



### Classification of Suspect Measles-Rubella Cases

A total of 2,355 suspect measles-rubella cases were reported nationwide from January 1 to September 2, 2017. Of these, 1,674 (71.08%) were tested. Among the suspect cases, 48 (2.04%) cases were classified as **laboratory confirmed measles**, 374 (15.88%) cases were classified as **laboratory confirmed rubella** and 18 (0.76%) cases were classified as **epidemiologically-linked confirmed rubella**. Four (0.17%) cases had co-infection and tested positive for both measles and rubella virus. Measles cases are **3.70% lower** while rubella cases are **266.67% higher** than the previous year of the same time period (see Table 2). One death (CFR=1.92%) was reported from Region III among the confirmed measles cases.

**TABLE 1. MEASLES AND RUBELLA CASES BY REGION, PHILIPPINES, JANUARY 1 – SEPTEMBER 2, 2017 (N=2,355)**

REGION	REPORTED	CONFIRMED CASES				NEGATIVE (DISCARDED AS NON-MEASLES/ RUBELLA)	MEASLES COMPATIBLE	PENDING CLASSIFICATION
		LABORATORY CONFIRMED MEASLES	LABORATORY CONFIRMED RUBELLA	EPI-LINKED CONFIRMED RUBELLA	POSITIVE FOR BOTH MEASLES & RUBELLA (CO-INFECTION)			
I	282	2	30	0	0	176	69	5
II	38	0	3	0	0	27	6	2
III	243	8	36	0	1	170	21	7
IVA	422	10	84	2	0	246	63	17
MIMAROPA	38	0	1	0	0	19	18	0
V	54	0	3	0	0	31	19	1
VI	222	0	78	4	1	126	10	3
VII	43	0	5	0	1	31	6	0
VIII	90	0	31	10	0	20	13	16
IX	94	13	3	0	1	16	53	8
X	106	1	6	0	0	38	55	6
XI	52	1	5	0	0	43	2	1
XII	64	1	2	0	0	58	2	1
ARMM	160	7	1	0	0	7	142	3
CAR	162	0	57	1	0	59	44	1
CRG	37	1	0	0	0	16	19	1
NCR	248	4	29	1	0	165	45	4
<b>PHL</b>	<b>2,355</b>	<b>48</b>	<b>374</b>	<b>18</b>	<b>4</b>	<b>1,248</b>	<b>587</b>	<b>76</b>

see Annex A for confirmed measles cases by barangay

**FIGURE 1. GEOGRAPHICAL DISTRIBUTION OF CONFIRMED CASES\*, PHILIPPINES, JANUARY 1 – SEPTEMBER 2, 2017**

REGION	MEASLES	RUBELLA
01	2	30
02	0	3
03	9	37
04A	10	86
MIMAROPA	0	1
05	0	3
06	1	83
07	1	6
08	0	41
09	14	4
10	1	6
11	1	5
12	1	2
ARMM	7	1
CAR	0	58
CARAGA	1	0
NCR	4	30

\*lab confirmed and epi-linked confirmed cases

Legend:  
1 dot = 1 case  
● Measles  
● Rubella

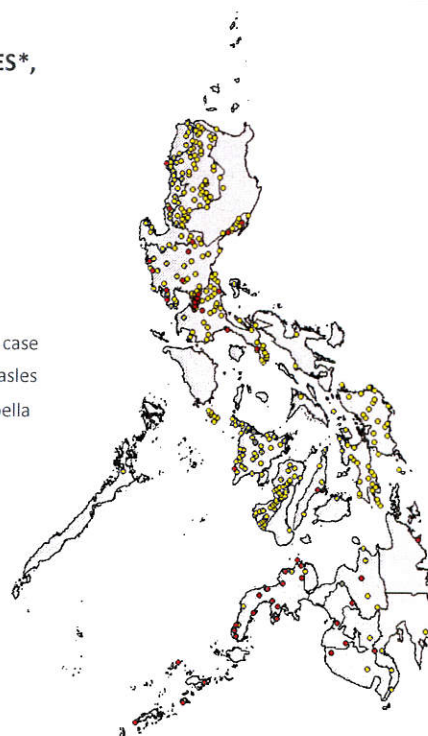






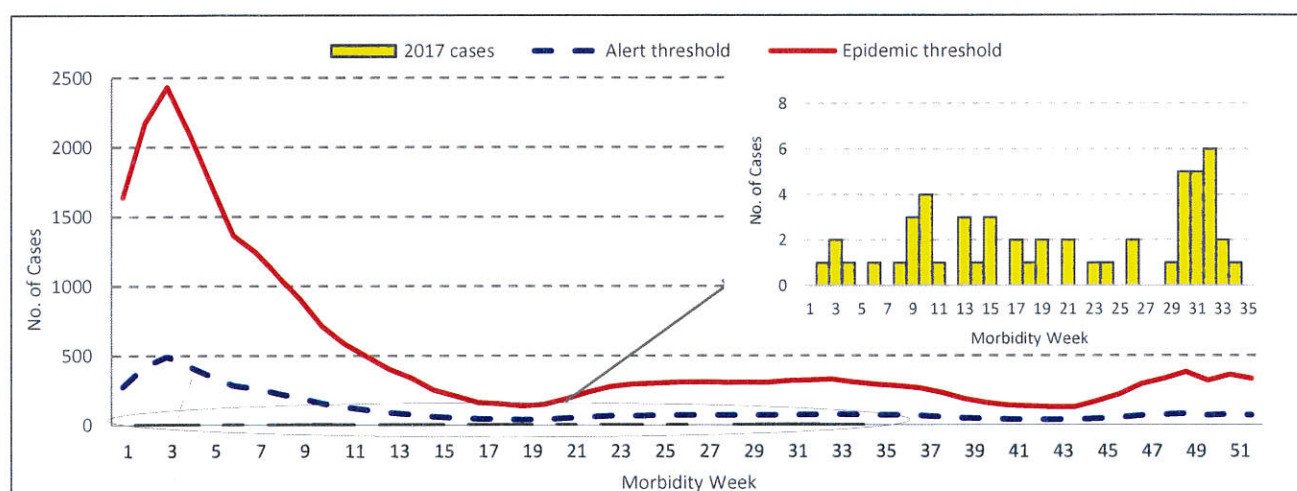
Figure 1 shows the distribution of cases among regions. Confirmed measles are highest in Region IX with 14 (26.92%) cases followed by Region IVA with 10 (19.23%) cases and Region III with 9 (17.31%) cases.

