



Morbidity Week 12: March 20- 26, 2016

Epidemiology Bureau
Public Health Surveillance Division

Introduction

Measles (Tigdas, Tipdas) is an acute highly communicable viral illness caused by the measles virus in the *Paramyxoviridae* family. Measles is characterized by a prodrome of fever, conjunctivitis, cough, coryza, and small spots with white or bluish centers on the erythematous base on the buccal mucosa known as Koplik's spots followed by maculopapular rash on the 3rd to the 7th day beginning on the face then becoming generalized. Measles can be transmitted through direct contact with nasal or throat secretions of infected persons or by articles freshly soiled with nose and throat secretions. The incubation period of measles range from 7 to 21 days from exposure to onset of fever.

Trend in the Philippines

A total of 392 suspect measles cases were reported nationwide from January 1 to March 26, 2016. Of these, 11 (2.81%) were classified as laboratory confirmed measles (see Table 1). The number of confirmed measles cases decreased significantly in 2016 (97.71%) compared with last year (see Table 2). Currently, the Philippines has an incidence rate of 1.27 per 1,000,000 population. There were no reported deaths among the confirmed measles cases (CFR=0.00%).

Geographic Distribution

The distribution of confirmed measles cases varied considerably among the regions. Most of the confirmed cases came from Region VII (36.36%), Region IX (18.18%) and Regions III, V, VI, CAR and CARAGA (9.09% each).

Confirmed Measles Cases by Region
Philippines, January 1- March 26, 2016

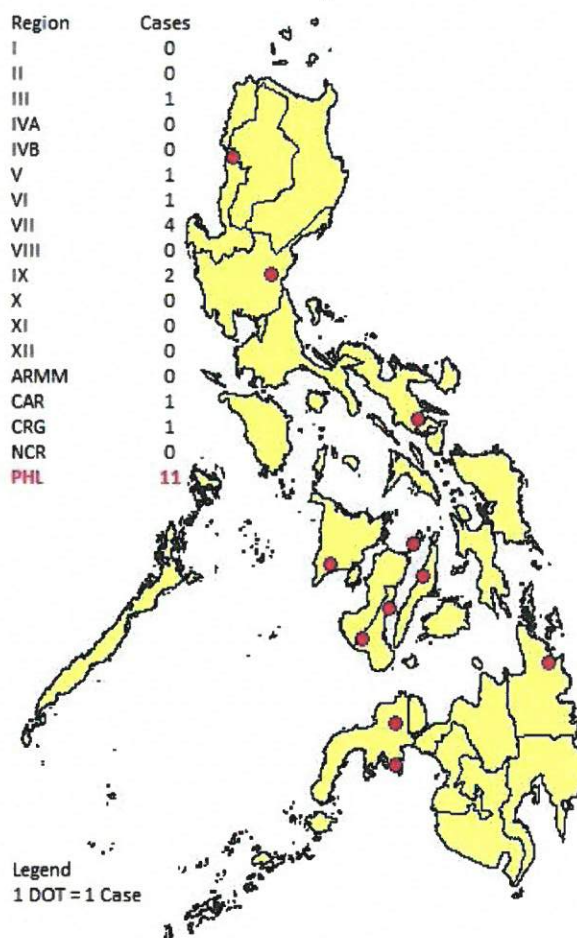


TABLE 1. MEASLES AND RUBELLA CASES BY REGION
PHILIPPINES, JANUARY 1 – MARCH 26, 2016 (N=392)

REGION	POPULATION 2016	TARGET 2/100K	REPORTED	CONFIRMED MEASLES		MEASLES COMPATIBLE	CONFIRMED RUBELLA		DISCARDED AS NON-MEASLES/RUBELLA	PENDING CLASSIFICATION
				LABORATORY CONFIRMED	EPI-LINKED CONFIRMED		LABORATORY CONFIRMED	EPI-LINKED CONFIRMED		
1	5,113,827	102	21	0	0	6	0	0	13	2
2	3,510,762	70	13	0	0	2	0	0	8	3
3	11,534,111	231	21	1	0	2	1	0	16	1
4A	15,172,632	303	48	0	0	9	4	0	29	6
4B	3,057,039	61	9	0	0	4	1	0	3	1
5	5,920,478	118	7	1	0	1	0	0	5	0
6	7,703,570	154	97	1	0	3	31	0	61	1
7	7,565,674	151	26	4	0	0	2	0	19	1
8	4,430,334	89	19	0	0	17	0	0	2	0
9	3,814,158	76	15	2	0	3	0	0	9	1
10	4,865,413	97	20	0	0	13	0	0	7	0
11	5,033,163	101	18	0	0	4	2	0	12	0
12	4,768,455	95	20	0	0	2	1	0	17	0
ARMM	3,566,757	71	1	0	0	0	0	0	1	0
CAR	1,792,078	36	10	1	0	3	0	0	5	1
CRG	2,657,380	53	12	1	0	8	0	0	2	1
NCR	13,205,216	264	35	0	0	7	3	0	23	2
PHL	103,711,047	2,074	392	11	0	84	45	0	232	20



