



### Vaccine Preventable Disease (VPD) Surveillance

The goal of VPD surveillance is to improve the capacity of the health system to prevent and control through timely detection and appropriate response to vaccine preventable diseases with high level of morbidity, disability and mortality. This report provides data from the period of January 1 to June 29, 2019 or Morbidity Weeks 1 -26 (Table 1).

**Table 1. Summary of Reported Vaccine Preventable Diseases, Philippines, January 1 – June 29, 2019**

Vaccine Preventable Diseases	Total No of Cases	Confirmed Cases		
		Cases	Deaths	CFR %
Measles	39,293	-	-	-
Rubella		-	-	-
Diphtheria	92	8	5	63
Pertussis	78	12	1	8
Neonatal Tetanus	36	36	17	47
Polio (AFP Surveillance)	114	-	-	-

#### PIDSR Case Definition for Vaccine Preventable Diseases

MEASLES	
Reported Measles Case (Suspect measles case)	Any person with fever and maculopapular (non-vesicular) rash and either cough, coryza (runny nose), or conjunctivitis (red eyes)
Measles compatible case (Clinical Measles)	A suspect case for which - no adequate blood specimen was taken, OR - is not an epidemiological link to a confirmed case of measles or rubella, OR - laboratory confirmation is still pending
Confirmed measles case	A suspect with positive laboratory for measles or epidemiologically linked cases
Epidemiologically Linked (Epi-linked)	A suspect case that has not been confirmed by laboratory but has close contact and temporally related to a laboratory confirmed case or to another epi-linked case during times of epidemic
Laboratory confirmed rubella	A suspect case with a positive laboratory test result for rubella-specific IgM antibodies or other approved laboratory test method
Discarded non-measles/rubella	A suspect case that meets the clinical case definition for measles and tested negative for both measles and rubella testing
NEONATAL TETANUS	
Clinically Confirmed Neonatal Tetanus	<ul style="list-style-type: none"> <li>Any neonate (<math>\leq</math> 28 days of life) that sucks and cries normally during the first 2 days of life, and becomes ill between 3 to 28 days of age and develops both an inability to suck and diffuse muscle rigidity (stiffness) and spasms (jerking of the muscles), which may include trismus, clenched fists or feet, continuously pursed lips, and/or curved back (opisthotonus);</li> <li>OR</li> <li>A neonate between 3 to 28 days of life, diagnosed as a case of tetanus by a physician.</li> </ul>
DIPHTHERIA	
Probable case	A person with an illness of the upper respiratory tract characterized by laryngitis or pharyngitis or tonsillitis, and adherent membranes on tonsils, pharynx and/or nose.
Confirmed case	A probable case that is laboratory confirmed or linked epidemiologically to a laboratory-confirmed case.
<i>Note: Persons with positive Corynebacterium diphtheriae cultures who do not meet the clinical description (i.e. asymptomatic carriers) should not be reported as probable or confirmed diphtheria cases.</i>	
PERTUSSIS	
Clinical Case	A person with a cough lasting at least 2 weeks with at least one of the following: - paroxysms (i.e. fits) of coughing - inspiratory "whooping" - post-tussive vomiting (i.e. vomiting immediately after coughing) - without other apparent cause
Clinically-confirmed case	A case that meets the clinical case definition but is not laboratory confirmed.
Probable case	Meets the clinical case definition, is not laboratory confirmed, and is not epidemiologically linked to a laboratory confirmed case
Laboratory-confirmed case	<ul style="list-style-type: none"> <li>A case of acute cough illness of any duration with a positive culture for B. pertussis; OR</li> <li>A case that meets the clinical case definition and is confirmed by PCR; OR</li> <li>A case that meets the clinical definition and is epidemiologically linked directly to a case confirmed by either culture or PCR.</li> </ul>
ACUTE FLACCID PARALYSIS	
Reported AFP Case (suspect AFP case)	Any child less than 15 years of age who developed an acute onset of floppy paralysis OR A person of any age in whom poliomyelitis is suspected by the physician <b>AFP "hotcase"</b> An AFP case with no or less than 3 OPV dose and had FEVER at onset of paralysis

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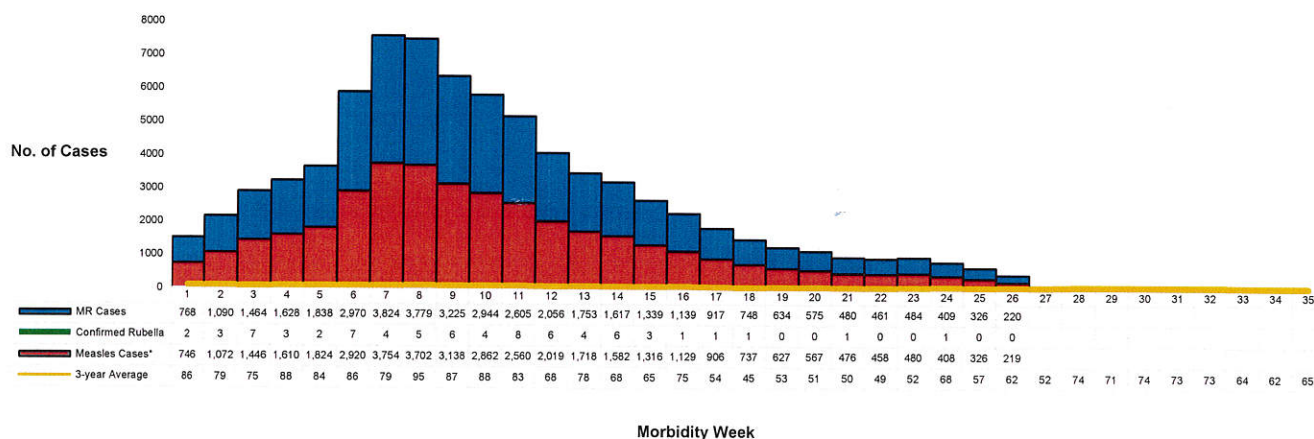
### I. MEASLES-RUBELLA

#### Suspect Cases

#### Trend in the Philippines

There are 1,508 Measles-Rubella cases were reported to PIDSR for the month of June 2019 or morbidity weeks 22 to 26. This brings to a cumulative total of 39,293 from January 1 to June 29, 2019. The distribution of reported cases for 2019 compared to the 3-year average of cases from 2015-2017 is shown below (Figure 1).

Figure 1. Reported Measles-Rubella Cases by Case Classification and Morbidity Week, Philippines, January 1 to June 29, 2019 (N=39,293)



\*Measles cases=laboratory-confirmed measles, epidemiologically-linked confirmed measles, measles compatible, and pending

#### Geographic Distribution

From January 1 to June 29, 2019 or morbidity weeks 1 to 26, cases are 231% higher than the number of cases reported during the same time period last year (11,867). Most of the reported cases were from the following regions: IV-A (7,170 or 18%), NCR (6,986 or 18%), Region III (6,377 or 16%), Region VI (2,447 or 6%), and Region X (2,088 or 5%) (Table 1). Majority of regions showed increase in the number of reported measles cases compared to 2018 except for Regions IX, XI, XII and BARMM.

Table 1. Reported Measles-Rubella Cases by Region, Philippines, January 1 to June 29, 2019 (N=39,293) vs. January 1 to June 29, 2018

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
<b>PHILIPPINES</b>	<b>39,293</b>	<b>528</b>	<b>11,867</b>	<b>98</b>	<b>↑ 231</b>
<b>I</b>	<b>1,782</b>	<b>21</b>	<b>210</b>	<b>0</b>	<b>↑ 749</b>
<b>II</b>	<b>611</b>	<b>3</b>	<b>50</b>	<b>0</b>	<b>↑ 1,122</b>
<b>III</b>	<b>6,377</b>	<b>115</b>	<b>442</b>	<b>6</b>	<b>↑ 1,343</b>
<b>IV-A</b>	<b>7,170</b>	<b>123</b>	<b>621</b>	<b>6</b>	<b>↑ 1,055</b>
<b>MIMAROPA</b>	<b>1,759</b>	<b>17</b>	<b>34</b>	<b>0</b>	<b>↑ 5,074</b>
<b>V</b>	<b>1,215</b>	<b>11</b>	<b>101</b>	<b>1</b>	<b>↑ 1,103</b>
<b>VI</b>	<b>2,447</b>	<b>8</b>	<b>211</b>	<b>0</b>	<b>↑ 1,060</b>
<b>VII</b>	<b>1,967</b>	<b>15</b>	<b>247</b>	<b>1</b>	<b>↑ 696</b>
<b>VIII</b>	<b>1,699</b>	<b>38</b>	<b>56</b>	<b>2</b>	<b>↑ 2,934</b>
<b>IX</b>	<b>528</b>	<b>1</b>	<b>1,169</b>	<b>6</b>	<b>↓ 55</b>
<b>X</b>	<b>2,088</b>	<b>16</b>	<b>1,129</b>	<b>2</b>	<b>↑ 85</b>
<b>XI</b>	<b>1,061</b>	<b>14</b>	<b>1,264</b>	<b>15</b>	<b>↓ 16</b>
<b>XII</b>	<b>784</b>	<b>5</b>	<b>1,160</b>	<b>11</b>	<b>↓ 32</b>
<b>BARMM</b>	<b>771</b>	<b>6</b>	<b>3,502</b>	<b>27</b>	<b>↓ 78</b>
<b>CAR</b>	<b>744</b>	<b>2</b>	<b>62</b>	<b>0</b>	<b>↑ 1,100</b>
<b>Caraga</b>	<b>1,304</b>	<b>18</b>	<b>204</b>	<b>1</b>	<b>↑ 539</b>
<b>NCR</b>	<b>6,986</b>	<b>115</b>	<b>1,405</b>	<b>20</b>	<b>↑ 397</b>

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2019 data reflects partial data only of all regions.

