island countries and areas <sup>6</sup>	1	0.3	2	1.0	0	0.0	0	0.0	3.27	1 020	20	0	20	6.7	0	114	982	0	10-Oct-14
Western Pacific Region	48 490	27.0	21 088	11.7	10 794	5.9	32 349	17.7	1 838.36	196 259	64 834	11 868	76 702	45.5	37 295	68 590	13 971	139	

<sup>1</sup> Includes all cases reported to the Western Pacific Regional Office by 20 December 2014.

<sup>2</sup> Includes laboratory confirmed, epi-linked and clinically confirmed cases for 2009 to 2012.

<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> Excludes vaccine-associated cases

<sup>6</sup> Classification is provisional based on laboratory data only.

Verified as having interrupted endemic measles virus transmission

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, 2013–2014 <sup>1</sup>

Country	2013				2014 <sup>1</sup>			
	Discarded non-measles rate per 100 000 pop	Second level units with ≥ 2 discarded cases per 100 000 pop	Suspected cases with adequate investigation	Suspected cases with adequate blood specimens <sup>2</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>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	3.8	100.0%	87.5%	100.0%	3.8	100.0%	93.8%	100.0%
Cambodia	3.7	45.8%	68.5%	98.0%	3.8	75.0%	66.4%	108.2%
China	3.7	64.5%	99.4%	94.6%	4.4	83.9%	95.6%	92.0%
China, Hong Kong SAR	2.5	100.0%	94.2%	91.1%	2.1	100.0%	100.0%	93.3%
China, Macao SAR	2.9	100.0%	95.0%	100.0%	2.2	100.0%	100.0%	100.0%
Japan	0.7	4.3%	Insufficient data	Insufficient data	0.5	0.0%	Insufficient data	Insufficient data
Lao People's Democratic Republic	7.5	58.8%	36.1%	66.5%	3.4	58.8%	83.3%	83.8%
Malaysia	22.6	100.0%	82.3%	81.1%	12.6	93.8%	79.2%	90.5%
Mongolia	7.4	36.4%	100.0%	100.0%	4.9	31.8%	100.0%	100.0%
New Zealand	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data	Insufficient data
Papua New Guinea	1.4	25.0%	0.0%	76.3%	14.5	40.0%	0.0%	65.1%
Philippines	3.3	64.7%	45.9%	62.9%	3.6	58.8%	52.3%	78.9%
Republic of Korea	0.8	6.3%	63.7%	72.9%	2.5	62.5%	96.0%	63.3%
Singapore	1.3	0.0%	75.4%	18.1%	1.6	0.0%	83.9%	25.3%
Viet Nam	1.2	21.9%	49.2%	63.9%	2.8	50.0%	46.9%	88.4%
Pacific island countries and areas	2.0	Insufficient data	0.0%	Insufficient data	3.8	Insufficient data	0.0%	Insufficient data
Western Pacific Region	3.6	38.0%	91.6%	89.9%	4.1	52.5%	21.0%	87.3%

<sup>1</sup> Includes all cases reported to the Western Pacific Regional Office by 20 December 2014.

<sup>2</sup> Excludes epidemiologically-linked cases.

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

Green
Yellow
Red

Reached or surpassed target

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

Substantially below target

Table 5. Rubella case classification and incidence by country and area, WHO Western Pacific Region, 2014 <sup>1</sup>