Meanwhile, confirmed rubella cases are highest in number in Region IVA with 86 (21.72%) cases followed by Region VI with 83 (20.96%) cases and CAR with 58 (14.65%) cases.

**TABLE 2. CONFIRMED MEASLES AND RUBELLA CASES BY REGION, PHILIPPINES, 2016 vs. 2017**

REGION	CONFIRMED MEASLES CASES			CONFIRMED RUBELLA CASES		
	2017	2016	% CHANGE	2017	2016	% CHANGE
I	2	4	↓ -50.00	30	3	↑ 900.00
II	0	2	↓ -200.00	3	0	↑ 300.00
III	9	2	↑ 350.00	37	6	↑ 516.67
IVA	10	6	↑ 66.67	86	6	↑ 1333.33
MIMAROPA	0	0	→ 0.00	1	2	↓ -50.00
V	0	3	↓ -300.00	3	2	↑ 50.00
VI	1	2	↓ -50.00	83	52	↑ 59.62
VII	1	10	↓ -90.00	6	4	↑ 50.00
VIII	0	2	↓ -200.00	41	4	↑ 925.00
IX	14	10	↑ 40.00	4	0	↑ 400.00
X	1	2	↓ -50.00	6	4	↑ 50.00
XI	1	0	↑ 100.00	5	5	→ 0.00
XII	1	1	→ 0.00	2	2	→ 0.00
ARMM	7	1	↑ 600.00	1	0	↑ 100.00
CAR	0	3	↓ -300.00	58	5	↑ 1060.00
CRG	1	2	↓ -50.00	0	0	→ 0.00
NCR	4	4	→ 0.00	30	13	↑ 130.77
<b>PHL</b>	<b>52</b>	<b>54</b>	<b>↓ -3.70</b>	<b>396</b>	<b>108</b>	<b>↑ 266.67</b>

**FIGURE 2. CONFIRMED MEASLES ALERT AND EPIDEMIC THRESHOLDS, PHILIPPINES, JANUARY 1 – SEPTEMBER 2, 2017 (n=52)**



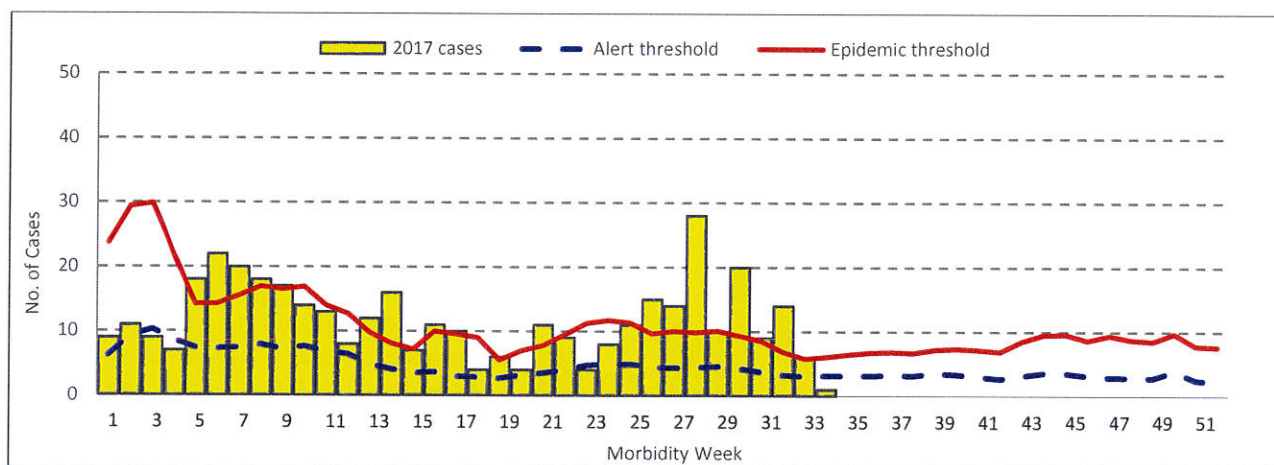
The current number of confirmed measles cases is below the alert threshold as shown in Figure 2. Annualized measles incidence rate is 0.74 per 1,000,000 population sustaining the target incidence of <1 per 1,000,000.

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases.



