



### Vaccine Preventable Disease (VPD) Surveillance

The goal of VPD surveillance is for early detection of Vaccine Preventable Diseases and conduct appropriate public health interventions. This report provides data from the period of January 1 to May 26, 2018 or Morbidity Weeks 1 - 21 (Table 1).

**Table 1. Summary of Reported Vaccine Preventable Diseases, Philippines, January 1 – May 26, 2018**

Vaccine Preventable Diseases	Total No of Cases	Confirmed Cases		
		Cases	Deaths	CFR %
Measles	8,369	1,578	21	1.33
Rubella		59	0	0.00
Diphtheria	57	20	5	25.00
Pertussis	141	41	4	9.75
Neonatal Tetanus	15	15	9	60.00
Polio (AFP Surveillance)	127	0	0	-

#### PIDSR Case Definition for Vaccine Preventable Diseases

MEASLES	
<b>Reported Measles Case (Suspect measles case)</b>	Any person with fever and maculopapular (non-vesicular) rash and either cough, coryza (runny nose), or conjunctivitis (red eyes)
<b>Measles compatible case (Clinical Measles)</b>	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
<b>Confirmed measles case</b>	A suspect with positive laboratory for measles or epidemiologically linked cases
<b>Epidemiologically Linked (Epi-linked)</b>	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
<b>Laboratory confirmed rubella</b>	A suspect case with a positive laboratory test result for rubella-specific IgM antibodies or other approved laboratory test method
<b>Discarded non-measles/rubella</b>	A suspect case that meets the clinical case definition for measles and tested negative for both measles and rubella testing
NEONATAL TETANUS	
<b>Clinically Confirmed Neonatal Tetanus</b>	<ul style="list-style-type: none"> <li>Any neonate (<math>\leq 28</math> 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); OR</li> <li>A neonate between 3 to 28 days of life, diagnosed as a case of tetanus by a physician.</li> </ul>
DIPHTHERIA	
<b>Probable case</b>	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.
<b>Confirmed case</b>	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	
<b>Clinical Case</b>	A person with a cough lasting at least 2 weeks with at least one of the following: <ul style="list-style-type: none"> <li>paroxysms (i.e. fits) of coughing</li> <li>inspiratory "whooping"</li> <li>post-tussive vomiting (i.e. vomiting immediately after coughing) without other apparent cause</li> </ul>
<b>Clinically-confirmed case</b>	A case that meets the clinical case definition but is not laboratory confirmed.
<b>Probable case</b>	Meets the clinical case definition, is not laboratory confirmed, and is not epidemiologically linked to a laboratory-confirmed case
<b>Laboratory-confirmed case</b>	<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	
<b>Reported AFP Case (suspect AFP case)</b>	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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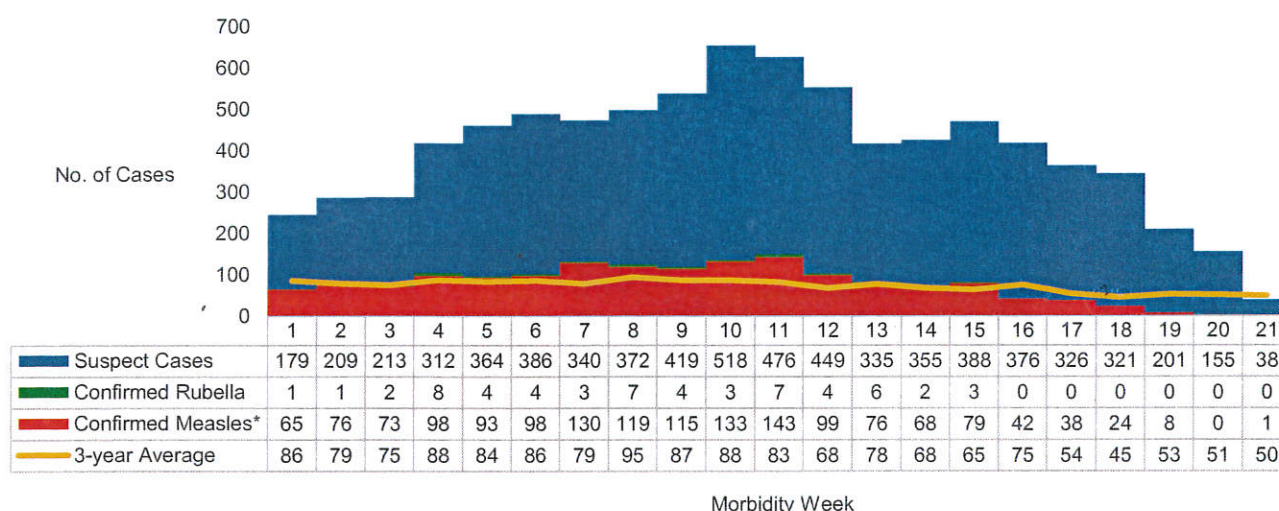
## I. MEASLES-RUBELLA

### Suspect Cases

#### Trend in the Philippines

A total of 8,369 suspect measles-rubella cases were reported from January 1 to May 26, 2018. The distribution of reported cases for 2018 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 to May 2018 (N=8,369)**



\*laboratory-confirmed and epidemiologically-linked measles cases

#### Geographic Distribution

From January to May 2018, cases are 473% higher than the number of cases reported during the same time period last year (1,460). Most of the reported cases were from the following regions: ARMM (2,285, 27%), Region XI (1,162, 14%), Region IX (1,045, 12%), Region XII (867, 10%) and NCR (833, 10%) (Table 1).

**Table 1. Reported Measles-Rubella Cases by Region, Philippines, January to May 2018 (N=8,369) vs. 2017 same time period\***

Region	2017		2018		% Change
	Cases	Deaths	Cases	Deaths	
<b>PHL</b>	<b>1,460</b>	<b>5</b>	<b>8,369</b>	<b>70</b>	<b>↑ 473</b>
I	183	1	144	0	↓ 21
II	27	0	42	0	↑ 56
III	141	0	309	4	↑ 119
IVA	331	3	323	2	↓ 2
MIMAROPA	22	0	26	0	↑ 18
V	24	0	39	0	↑ 63
VI	78	0	159	0	↑ 104
VII	36	0	171	1	↑ 375
VIII	67	0	21	0	↓ 69
IX	66	0	1,045	7	↑ 1,483
X	67	0	788	2	↑ 1,076
XI	40	0	1,162	14	↑ 2,805
XII	41	0	867	7	↑ 2,015
ARMM	52	1	2,285	19	↑ 4,294
CAR	74	0	48	0	↓ 35
CARAGA	21	0	107	0	↑ 410
NCR	190	0	833	14	↑ 338