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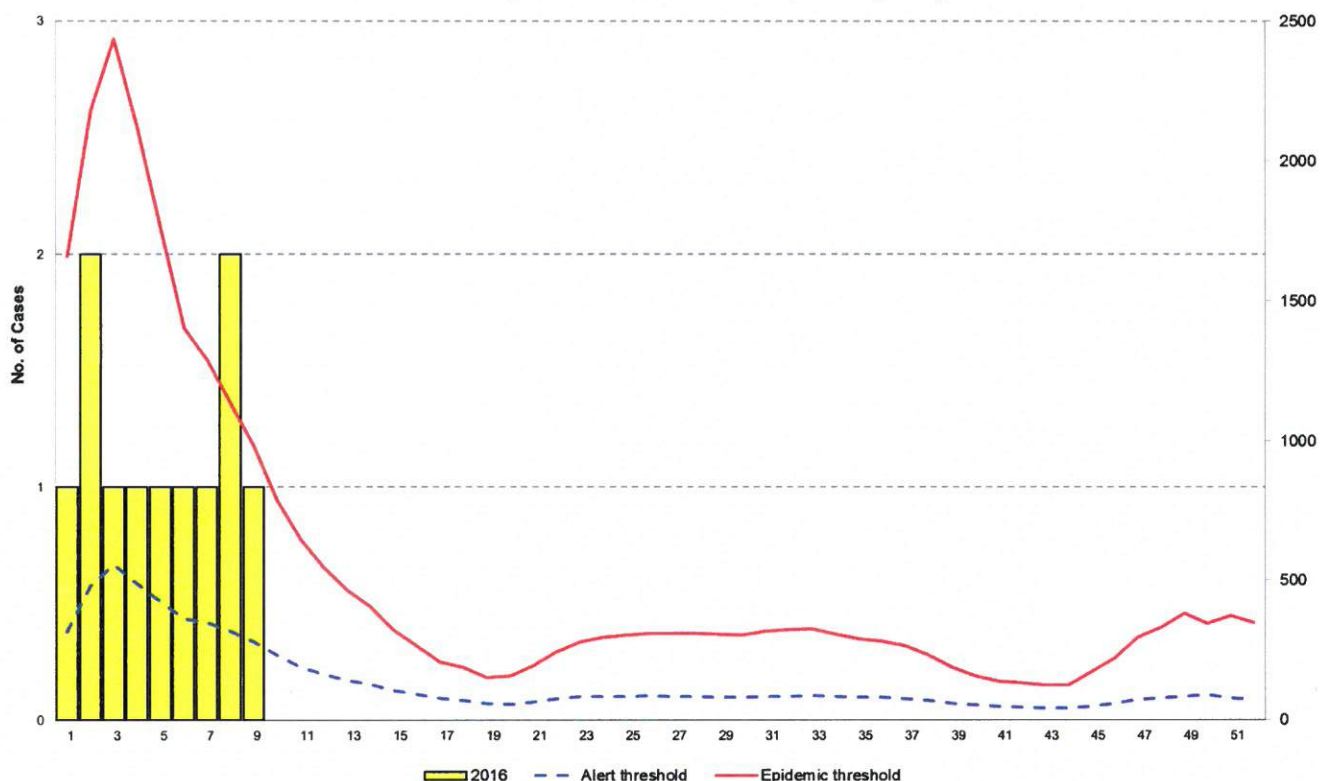
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**TABLE 2. CONFIRMED MEASLES CASES AND DEATHS BY REGION
 PHILIPPINES, 2015 vs. 2016***