Figure 3 as shown below reflects the confirmed rubella cases in relation to the rubella alert and epidemic thresholds. It can be noted that the weekly number of rubella cases have almost consistently exceeded the alert threshold from the start of the year until morbidity week 33. In various weeks, the epidemic threshold was reached. Annualized rubella incidence rate is 5.66 per 1,000,000 population, indicating a high incidence of rubella in the country.

**FIGURE 3. CONFIRMED RUBELLA ALERT AND EPIDEMIC THRESHOLDS, PHILIPPINES, JANUARY 1 – SEPTEMBER 2, 2017 (n=396)**

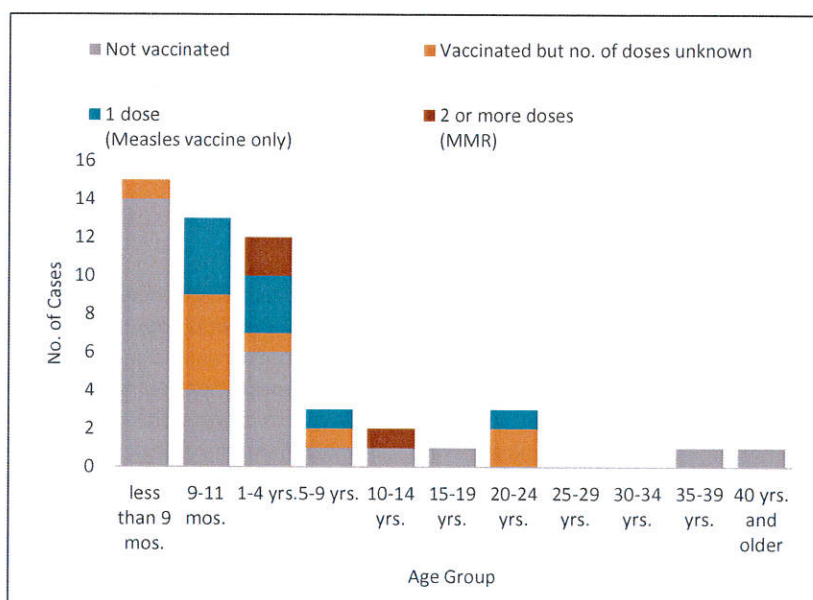


#### PCR Testing and Genotyping of Oropharyngeal or Nasopharyngeal Swabs (OPS/NPS)

There were 135 oropharyngeal/nasopharyngeal swabs submitted and tested by PCR for the current year. Among these, 28 cases had rubella virus RNA detected. Of the 28 cases, 14 have 2B genotype results based on swab testing. None of the samples detected measles virus.

#### Profile of Cases: MEASLES

**FIGURE 4. VACCINATION STATUS OF CONFIRMED MEASLES CASES BY AGE GROUP, PHILIPPINES, JANUARY 1 – SEPTEMBER 2, 2017 (n=52)**



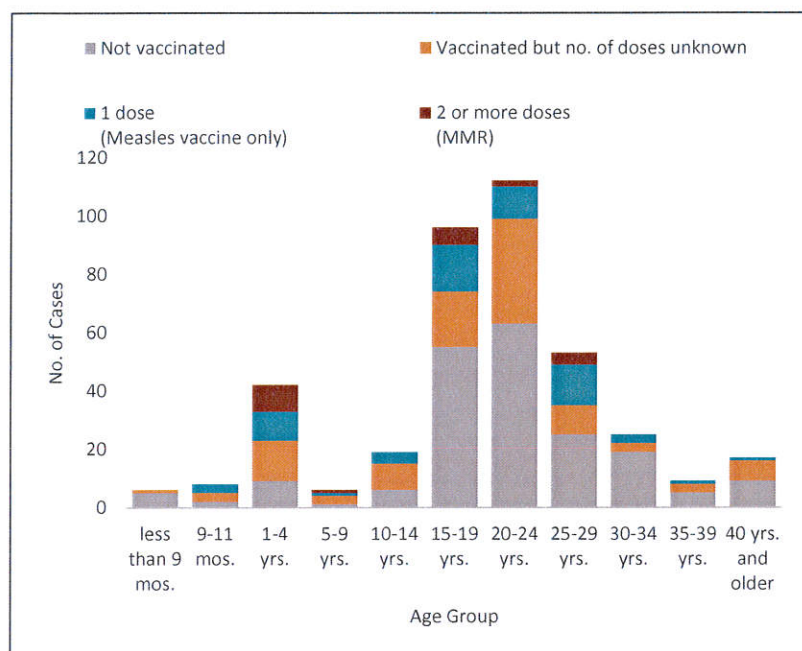
Among the confirmed measles cases, 27 (52%) cases were female. Most of the cases belong to the under five age groups. Fifteen (31.91%) of the confirmed measles cases belong to the less than 9 month old age group. Twenty-eight (58.33%) of the cases were not vaccinated, 10 (20.83%) cases were vaccinated but with unknown number of doses, 7 (14.58%) cases received 1 dose of measles vaccine and 3 (6.25%) cases received 2 doses of measles-containing vaccine as shown in Figure 4.