\* January 1 to May 26, 2018

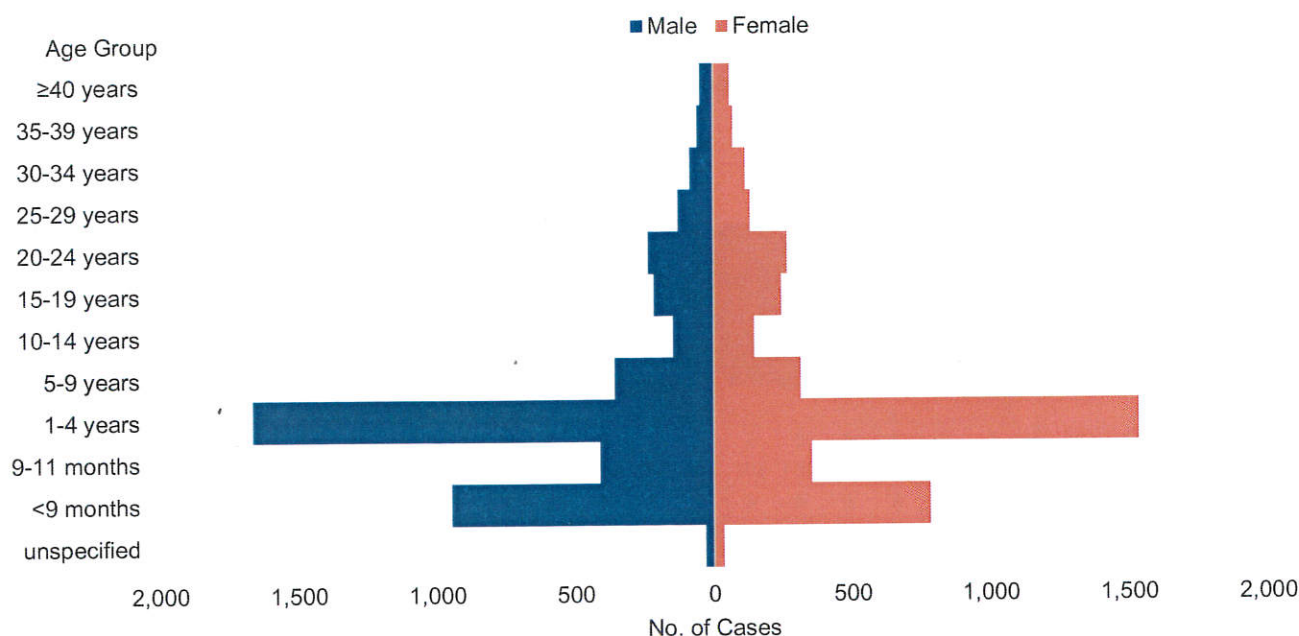




### Profile of Reported Cases

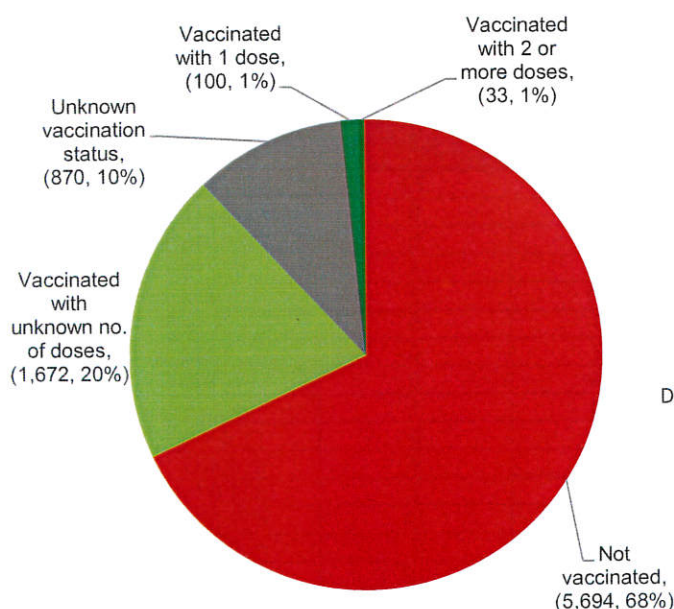
Majority (4,331, 52%) of the reported cases were males. Ages of cases ranged from **less than 1 month to 87 years old** (median age of 2 years). Age groups with the most number of cases were: 1-4 years old (3,200, 38%), less than 9 months old (1,728, 21%) and 9-11 months old (762, 9%) (Figure 2).

**Figure 2. Reported Measles-Rubella Cases by Age Group and Sex, Philippines, January to May 2018 (N=8,369)**

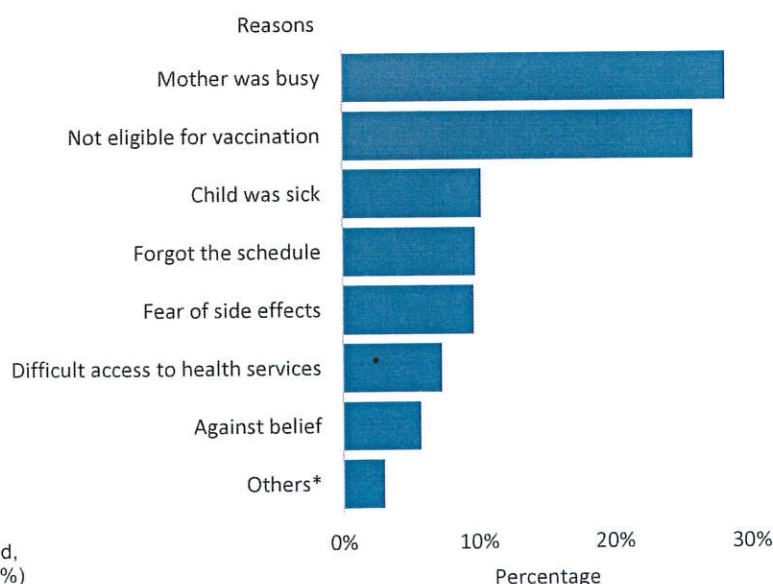


Majority (5,694, 68%) of the cases were not vaccinated (Figure 3). Top reasons for non-vaccination of measles-containing vaccine were: mother was busy (28%), not eligible for vaccination (26%) and child was sick (10%) (Figure 4).

**Figure 3. Vaccination Status of Reported Measles-Rubella Cases, Philippines, January to May 2018 (N=8,369)**



**Figure 4. Reasons for Non-vaccination of Measles Vaccine\*, Philippines, January to May 2018**



\*with data available

\*other reasons: moves residence, lack of knowledge, parents refused, history of travel, war conflict, medical contraindication, child was abandoned

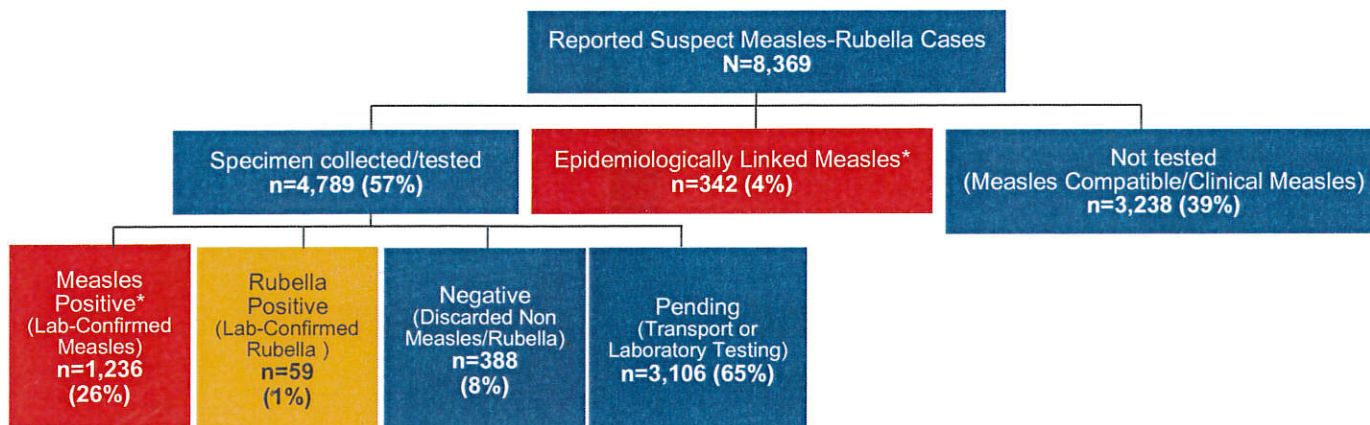




### Case Classification

Among the 8,369 reported cases, a total of 4,789 (57%) cases had specimens collected/tested for measles/rubella IgM and/or PCR. Among the tested cases, 1,236 (26%) were positive for measles and 59 (1%) were positive for rubella. **Three hundred forty two (4%)** cases were epidemiologically-linked to laboratory confirmed cases, hence classified also as confirmed measles cases (Figure 5).

**Figure 5. Reported Measles-Rubella Cases by Case Classification, Philippines, January to May 2018 (N=8,369)**



\*total of laboratory-confirmed and epidemiologically-linked measles cases (N= 1,578)

### Confirmed Measles Cases

#### Trend in the Philippines

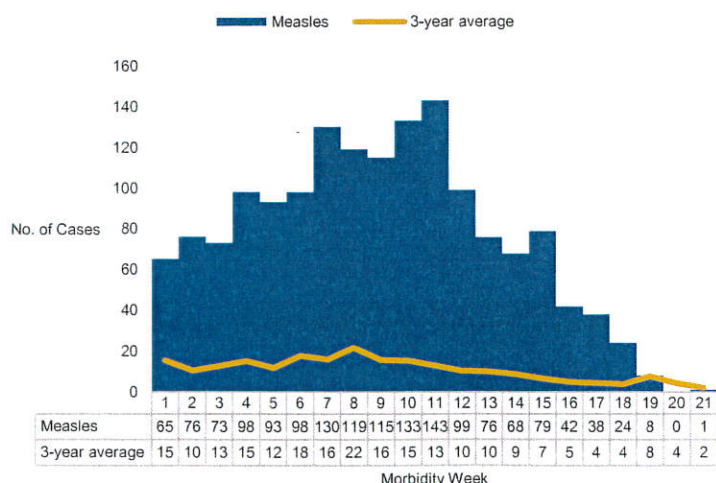
There were 1,578 confirmed measles cases with 21 deaths (CFR=1.3%). The distribution of confirmed measles cases for 2018 compared to the 3-year average of cases from 2015-2017 is shown in Figure 6.