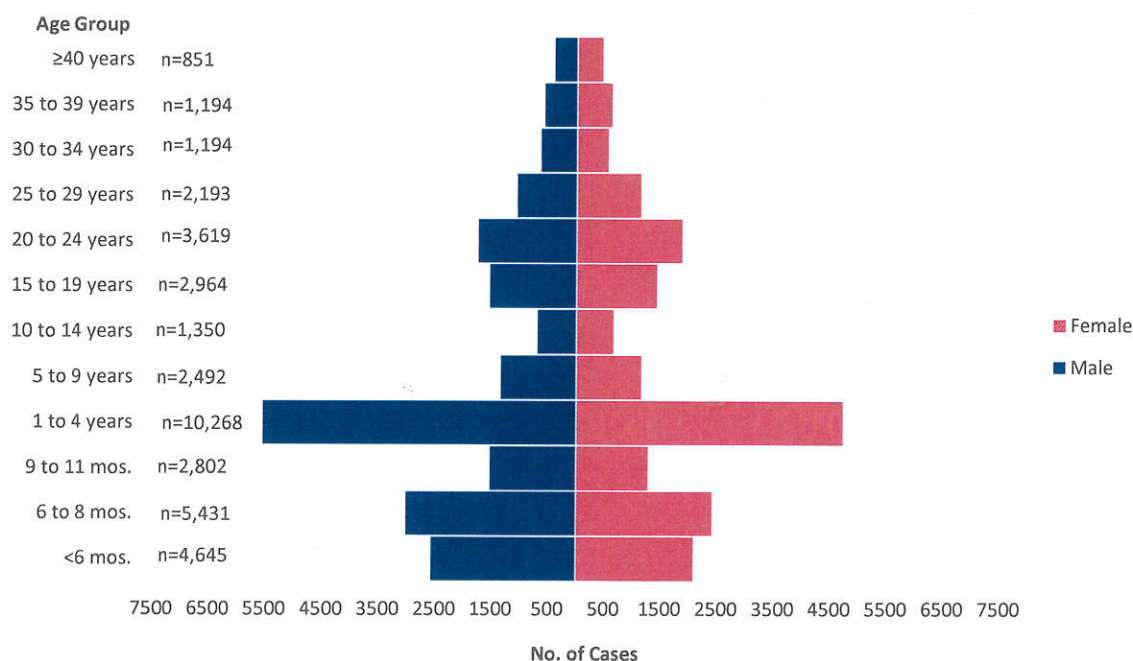
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### Profile of Reported Cases

Majority (20,750 or 53%) of the reported cases are males. Ages of cases ranged from **less than 1 month to 88 years old** (median age of 3 years). Age groups with the most number of cases were: 1-4 years old (10,268 or 26%), 6 to 8 months old (5,431 or 14%) and less than 6 months old (4,645 or 12%) (Figure 2).

Figure 2. Reported Measles-Rubella Cases by Age Group and Sex, Philippines, January 1 to June 29, 2019 (N=39,293)\*



\*290 cases with unspecified age

Majority (22,840 or 58%) of the cases were not vaccinated (Figure 3). Top reasons for non-vaccination of measles-containing vaccine were: not eligible for vaccination (44%), mother was busy (17%), and child was sick (13%) (Figure 4).

Figure 3. Vaccination Status of Reported Measles-Rubella Cases, Philippines, January 1 to June 29, 2019 (N=39,293)

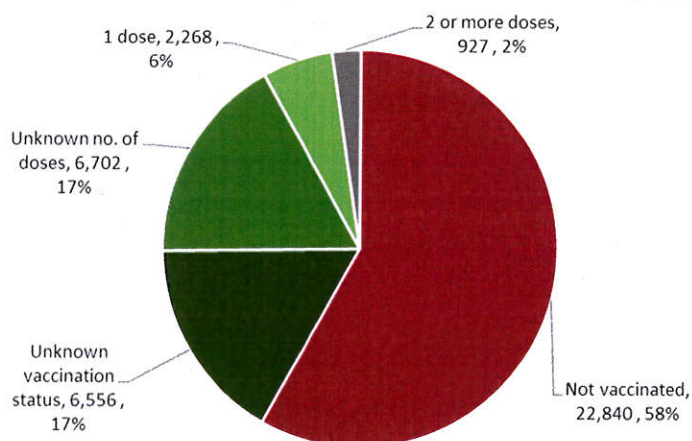
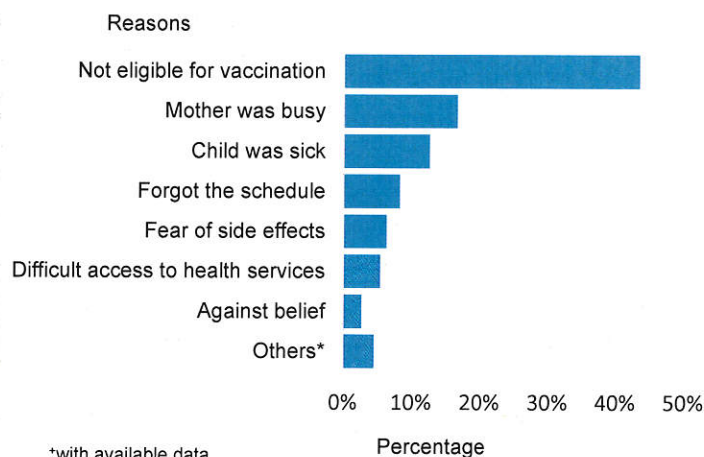


Figure 4. Reasons for Non-vaccination of Measles Vaccine\*, Philippines, January 1 to June 29, 2019



\*with available data

\*other reasons: moves residence, lack of knowledge, history of travel, medical contraindication, refused vaccination, flood during immunization, received other vaccine, pregnant, mother was sick, lost vaccination card, child not available, card was left, laziness, with disaster

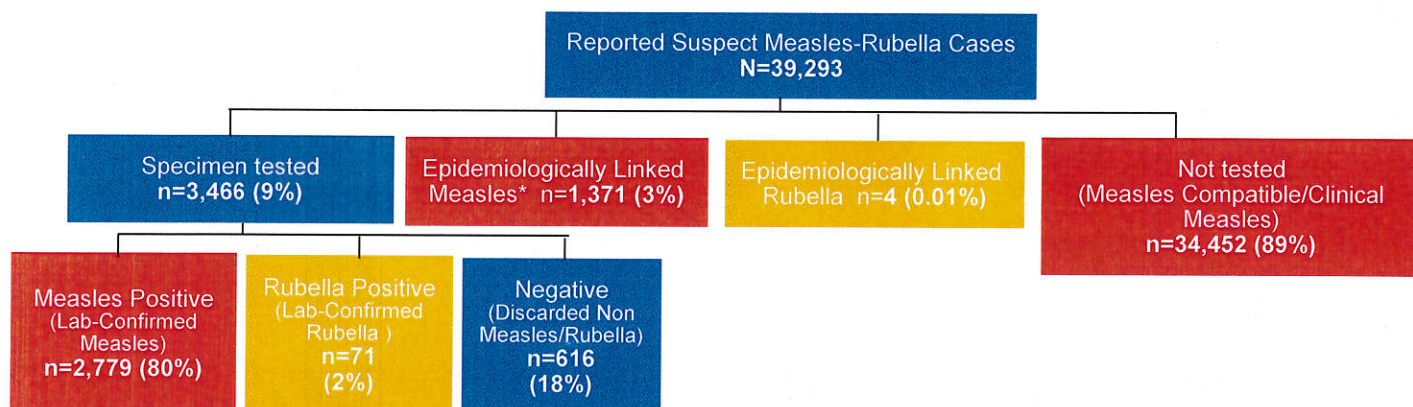




### Case Classification

Among the 39,293 reported cases, a total of 3,466 (9%) cases were tested for measles/rubella IgM and/or PCR. Among the tested cases, 2,779 (80%) were positive for measles and 71 (2%) were positive for rubella. One thousand three hundred seventy one (1,371 or 3%) cases were epidemiologically-linked to laboratory confirmed cases, hence also classified as confirmed measles cases (Figure 5).

**Figure 5. Reported Measles-Rubella Cases by Case Classification, Philippines, January 1 to June 29, 2019 (N=39,293)**



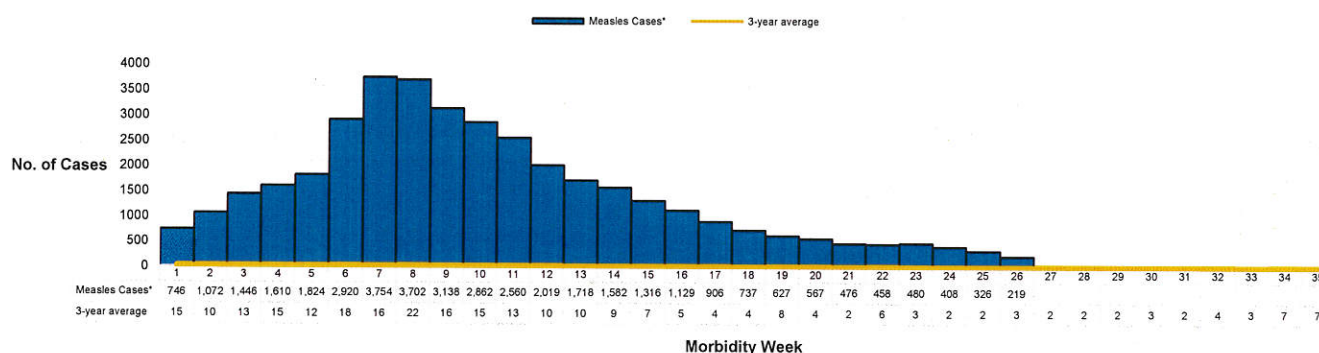
Measles cases=laboratory-confirmed measles, epidemiologically-linked confirmed measles, and measles compatible (n=38,602)

### Measles Cases

#### Trend in the Philippines

There are 1,502 Measles cases were reported to PIDSR for the month of June 2019 or morbidity weeks 22 to 26. This brings to a cumulative total of 38,602 from January 1 to June 29, 2019 with 522 deaths (CFR=1.4%) reported. The distribution of measles cases for 2019 compared to the 3-year average of cases from 2015-2017 is shown in Figure 6.

**Figure 6. Measles Cases by Morbidity Week, Philippines, January 1 to June 29, 2019 (n=38,602)**



\* Measles cases=laboratory-confirmed measles, epidemiologically-linked confirmed measles, and measles compatible (n=38,602)





### Geographic Distribution

Most of the measles cases were from the following regions: Region IVA (7,120 or 18%), NCR (6,941 or 18%), Region III (6,280 or 16%), Region VI (2,354 or 6%) and Region X (2,070 or 5%). Measles cases in 2019 increased by 245% compared to the same period in 2018 (Table 2). Majority of regions showed increase in the number of reported measles cases compared to 2018 except for Regions IX, XI, XII, and BARMM.