### Profile of Cases: RUBELLA

**FIGURE 5. VACCINATION STATUS OF CONFIRMED RUBELLA CASES BY AGE GROUP, PHILIPPINES, JANUARY 1 – SEPTEMBER 2, 2017 (n=396)**



Of the confirmed rubella cases, 204 (52%) cases were female. One hundred twelve (28.79%) of the confirmed rubella cases belong to the 20-24 year old age group followed by the 15-19 year old age group with 96 (24.68%) cases. It can be observed that most of the cases are among adults. More than half (50.77%) of the cases were not vaccinated while only 22 (5.61%) received 2 or more doses inclusive of MMR vaccine as shown in Figure 5. Basis of vaccination status is only the number of measles-containing vaccine received.

Among the female confirmed rubella cases, 6 (2.94%) were reported as pregnant. All pregnant cases are referred to the Maternal, Newborn and Child Health and Nutrition (MNCHN) program for monitoring of pregnancy and outcome of delivery. Exposure to rubella during pregnancy increases the risk of Congenital Rubella Syndrome (CRS) affecting the newborn.

### Clustering of Measles-Rubella Cases

One measles and 17 rubella clusters were identified since January 2017. These cases were related in terms of place of residences and onset of symptoms, located in the same barangay or identified place of transmission and occurred within 4 consecutive weeks. (see Annex B for list of clusters)

### Actions Taken for Clusters and Cases:

1. Validation of clustering with the regions concerned
2. Provision of recommendations for surveillance and coordination with the program
3. Data dissemination to the Disease Prevention and Control Bureau (DPCB) specifically Family Health Office (FHO) and Infectious Disease Office (IDO) and Health Promotion and Communication Services (HPCS) providing updates on current status of measles-rubella cases for appropriate action

### Measles Surveillance Performance Indicators

Table 3 presents the surveillance performance of regions based on the indicators for measles surveillance. Countrywide incidence rate of 0.74 per 1,000,000 population has been achieved, reaching the target of <1 per 1,000,000 population. Regions III, IVA, IX and ARMM did not meet the target which implies increased occurrence of measles in these regions.

Surveillance performance on adequate blood collection, adequate case investigation, suspect measles reporting, non-measles/non-rubella reporting and reducing measles compatible cases are all still below the target. These surveillance indicators gauge the capacity of the country in achieving the measles elimination goal. Development of strategies and towards a highly functional surveillance system is vital towards attainment of measles control and eventually, towards elimination. Strategies may include intensification of active surveillance across the country through enhanced case reporting, specimen collection and case investigation.

see Annex C for measles surveillance performance indicators dictionary






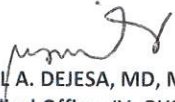
**TABLE 3. MEASLES SURVEILLANCE PERFORMANCE INDICATORS BY REGION,  
PHILIPPINES, 2016 vs. 2017**

REGION	POPULATION 2017	ANNUALIZED MEASLES INCIDENCE RATE		ADEQUATE BLOOD COLLECTION RATE		ADEQUATE CASE INVESTIGATION RATE		ANNUALIZED SUSPECT MEASLES REPORTING RATE		ANNUALIZED NON- MEASLES/ NON- RUBELLA REPORTING		PERCENTAGE OF MEASLES COMPATIBLE	
		Target: <1/1,000,000 Pop.		Target: ≥80%		Target: ≥80%		Target: ≥2/100,000 Pop.		Target: ≥2/100,000 Pop.		Target: <10%	
		2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
I	5,263,258	1.56	0.57	44	74	40	68	3.97	8.04	1.51	5.02	55	24
II	3,595,623	0.57	0.00	80	82	75	82	1.68	1.59	1.28	1.13	20	16
III	11,427,139	0.17	1.18	81	87	77	78	1.25	3.19	0.93	2.23	19	9
IVA	14,659,353	0.86	1.02	74	82	61	70	2.08	4.32	1.32	2.52	23	15
MIMAROPA	3,216,466	0.00	0.00	47	45	42	45	1.86	1.77	0.88	0.89	49	47
V	6,266,652	0.68	0.00	76	61	75	56	1.00	1.29	0.59	0.74	24	35
VI	7,919,887	0.52	0.19	95	91	90	67	3.91	4.20	2.93	2.39	5	5
VII	7,689,735	1.32	0.20	96	84	93	79	1.28	0.84	1.03	0.60	4	14
VIII	4,704,894	0.45	0.00	35	34	33	57	1.76	2.87	0.45	0.64	65	14
IX	3,896,152	3.15	5.39	53	43	47	36	1.91	3.62	0.84	0.62	40	56
X	4,857,342	0.41	0.31	43	48	38	40	6.00	3.27	2.47	1.17	56	52
XI	5,153,130	0.40	0.29	88	96	86	88	1.97	1.51	1.59	1.25	12	4
XII	4,780,211	0.21	0.31	84	97	81	92	1.53	2.01	1.22	1.82	16	3
ARMM	3,896,848	0.56	2.69	26	11	26	8	0.53	6.16	0.08	0.27	74	89
CAR	1,847,347	1.67	0.00	84	70	84	56	4.46	13.15	3.18	4.79	13	27
CRG	2,828,583	1.13	0.53	67	46	67	32	2.30	1.96	1.39	0.85	34	51
NCR	12,918,977	0.45	0.46	76	81	70	72	1.76	2.88	1.11	1.92	19	18
PHL	104,921,597	0.73	0.74	70	71	65	62	2.16	3.37	1.30	1.78	29	25
LEGEND:		<1	≥1	≥80%	<80%	≥80%	<80%	≥2/100,000 Pop.	<2/100,000 Pop.	≥2/100,000 Pop.	<2/100,000 Pop.	<10%	
												≤50%	
													>50%