#### Geographic Distribution

Most of the confirmed measles cases were from the following regions: ARMM (391, 25%), NCR (241, 15%), Region XI (200, 13%), Region XII (177, 11%) and Region IX (157, 10%). Confirmed measles cases in 2018 increased 52 times compared to the same period in 2017 (Table 2).

Top 5 provinces with confirmed cases include: Lanao del Sur (264, 17%), Metro Manila (241, 15%), Davao del Sur (123, 8%), Maguindanao (92, 6%) and Zamboanga del Sur (91, 6%).

**Figure 6. Confirmed Measles Cases by Morbidity Week, Philippines, January to May 2018 (n=1,578)**



**Table 2. Confirmed Measles Cases by Region, Philippines, January to May 2018 (n=1,578) vs. 2017 same time period**

Region	2017		2018		Percent Change
	Cases	Deaths	Cases	Deaths	
PHL	30	0	1,578	21	↑ 5,160
I	3	0	18	0	↑ 500
II	0	0	3	0	-
III	2	0	69	2	↑ 3,350
IVA	6	0	41	1	↑ 583
MIMAROPA	0	0	2	0	-
V	0	0	9	0	-
VI	0	0	41	0	-
VII	1	0	79	0	↑ 7,800
VIII	0	0	2	0	-
IX	9	0	157	0	↑ 1,644
X	1	0	119	1	↑ 11,800
XI	1	0	200	5	↑ 19,900
XII	0	0	177	2	-
ARMM	4	0	391	0	↑ 9,675
CAR	0	0	4	0	-
CARAGA	0	0	25	0	-
NCR	3	0	241	10	↑ 7,933

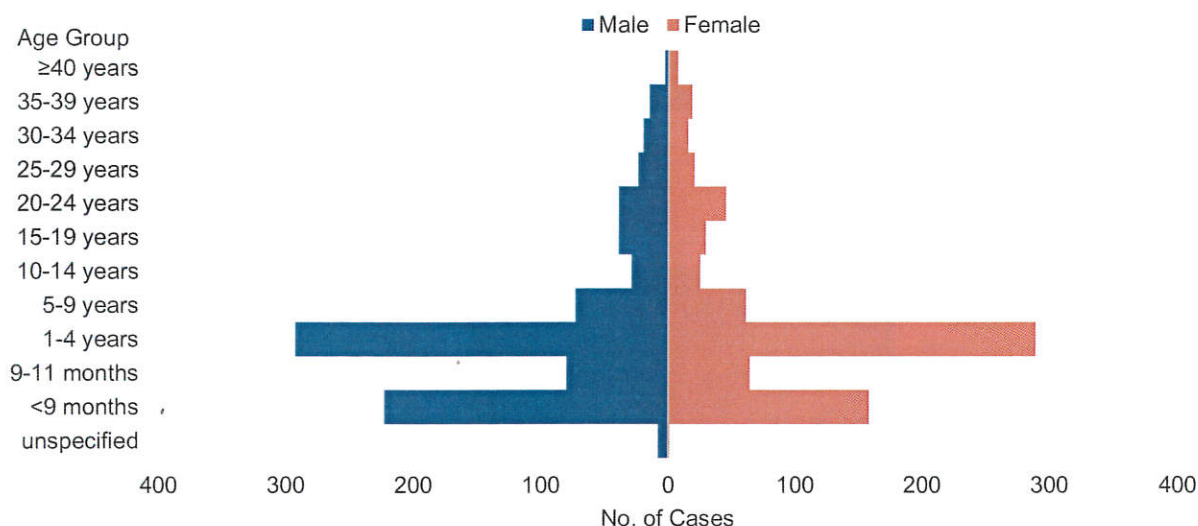




### Profile of Confirmed Measles Cases

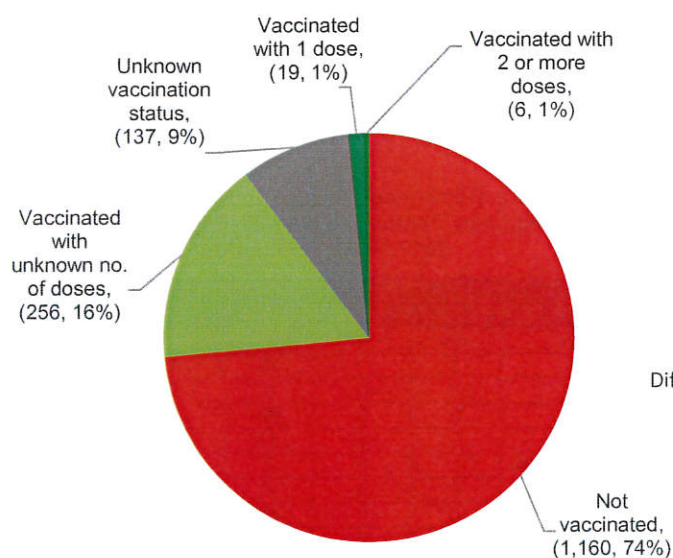
Majority (846, 54%) of the confirmed measles cases were males. Ages of cases ranged from **less than 1 month to 46 years** old (median age of 2 years). Age groups with the most number of cases were: 1-4 years old (582, 37%), less than 9 months old (381, 24%) and 9-11 months old (144, 9%) (Figure 7).

**Figure 7. Confirmed Measles Cases by Age Group and Sex, Philippines, January to May 2018 (n=1,578)**

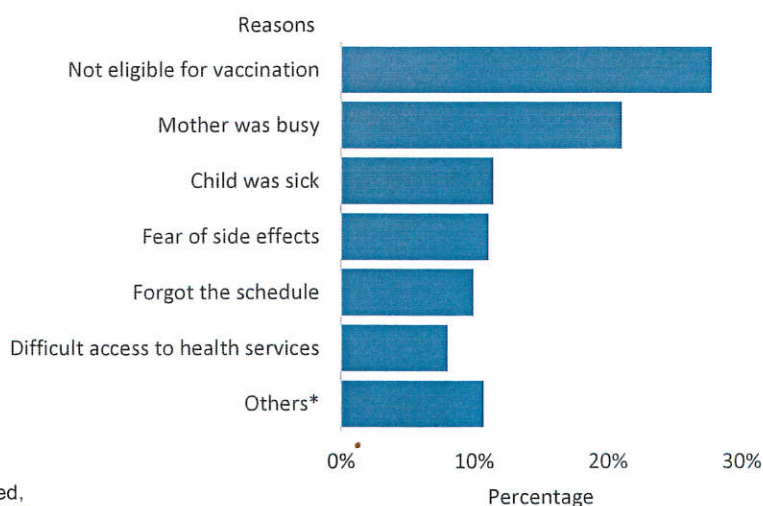


Majority (1,160, 74%) of the confirmed measles cases were not vaccinated (Figure 8). Top reasons for non-vaccination of measles-containing vaccine among confirmed cases were: not eligible for vaccination (28%), mother was busy (21%) and child was sick (11%) (Figure 9).

**Figure 8. Vaccination Status of Confirmed Measles Cases, Philippines, January to May 2018 (n=1,578)**



**Figure 9. Reasons for Non-vaccination of Measles Vaccine among Confirmed Measles Cases\*, Philippines, January to May 2018**



\*with available data

\*other reasons: against belief, moves residence, war conflict, parents refused, lack of knowledge, child was abandoned, history of travel, medical contraindication

### Profile of Confirmed Measles Deaths

There were 21 deaths (CFR=1.3%) out of the 1,578 confirmed measles cases. Ages of deaths ranged from **3 months to 3 years** old (median age of 9 months). Age groups of these deaths were: less than 9 months old (11, 52%), 1-4 years old (6, 29%) and 9-11 months old (4, 19%). Most (14, 67%) of the deaths had pneumonia complications. All died in the hospital with 0 to 28 days (median hospital days of 3 days) interval from date of admission to date of death.