Top 5 provinces with measles cases include: Rizal (3,278 or 8%), Bulacan (1,803 or 5%), Pampanga (1,584 or 4%), Cebu (1,280 or 3%), and Laguna (1,275 or 3%).

Top 5 municipalities with measles cases include: Quezon City (2,025 or 5%), Manila (1,303 or 3%), Antipolo City (1,199 or 3%), Caloocan City (776 or 2%) and Cebu City (490 or 1%).

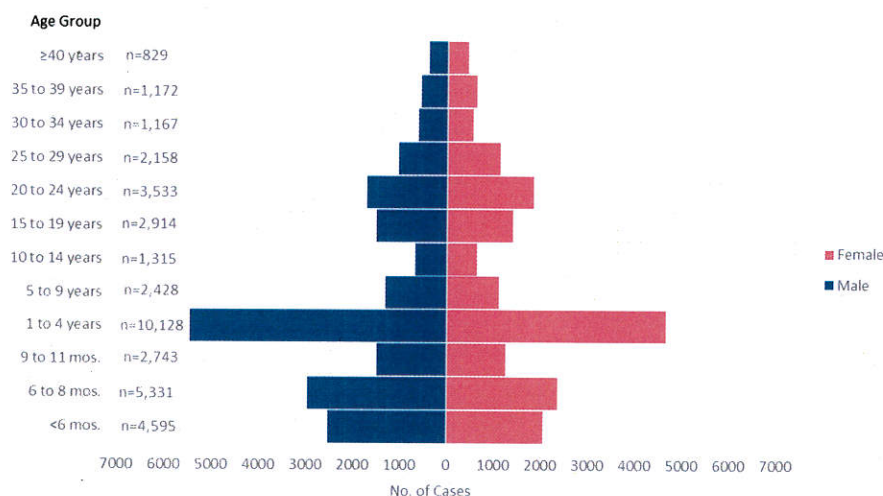
**Table 2. Measles Cases by Region, Philippines, January 1 to June 29, 2019 (n=38,602) vs. January 1 to June 29, 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
<b>PHILIPPINES</b>	<b>38,602</b>	<b>522</b>	<b>11,201</b>	<b>96</b>	<b>↑ 245</b>
I	1669	21	156	0	↑ 970
II	583	3	38	0	↑ 1,434
III	6280	113	380	6	↑ 1,553
IV-A	7120	122	558	6	↑ 1,176
MIMAROPA	1755	17	28	0	↑ 6,168
V	1190	11	82	1	↑ 1,351
VI	2354	8	145	0	↑ 1,523
VII	1913	13	212	1	↑ 802
VIII	1695	38	51	2	↑ 3,224
IX	518	1	1139	5	↓ 55
X	2070	16	1096	2	↑ 89
XI	1025	14	1189	15	↓ 14
XII	744	5	1098	11	↓ 32
BARMM	768	6	3489	27	↓ 78
CAR	688	2	38	0	↑ 1,711
Caraga	1289	18	169	1	↑ 663
NCR	6941	114	1333	19	↑ 421

### Profile of Measles Cases

Majority (20,403, 53%) of the measles cases are males. Ages of cases ranged from **less than 1 month to 88 years old** (median age of 3 years). Age groups with the most number of cases were: 1-4 years old (10,128 or 26%), 6-8 months old (5,331 or 14%), and less than 6 months old (4,595, 12%) (Figure 7).

**Figure 7. Measles Cases by Age Group and Sex, Philippines, January 1 to June 29, 2019 (n=38,602)\***



\*289 cases with unspecified age

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2019 data reflects partial data only of all regions.

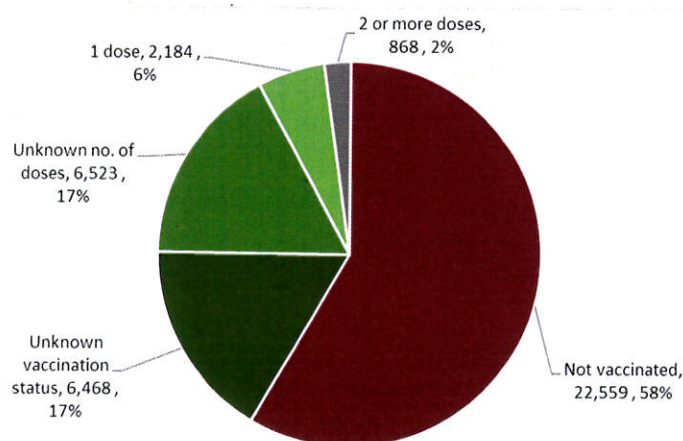
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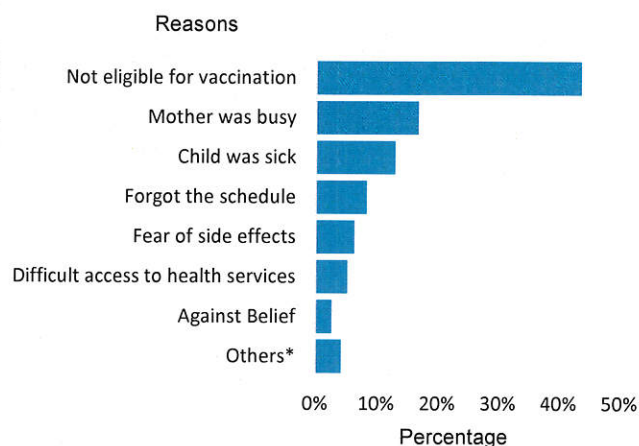


Majority (22,559 or 58%) of the measles cases were not vaccinated (Figure 8). Top reasons for non-vaccination of measles-containing vaccine among confirmed cases were: not eligible for vaccination (44%), mother was busy (17%) and child was sick (13%) (Figure 9).

**Figure 8. Vaccination Status of Measles Cases, Philippines, January 1 to June 29, 2019 (n=38,602)**



**Figure 9. Reasons for Non-vaccination of Measles Vaccine among Measles Cases\*, Philippines, January 1 to June 29, 2019**



\*with available data

\*other reasons: moves residence, lack of knowledge, history of travel, medical contraindication, refused vaccination, flood during immunization, received other vaccine, pregnant, mother was sick, lost vaccination card, child not available, card was left, laziness, with disaster

### Profile of Measles Death

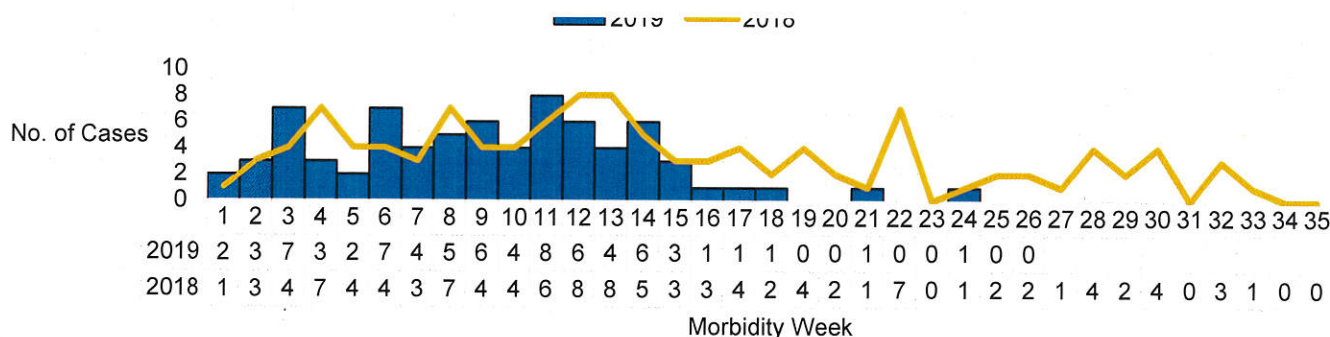
There were 522 deaths (CFR=1.4%) out of the 38,602 measles cases. Ages of deaths ranged from **less than 1 month – 36 years old** (median of 1 year). Most affected age groups with highest number of deaths were: 1-4 years (212 or 41%), less than 6 months (112 or 21%), and 6-8 months (103, 20%). Majority (406 or 78%) of deaths were not vaccinated.

### Confirmed Rubella Cases

#### Trend in the Philippines

There were 75 confirmed rubella cases from January 1 to June 29, 2019. The distribution of confirmed rubella cases for 2019 compared to 2018 is shown in Figure 10.

**Figure 10. Confirmed Rubella Cases by Morbidity Week, Philippines, 2019 vs 2018 (n=75)**







### Geographic Distribution

There were reported confirmed rubella cases in all regions except for regions MIMAROPA and BARMM. This is 43% lower compared to the same time period in 2018 (87). However, Regions III, V, and VI showed increased in the number of confirmed rubella cases compared to 2018. No deaths were reported (Table 3).