REGION	CASES			DEATHS			
	2016	2015	% CHANGE	2016	CFR (%)	2015	CFR (%)
1	0	3	-100.00	0	0.00	0	0.00
2	0	7	-100.00	0	0.00	0	0.00
3	1	1	0.00	0	0.00	0	0.00
4A	0	3	-100.00	0	0.00	0	0.00
4B	0	1	-100.00	0	0.00	0	0.00
5	1	0	0.00	0	0.00	0	0.00
6	1	53	-98.11	0	0.00	0	0.00
7	4	35	-88.57	0	0.00	0	0.00
8	0	13	-100.00	0	0.00	0	0.00
9	2	72	-97.22	0	0.00	0	0.00
10	0	45	-100.00	0	0.00	0	0.00
11	0	103	-100.00	0	0.00	2	1.94
12	0	42	-100.00	0	0.00	0	0.00
ARMM	0	8	-100.00	0	0.00	0	0.00
CAR	1	30	-96.67	0	0.00	0	0.00
CRG	1	53	-98.11	0	0.00	0	0.00
NCR	0	12	-100.00	0	0.00	0	0.00
PHL	11	481	-97.71	0	0.00	2	0.42

* as of March 26, 2016

**FIGURE 1. CONFIRMED MEASLES ALERT AND EPIDEMIC THRESHOLD
 PHILIPPINES, JANUARY 1 – MARCH 26, 2016* (n=11)**



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



Measles Elimination Goal in the Philippines

Measles elimination goal is the absence of endemic measles virus transmission in a defined geographical area (e.g. region or country) for at least 12 months in the presence of a surveillance system that has been verified to be performing well. It was set in 2005 in the Western Pacific Region. In September 2012, the Regional Committee for the Western Pacific Region encouraged its member states to undertake the challenges for Measles elimination.

The Department of Health through the Epidemiology Bureau takes part in achieving this goal by closely monitoring the standard surveillance indicators to ensure that the Measles elimination goal will be attained and sustained. Currently, the Philippines has an incidence rate of 1.27 per 1,000,000 population. But efforts should still be made in order to attain the elimination goal of <1/1million population.

Measles Surveillance 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.

Adequacy of blood specimen (blood adequacy rate), target: ≥80% adequate specimen collection rate. 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.

Suspect Measles Reporting Rate (or Measles 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 suspected measles cases in all regions, it gives us higher chance in attaining our goal of measles elimination.

Timeliness of investigation provides venue to prevent further transmission of measles cases in the community. Furthermore, it provides immediate response to prevent potential outbreaks. It's target rate is >80% of cases were investigated within 48 hours of notification.

**TABLE 3. MEASLES SURVEILLANCE INDICATORS BY REGION
PHILIPPINES, 2015 vs. 2016***

REGION	POPULATION 2016	MEASLES INCIDENCE RATE		BLOOD ADEQUACY RATE		SUSPECT MEASLES CASES ADEQUATELY INVESTIGATED		SUSPECT MEASLES REPORTING RATE		NON-MEASLES/ NON-RUBELLA RATE		MEASLES COMPATIBLE %	
		Target: <1/1,000,000 Pop.		Target: ≥80%		Target: ≥80%		Target: ≥2/100,000 Pop.		Target: ≥2/100,000 Pop.		Target: <10%	
		2015	2016**	2015	2016	2015	2016	2015	2016**	2015	2016**	2015	2016
1	5,113,827	1.58	0.00	76	81	66	71	3.27	4.93	1.96	3.05	30	29
2	3,510,762	4.04	0.00	73	85	70	85	3.61	4.44	1.33	2.73	49	15
3	11,534,111	0.71	1.04	85	95	80	86	1.40	2.18	1.00	1.66	18	10
4A	15,172,632	1.29	0.00	65	81	57	65	2.41	3.80	1.17	2.29	40	19
4B	3,057,039	1.00	0.00	47	56	38	33	2.83	3.53	0.93	1.18	55	44
5	5,920,478	0.17	2.03	96	100	92	100	0.41	1.42	0.33	1.01	13	14
6	7,703,570	8.29	1.56	97	95	89	84	5.10	15.11	3.12	9.50	7	3
7	7,565,674	6.86	6.34	98	100	86	96	2.14	4.12	1.14	3.01	5	0
8	4,430,334	4.80	0.00	19	21	16	21	4.59	5.15	0.11	0.54	87	89
9	3,814,158	28.04	6.29	68	80	62	73	10.81	4.72	4.03	2.83	35	20
10	4,865,413	13.42	0.00	43	40	42	40	6.94	4.93	0.78	1.73	69	65
11	5,033,163	25.12	0.00	90	89	87	83	6.04	4.29	2.15	2.86	20	22
12	4,768,455	17.40	0.00	59	95	57	85	8.12	5.03	2.94	4.28	42	10
ARMM	3,566,757	4.55	0.00	46	100	46	100	2.33	0.34	0.34	0.34	66	0
CAR	1,792,078	21.56	6.70	90	70	87	70	9.02	6.70	5.45	3.35	14	30
CRG	2,657,380	24.05	4.52	69	42	64	42	6.07	5.42	1.79	0.90	30	67
NCR	13,205,216	1.39	0.00	60	80	50	66	1.82	3.18	0.87	2.09	39	20
PHL	103,711,047	6.85	1.27	69	81	64	72	3.64	4.54	1.48	2.68	36	21