## Confirmed Rubella Cases

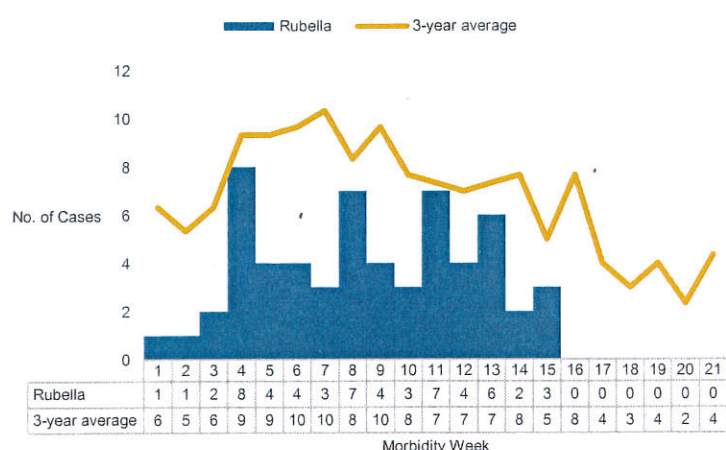
### Trend in the Philippines

There were 59 confirmed rubella cases from January 1 to May 26, 2018. The distribution of confirmed rubella cases for 2018 compared to the 3-year average of cases from 2015-2017 is shown in Figure 10.

### Geographic Distribution

Most of the confirmed rubella cases were from the following regions: Region XI (17, 29%), Region IVA (8, 14%), Region XII (7, 12%), NCR (6, 10%) and Region III (4, 7%). Confirmed rubella cases in 2018 is 76% lower compared to the same time period in 2017 (251). No deaths were reported (Table 3).

**Figure 10. Confirmed Rubella Cases by Morbidity Week, Philippines, January to May 2018 (n=59)**



**Table 3. Confirmed Rubella Cases by Region, Philippines, January to May 2018 (n=59) vs. 2017 same time period**

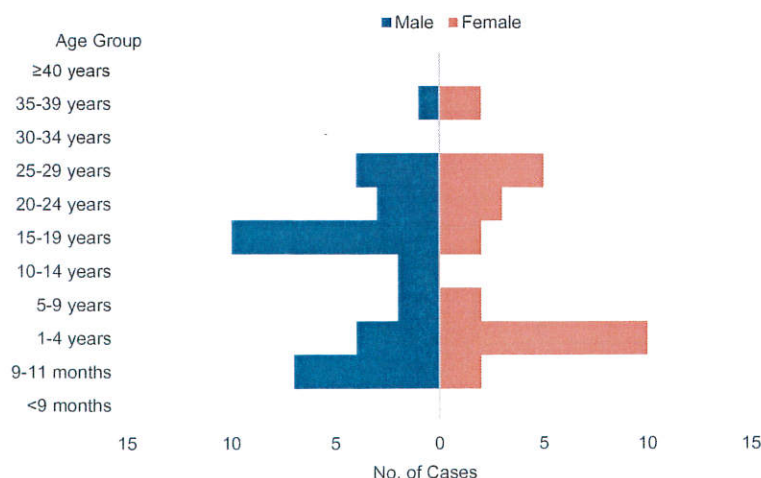
Region	2017		2018		Percent Change
	Cases	Deaths	Cases	Deaths	
PHL	251	0	59	0	↓ 76
I	22	0	1	0	↓ 95
II	2	0	2	0	0
III	26	0	4	0	↓ 85
IVA	77	0	8	0	↓ 90
MIMAROPA	1	0	1	0	0
V	3	0	0	0	↓ 100
VI	24	0	2	0	↓ 92
VII	3	0	2	0	↓ 33
VIII	40	0	1	0	↓ 98
IX	3	0	3	0	0
X	3	0	2	0	↓ 33
XI	3	0	17	0	↑ 467
XII	1	0	7	0	↑ 600
ARMM	0	0	1	0	-
CAR	17	0	1	0	↓ 94
CARAGA	0	0	1	0	-
NCR	26	0	6	0	↓ 77

### Profile of Confirmed Rubella Cases

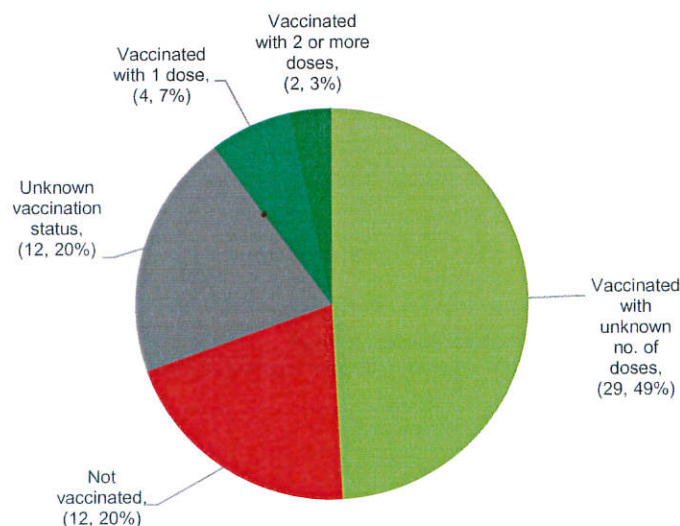
Majority (33, 56%) of the confirmed rubella cases were males. Ages of cases ranged from 10 months to 39 years old (median age of 16 years). Age groups with the most number of cases were: 1-4 years old (14, 24%), 15-19 years old (12, 20%) and 9-11 months old and 25-29 years old (9, 15% each) (Figure 11).

Most (29, 49%) of the confirmed rubella cases were vaccinated but with unknown number of doses. Only 2 cases (3%) were 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 to May 2018 (n=59)**



**Figure 12. Vaccination Status of Confirmed Rubella Cases, Philippines, January to May 2018 (n=59)**





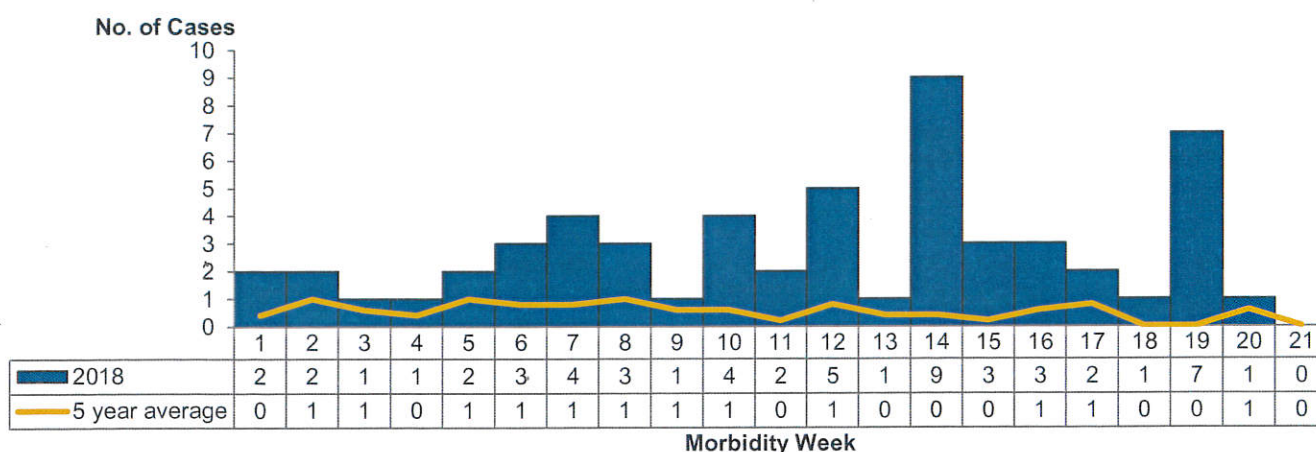


## II. DIPHTHERIA

### Trend in the Philippines

A total of 57 diphtheria cases were reported nationwide from January – May 2018 (Figure 13).

**Figure 13. Reported Diphtheria Cases by Morbidity Week, Philippines, January to May 2018 (N=57)**



### Geographic Distribution

The number of diphtheria cases reported is 30% lower when compared to the same morbidity week period last year. Most of the reported diphtheria cases came from NCR (20, 35%) followed by Region 4A (13, 23%) and Region 3 (11, 19%) (Table 5). Twenty (35%) cases were confirmed via PCR-electrophoresis (19 cases) and Aerobic Culture (1 case). There were three diphtheria clusters identified. A cluster is defined as two (2) or more diphtheria cases from the same barangay reported within four (4) consecutive weeks (Annex A).