**Table 3. Confirmed Rubella Cases by Region, Philippines, January 1 to June 29, 2019 (n=75) vs. January 1 to June 29, 2018**

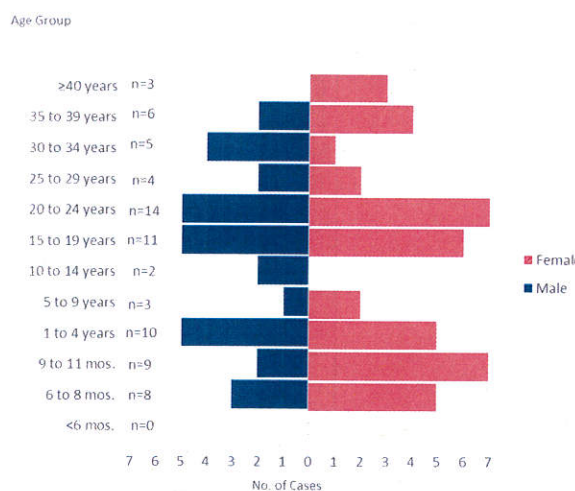
Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
<b>PHILIPPINES</b>	<b>75</b>	<b>0</b>	<b>99</b>	<b>0</b>	<b>↓ 24</b>
I	5	0	7	0	↓ 29
II	4	0	2	0	↑ 100
III	13	0	5	0	↑ 160
IV-A	9	0	13	0	↓ 31
MIMAROPA	0	0	2	0	↓ 100
V	2	0	1	0	↑ 100
VI	14	0	5	0	↑ 180
VII	5	0	6	0	↓ 17
VIII	3	0	1	0	↑ 200
IX	2	0	3	0	↓ 33
X	3	0	4	0	↓ 25
XI	7	0	18	0	↓ 61
XII	1	0	13	0	↓ 92
BARMM	0	0	3	0	↓ 100
CAR	2	0	2	0	0
Caraga	2	0	5	0	↓ 60
NCR	3	0	9	0	↓ 67

### Profile of Rubella Case

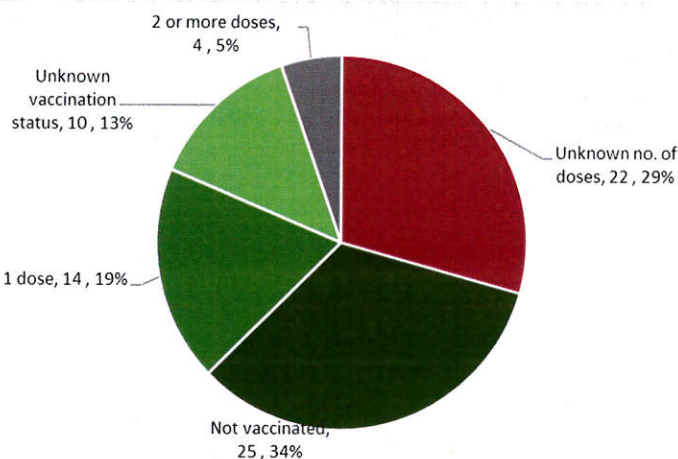
Majority (44 or 59%) of confirmed rubella cases are females. Age of cases ranged from **7 months to 55 years old** (median of 17 years). The most affected age groups were and 20 to 24 years (14 or 19%) and 15 to 19 years (11 or 15%) (Figure 11).

Twenty two (29%) of the confirmed rubella cases were vaccinated but with unknown number of doses. Only 4 (5%) case was reported to have 2 or more doses of measles-containing vaccine which may be MMR (measles-mumps-rubella), the vaccine with rubella component (Figure 12).

**Figure 11. Confirmed Rubella Cases by Age Group and Sex, Philippines, January 1 to June 29, 2019 (n=75)**



**Figure 12. Vaccination Status of Confirmed Rubella Cases, Philippines, January 1 to June 29, 2019 (n=75)**







### Measles Surveillance Performance Indicators

Table 3 presents the surveillance performance of regions based on the indicators for measles surveillance as part of the measles elimination strategies. The surveillance indicators gauge the capacity of the country in achieving the measles elimination goal.

On February 2019, measles outbreak was declared initially in NCR followed by regions in Luzon, Central, and Eastern Visayas. Due to increased number of reported cases, selective laboratory testing of specimens were done and advised epi-linking of cases. Thus, surveillance performance indicators on the incidence rate, timeliness and adequacy of blood collection, timeliness and adequacy of case investigation, annualized non-measles/non-rubella reporting and measles compatible cases were below the target. However, Regions I, VI, and CAR have met the target on annualized non-measles/non-rubella reporting rate. Suspect measles reporting target of 2 per 100,000 population was achieved due to the increased number of cases reported.

**Table 3. Measles Surveillance Performance Indicators by Region, Philippines, January 1 to June 29, 2019 vs. January 1 to June 29, 2018**

REGION	ANNUALIZED MEASLES INCIDENCE RATE		TIMELINESS & ADEQUACY OF BLOOD		TIMELINESS & ADEQUACY OF CASE INVESTIGATION		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%	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
I	11.18	109.08	20	62	30	28	8.10	67.97	1.81	4.12	60	78
II	2.79	50.73	24	72	24	18	2.79	33.69	0.56	1.32	66	80
III	23.43	64.30	22	63	67	34	7.45	105.41	0.96	1.39	55	92
IV-A	14.42	66.89	10	31	20	15	8.00	89.98	0.64	0.51	72	92
MiMaRoPa	2.59	61.80	15	8	24	3	2.20	112.08	0.26	0.25	71	94
V	13.96	40.36	33	30	27	14	3.36	39.87	0.60	0.75	40	88
VI	16.18	76.17	43	71	31	31	5.42	62.13	1.57	2.01	39	84
VII	32.25	66.00	41	58	43	17	6.37	49.93	0.75	1.24	35	84
VIII	7.33	19.53	2	20	16	10	2.41	72.12	0.17	0.04	61	97
IX	168.63	22.60	5	46	34	25	62.18	27.75	1.44	0.42	70	90
X	95.08	111.09	6	44	46	24	45.87	83.44	1.18	0.60	76	86
XI	128.62	125.64	2	64	34	32	49.12	40.52	2.21	1.11	68	66
XII	152.70	66.12	3	64	48	34	48.26	32.00	2.04	1.59	63	74
ARMM	288.36	21.73	2	22	14	9	170.29	36.42	0.49	0.14	83	94
CAR	10.09	173.88	32	68	39	15	6.95	82.40	2.47	5.98	47	71
Caraga	42.30	43.23	18	22	22	8	15.14	95.55	2.23	0.95	55	94
NCR	77.29	138.74	22	25	27	6	20.84	102.02	0.93	0.61	58	86
PHL	55.85	76.84	9	42	30	18	22.35	72.75	1.07	1.14	69	88
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%



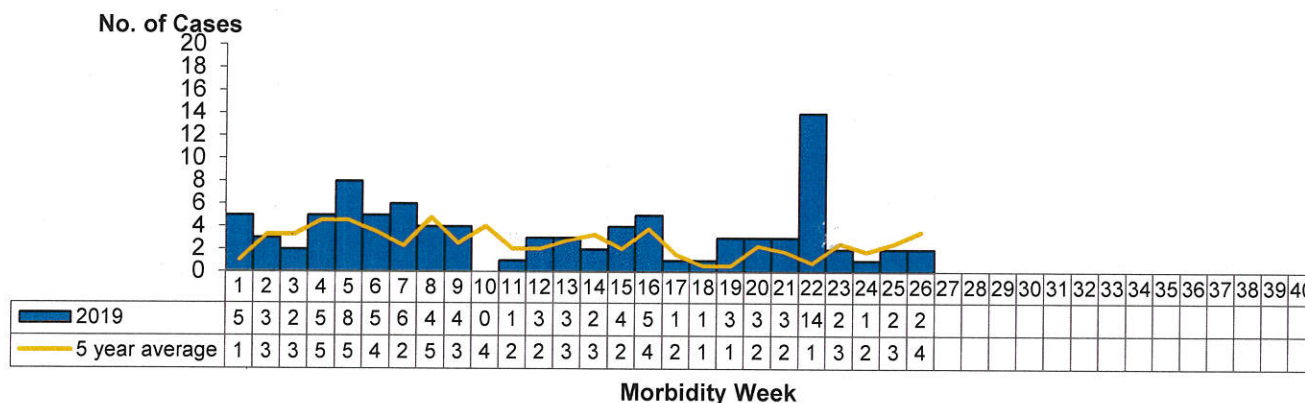


## II. DIPHTHERIA

### Trend in the Philippines

A total of **92** diphtheria cases were reported nationwide from January 1 – June, 2019. The distribution of diphtheria cases for 2019 compared to the 5 - year average of cases from 2014 to 2018 is shown below (Figure 13).

**Figure 13. Reported Diphtheria Cases by Morbidity Weeks 1 - 26 ( January 1 – June 29, 2019) vs Epidemic and Alert Thresholds Reported Diphtheria Cases (N=92)**



### Geographic Distribution

There has been an eight (8%) increase of diphtheria cases from 2018 (N=85) and 2019 (N=92), same time period. Majority of reported diphtheria cases came from NCR (28 or 30%) followed by Region IVA and CAR with 13 or 14% cases each. Region with the **highest increase in the percent change** was Region VI with 300% increase (Table 4). Eight (20%) were laboratory confirmed out of 41 cases tested. Four (4) clusters were identified as of June 29, 2019. A cluster is defined as two or more diphtheria cases from the same barangay reported within four consecutive weeks (Annex A).

Top 5 provinces with diphtheria cases include: Ifugao (12 or 13%), Rizal (6 or 7%) cases, Bulacan and Zamboanga del Sur with (5 or 5%) each, and Laguna with (4 or 4%) cases.

**Table 4. Reported Diphtheria Cases by Region, Philippines, January 1 to May 25, 2019 (N=92) vs. January 1 to June 29, 2018**

REGION	2019		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
<b>Philippines</b>	<b>92</b>	<b>24</b>	<b>85</b>	<b>22</b>	<b>↑8</b>
<b>I</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>↑100</b>
<b>II</b>	0	0	0	0	-
<b>III</b>	8	0	12	2	↓33
<b>IV-A</b>	13	1	19	4	↓32
<b>MIMAROPA</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>↑</b>
<b>V</b>	4	2	4	2	0
<b>VI</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>↑300</b>
<b>VII</b>	0	0	2	0	↓100
<b>VIII</b>	0	0	1	0	↓100
<b>IX</b>	7	0	0	0	-
<b>X</b>	1	0	0	0	-
<b>XI</b>	3	1	3	2	0
<b>XII</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>↑</b>
<b>BARMM</b>	5	4	9	3	↓44
<b>CAR</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>↑</b>
<b>CARAGA</b>	0	0	2	0	↓100
<b>NCR</b>	28	10	31	8	↓10

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2019 data reflects partial data only of all regions.