Country	2014 <sup>1</sup>									
	Population (in millions) <sup>2</sup>	Investigated rubella cases	Confirmed rubella cases			Annualized rubella incidence per 1 million pop.	Compatible cases	Discarded cases <sup>3</sup>	Pending classification	Congenital rubella syndrome
			Lab	Epi-linked	Total					
Australia	23.50	No data	-	-	-	No data	-	-	-	-
Brunei Darussalam	0.43	16	0	0	0	0.0	0	16	0	-
Cambodia	14.84	535	30	0	30	2.2	1	489	15	-
China	1 364.77	11 498	-	-	11 498	9.2	0	-	-	-
China, Hong Kong SAR	7.35	173	1	0	1	0.1	0	172	0	-
China, Macao SAR	0.59	12	0	0	0	0.0	0	12	0	-
Japan	126.23	No data	-	-	-	No data	-	-	-	-
Lao People's Democratic Republic	6.54	256	11	7	18	3.0	0	238	0	-
Malaysia	30.25	4 327	158	60	218	7.9	0	3 523	586	-
Mongolia	2.93	132	0	0	0	0.0	0	132	0	-
New Zealand	4.55	No data	-	-	-	No data	-	-	-	-
Papua New Guinea	7.49	No data	-	-	-	No data	-	-	-	-
Philippines	99.77	57 564	231	5	236	2.6	0	56 412	916	-
Republic of Korea	48.95	1 593	2	0	2	0.0	0	1 588	3	-
Singapore	5.34	9	0	0	0	0.0	0	9	0	-
Viet Nam	91.56	10 839	28	0	28	0.3	0	2 192	8 619	0
Pacific island countries and areas <sup>4</sup>	3.27	95	3	0	3	1.0	0	90	2	-
Western Pacific Region	1 838.36	87 049	464	72	12 034	7.1	1	64 873	10 141	0

<sup>1</sup> Includes all cases reported to the Western Pacific Regional Office by 20 December 2014.

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

<sup>3</sup> Excludes vaccine-associated cases

<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
Gray	No data

**Table 6A. Measles and rubella laboratory performance, WHO Western Pacific Region, 2013<sup>1</sup>**

Country	Laboratory	Measles and rubella		Measles												Rubella				
				Serology								Virus detection				Serum and blood (includes DBS)				
		Total number of cases tested	Total number of samples received	Serum			Blood		Timeliness of results		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	94	127	34	23	67.6	0	0	-	100.0	100.0	0	0	96	79	13	2	15.4	0	
Brunei Darussalam	DLS	42	42	38	0	0.0	2	0	-	69.0	88.1	0	0	0	0	40	3	7.5	0	
Cambodia	NPHL	537	537	478	0	0.0	0	59	0	76.0	81.9	0	0	0	0	537	105	19.6	0	
China <sup>3</sup>	CCDC																			
Hong Kong (China)	PHLC	622	726	669	25	3.7	12	0	-	91.5	98.4	24	13	63	40	615	9	1.5	14	
Macao (China)	PHLC	43	43	43	4	9.3	1	0	-	97.7	100.0	0	0	0	0	43	0	0.0	0	
Japan	NIID	1 136	1 136	393	195	49.6	0	0	-	No data	No data	52	52	717	106	37	16	43.2	1	
Lao People's Democratic Republic	NCLE	366	366	366	29	7.9	21	0	-	83.9	97.0	0	0	0	0	366	19	5.2	48	
Malaysia	NPHL	7 586	8 645	6 863	241	3.5	73	0	-	53.5	81.0	1 615	14	0	0	6 783	807	11.9	227	
Mongolia	NCCD	213	213	213	0	0.0	0	0	-	99.5	99.5	0	0	0	0	213	8	3.8	7	
New Zealand	CHL	159	176	107	5	4.7	3	0	-	95.1	97.1	1	0	49	3	93	4	4.3	1	
Papua New Guinea	CPHL	85	85	80	10	12.5	0	3	0	76.3	95.0	0	0	12	2	83	4	4.8	2	
Philippines	RITM	6 057	6 069	5 807	2 416	41.6	277	120	23	68.2	80.2	304	90	32	6	3 241	106	3.3	165	
Republic of Korea	KCDC	635	825	487	108	22.2	6	0	-	66.4	92.5	65	65	379	96	430	28	6.5	22	
Singapore	SGH	434	691	199	16	8.0	7	0	-	85.2	98.7	186	5	0	0	291	16	5.5	10	
Viet Nam (central)	Nha Trang	167	167	167	0	0.0	5	0	-	77.8	92.8	0	0	0	0	167	3	1.8	7	
Viet Nam (northern)	NIHE	979	987	944	303	32.1	36	0	-	92.1	97.0	41	0	71	45	821	19	2.3	17	
Viet Nam (southern)	PI	386	458	368	81	22.0	7	0	-	89.1	98.9	90	3	90	3	368	5	1.4	9	
Fiji	Mataika House	60	61	59	0	0.0	0	1	0	89.7	94.8	0	0	0	0	50	4	8.0	0	
Samoa	VIDRL	3	3	3	0	0.0	0	0	-	0.0	100.0	0	0	0	0	1	0	0.0	0	
Solomon Islands	VIDRL	4	4	0	-	-	-	0	-	0.0	100.0	0	0	0	0	4	1	25.0	0	
<b>Total</b>		<b>19 608</b>	<b>21 361</b>	<b>17 318</b>	<b>3 456</b>	<b>20.0</b>	<b>450</b>	<b>183</b>	<b>23</b>	<b>66.3</b>	<b>84.2</b>	<b>2 378</b>	<b>242</b>	<b>1 509</b>	<b>380</b>	<b>14 196</b>	<b>1 159</b>	<b>8.2</b>	<b>530</b>	