**Table 5. Reported Diphtheria Cases by Region, Philippines, January to May 2018 (N=57) vs. 2017 same time period\***

REGION	2017		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
PHILIPPINES	81	19	57	16	↓30%
I	2	0	1	1	↓50%
II	1	1	0	0	↓100%
III	5	1	11	2	↑120%
IVA	11	4	13	3	↑18%
MIMAROPA	1	1	0	0	↓100%
V	0	0	1	1	-
VI	4	1	1	0	↓75%
VII	0	0	2	0	-
VIII	0	0	1	0	-
IX	15	3	0	0	↓100%
X	0	0	0	0	-
XI	3	2	2	1	↓33%
XII	0	0	0	0	-
ARMM	2	1	5	3	↑150%
CAR	4	0	0	0	↓100%
CARAGA	0	0	0	0	-
NCR	33	5	20	5	↓39%

\*From the period of January 1 to May 26, 2018

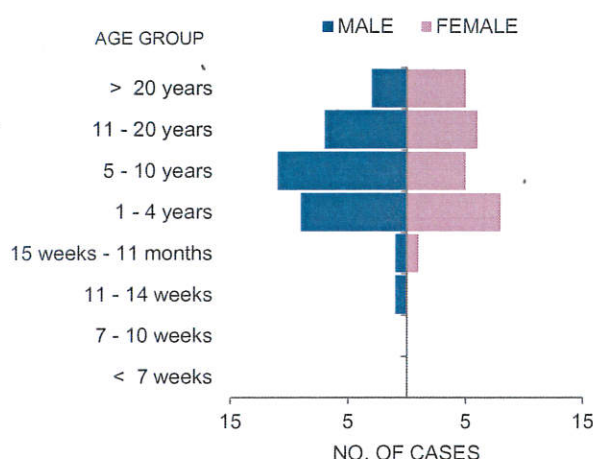


**Profile of Cases**

**A. Suspect cases**

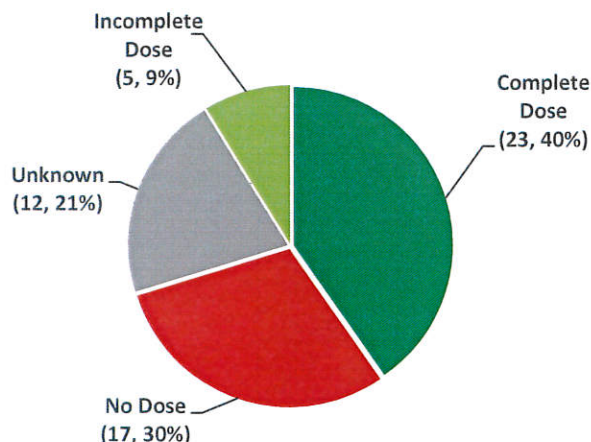
There were **32 males (56%)** and **25 females (44%)** among the reported diphtheria cases. Age of cases ranged from **4 months to 36 years old** (median age of 6 years). Age groups with the most number of cases were **1 - 4 years old (17, 30%)**, followed by 5-10 years old (16, 28%) and 11 - 20 years old (13, 23%) (Figure 14).

**Figure 14. Suspect Diphtheria Cases by Age Group and Sex, Philippines, January to May 2018 (N=57)**



Vaccination status showed that majority (**23, 40%**) of the reported cases received **complete 3 primary doses** of the DPT/Pentavalent vaccine. Seventeen (30%) did not receive a dose of the DPT/Pentavalent vaccine, 12 (21%) with unknown vaccination status while 5 (9%) received an incomplete dose of the vaccine (Figure 15).

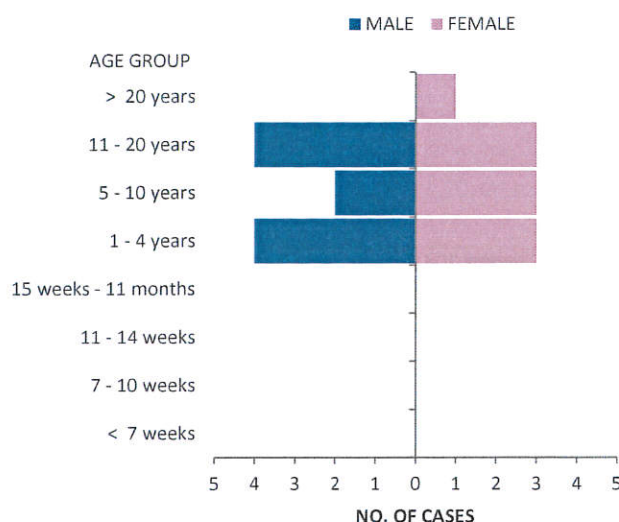
**Figure 15. Suspect Diphtheria Cases by DPT Dose Received, Philippines, January to May 2018 (N=57)**



**B. Confirmed cases**

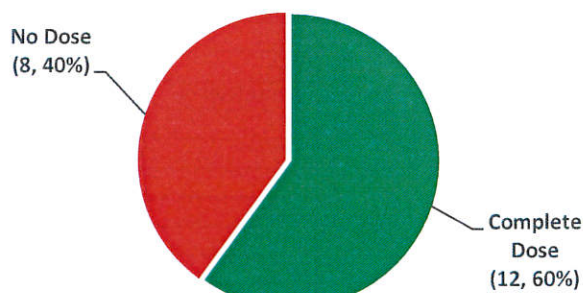
There were **10 females (50%)** and **10 males (50%)** among the confirmed diphtheria cases. Age of cases ranged from 4 months to 36 years old (median age of 6 years). Age groups with the most number of cases were **1 - 4 years old (7, 35%)** and **11 - 20 years (7, 35%)** (Figure 16).

**Figure 16. Confirmed Diphtheria Cases by Age Group and Sex, Philippines, January to May 2018 (n=20)**



Majority (12, 60%) of the confirmed cases received **complete 3 primary doses** of the DPT/Pentavalent vaccine while eight (8) or 40% did not receive a dose of the DPT/Pentavalent vaccine (Figure 17).

**Figure 17. Confirmed Diphtheria Cases by DPT Dose Received, Philippines, January to May 2018 (n=20)**



**Profile of Confirmed Diphtheria Deaths**

There were five deaths (CFR=25%) among the 20 confirmed diphtheria cases. Ages of deaths ranged from **1 year to 8 years old** (median age of 3 years). Deaths came from the following age groups : 1-4 years old (3, 60%) and 5-10 years (2, 40%). Majority (3, 60%) did not receive a dose of the DPT/ Pentavalent vaccine while 2 (40%) received complete 3 primary doses of the vaccine.



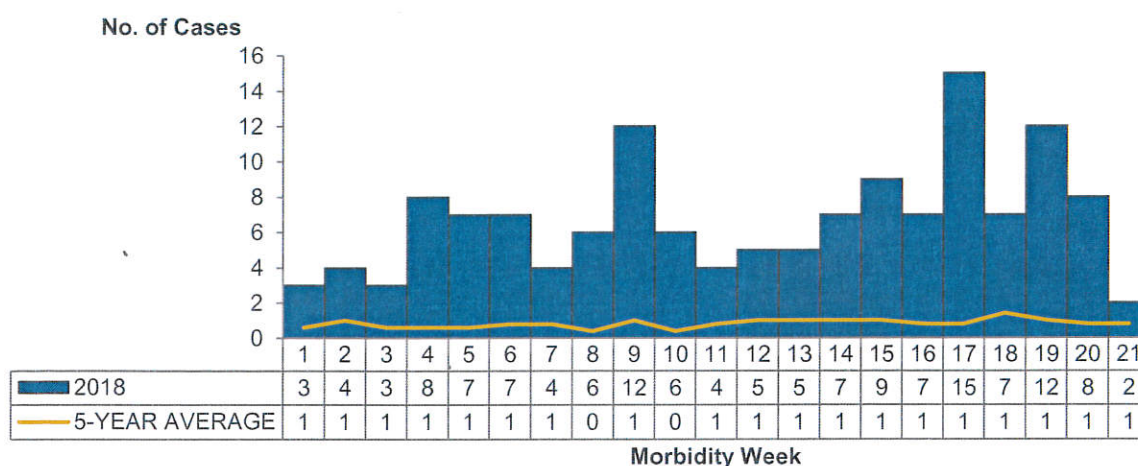


### III. PERTUSSIS

#### Trend in the Philippines

A total of 141 pertussis cases were reported nationwide from January to May 2018 (Figure 18).