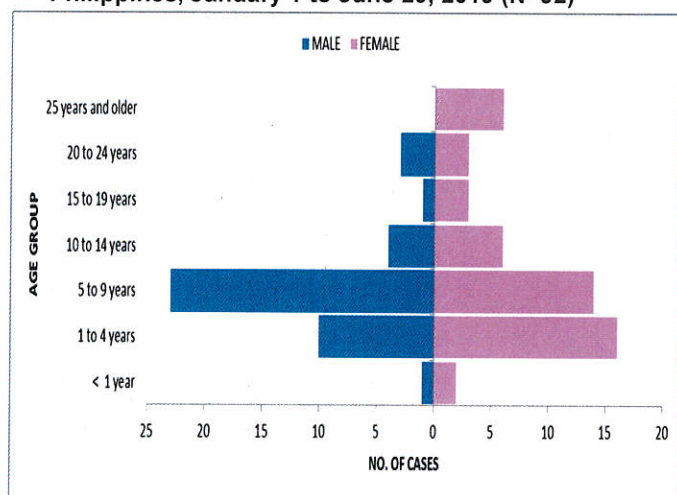


### Profile of Cases

#### A. Cases

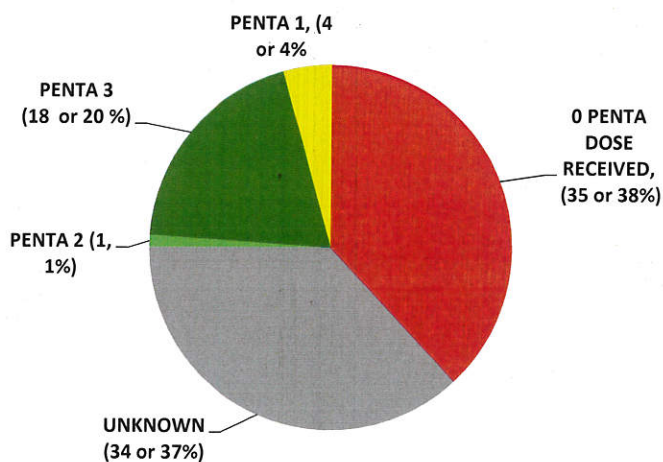
There were **42 males (46%)** and **50 females (54%)** among the reported diphtheria cases. Age of cases ranged from **3 months to 82 years old** (median age of 7 years). Age groups with most number of cases were **5 – 9 years old (37 or 40%)**, followed by **1 – 4 years old** with (26 or 28%) (Figure14).

**Figure 14. Diphtheria Cases by Age Group and Sex, Philippines, January 1 to June 29, 2019 (N=92)**

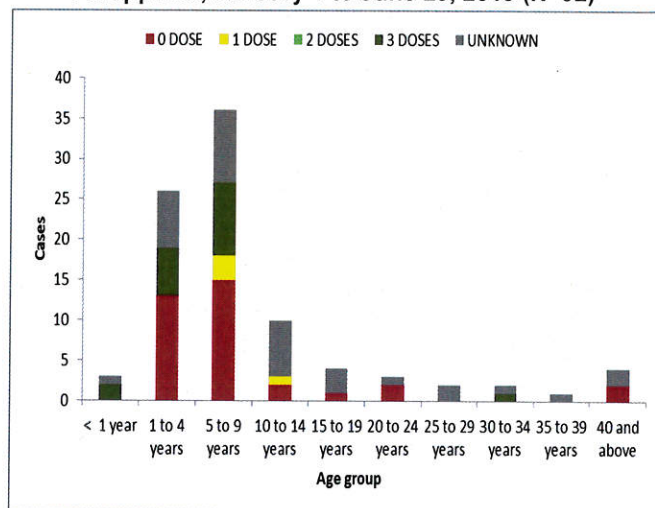


Vaccination status showed that **(18 or 20%)** of the reported cases received **complete 3 primary doses** of the DPT/Pentavalent vaccine. **35 (38%)** did not receive a dose of the DPT/Pentavalent vaccine (Figure 15).

**Figure 15. Reported Diphtheria Cases by DPT Dose Received, Philippines, January 1 to June 29, 2019 (N=92)**



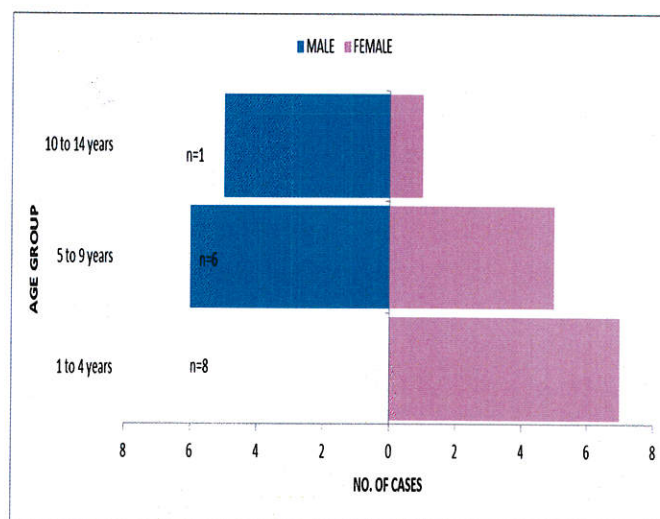
**Figure 16. Diphtheria Cases by Age Group and DPT Dose Philippines, January 1 to June 29, 2019 (N=92)**



#### B. Deaths

There were **24 deaths (CFR=26%)** among the 92 reported diphtheria cases. Ages of deaths ranged from 1 to 11 years old (median age of 4 years). Age groups with the most number of deaths was **1 – 4 years 13 (54%)** followed by **5 - 9 years old (10 or 42%)** (Figure17).

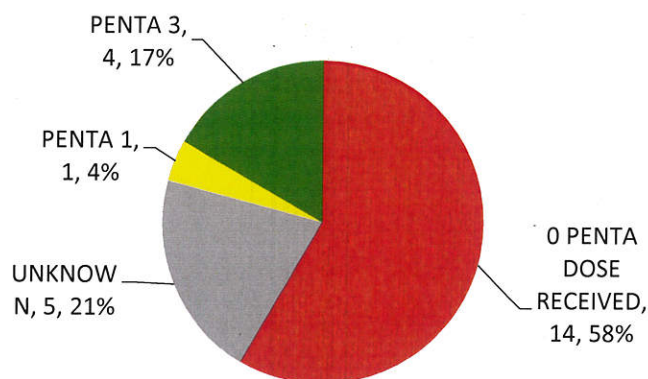
**Figure 17. Reported Diphtheria Deaths by Age Group and Sex, Philippines, January 1 to June 29, 2019 (n=24)**





Vaccination status showed that Majority 14 (58%) of the reported deaths did not received the DPT/Pentavalent vaccine while 4 (17%) receive 3 doses of the DPT/Pentavalent vaccine and 5 (21%) had unknown vaccination status. (Figure18).

**Figure 18. Diphtheria Deaths  
by DPT Dose Received,  
Philippines, January 1 to June 29, 2019 (n=24)**



### C. Confirmed Cases

Four (50%) males and 4 (50%) females were laboratory confirmed diphtheria cases. Age ranges from 2 – 12 years old (median of 5 years old). 5 (71%) did not receive DPT/Pentavalent vaccine and 2 (29%) have unknown vaccination status.

### D. Profile of Confirmed Diphtheria Deaths

There were Five (5) deaths among eight (8) laboratory confirmed pertussis cases. Ages of reported deaths were 2 – 6 years old (median of 3 years old). All reported laboratory confirmed deaths did not received DPT/Pentavalent vaccines.



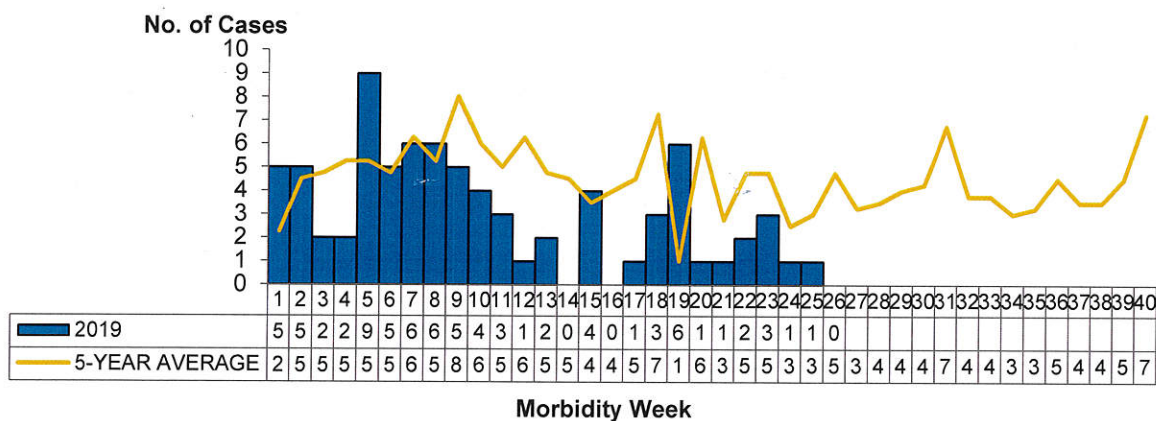


### III. PERTUSSIS

#### Trend in the Philippines

A total of 78 pertussis cases were reported nationwide from January 1 – June 29, 2019. The distribution of pertussis cases for 2019 compared to the 5 - year average of cases from 2014 to 2018 is shown below (Figure 19).

Figure 19. Reported Pertussis Cases by Morbidity Week, Philippines, January 1 to June 29, 2019 (N=78)



#### Geographic Distribution

There has been a 64% decrease among the reported pertussis cases with 215 cases in 2018 and 78 cases in 2019, same time period. Reported pertussis cases came from NCR reported to have (16 or 21%) followed by Region II with (15 or 19%) cases (Table 6). 12 (32%) cases were confirmed out of 78 cases. Three reported Pertussis clusters identified as of June 29, 2019. A cluster is defined as two (2) or more pertussis cases from the same barangay reported within four (4) consecutive weeks.