<sup>1</sup> National measles laboratory monthly reports received in the Western Pacific Regional Office by 20 February 2014

<sup>2</sup> Recommendation from the Fourth Meeting on Vaccine Preventable Diseases Laboratory Networks in the Western Pacific Region

<sup>3</sup> National measles laboratory report is not available

**Table 6B. Measles and rubella laboratory performance, WHO Western Pacific Region, 2014<sup>1</sup>**

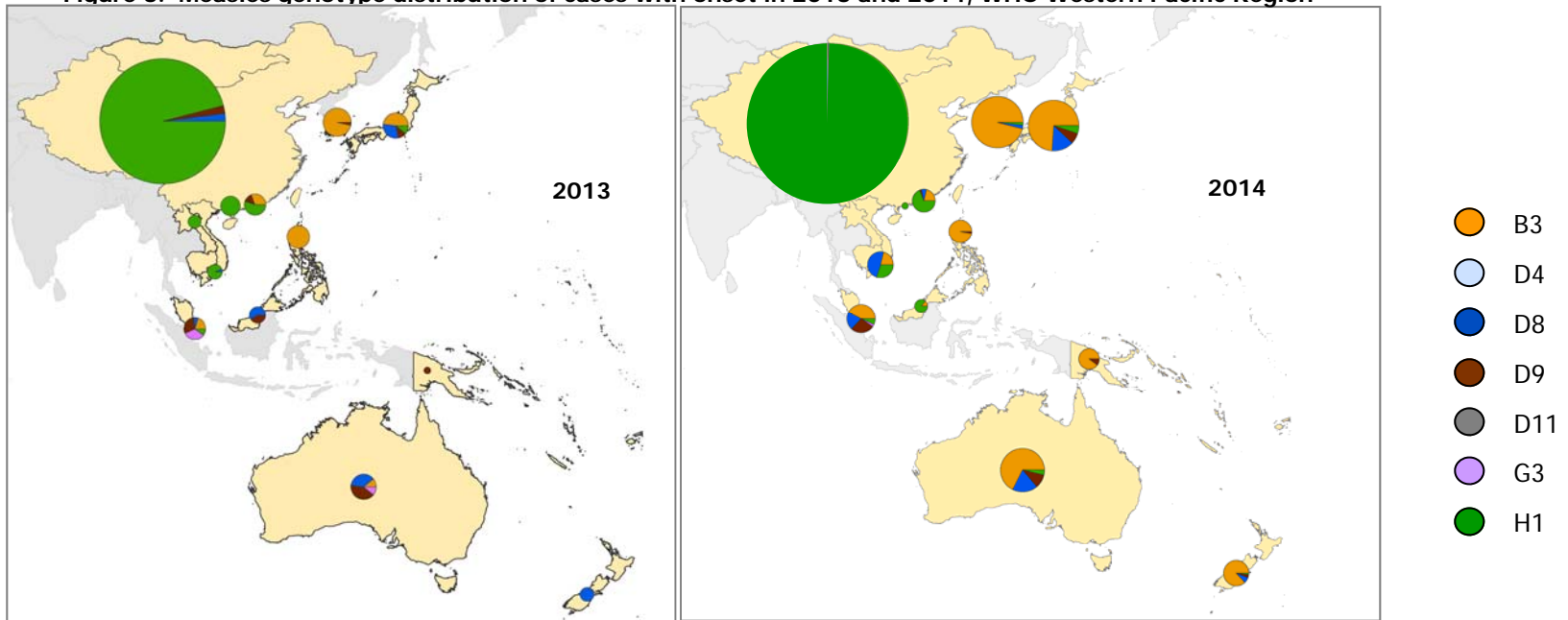
Country	Laboratory	Measles and rubella		Measles													Rubella					
				Serology								Virus detection					Serum and blood (includes DBS)					
		Total number of cases tested	Total number of samples received	Serum			Blood		Timeliness of results		Measles virus isolation/detection (swab, urine and others)		Measles Reverse Transcription-Polymerase Chain Reaction			Total number of lab confirmed cases	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.	No.	
Australia	VIDRL	222	308	66	42	63.6	3	0	-	100.0	100.0	0	0	254	232	203	24	0	0.0	0		
Brunei Darussalam	DLS	51	51	50	1	2.0	0	0	-	70.6	100.0	0	0	0	0	1	51	2	3.9	0		
Cambodia	NPHL	521	521	466	0	0.0	0	54	0	98.5	100.0	0	0	0	0	0	520	31	6.0	0		
China <sup>3</sup>	CCDC																					
Hong Kong (China)	PHLC	621	744	653	33	5.1	19	0	-	93.9	99.2	39	28	100	57	48	600	8	1.3	5		
Macao (China)	PHLC	50	50	50	1	2.0	0	0	-	100.0	100.0	0	0	1	1	1	49	0	0.0	0		
Japan	NIID	854	2 396	362	172	47.5	15	0	-	No data	No data	9	9	780	365	190	11	2	18.2	0		
Lao People's Democratic Republic	NCLE	348	349	349	71	20.3	8	0	-	92.3	100.0	0	0	0	0	71	346	8	2.3	25		