**Figure 18. Reported Pertussis Cases by Morbidity Week, Philippines, January to May 2018 (N=141)**



#### Geographic Distribution

The number of pertussis cases reported is 2% higher when compare to the same morbidity week period last year. Majority of the reported pertussis cases came from NCR (31, 22%) followed by Regions III (20, 14%) and IVA (20, 14%) (Table 6). Forty one (29%) cases were confirmed via conventional PCR. Seven pertussis clusters were identified. A cluster is defined as two (2) or more pertussis cases from the same barangay reported within four (4) consecutive weeks (Annex B).

**Table 6. Reported Pertussis Cases by Region, Philippines, January to May 2018 (N=141) vs. 2017 same time period\***

REGION	2017		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
PHILIPPINES	138	13	141	6	↑2%
I	1	0	3	0	↑200%
II	5	1	4	2	↓20%
III	23	3	20	1	↓13%
IVA	34	7	20	1	↓41%
MIMAROPA	0	0	0	0	-
V	1	0	1	0	→0%
VI	1	0	2	0	↑100%
VII	5	0	14	1	↑180%
VIII	1	0	2	0	↑100%
IX	0	0	0	0	-
X	3	0	1	0	↓67%
XI	17	0	18	0	↑6%
XII	4	0	1	0	↓75%
ARMM	2	0	2	0	→0%
CAR	3	0	16	1	↑433%
CARAGA	6	0	6	0	→0%
NCR	32	2	31	0	↓3%

\*From the period of January 1 to May 26, 2018



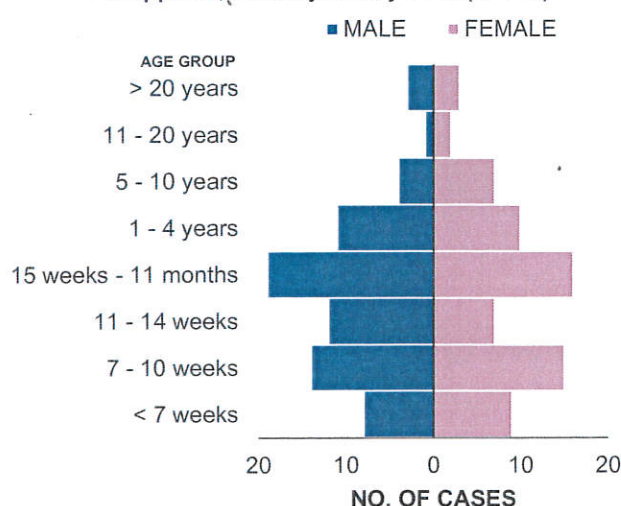


**Profile of Cases**

**A. Suspect cases**

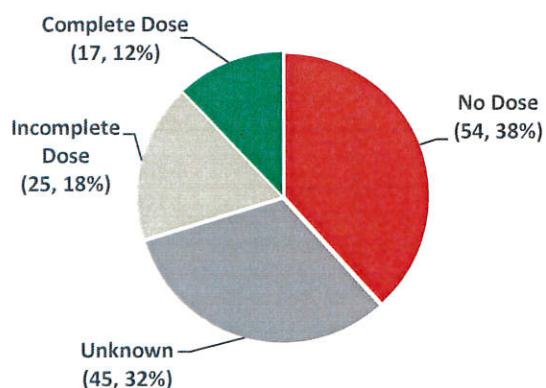
There were **72 (51%) males** and **69 (49%) females** among the reported pertussis cases. Age of cases ranged from **9 days to 77 years old** (median age of 4 months). Age groups with most number of cases were **15 weeks to 11 months** (35,25%), followed by those from the 7-10 weeks old (29,21%) and 1-4 years old (21,15%) group (Figure 19).

**Figure 19. Reported Pertussis Cases by Age Group and Sex, Philippines, January to May 2018 (N=141)**



Majority of the reported cases (**54, 38%**) were **not vaccinated** with the DPT/pentavalent vaccine. Forty five cases (32%) had unknown vaccination status, 25 (18%) received an incomplete dose, while the remaining 17 cases (12%) received complete 3 primary doses of the vaccine (Figure 20).

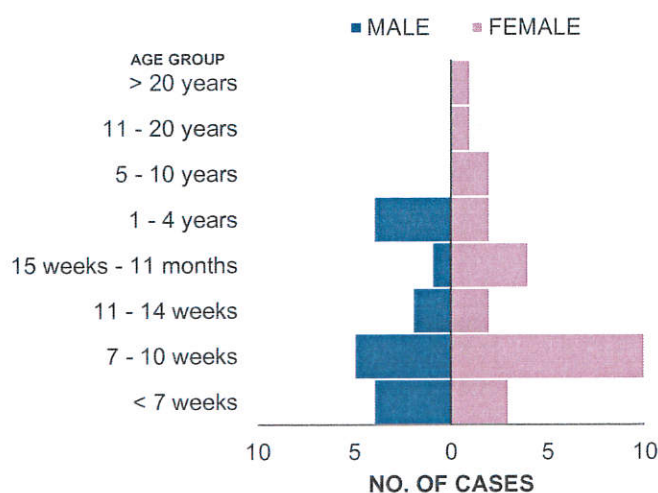
**Figure 20. Suspect Pertussis Cases by DPT Dose Received, Philippines, January to May 2018 (N=141)**



**B. Confirmed cases**

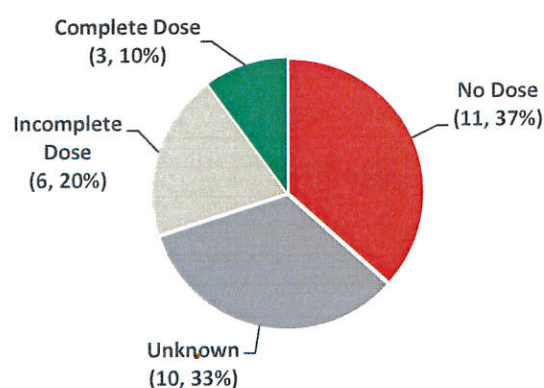
There were **25 females (61%)** and **16 males (39%)** among the confirmed pertussis cases. Age of cases ranged from **21 days to 34 years old** (median age of 2 months). Age groups with the most number of cases were **7 to 10 weeks** (15, 37%), followed by those less than 7 weeks (7, 17%) and 1-4 years old (6, 15%) (Figure 21).

**Figure 21. Confirmed Pertussis Cases by Age Group and Sex, Philippines, January to May 2018 (n=41)**



Majority (**11,37%**) of the confirmed cases were **not vaccinated** with the DPT/Pentavalent vaccine. Ten (10) or 33% had an unknown vaccinated status while 6 cases (20%) received an incomplete dose (Figure 22).

**Figure 22. Confirmed Pertussis Cases by DPT Dose Received, Philippines, January to May 2018 (n=41)**



**Profile of Confirmed Pertussis Deaths**

There were four deaths (CFR=10%) among the 41 confirmed pertussis cases. Ages of deaths ranged from **1 month to 2 years old** (median age of 2 years). All confirmed pertussis deaths did not receive any dose of the DPT/pentavalent vaccine. Number of days from date of onset to date of admission ranged from 2 to 10 days (median of 4 days)



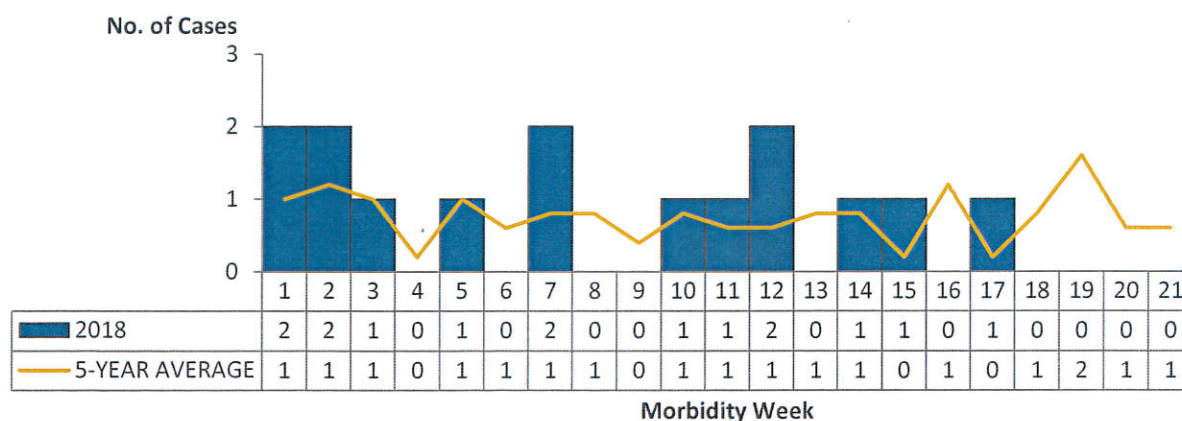


#### IV. NEONATAL TETANUS

##### Trend in the Philippines

A total of **15** clinically confirmed neonatal tetanus (NT) cases were reported nationwide from January – May 2018. The distribution of neonatal tetanus cases for 2018 compared to the 5-year average of cases from 2013 to 2017 is shown below (Figure 23).