Table 6. Reported Pertussis Cases by Region, Philippines, January 1 to June 29, 2019 (N=47) vs. January 1 to June 29, 2018

REGION	2019		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
<b>Philippines</b>	<b>78</b>	<b>6</b>	<b>215</b>	<b>8</b>	<b>↓64</b>
I	3	0	4	0	↓25
<b>II</b>	<b>15</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>↑200</b>
III	4	0	30	1	↓87
IVA	11	0	29	1	↓62
MIMAROPA	0	0	1	0	↓100
V	0	0	1	0	↓100
VI	2	0	4	0	↓50
VII	5	0	20	1	↓75
VIII	0	0	2	0	↓100
IX	0	0	0	0	-
X	2	1	3	0	↓33
XI	11	1	28	2	↓61
<b>XII</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>↑200</b>
ARMM	0	0	3	0	↓100
CAR	6	0	23	1	↓74
CARAGA	0	0	8	0	↓100
NCR	16	1	53	0	↓70

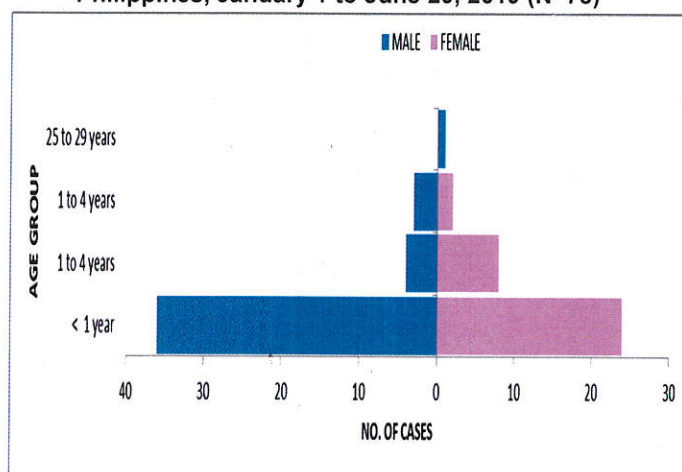


### Profile of Cases

#### A. Cases

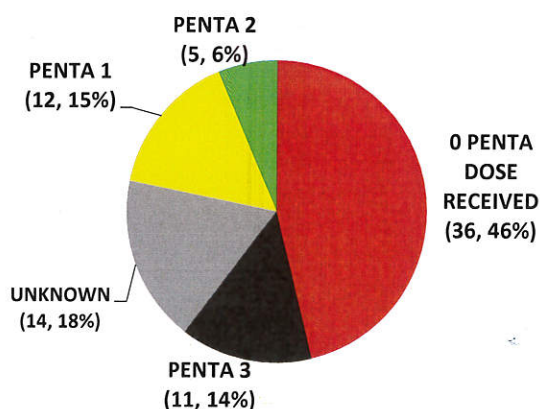
There were **44 males (56%)** and **34 females (44%)** among the reported pertussis cases. Age of cases ranged from **<1 month to 29 years old** (median: 3 months). Age groups with most number of cases were **below 1 year old** with (60 or 78%) followed by 1 – 4 years old with (12 or 16%) (Figure 20).

**Figure 20. Pertussis Cases by Age Group and Sex, Philippines, January 1 to June 29, 2019 (N=78)**

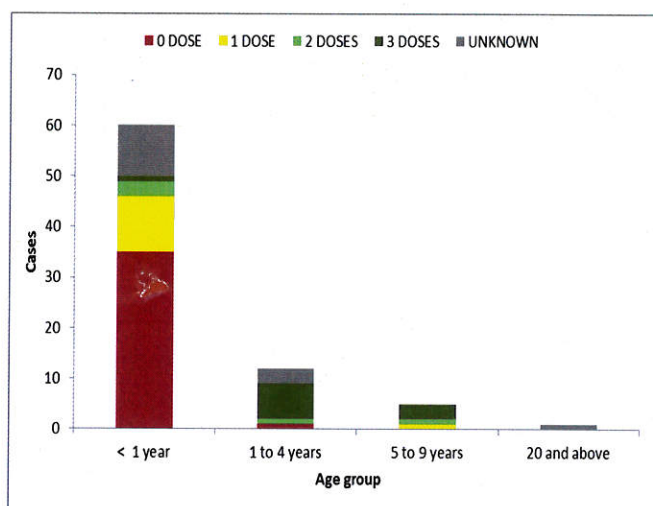


Vaccination status showed that **(11 or 14%)** of the reported cases received **complete 3 primary doses** of the DPT/Pentavalent vaccine. **36 (46%)** did not receive a dose of the DPT/Pentavalent vaccine, **(14 or 18%)** have unknown dose received and **(12 or 15%)** received only 1 dose. (Figure 21).

**Figure 21. Reported Pertussis Cases by DPT Dose Received, Philippines, January 1 to June 29, 2019 (N=78)**



**Figure 22. Reported Pertussis Cases by by Age Group and DPT Dose Received, Philippines, January 1 to June 29, 2019 (N=78)**



#### B. Deaths

There were **Six (6)** deaths (CFR=8%) among the 78 reported pertussis cases. Ages: less than 1 month – 2 months old (median: 1 month)

Vaccination status showed that **(3 or 50%)** of the reported deaths did not received the DPT/Pentavalent vaccine and **(3 or 50%)** have unknown vaccination status.

#### C. Confirmed Cases

**Five (5) males** and **Seven (7) females** were laboratory confirmed pertussis cases. Age ranges from 1 month – 4 years old (median 2 months old). **Eight (67%)** of the confirmed cases **were not vaccinated** and **(2 or 17%)** received 1 and 3 doses of DPT/Pentavalent vaccine.

#### D. Profile of a Confirmed Pertussis death

There was one (1) death among twelve (12) confirmed pertussis cases. Age of death was 2 months old.



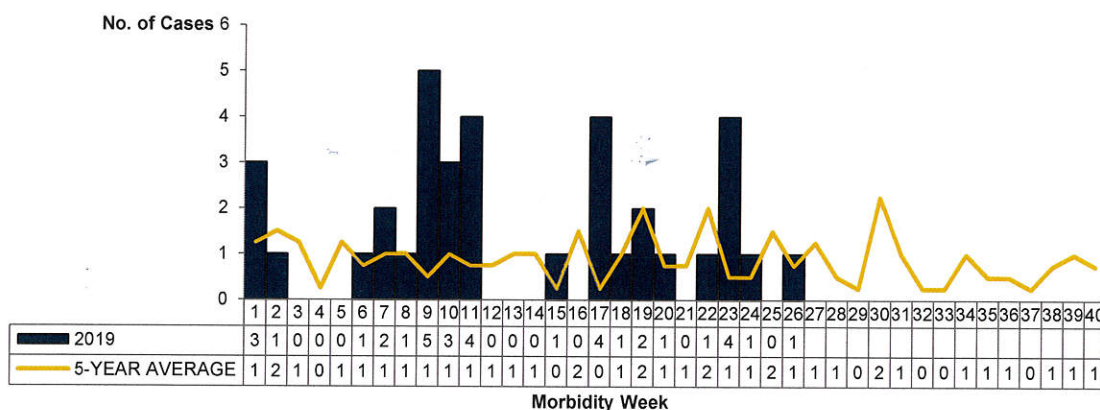


### IV. NEONATAL TETANUS

#### Trend in the Philippines

A total of **36** clinically confirmed neonatal tetanus (NT) cases were reported nationwide from January 1 – June 29, 2019. The distribution of neonatal tetanus cases for 2019 compared to the 5-year average of cases from 2014 to 2019 is shown below (Figure 23).

**Figure 23. Neonatal Tetanus Cases by Morbidity Week, Philippines, January 1 to June 29, 2019 (N=36)**



#### Geographic Distribution

There has been no change of reported neonatal tetanus cases from 35 cases in 2018 to 36 cases in 2019, same time period. Most reported cases were from **ARMM (14 or 39%)** **MIMAROPA** with (6 or 17%), while Region XII have (4, 11%) cases (Table 7). All regions have maintained the <1/1000 livebirths NT rate under Maternal and Neonatal Tetanus Elimination standards.

**Table 7. Neonatal Tetanus Cases by Region, Philippines, January 1 to June 29, 2019 (N=4) vs. January 1 to June 29, 2018**

REGION	2019			2018		
	Cases for MW 17	Annualize NT Rate >1/1000 LB	Deaths	Cases for MW 17	Annualize NT Rate >1/1000 LB	Deaths
<b>Philippines</b>	<b>36</b>	<b>0.016</b>	<b>17</b>	<b>35</b>	<b>0.012</b>	<b>19</b>
I	0	0.000	0	0	0.000	0
II	2	0.027	0	1	0.010	0
III	1	0.004	1	1	0.003	1
IVA	2	0.006	1	2	0.005	2
MIMAROPA	6	0.085	2	0	0.000	0
V	2	0.015	2	0	0.000	0
VI	3	0.020	3	1	0.005	1
VII	0	0.000	0	0	0.000	0
VIII	0	0.000	0	2	0.016	1
IX	1	0.001	0	3	0.030	2
X	0	0.000	0	2	0.015	0
XI	0	0.000	0	0	0.000	0
XII	4	0.036	3	8	0.062	4
BARMM	14	0.145	4	13	0.117	7
CAR	0	0.000	0	0	0.000	0
CARAGA	1	0.016	1	1	0.014	1
NCR	0	0.000	0	1	0.003	0



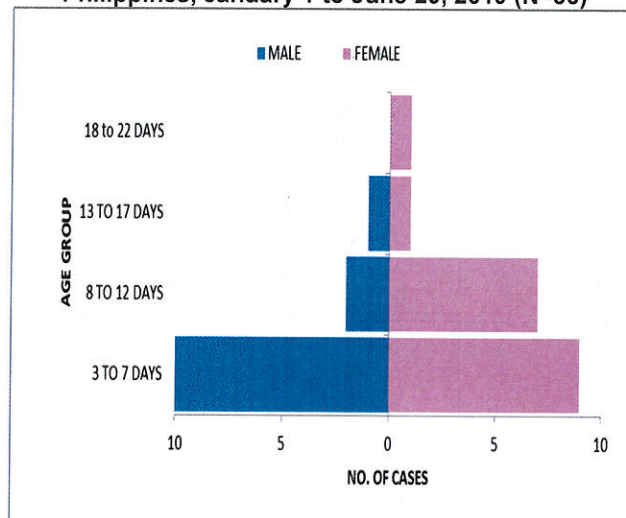


### Profile of Cases

#### A. Age group and Sex

Among the clinically-confirmed NT cases, Eighteen (50%) **male** and Eighteen (50%) **female**. Age of cases ranges from 3 – 19 days old (median age of 7 days old). (Figure 23).

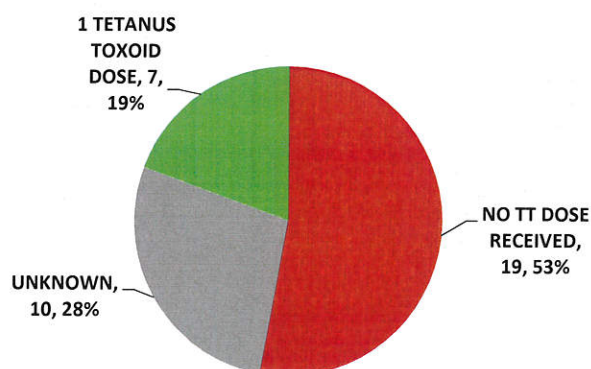
**Figure 24. Clinically Confirmed Neonatal Tetanus Cases by Age Group and Sex, Philippines, January 1 to June 29, 2019 (N=36)**



#### B. Vaccination Status

Nineteen (53%) of the mothers of clinically confirmed cases **did not receive any dose of the tetanus toxoid vaccine**, followed with unknown vaccination status (10 or 28%) and (7 or 19%) received one dose of tetanus toxoid. (Figure 24).