* as of March 26, 2016

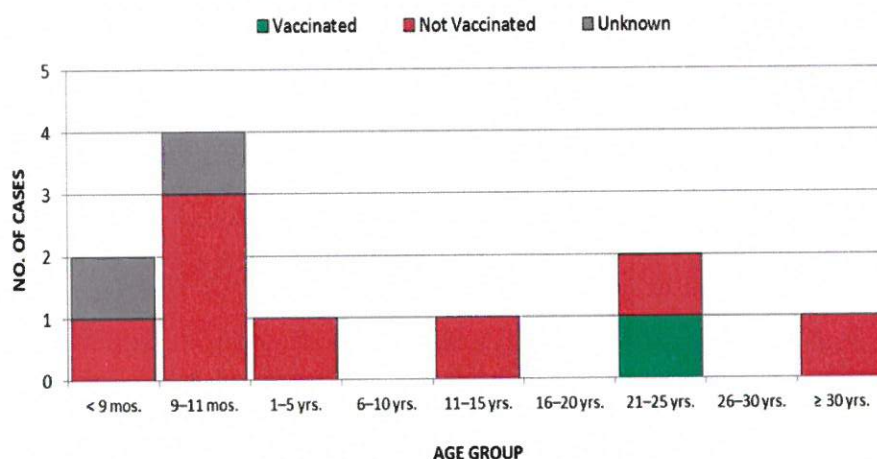
** Annualized Rate



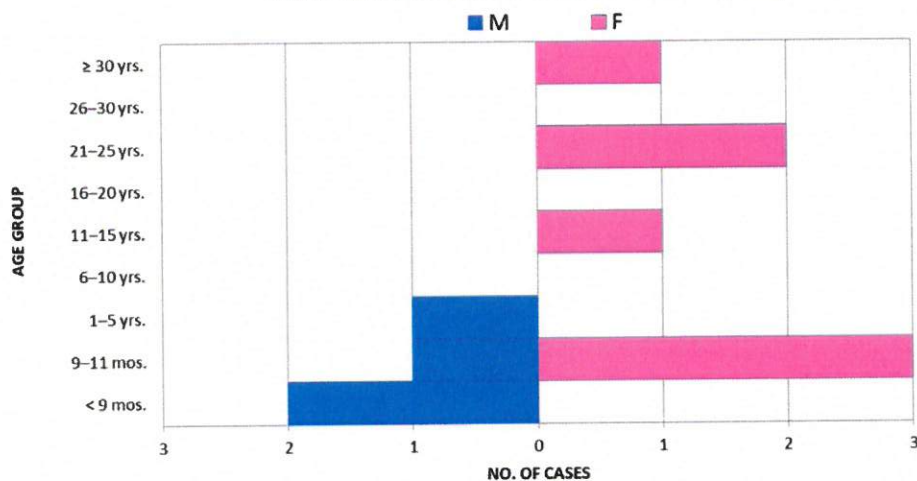
Profile of Cases

Sixty four percent of the confirmed measles cases were female. Majority of the confirmed cases belonged to children aged 9 to 11 months old (36.00%). Among the confirmed measles cases, 8 (73%) were not vaccinated, 1 (9%) were vaccinated and 2 (18%) have an unknown vaccination status.