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**ANNEX A. CONFIRMED MEASLES AND RUBELLA CASES BY BARANGAY**

CONFIRMED MEASLES CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=52)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
I	LA UNION	AGOO	SANTA ANA	1
	PANGASINAN	DAGUPAN CITY	MAYOMBO	1
III	BULACAN	GUIGUINTO	DAUNGAN	1
			POBLACION	1
		MARILAO	PRENZA I	1
	PAMPANGA	LUBAO	SANTA CRUZ	1
	TARLAC	SAN JOSE	BURGOS	1
		TARLAC CITY	MATATALAIB	1
			SAN ISIDRO	2
			SAN RAFAEL	1
IVA	BATANGAS	BATANGAS CITY	SAN JOSE SICO	1
			SIRANG LUPA	1
		LIPA CITY	MARAUOY	1
		SAN JOSE	SANTA ANA	1
	CAVITE	DASMARIÑAS CITY	EMMANUEL BERGADO I	1
			SANTA MARIA (BARANGAY 20)	1
		TANZA	SANJA MAYOR	1
	QUEZON	TAYABAS	BAGUIO	1
	RIZAL	ANTIPOLO CITY	SAN JOSE	1
			SAN LUIS	1
VI	AKLAN	TANGALAN	BAYBAY	1
VII	CEBU	CONSOLACION	LAMAC	1
IX	BASILAN	ISABELA CITY	TABUK (POB.)	1
	ZAMBOANGA DEL SUR	ZAMBOANGA CITY	unspecified	1
			AYALA	1
			GUIWAN	1
			RECODO	1
			TALON-TALON	1
			TETUAN	1
			TUGBUNGAN	1
			TUMAGA	1
	ZAMBOANGA SIBUGAY	KABASALAN	unspecified	1
			BUAYAN	1
			GACBUSAN	2
			REBOCON	1
	X	MISAMIS ORIENTAL	MANTICAO	POBLACION
XI	DAVAO DEL NORTE	ISLAND GARDEN CITY OF SAMAL	SAN ISIDRO (BABAK)	1
XII	SOUTH COTABATO	SURALLAH	TALAHIK	1
ARMM	BASILAN	ISABELA CITY	LUKKETON	1
			UNGKAYA PUKAN	1
		LAMITAN CITY	COLONIA	1
			MATATAG	1
	TIPO-TIPO	BOHE-PAHUH	1	
	SULU	INDANAN	LANGPAS	1
TAWI-TAWI	BONGAO	LAMION	1	
CARAGA	SURIGAO DEL SUR	MADRID	PATONG-PATONG	1
NCR	METRO MANILA	CALOOCAN CITY	BAGONG BARRIO	1
		MANILA CITY	BARANGAY 649	1
			TONDO	1
		QUEZON CITY	OLD BILIBID	1
PHILIPPINES				52



CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
I	ILOCOS SUR	SAN ESTEBAN	POBLACION	1
		SAN VICENTE	SAN SEBASTIAN	1
		SANTA	BANAOANG	1
		VIGAN CITY	BARANGAY VII	1
	LA UNION		NAGSANGALAN	1
		ARINGAY	SAN BENITO SUR	1
			SANTA RITA EAST	1
		BANGAR	CADAPLI	1
			BACCUIT SUR	1
		BAUANG	PAYOCPOC NORTE ESTE	1
			PAYOCPOC SUR	1
		CABA	SAN JOSE	1
			BAGBAG	1
		SAN FERNANDO CITY	BARANGAY I (POB.)	1
			CARLATAN	1
			LINGSAT	1
		SUDIPEN	SAN FRANCISCO SUR	1
	PANGASINAN	BINMALEY	GAYAMAN	1
		DAGUPAN CITY	BONUAN BOQUIG	1
			BONUAN GUESSET	1
			COLDIT	1
			LUCAO	1
			MACARANG	1
			MANGIN	1
			NAGUILAYAN	1
			POBLACION	1
		MANAOAG	BABASIT	1
		SANTA BARBARA	MANINGDING	1
			TULIAO	1
		URDANETA CITY	NANCAMALIRAN WEST	1
II	ISABELA	ROXAS	BANTUG (POB.)	1
		SAN AGUSTIN	LAOAG	1
		SANTIAGO CITY	SAGANA	1
III	AURORA	MARIA AURORA	DECOLIAT	1
	BATAAN	BALANGA CITY	ALAS ASIN	1
			UPPER TUYO	1
		MARIVELES	ALASASIN	1
			BALON-ANITO	1
			CAMAYA	2
		ORION	ARELLANO (POB.)	1
			DAANG BAGO (POB.)	1
			GENERAL LIM (KAPUT)	1
	BULACAN	BALIUAG	CATACTE	1
			SABANG	1
		CALUMPIT	PALIMBANG	1
		MALOLOS CITY	SAN VICENTE	1
			SANTO ROSARIO	1
		MARILAO	CAMANSI PRENZA III	1
			LAMBAKIN	1