Malaysia	NPHL	4 897	5 528	4 531	245	5.4	92	0	-	66.9	90.3	956	6	0	0	249	4 238	212	5.0	84		
Mongolia	NCCD	132	133	132	0	0.0	0	0	-	99.2	99.2	0	0	0	0	0	132	1	0.8	1		
New Zealand	CHL	684	762	240	45	18.8	4	0	-	98.5	99.0	15	8	504	162	181	97	4	4.1	1		
Papua New Guinea	CPHL	4 591	4 595	4 583	2 270	49.5	316	0	-	67.7	88.7	0	0	37	32	2 266	2 270	89	3.9	93		
Philippines	RITM	18 346	41 844	17 954	12 195	67.9	623	339	175	0.4	1.4	1 243	443	830	760	12 348	5 425	214	3.9	103		
Republic of Korea	KCDC	1 885	2 609	1 272	265	20.8	103	0	-	77.6	94.9	116	328	1 429	328	465	719	27	3.8	0		
Singapore	SGH	579	629	203	40	19.7	13	0	-	94.7	100.0	160	6	0	0	43	262	9	3.4	4		
Viet Nam (central)	Nha Trang	1 772	1 772	1 709	997	58.3	28	0	-	72.8	90.5	0	0	98	50	1 021	754	3	0.4	3		
Viet Nam (highland)	IHE	474	474	473	261	55.2	3	0	-	36.3	52.4	0	0	0	0	261	416	1	0.2	0		
Viet Nam (northern)	NIHE	4 745	4 786	4 632	2 628	56.7	261	0	-	61.5	84.6	130	5	131	16	2 640	2 186	18	0.8	21		
Viet Nam (southern)	PI	11 367	12 647	11 305	5 261	46.5	133	0	-	15.4	23.2	1 342	134	1 343	16	5 268	6 251	5	0.1	6		
Fiji	Mataika House	112	112	93	0	0.0	0	19	1	80.4	93.1	0	0	0	0	1	112	3	2.7	0		
Vanuatu	Mataika House	13	13	13	4	30.8	2	0	-	91.7	100.0	0	0	0	0	4	13	1	7.7	3		
<b>Total</b>		<b>52 264</b>	<b>80 323</b>	<b>49 136</b>	<b>24 531</b>	<b>49.9</b>	<b>1 623</b>	<b>412</b>	<b>176</b>	<b>31.8</b>	<b>41.9</b>	<b>4 010</b>	<b>967</b>	<b>5 507</b>	<b>2 019</b>	<b>25 261</b>	<b>24 476</b>	<b>638</b>	<b>2.6</b>	<b>349</b>		