**Figure 23. Neonatal Tetanus Cases by Morbidity Week, Philippines, January to May 2018 (N=15)**



##### Geographic Distribution

There has been a **62%** decrease of reported neonatal tetanus cases from 39 cases in 2017 to 15 cases in 2018, same time period. **ARMM** reported the most number of cases (**7, 47%**), followed by Region IX with 3 cases (20%) (Table 7).

**Table 7. Neonatal Tetanus Cases by Region, Philippines, January to May 2018 (N=15) vs. 2017 same time period\***

REGION	2017		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
<b>PHILIPPINES</b>	<b>39</b>	<b>28</b>	<b>15</b>	<b>9</b>	<b>↓62</b>
I	0	0	0	0	-
II	1	1	1	0	→0
III	3	2	1	1	↓67
IVA	2	1	0	0	↓100
MIMAROPA	4	3	0	0	↓100
V	1	1	0	0	↓100
VI	1	1	0	0	↓100
VII	2	2	0	0	↓100
VIII	0	0	2	1	-
IX	1	1	3	2	↑200
X	2	0	0	0	↓100
XI	0	0	0	0	-
XII	7	5	1	0	↓86
ARMM	12	8	7	5	↓42
CAR	0	0	0	0	-
CARAGA	2	2	0	0	↓100
NCR	1	1	0	0	↓100

\*From the period of January 1 to May 26, 2018



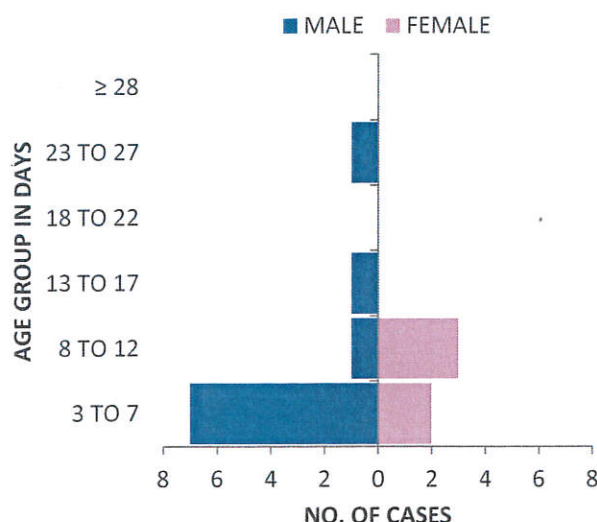


**Profile of Cases**

**A. Age group and Sex**

Ten clinically-confirmed cases (67%) were male. Age of the cases ranged from 3 to 24 days old (median age of 7 days). More than half of the cases were from the 3 to 7 day age group (9, 60%), followed by cases 8 to 12 days old (4, 27%) (Figure 24).

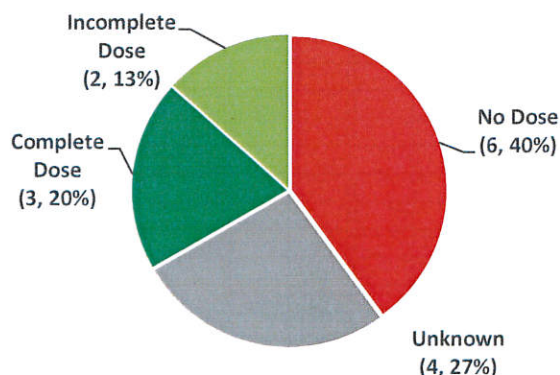
**Figure 24. Clinically Confirmed Neonatal Tetanus Cases by Age Group and Sex, Philippines, January to May 2018 (N=15)**



**B. Vaccination Status of Mother**

Most (6, 40%) of the mothers of clinically confirmed cases did not receive any dose of the tetanus toxoid vaccine, followed by those with unknown vaccination status (4, 27%), complete dose (3, 20%) and those who received an incomplete dose (2, 13%) (Figure 25).

**Figure 25. Clinically Confirmed Neonatal Tetanus Cases by Vaccination Status, Philippines, January to May 2018 (N=15)**



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

Thirteen (86%) of the neonatal tetanus cases were delivered at home, one (7%) at a lying-in clinic and one (7%) at a tricycle. Ten (66%) of the cases were attended by a hilot. Eight (54%) cases had scissors as the common cord cutting tool used. Umbilical stump treatment of majority of the NT cases was alcohol (8, 53%) (Table 8).

**Table 8. Delivery Practices of Clinically Confirmed Neonatal Tetanus Cases, Philippines, January to May 2018 (N=15)**

Delivery Practices	No. of Cases	Percentage
<b>Place of Delivery</b>		
Home	13	86%
Hospital/Lying-In/Clinic	1	7%
Tricycle	1	7%
<b>Delivery Attendant</b>		
Hilot	10	66%
Lay person	2	13%
Midwife	1	7%
Nurse	1	7%
Unknown	1	7%
<b>Cord Cut Tool Used</b>		
Scissors	8	54%
Bamboo	3	20%
Blade	2	13%
Unknown	2	13%
<b>Stump Treatment Used</b>		
Alcohol	8	53%
Unknown	4	27%
Powder	2	13%
None	1	7%

**Profile of Neonatal Tetanus Deaths**

There were nine deaths (CFR=60%) among the 15 neonatal tetanus cases. Ages of deaths ranged from 3 days to 13 days old (median age of 6 days). Deaths came from the following age groups : 3-7 days old (5, 56%), 8 – 12 days (3, 33%) and 13-17 days (1, 11%). Majority (6, 67%) did not receive a dose of the tetanus toxoid vaccine. One (11%) received 1 dose of the vaccine while 2 (22%) had unknown vaccination status.





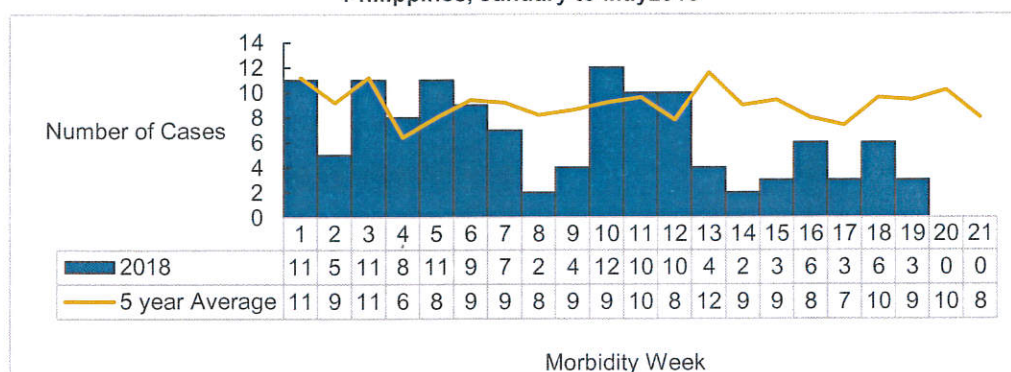
## V. ACUTE FLACCID PARALYSIS

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 127 cases were reported nationwide from January to May 2018. The distribution of AFP cases for 2018 compared to the 5-year average of cases from 2013 to 2017 is shown below (Figure 26).