**Figure 25. Clinically Confirmed Neonatal Tetanus Cases by Vaccination Status, Philippines, January 1 to June 29, 2019 (N=36)**



#### C. Delivery Practices among Clinically Confirmed Neonatal Tetanus Cases

In terms of delivery practices, Majority (34 or 94%) of the neonatal tetanus cases were delivered at home. Sixteen (44%) of the cases were attended by a traditional birth attendant, (4 or 11%) by a hilot, (5 or 21%) by a lay-person, and (10 or 28%) unknown. Fourteen (39%) had blade, (12 or 33%) bamboo and (5 or 14%) scissors used as the common cord cutting tool while (1 or 3%) used other materials and (4 or 11%) was unknown (Table 8).

**Table 8. Delivery Practices of Clinically Confirmed Neonatal Tetanus Cases, Philippines, January 1 to June 29, 2019 (N=36)**

Delivery Practices	No. of Cases	Percentage
<b>Place of Delivery</b>		
Home	34	94%
Hospital	1	3%
Lying-in	1	3%
<b>Delivery Attendant</b>		
TBA	16	44%
Physician	1	3%
Hilot	4	11%
Lay-person	10	28%
Unknown	5	14%
<b>Cord Cut Tool Used</b>		
Blade	14	39%
Bamboo	12	33%
Scissors	5	14%
Unknown	4	11%
Others	1	3%
<b>Stump Treatment Used</b>		
Alcohol	12	33%
Povidone Iodine	2	6%
Others*	5	14%
Unknown	17	47%

\*Other stump treatment material include hot water and powdered coconut shell

### Profile of Neonatal Tetanus Deaths

There were 17 deaths (CFR=47%) among the 36 neonatal tetanus cases. Ages of deaths ranges from 3 – 10 days old. Mother of reported deaths (8, 47%) had unknown vaccination status, (7 or 41%) did not received any dose, and (2 or 12%) receive one dose of Tetanus Toxoid.





### D. Neonatal Tetanus Surveillance Indicators by Regions

The Philippines has a reporting rate of 40% which is still below the target of  $\geq 80\%$ . Consequently, none of the regions achieved the target as well. This is contrary to the NT Investigation rate which the Philippines and all regions with reported cases achieved 100% performance. (Table 9)

Table 9. Neonatal Tetanus Surveillance Indicators by Region  
Philippines, January 1 to June 29, 2019 (N=36)

REGION	Clinically Confirmed Neonatal Tetanus Cases		
	NT Rate(1<(1,000LB)	TIMELINESS OF REPORTING	TIMELINESS OF INVESTIGATION
<b>Philippines</b>	<b>0.013</b>	<b>REPORTING RATE (<math>\geq 80\%</math>)</b>	<b>INVESTIGATION RATE(<math>\geq 80\%</math>)</b>
I	0.000		
II	0.021		
III	0.003		
IVA	0.005	0%	100.00%
MIMAROPA	0.072	20%	100.00%
V	0.012	50%	100.00%
VI	0.014	33%	100.00%
VII	0.000		
VIII	0.000		
IX	0.010		
X	0.000		
XI	0.000		
XII	0.031	50%	100.00%
BARM	0.126	36%	93.00%
CAR	0.000		
CARAGA	0.014		100.00%
NCR	0.000		
LEGEND:	<1/1,000 LB	<80%	$\geq 80\%$

### Neonatal Tetanus Elimination in the Philippines

NT elimination is defined as the achievement of <1 NT case per 1,000 live births (LB) in every province/city of every country. This is operationally defined by an algorithm assessing four major indicators: reported incident of NT, the reliability of NT surveillance (quality NT surveillance indicators), the proportion of women with at least two doses of tetanus toxoid (TT2+) and the estimated clean delivery rate.



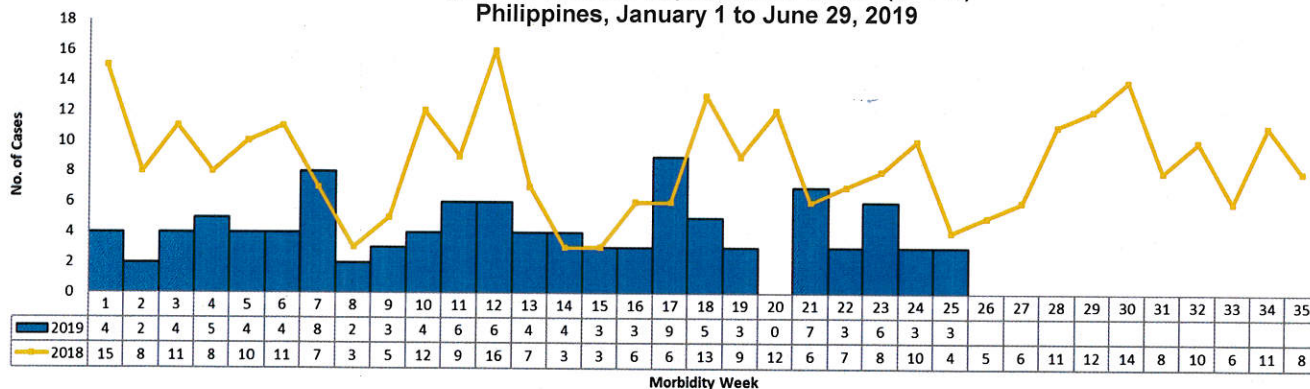
### V. ACUTE FLACCID PARALYSIS

AFP surveillance is an essential strategy which aims to look for poliovirus circulation in the community by investigating all possible polio cases. Its role is to identify high risk areas or groups and certify that the Philippines is still polio-free.

#### Trend in the Philippines

A total of **114 AFP** cases were reported nationwide from January 1 to June 29, 2019. The distribution of AFP cases for 2019 compared to 2018 is shown below (Figure 25).

**Figure 26. Trend of Reported AFP Cases (N=114)**  
Philippines, January 1 to June 29, 2019



#### Geographic Distribution

A total of 114 AFP cases were reported from January 1 to June 29, 2019. Among the 114 reported AFP cases, 55 (48%) were discarded as non-polio AFP, while 52 (46%) are still pending for 60-day follow-up, expert panel review and for official laboratory result. There were 7 (6%) reported cases that did not fit the case definition and were classified as *not AFP* (Table 9).

**Table 10. Reported AFP Cases by Region and Classification**  
January 1 to June 29, 2019

REGION	2019 Target AFP Cases 2/100k	2019 Target AFP Cases 1/100k	Reported Cases	Classification			Total Number of Classified Cases
				Non-Polio (Discarded)	NOT AFP	Pending	
<b>PHILIPPINES</b>	<b>688</b>	<b>344</b>	<b>114</b>	<b>55</b>	<b>7</b>	<b>52</b>	<b>62</b>
I	32	16	4	1	0	3	1
II	22	11	1	0	0	1	0
III	72	36	11	1	3	7	4
IV-A	96	48	14	2	1	11	3
MIMAROPA	22	11	0	0	0	0	0
V	44	22	5	2	0	3	2
VI	48	24	19	13	0	6	13
VII	51	25	9	7	0	2	7
VIII	32	16	7	5	1	1	6
IX	27	13	5	3	0	2	3
X	34	17	3	2	0	1	2
XI	34	17	12	7	0	5	7
XII	34	17	6	3	0	3	3
BARMM	36	18	3	2	0	1	2
CAR	11	6	3	2	0	1	2
Caraga	19	9	0	0	0	0	0
NCR	74	38	12	5	2	5	7

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2019 data reflects partial data only of all regions.



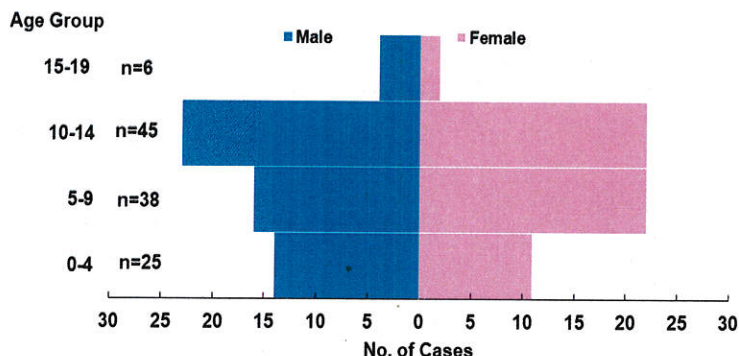


### Profile of Cases

#### A. Age group and Sex

Fifty-seven (50%) are males while 57 (50%) are females. Age ranges from 3 months to 16 years (median age of 9 years old). Forty-five (39%) of the AFP cases reported belong to 10-14 age group (Figure 26).

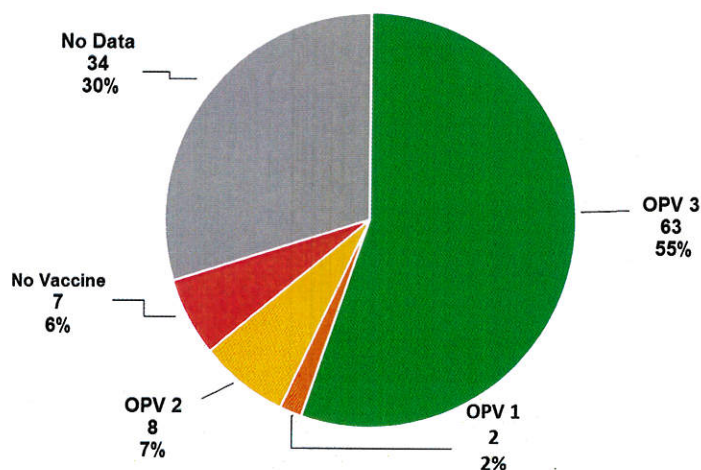
Figure 27. AFP Cases by Sex and Age Group (N=114)  
Philippines, January 1 to June 29, 2019



#### B. Vaccination Status

Among the 114 reported AFP cases, 63 (55%) completed 3 doses of OPV, 8 (7%) had OPV 2 and 2 (2%) had OPV 1. Thirty-four (30%) had no data (Figure 27).