<sup>1</sup> National measles laboratory monthly reports received in the Western Pacific Regional Office by 20 December 2014

<sup>2</sup> Recommendation from the Fourth Meeting on Vaccine Preventable Diseases Laboratory Networks in the Western Pacific Region

<sup>3</sup> National measles laboratory report is not available

Figure 3. Measles genotype distribution of cases with onset in 2013 and 2014, 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.  
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\* Size of the pie chart is proportional to the number of genotypes reported by the country

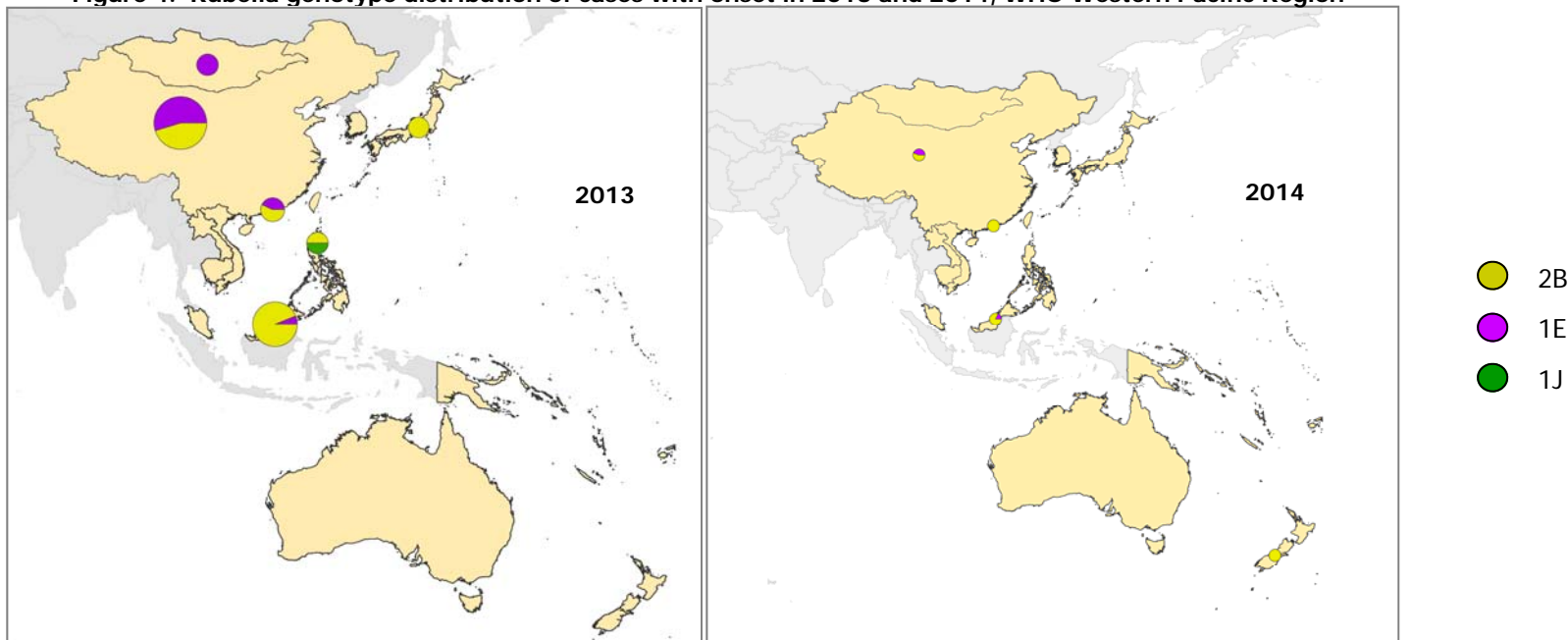
Table 7. Measles genotype distribution of cases with onset in December 2013 to November 2014, WHO Western Pacific Region