Epidemiology Bureau

Public Health Surveillance Division

CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
III	BULACAN	SAN ILDEFONSO	MALIPAMPANG	1
		SANTA MARIA	SAN GABRIEL	1
			SAN ROQUE	1
	NUEVA ECIJA	CABANATUAN CITY	M. S. GARCIA	1
		SAN ANTONIO	PAPAYA	1
		SCIENCE CITY OF MUÑOZ	POBLACION NORTH	1
	PAMPANGA	MABALACAT CITY	AIRFORCE CITY	3
		SANTA ANA	SANTA MARIA	1
		SASMUAN	SAN PEDRO	1
	TARLAC	LA PAZ	DUMARAIS	1
		TARLAC CITY	CUT-CUT II	1
			SAN ISIDRO	1
	ZAMBALES	BOTOLAN	PORAC	1
		CANDELARIA	MALABON	1
		IBA	PALANGINAN	1
		OLONGAPO CITY	NEW CABALAN	1
		SANTA CRUZ	NAULO	1
		SUBIC	ILWAS (POB.)	1
IVA	BATANGAS	BATANGAS CITY	BARANGAY 15 (POB.)	1
			BARANGAY 18 (POB.)	1
			BARANGAY 19	1
			BARANGAY 20 (POB.)	1
			CONCEPCION	1
			DUMANTAY	1
			KUMINTANG ILAYA	2
			MAHACOT KANLURAN	1
			PALLOCAN KANLURAN	5
			PALLOCAN SILANGAN	1
			PINAMUCAN IBABA	1
			SAN ISIDRO	1
			SAN MIGUEL	1
			SANTO DOMINGO	1
			SIMLONG	1
			TABANGAO DAO	1
			TALAHIB PANDAYAN	1
			TINGA LABAK	1
			WAWA	1
		LIPA CITY	BULACNIN	2
			MATAAS NA LUPA	1
			MUNTING PULO	2
			PANGAO	1
			POBLACION BARANGAY 2	1
			QUEZON	1
			SAMPAGUITA	1
			SAN SEBASTIAN (BALAGBAG)	1
		ROSARIO	ITLUGAN	1
		SAN JOSE	BANAYBANAY II	2
			CALANSAYAN	1
			MAHABANG PARANG	1





CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
IVA	BATANGAS	SAN LUIS	SAN ANTONIO	1
		SAN PASCUAL	SANTO NIÑO	1
		TAYSAN	MABAYABAS	1
	CAVITE	BACOOR CITY	MOLINO III	2
		DASMARIÑAS CITY	BUROL I	1
			H2	2
			MANGAS I	1
			MAYPAJO	1
			SALAWAG	2
			SAN ANTONIO DE PADUA I	1
			SAN DIONISIO (BARANGAY 1)	1
			SAN FRANCISCO I	1
			SAN ISIDRO LABRADOR I	1
			SAN JUAN (SAN JUAN I)	1
			SAN LORENZO RUIZ II	1
			SAN LUIS II	1
			SAN NICOLAS I	1
			SAN NICOLAS IV	1
			SANTA CRUZ I	1
			SANTA FE	1
			SANTA LUCIA (SAN JUAN II)	1
			SANTA MARIA (BARANGAY 20)	1
			VICTORIA REYES	2
		GENERAL TRIAS	SANTIAGO	1
		IMUS CITY	MALAGASANG II-G	1
			TANZANG LUMA II	1
		SILANG	BIGA I	1
			SAN VICENTE II	1
		TANZA	AMAYA III	1
			BIWAS	1
			CALIBUYO	1
		TERNATE	SAPANG I	1
	LAGUNA	NAGCARLAN	MARAVILLA	1
		SAN PABLO CITY	SAN GABRIEL	1
		SAN PEDRO	SAN VICENTE	1
	QUEZON	LOPEZ	<i>unspecified</i>	1
		LUCENA CITY	IBABA IYAM	1
	RIZAL	ANTIPOLO CITY	DELA PAZ (POB.)	1
			MAYAMOT	1
			SAN ISIDRO (POB.)	1
		BINANGONAN	MACAMOT	1
		TAYTAY	SAN JUAN	1
		TERESA	PRINZA	1
IVB	PALAWAN	PUERTO PRINCESA CITY	SAN MIGUEL	1
V	CAMARINES NORTE	LABO	MALATAP	2
	SORSOGON	SORSOGON CITY	SAN JUAN	1
VI	AKLAN	ALTAVAS	DALIPDIP	1
		BALETE	CALIZO	1
			FELICIANO	1





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CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
VI	AKLAN	BANGA	TABA-AO	1
			TABAYON	1
			UGSOD	1
		BATAN	CAMALIGAN	1
			MAMBUQUIAO	1
		BURUANGA	HABANA	1
			MAYAPAY	1
			TAG-OSIP	13
		IBAJAY	MALOCO	1
			<i>unspecified</i>	1
		KALIBO (CAPITAL)	AGBANAWAN	1
			BACHAW SUR	1
			CABAYUGAN	1
			DUMAGUIT	1
			JOYAO JOYAO	1
			LUPO	1
			OLD BUSWANG	1
			POBLACION	2
			POOK	1
			WALOOK	1
		LEZO	BIGA-A	1
			IBAO	1
			POBLACION	1
		MADALAG	MEDINA	1
		MAKATO	CABATANGA	1
			EAST LIBANA	1
			LIBANG	1
			TINA	1
		MALAY	BALABAG	1
			MANOC-MANOC	3
		MALINAO	DANGCALAN	1
			KINALANGAY VIEJO	1
		NEW WASHINGTON	DUMAGUIT	1
			POBLACION	1
			PUIS	1
		NUMANCIA	JOYAO-JOYAO	1
		TANGALAN	AFGA	1
			BAYBAY	1
			DUMATAD	1
			PUMOT	1
			TAMALAGON	6
			TANDOG	1
			TONDOG	1
	ANTIQUÉ	PANDAN	DUMROG	1
		SAN JOSE	FUNDA	1





CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
VI	CAPIZ	CUARTERO	ANGUB	1
			BITO-ON ILAWOD	1
			BUN-OD	1
			NAGBA	1
			POBLACION TAKAS	1
		JAMINDAN	FE	1
		MA-AYON	CABUNGAHAN	1
	GUIMARAS	TAPAZ	POBLACION	1
		BUENAVISTA	SAWANG	1
	ILOILO	ILOILO CITY	NORTH FUNDIDOR	1
			PAVIA	1
		PASSI CITY	MAN-IT	1
		SAN ENRIQUE	CAMIRI	1
	NEGROS OCCIDENTAL	ENRIQUE B. MAGALONA	POBLACION II (BARANGAY 2)	1
		VALLADOLID	DOLDOL	1
VII	CEBU	CEBU CITY	INAYAWAN	1
			PUNTA PRINCESA	1
		COMPOSTELA	LUPA	1
		CONSOLACION	LAMAC	1
	NEGROS ORIENTAL	MANDAUE CITY	TABOK	1
		DUMAGUETE CITY	POBLACION NO. 8 (BARANGAY 8)	1
VIII	BILIRAN	KAWAYAN	POBLACION	1
	NORTHERN SAMAR	SAN ANTONIO	DALUPIRIT	18
			MANRAYA	10
			PILAR	5
			SAN NICOLAS	4
			VINISITAHAN	2
	SAMAR	CATBALOGAN	MAULONG	1
IX	ZAMBOANGA DEL NORTE	DIPOLOG CITY	MIPUTAK (POB.)	1
	ZAMBOANGA DEL SUR	ZAMBOANGA CITY	BALIWASAN	1
			TALON-TALON	1
			TUGBUNGAN	1
X	LANAO DEL NORTE	ILIGAN CITY	DATU SABER	1
	MISAMIS OCCIDENTAL	OZAMIS CITY	MALAUANG	1
		TANGUB CITY	BARANGAY VII - UPPER POLAO (POB.)	1
	MISAMIS ORIENTAL	CAGAYAN DE ORO CITY	CARMEN	1
			PATAG	1
			CABALANTIAN	1
XI	COMPOSTELA VALLEY	MARAGUSAN	MARAGUSAN (POB.)	1
	DAVAO DEL NORTE	KAPALONG	GUPITAN	1
		TAGUM CITY	TIBAL-OG (POB.)	1
	DAVAO DEL SUR	DAVAO CITY	BAJADA	1
		MALALAG	POBLACION	1
XII	SOUTH COTABATO	GENERAL SANTOS CITY	FATIMA	1
		SURALLAH	RIZAL POBLACION	1
ARMM	LANAO DEL SUR	MARAWI CITY	MARINAUT	1
CAR	ABRA	BANGUED	PATUCANNAY	1
	APAYAO	PUDTOL	SWAN	1
	BENGUET	ATOK	ABIANG	1





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CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
CAR	BENGUET	BAGUIO CITY	A. BONIFACIO-CAGUIOA-RIMANDO (ABCR)	2
			AMBIONG	3
			AURORA HILL	4
			BAKAKENG CENTRAL	1
			BROOKESIDE	1
			CABINET HILL-TEACHER'S CAMP	1
			CAMP 7	1
			CAMP ALLEN	1
			CENTRAL FAIRVIEW	1
			CITY CAMP CENTRAL	1
			ENGINEER'S HILL	1
			HAPPY HOLLOW	1
			HOLY GHOST EXTENSION	1
			HOLY GHOST PROPER	1
			HONEYMOON (HONEYMOON-HOLY GHOST)	4
			IRISAN	1
			NAVY BASE ST. JOSEPH	1
			NEW LUCBAN	2
			PACDAL	1
			PADRE BURGOS	1
			POLIWES	2
			QUEZON HILL PROPER	1
			RIMANDO ROAD	1
			SAINT JOSEPH VILLAGE	1
			SALUD MITRA	1
			SAN CARLOS HEIGHTS	1
			SAN LUIS VILLAGE	1
			SANITARY CAMP, NORTH	1
			SANTA ESCOLASTICA	1
			SANTO ROSARIO	1
			SANTO TOMAS PROPER	2
			UPPER QM	1
			UPPER WEST QUIRINO HILL	1
		BOKOD	BILA	1
		ITOGON	AMPUCAO	1
			LOACAN	1
		LA TRINIDAD	AMBIONG	2
			BETAG	1
			LONGLONG PUGUIS	1
			LUBAS	1
			PICO	1
		TUBA	POBLACION	1