Figure 28. Vaccination Status of AFP Cases (N=114)  
Philippines, January 1 to June 29, 2019



#### C. Laboratory Status

There were no isolated wild or vaccine-derived poliovirus from January 1 to June 30. Stool 1 was collected in 81 (71%) AFP cases and stool 2 in 72 (63%) of AFP cases. Two cases had poliovirus Sabin-like type 3 isolated (Table 10).

Table 11. Laboratory Status of Reported AFP Cases (N=114)  
Philippines, January 1 to June 29, 2019

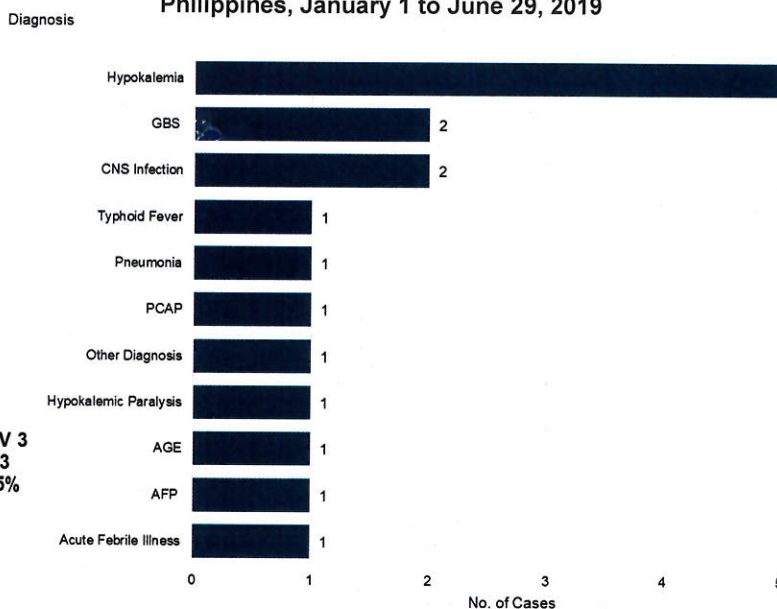
Stool Specimen Result	Stool Specimen 1		Stool Specimen 2	
<b>Total</b>	<b>81</b>	<b>71%</b>	<b>72</b>	<b>63%</b>
Negative for poliovirus	66	81%	59	82%
Others				
Poliovirus (Sabin-Like)*	2	2%	2	3%
Non-polio enterovirus (NPEV)	1	1%	2	3%
Pending Lab Results	12	15%	9	13%

\* PV Sabin like type 1,3 and Sabin like type 3

#### D. Differential Diagnosis

The top diagnosis among AFP cases reported were Hypokalemia (5 or 4%). However, there are 97 (85%) cases with incomplete data. (Figure 29)

Figure 29. AFP Cases by Differential Diagnosis (N=114)  
Philippines, January 1 to June 29, 2019



\*97 cases with incomplete data





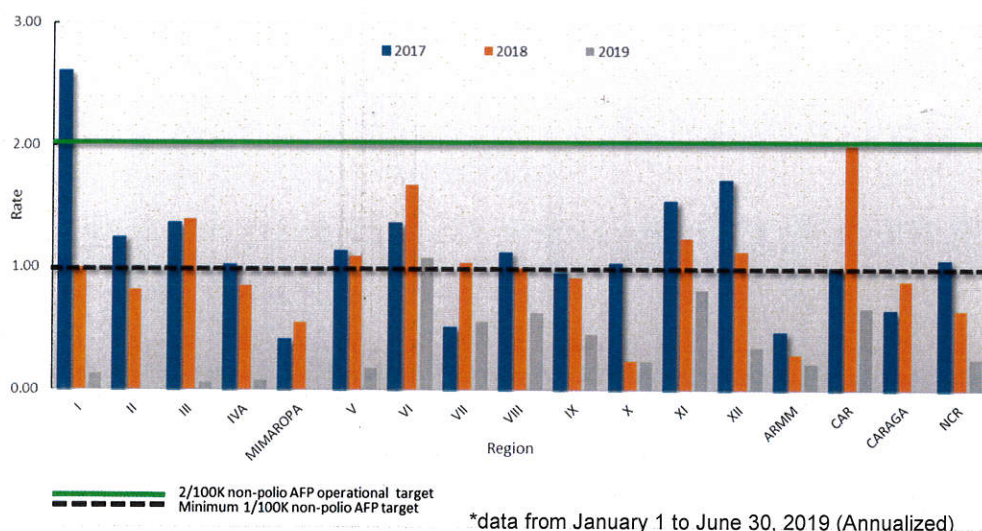
### SURVEILLANCE PERFORMANCE INDICATORS – AFP REPORTING RATE AND NON – POLIO AFP RATE

From January 1 to June 29, 2019, there were 114 AFP cases reported, providing the Philippines an annualized reporting rate of 0.66 / 100,000 population of children under 15 years old. Two (2) Regions were able to reach and surpass the target. The incidence of AFP (non-polio AFP rate) caused by diseases other than poliomyelitis is 0.32 / 100,000 population of children under 15 years of age. One (1) Region reached the target. (Figure 30 & Table 12)

TABLE 12. REPORTING AND NON-POLIO AFP RATE AS OF MW 1-26

REGION	Annualized Reporting Rate	Annualized Non-Polio AFP Rate
<b>PHILIPPINES</b>	<b>0.66</b>	<b>0.32</b>
I	0.50	0.13
II	0.18	0.00
III	0.61	0.06
IV-A	0.58	0.08
MIMAROPA	0.00	0.00
V	0.45	0.18
VI	1.58	1.08
VII	0.72	0.56
VIII	0.88	0.63
IX	0.77	0.46
X	0.35	0.24
XI	1.41	0.82
XII	0.71	0.35
BARMM	0.33	0.22
CAR	1.00	0.67
Caraga	0.00	0.00
NCR	0.63	0.26

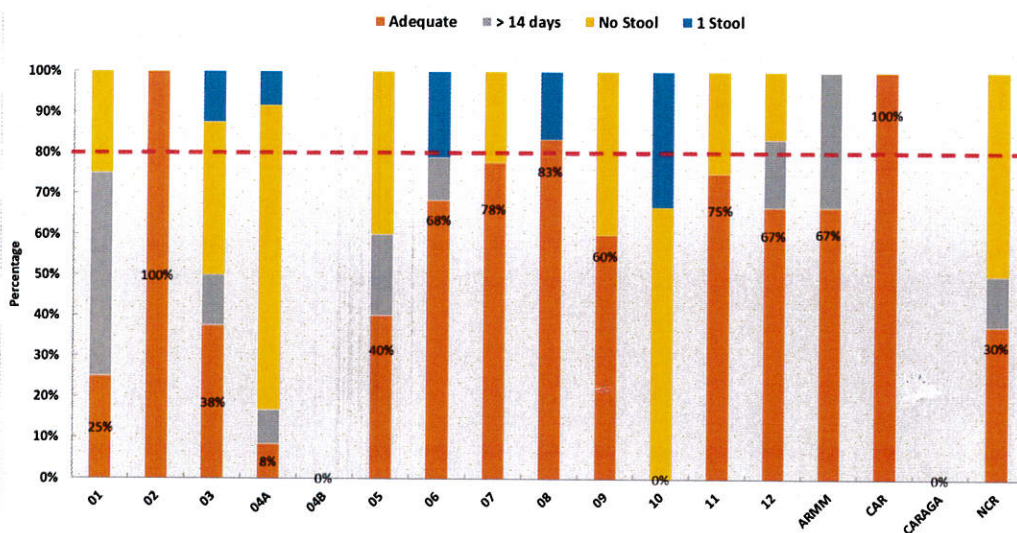
Figure 30. THREE-YEAR COMPARISON OF NON-POLIO AFP RATE BY REGION, PHILIPPINES, 2017-2019\*



### SURVEILLANCE PERFORMANCE INDICATORS – STOOL SPECIMEN ADEQUACY RATE

All AFP cases should have full clinical and virological investigation with at least 80% of AFP cases having adequate stool specimens collected. Among the 107 non-polio and pending AFP cases, 57 (53%) cases have 2 stool specimens collected within 14 days from the onset which gives us an adequacy rate of 53% (Table 13). A portion, 10 cases or 9% had 2 stool specimen collected beyond the required collection period. Among the 17 Regions, 2 Regions have reached or surpassed the target rate of 80%.

Figure 31. STOOL SPECIMEN ADEQUACY RATE BY REGION, PHILIPPINES, January 1 – June 29, 2019



\*not AFP cases are excluded in the analysis

TABLE 13. STOOL SPECIMEN ADEQUACY RATE OF MW 1-26

Region	Stool Specimen Adequacy Rate
<b>PHILIPPINES</b>	<b>53</b>
I	25
II	100
III	38
IV-A	8
MIMAROPA	-
V	40
VI	68
VII	78
VIII	83
IX	60
X	-
XI	75
XII	67
BARMM	67
CAR	100
Caraga	-
NCR	30

Legend:

Reached or surpassed target
Nearly reached target
Substantially below target

Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2018 data reflects partial data only of all regions.

A PDF file of this report is available at [www.doh.gov.ph/statistics](http://www.doh.gov.ph/statistics).





### ANNEX A. CLUSTER OF DIPHTHERIA CASES

MORBIDITY WEEK	REGION	PROVINCE	MUNCITY	BARANGAY	CASES	
					CONFIRMED	SUSPECT
5-7	III	BULACAN	BOCAUE	ANTIPONA	0	2
22	CAR	IFUGAO	HINGYON	NAMULDITAN	0	3
22	CAR	IFUGAO	LAGAWE	CUDOG	0	5
25	NCR	METRO MANILA	QUEZON CITY	BATASAN HILLS	0	2

### CLUSTER OF PERTUSSIS CASES

MORBIDITY WEEK	REGION	PROVINCE	MUNCITY	BARANGAY	CASES	
					CONFIRMED	SUSPECT
5-6	XI	DAVAO DEL SUR	DAVAO CITY	LEON GARCIA SR.	1	2
6-8	CAR	BENGUET	BAGUIO	BAKAKENG CENTRAL	1	2
19	CAR	BAGUIO	BAGUIO CITY	APUKAGAN-LOAKAN	0	2