Country	2013		2014																																																								
	Dec			Jan					Feb					Mar					Apr					May				Jun				Jul				Aug				Sep				Oct				Nov											
	B3	D8	D9	H1	B3	D8	D9	G3	H1	B3	D8	D9	G3	H1	B3	D8	D9	H1	B3	D8	D9	G3	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	5	2	2		53	5	7			40	5	1			1	16	4	1	2	1		1	2	10	3	5		14	7	1	1	9	4	1	3	2	9		1	1				2	2	4					2								
Brunei Darussalam																																																											
Cambodia																																																											
China	3	8		132	4			1	261	1	3			469	2	2		751	3				912	1			607	1	537			378				182				121				37							12								
Hong Kong (China)	4				2				1	2	1			5	3	1		3	1				2				4	2			2					6				3				3	1														
Macao (China)																																																											
Japan	7		1	2	53	2	1			57	2	2		1	64	7	10	3	35	1	8		1	14	11		4	13	7	1	5		4	2																									
Lao People's Democratic Republic																																																											
Malaysia														5									1									1																											
Mongolia																																																											
New Zealand	1				10	1				8	1			1	5		2		6									6				6				3	1							1							1				2				
Papua New Guinea			1							1	2				10				12	1								4																															
Philippines	2				15		1			19					6																																												
Republic of Korea	3				1					10					27	1			60	2			2	114	4			63				2	29			2	2			1				1															
Singapore	3	2	1		13		4	1		12	2	4	1		3	2	8		1	4	1		2		2				1	1			4			1	1	1	3	1																			
Viet Nam		1			15				1	2				1	12	11		1																																									
Pacific island countries and areas <sup>4</sup>																																																											

Sources: National and regional measles reference laboratory monthly reports from November 2014 and the Measles Nucleotide Sequence online database (MeANS).



Figure 4. Rubella genotype distribution of cases with onset in 2013 and 2014, 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.  
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\* Size of the pie chart is proportional to the number of genotypes reported by the country

Table 8. Rubella genotype distribution of cases with onset in December 2013 to November 2014, WHO Western Pacific Region

Country	2013		2014																									
	Dec			Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov				
	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			1	3		2		10	17		15	10		24	7												
Hong Kong (China)														1			1											
Macao (China)																												
Japan																												
Lao People's Democratic Republic																												
Malaysia				3	1		6	1		5	1																	
Mongolia																												
New Zealand				1											1													
Papua New Guinea																												
Philippines																												
Republic of Korea																												
Singapore																												
Viet Nam																												
Pacific island countries and areas <sup>4</sup>																												

Sources: National and regional measles reference laboratory monthly reports from November 2014 and the Measles Nucleotide Sequence online database (MeANS).