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CONFIRMED RUBELLA CASES PHILIPPINES, JANUARY 1 - SEPTEMBER 2, 2017 (n=396)				
REGION	PROVINCE	MUNCITY	BARANGAY	NO. OF CONFIRMED CASES
NCR	METRO MANILA	CALOOCAN CITY	BARANGAY 170	1
			BARANGAY 179	1
		LAS PIÑAS CITY	TALON SINGKO	1
		MAKATI CITY	PITOGO	1
		MALABON CITY	TONSUYA	1
		MANILA CITY	BARANGAY 399	1
			BARRIO BANANA	1
			BINONDO	1
			BRGY. 33	1
			HABITAT BASECO	1
			OLD SITE BASECO	1
			PACO	1
			SAMPALOC	1
			SANTA CRUZ	2
		PARAÑAQUE CITY	DON GALO	1
			SAN DIONISIO	1
		PASAY CITY	BRGY. 145	1
		QUEZON CITY	CENTRAL	1
			COMMONWEALTH	1
			MARIANA	1
			PAYATAS	1
			PROJECT 4	2
		SAN JUAN CITY	ONSE	2
			WEST CRAME	3
		VALENZUELA CITY	LAWANG BATO	1
PHILIPPINES				396





**ANNEX B. CLUSTERS OF MEASLES AND RUBELLA CASES**

Type of VPD	MW	Region	Province	Muncity	Barangay	Place of Transmission	No. of Confirmed Cases
Measles	9-10	IX	Zamboanga Sibugay	Kabasalan	Gacbusan	Unknown	2
Rubella	3	V	Camarines Norte	Labo	Malatap	Home/ Dormitory	2
	3-7	NCR	Metro Manila	San Juan City	West Crame	Barangay/ Community	3
	5-11	VIII	Northern Samar	San Antonio	Dalupirit Manraya Pilar San Nicolas Vinitahan	School	39
	7-10	IVA	Batangas	Batangas City	Kumintang Ilaya	School/Barangay	2
	8-9	III	Pampanga	Mabalacat	Airforce City	Unknown	3
	8-16	IVA	Batangas	Batangas City	Pallocan Kanluran	2 cases: Workplace 2 cases: Barangay 1 case: Unknown	5
	9-10	NCR	Metro Manila	Quezon City	Project 4	Unknown	2
	10-11	IVA	Cavite	Dasmariñas City	Salawag	Unknown	2
	16-19	VI	Aklan	Buruanga	Tag-osip	Barangay/ Community	13
	16-19	IVA	Batangas	San Jose	Banaybanay II	Unknown	2
	20-22	CAR	Benguet	Baguio City	Aurora Hill	Unknown	2
	22-28	CAR	Benguet	Baguio City	Honeymoon (Honeymoon- Holy Ghost)	Barangay/Community Workplace	4
	22-29	VI	Aklan	Malay	Manoc-Manoc	Unknown	3
	27	CAR	Benguet	Baguio City	Ambiong	Workplace Home/Dormitory	2
	27-29	VI	Aklan	-	-	Workplace (Mall)	6
	29-31	IVA	Batangas	Lipa City	Bulacnin	Unknown	2
	32-33	VI	Aklan	Tangalan	Tamalagon	Barangay/Community Daycare/School	6





#### ANNEX C. MEASLES SURVEILLANCE PERFORMANCE INDICATORS

- **Measles incidence rate:** target: <1/ 1,000,000 of the total population. It measures the progress of a country towards measles elimination. High incidence rate indicates persistence of measles transmission in some areas.
- **Adequate blood collection rate:** target: ≥80% adequate specimen collected within 28 days from rash onset. This will facilitate the specificity (ability to determine measles virus as the cause of illness) of reported measles cases. With adequate specimen collection, there will be an access to identify the circulating measles virus in the community.
- **Timeliness and adequacy of investigation:** target: ≥80% adequate investigation within 48 hours of notification, with collection of all 10 core variables. This provides venue to prevent further transmission of measles cases in the community, furthermore, provides immediate response to prevent potential outbreaks.
- **Suspect Measles Reporting Rate:** target: ≥2 per 100,000 of the total population. It measures the ability to detect suspect measles cases. Reporting an adequate number of suspected cases provides confidence that the system is sensitive to detect measles cases.
- **Non-Measles Reporting Rate:** target: ≥2 per 100,000 of the total population. If non-measles reporting rate is equal or proportion to the number of suspect measles cases in all regions, it gives us higher chance in attaining our goal of measles elimination. However, symptoms similar to that of measles may be attributed to another organism causing the illness.

#### ANNEX D. DEFINITION OF TERMS

Laboratory confirmed case	A suspect case with a positive laboratory test result for measles-specific/rubella-specific IgM antibodies or other approved laboratory test method
Epidemiologically-linked case	A suspect case that has not been confirmed by laboratory but that is geographically AND temporally related to a laboratory-confirmed case or (in the event of an outbreak) to another epidemiologically confirmed measles case.
Co-infection	A suspect case with a positive laboratory test result for both measles-specific and rubella-specific IgM antibodies or other approved laboratory test method
Confirmed cases	Laboratory confirmed + Epidemiologically-linked cases
Measles compatible case	A case that meets the suspect case definition for measles but for which no adequate blood specimen was taken and which has not been linked epidemiologically to another case positive for measles IgM or another laboratory-confirmed communicable disease
Discarded non-measles/rubella	A case that meets the clinical case definition for measles and tested negative for both measles and rubella testing.
Pending classification	Cases with blood specimen collected but with pending transport or laboratory results.
Alert threshold	Refers to the level of occurrence of disease that serves as an early warning for epidemics.
Epidemic threshold	Refers to the level of occurrence of disease above which an urgent response is required. The threshold is specific to each disease and depends on the infectiousness, other determinants of transmission and local endemicity levels.
Cluster of cases	2 or more cases with temporal (occurring in a span of 4 weeks) and geographical association (within the same barangay)