**Figure 26. Reported Suspect AFP Cases by Morbidity Week (N=127)**  
Philippines, January to May 2018\*



\*From the period of January 1 to May 26, 2018

### Geographic Distribution

From January to May 2018, there was a 44% decrease of AFP cases reported compared to the same time period last year (226). Among the 127 reported AFP cases, 76 (60%) were discarded as non-polio AFP, while 39 (31%) are still pending for 60 day follow-up, expert panel review and for official laboratory result. There were 12 (9%) reported cases that did not fit the case definition and were classified as not AFP. The distribution of reported AFP cases among region is shown below (Table 9).

**Table 9. AFP Cases By Region and Classification (N=127)**  
Philippines, January to May 2018\*

Region	2017	2018*	Classification					Percent Change
	Reported Cases	Reported Cases	Non-Polio (Discarded)	NOT AFP	Pending (39, 31%)			
					For 60-day ff-up	For EPM	For Lab Result	
PHILIPPINES	226	127	76 (60%)	12 (9%)	20	4	15	↓44%
I	24	6	5	0	0	0	1	↓75%
II	11	3	3	0	0	0	0	↓73%
III	30	17	8	1	5	2	1	↓43%
IVA	27	21	12	5	4	0	0	↓22%
MIMAROPA	3	1	1	0	0	0	0	↓67%
V	13	11	9	1	1	0	0	↓15%
VI	16	18	9	0	2	1	6	→13%
VII	4	5	4	0	0	0	1	→25%
VIII	8	8	6	1	1	0	0	→0%
IX	7	3	3	0	0	0	0	↓57%
X	17	3	0	3	0	0	0	↓82%
XI	17	4	1	1	0	1	1	↓76%
XII	14	6	6	0	0	0	0	↓57%
ARMM	4	1	0	0	0	0	1	↓75%
CAR	5	6	3	0	1	0	2	→20%
CARAGA	4	1	1	0	0	0	0	↓75%
NCR	22	13	5	0	6	0	2	↓41%

\*From the period of January 1 to May 26, 2018



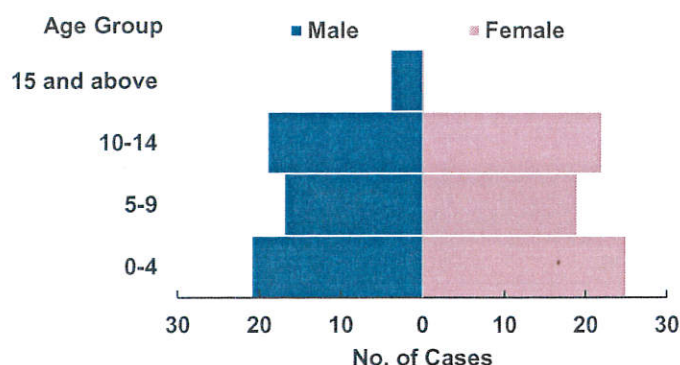


**Profile of Cases**

**A. Age group and Sex**

Sixty-six (66,52%) are female. Age ranges from 9 months to 42 years (median age of 7 years old). Forty-six (46, 36%) of the AFP cases reported belong to 0-4 age group (Figure 27).

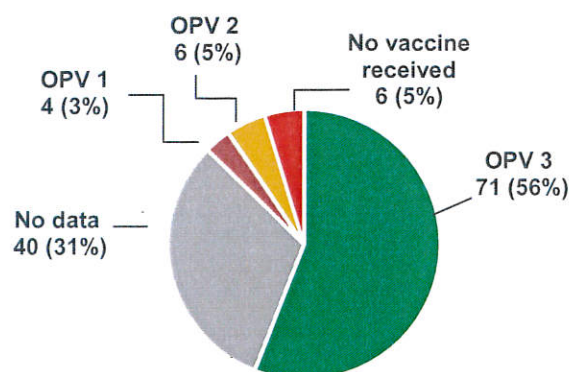
**Figure 27 . AFP Cases by Sex and Age Group (N=127)**  
Philippines, January to May 2018



**B. Vaccination Status**

Among the 127 reported AFP cases, 71 (56%) completed 3 doses of OPV. Forty (31%) had no data (Figure 28).

**Figure 28. Vaccination Status of AFP Cases (N=127)**  
by Dose and Age Group



**C. Laboratory Status**

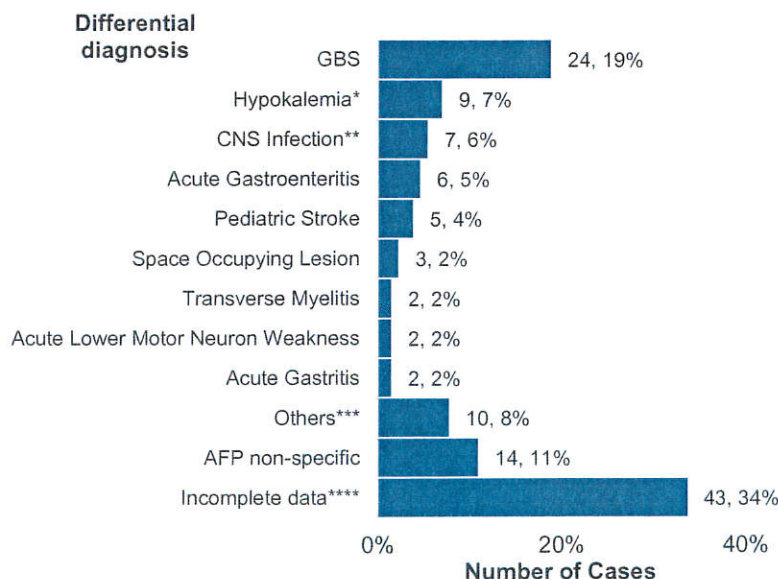
There were no isolated wild poliovirus from January 1 to May 26, 2018. Stool 1 was collected in 120 (94%) AFP cases while Stool 2 was collected in 105 (83%) AFP cases. Two cases had poliovirus Sabin-like type 1 and 3 isolated (Table 10).

**Table 10. Laboratory Status of Reported AFP Cases (N=127)**  
Philippines, January to May 2018

Stool Specimen Result	Stool Specimen 1		Stool Specimen 2	
	Specimen 1	Specimen 2	Specimen 1	Specimen 2
Total	98	92%	88	83%
Negative for poliovirus	82	84%	72	82%
Others				
Poliovirus (Sabin-Like)*	2	2%	2	2%
Non-polio enterovirus (NPEV)	3	3%	3	3%
Pending Lab Results	11	11%	11	13%

\* PV Sabin like type 1,3 (Tarlac); PV Sabin like type 3 (Antipolo)

**D. Differential Diagnosis**



\*Includes Hypokalemic Periodic Paralysis and Electrolyte Imbalance

\*\*Includes Bacterial Meningitis, TB Meningitis

\*\*\*Others: CNS Tumor, Epilepsy, Pneumonia, Protein Energy Malnutrition, Rheumatic Fever, UTI, Systemic Viral Infection, Viral Myositis

\*\*\*\*For verification





**ANNEX A. CLUSTER OF DIPHTHERIA CASES**

MORBIDITY WEEK	REGION	PROVINCE	MUNCITY	BARANGAY	CASES	
					CONFIRMED	SUSPECT
14	4A	CAVITE	DASMARIÑAS	LUZVIMINDA I	0	2
14-15	NCR	METRO MANILA	MANILA	BARANGAY 533	2	0
17-19	ARMM	BASILAN	MALUSO	TOWNSITE (POB.)	0	3

**ANNEX B. CLUSTER OF PERTUSSIS CASES**

MORBIDITY WEEK	REGION	PROVINCE	MUNCITY	BARANGAY	CASES	
					CONFIRMED	SUSPECT
7-10	2	CAGAYAN	BALLESTEROS	FUGU	1	1
15-19	CAR	BENGUET	ITOGON	LOACAN	6	5
16-17	CAR	BENGUET	BOKOD	DACLAN	1	1
16-18	NCR	METRO MANILA	QUEZON CITY	COMMONWEALTH	1	2
18-20	8	LEYTE	PASTRANA	CALSADAHAY	0	2
20	NCR	METRO MANILA	QUEZON CITY	HOLY SPIRIT	0	3
20	11	DAVAO CITY	DAVAO CITY	BARANGAY 23-C (POB.)	0	2