**Table 9A. Completeness and timeliness of epidemiologic reporting, WHO Western Pacific Region, 2012–2014**

Country	2012		2013		2014 <sup>1</sup>												Completeness <sup>2</sup>	Timeliness <sup>3</sup>
	Completeness	Timeliness	Completeness	Timeliness	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov			
					10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec			
Australia	100%	100%	100%	100%	11 Feb	07 Mar	09 Apr	09 May	06 Jun	08 Jul	08 Aug	02 Sep	10 Oct	07 Nov	05 Dec	100%	91%	
Brunei Darussalam	100%	100%	100%	100%	06 Feb	08 Mar	08 Apr	08 May	03 Jun	07 Jul	09 Aug	08 Sep	08 Oct	08 Nov	08 Dec	100%	100%	
Cambodia	100%	92%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec	100%	100%	
China	100%	83%	100%	83%	14 Feb	19 Mar	11 Apr	16 May	23 Jun	11 Jul	18 Aug	15 Sep	11 Oct	13 Nov	11 Dec	100%	64%	
Hong Kong (China)	100%	100%	100%	100%	10 Feb	07 Mar	08 Apr	07 May	10 Jun	10 Jul	08 Aug	10 Sep	10 Oct	10 Nov	10 Dec	100%	100%	
Macao (China)	100%	100%	100%	100%	06 Feb	05 Mar	04 Apr	05 May	09 Jun	04 Jul	05 Aug	08 Sep	06 Oct	07 Nov	03 Dec	100%	100%	
Japan	100%	100%	100%	83%	11 Feb	12 Mar	13 Apr	10 May	11 Jun	13 Jul	10 Aug	11 Sep	13 Oct	13 Nov	12 Dec	100%	18%	
Lao People's Democratic Republic	100%	75%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec	100%	100%	
Malaysia	100%	92%	100%	100%	04 Feb	03 Mar	03 Apr	07 May	03 Jun	08 Jul	05 Aug	12 Sep	10 Oct	10 Nov	10 Dec	100%	91%	
Mongolia	100%	100%	100%	100%	10 Feb	07 Mar	07 Apr	06 May	09 Jun	09 Jul	10 Aug	09 Sep	09 Oct	10 Nov	08 Dec	100%	100%	
New Zealand	100%	83%	100%	92%	04 Feb	06 Mar	09 Apr	09 May	09 Jun	09 Jul	08 Aug	09 Sep	07 Oct	06 Nov	04 Dec	100%	100%	
Papua New Guinea	83%	33%	100%	92%	10 Feb	10 Mar	09 Apr	08 May	13 Jun	17 Jul	28 Aug		10 Oct	10 Nov	05 Dec	91%	64%	
Philippines	100%	100%	100%	100%	09 Feb	08 Mar	04 Apr	05 May	04 Jun	04 Jul	08 Aug	08 Sep	09 Oct	10 Nov	10 Dec	100%	100%	
Republic of Korea	100%	100%	100%	100%	06 Feb	10 Mar	09 Apr	10 May	10 Jun	10 Jul	10 Aug	05 Sep	10 Oct	07 Nov	10 Dec	100%	100%	
Singapore	100%	100%	100%	100%	10 Feb	10 Mar	07 Apr	08 May	06 Jun	09 Jul	10 Aug	04 Sep	09 Oct	11 Nov	10 Dec	100%	91%	
Viet Nam	100%	92%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec	100%	100%	
Pacific island countries and areas	100%	100%	100%	100%	03 Feb	04 Mar	09 Apr	09 May	04 Jun	07 Jul	08 Aug	04 Sep	09 Oct	04 Nov	04 Dec	100%	100%	
Completeness	99%		100%		100%	100%	100%	100%	100%	100%	100%	94%	100%	100%	100%	99%		
Timeliness		92%		97%	88%	88%	94%	94%	82%	88%	88%	82%	94%	88%	94%		89%	

<sup>1</sup> National measles surveillance monthly reports from November 2014.