**FIGURE 2. IMMUNIZATION STATUS OF CONFIRMED MEASLES CASES BY AGE GROUP
PHILIPPINES, JANUARY 1-MARCH 26, 2016 (n=11)**



**FIGURE 3. CONFIRMED MEASLES CASES BY AGE GROUP AND SEX
PHILIPPINES, JANUARY 1- MARCH 26, 2016 (n=11)**



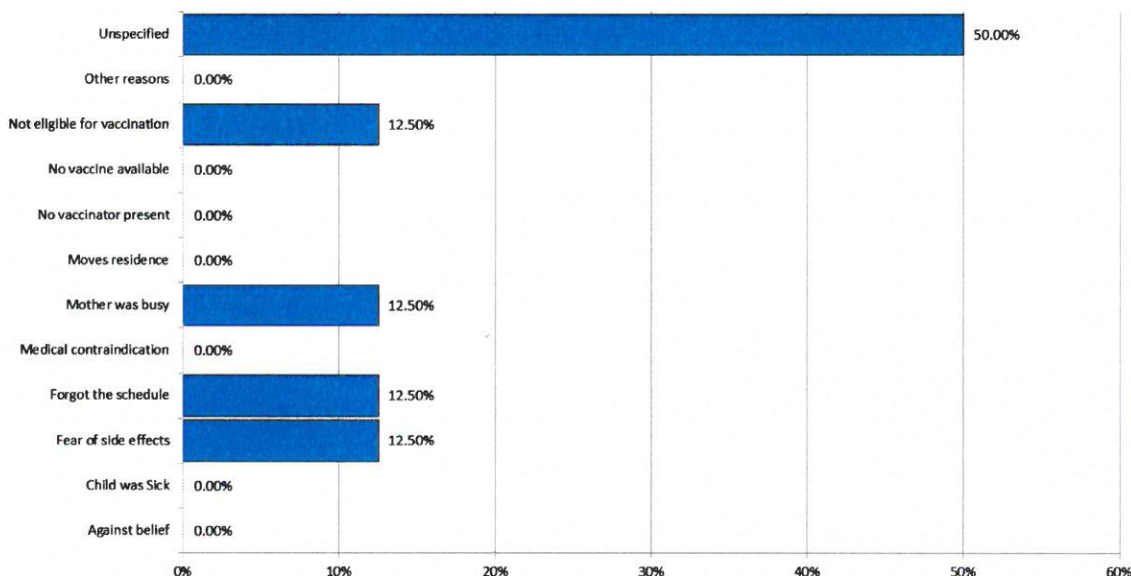
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**FIGURE 4. REASONS FOR NON-VACCINATION OF CONFIRMED UNVACCINATED MEASLES CASES
PHILIPPINES, JANUARY 1-MARCH 26, 2016 (n=8)**



Definition of Terms:

Laboratory confirmed measles case

☞ A suspect measles case with a positive laboratory test result for measles-specific IgM antibodies or other approved laboratory test method

Laboratory confirmed rubella case

☞ A suspect measles case with a positive laboratory test result for rubella-specific IgM antibodies or other approved laboratory test method

Clinically 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

Confirmed Measles cases

☞ Laboratory confirmed + Epidemiologically-linked measles cases

Epidemiologically-linked measles (or rubella) case

☞ A suspect measles case that has not been confirmed by laboratory but that is geographically AND temporally related (with dates of rash onset occurring between 7 and 21 days apart) to a laboratory-confirmed case or (in the event of an outbreak) to another epidemiologically confirmed measles case.

Discarded as non-measles/non-rubella

☞ A case that meets the clinical case definition for measles and discarded as non-measles/rubella case.

Pending Classification

☞ Cases with blood specimen collected and pending laboratory results.

Alert threshold

☞ Refers to the level of occurrence of disease that serves as an early warning for epidemics. An increase in the number of cases above the threshold level should trigger an investigation, epidemic preparedness and implement appropriate prevention and control measures.

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.

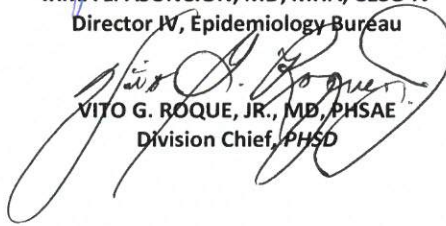


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