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, 2012–2014**

Country	2012		2013		2014 <sup>1</sup>												Completeness <sup>3</sup>	Timeliness <sup>4</sup>
	Completeness	Timeliness	Completeness	Timeliness	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov			
					10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec			
Australia	100%	100%	100%	100%	04 Feb	05 Mar	01 Apr	02 May	03 Jun	02 Jul	07 Aug	02 Sep	03 Oct	06 Nov	03 Dec	100%	91%	
Brunei Darussalam			100%	78%	04 Feb	04 Mar	02 Apr	03 May	06 Jun	01 Jul	04 Aug	02 Sep	09 Oct	03 Nov	08 Dec	100%	91%	
Cambodia	100%	100%	100%	100%	10 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec	100%	91%	
China	17%	17%	100%	100%	07 Feb	07 Mar	09 Apr	10 May	10 Jun	03 Jul	07 Aug	05 Sep	08 Oct	06 Nov	09 Dec	100%	100%	
Hong Kong (China)	100%	100%	100%	100%	07 Feb	08 Mar	08 Apr	07 May	09 Jun	09 Jul	06 Aug	05 Sep	08 Oct	06 Nov	08 Dec	100%	100%	
Macao (China)	100%	100%	100%	100%	09 Feb	05 Mar	05 Apr	05 May	10 Jun	07 Jul	05 Aug	08 Sep	06 Oct	07 Nov	04 Dec	100%	100%	
Japan	100%	100%	100%	100%	12 Feb	12 Mar	13 Apr	10 May	11 Jun	13 Jul	10 Aug	11 Sep	13 Oct	07 Nov	12 Dec	100%	55%	
Lao People's Democratic Republic	100%	92%	92%	92%	08 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	10 Aug	10 Sep	10 Oct	10 Nov	10 Dec	100%	100%	
Malaysia	100%	58%	100%	100%	10 Feb	10 Mar	11 Apr	09 May	10 Jun	10 Jul	10 Aug	11 Sep	10 Oct	10 Nov	10 Dec	100%	82%	
Mongolia	100%	100%	100%	100%	05 Feb	05 Mar	03 Apr	06 May	05 Jun	06 Jul	05 Aug	06 Sep	02 Oct	07 Nov	05 Dec	100%	100%	
New Zealand	100%	100%	100%	100%	04 Feb	06 Mar	09 Apr	09 May	09 Jun	09 Jul	08 Aug	09 Sep	07 Oct	06 Nov	04 Dec	100%	100%	
Papua New Guinea	92%	50%	83%	83%	17 Feb	05 Mar	08 Apr	08 May	10 Jun	10 Jul	08 Aug	09 Sep	10 Oct	10 Nov	10 Dec	100%	91%	
Philippines	100%	92%	100%	100%	07 Feb	11 Mar	10 Apr	09 May	09 Jun	07 Jul	07 Aug	08 Sep	09 Oct	10 Nov	09 Dec	100%	91%	
Republic of Korea	100%	100%	100%	100%	07 Feb	10 Mar	10 Apr	09 May	10 Jun	10 Jul	08 Aug	06 Sep	08 Oct	07 Nov	09 Dec	100%	100%	
Singapore	100%	100%	100%	100%	10 Feb	10 Mar	07 Apr	08 May	06 Jun	08 Jul	08 Aug	09 Sep	08 Oct	07 Nov	08 Dec	100%	100%	
Viet Nam (central)						10 Mar	10 Apr	10 May			08 Aug	10 Sep	10 Oct	12 Nov	10 Dec	80%	80%	
Viet Nam (highlands)						10 Mar	10 Apr	10 May	10 Jun		08 Aug	10 Sep	10 Oct	12 Nov	10 Dec	90%	90%	
Viet Nam (northern)	92%	83%	100%	50%	11 Feb	10 Mar	10 Apr	10 May	10 Jun	10 Jul	08 Aug	10 Sep	10 Oct	12 Nov	10 Dec	100%	91%	
Viet Nam (southern)	83%	83%	100%	67%	10 Feb	10 Mar	10 Apr	09 May	09 Jun	10 Jul	28 Jul	09 Sep	09 Oct	07 Nov	09 Dec	100%	100%	
Fiji	100%	100%	100%	100%	03 Feb	04 Mar	09 Apr	09 May	04 Jun	07 Jul	08 Aug	04 Sep	09 Oct	04 Nov	04 Dec	100%	100%	
Completeness	93%		99%		100%	100%	100%	100%	95%	90%	100%	100%	100%	100%	100%	99%		
Timeliness		87%		92%	83%	90%	95%	100%	90%	85%	100%	90%	95%	85%	95%		92%	

<sup>1</sup> National measles laboratory monthly reports from November 2014.

<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  
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Please send your comments and monthly data before the 10th of the month to:  
[WPR\\_EPIdata@wpro.who.int](mailto:WPR_EPIdata@wpro.who.int)