



### 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 April 28, 2018 or Morbidity Weeks 1 - 17 (Table 1).

**Table 1. Summary of Reported Vaccine Preventable Diseases, Philippines, January 1 – April 28, 2018**

Vaccine Preventable Diseases	Total No of Cases	Confirmed Cases		
		Cases	Deaths	CFR %
Measles	6, 494	1,043	16	1.53
Rubella		33	0	0.00
Diphtheria	43	18	5	27.78
Pertussis	96	21	1	4.76
Neonatal Tetanus	-	14	9	62.29
Polio (AFP Surveillance)	106	0	0	-

### 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 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);</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	- A case of acute cough illness of any duration with a positive culture for B. pertussis; OR - A case that meets the clinical case definition and is confirmed by PCR; OR - A case that meets the clinical definition and is epidemiologically linked directly to a case confirmed by either culture or PCR.
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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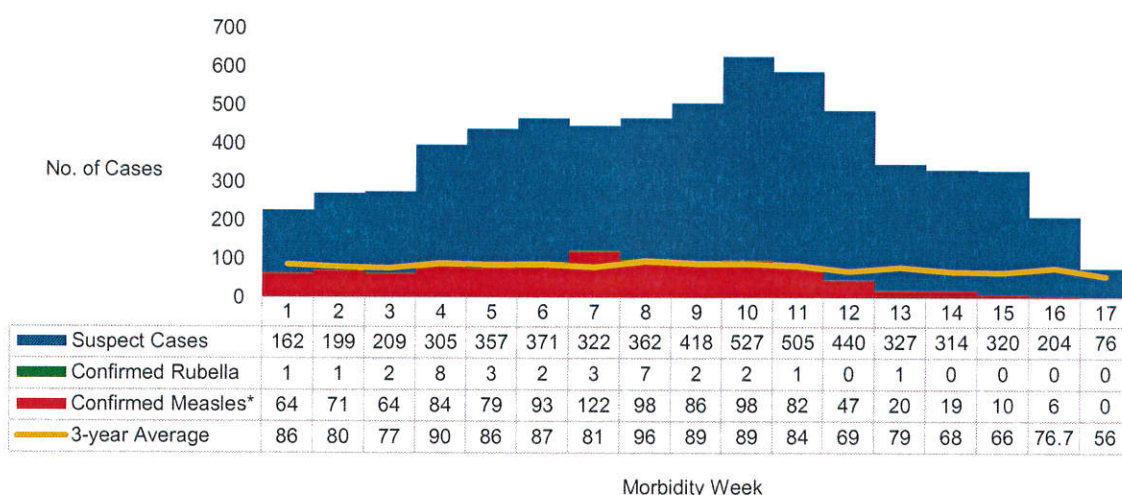
## I. MEASLES-RUBELLA

### Suspect Cases

#### Trend in the Philippines

A total of 6,494 suspect measles-rubella cases were reported from January 1 to April 28, 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 April 2018 (N=6,494)**



\*laboratory-confirmed and epidemiologically-linked measles cases

#### Geographic Distribution

From January to April 2018, cases are 4.1 times as high as the number of cases reported during the same time period last year (1,272). Most of the reported cases were from the following regions: ARMM (1,730, 27%), Region XI (1,017, 16%), Region IX (855, 13%), Region XII (675, 10%) and NCR (614, 9%) (Table 1).

**Table 1. Reported Measles-Rubella Cases by Region, Philippines, January to April 2018 (N=6,494) vs. 2017 same time period\***

Region	2017		2018		% Change
	Cases	Deaths	Cases	Deaths	
<b>PHL</b>	<b>1,272</b>	<b>5</b>	<b>6,494</b>	<b>61</b>	<b>↑ 411</b>
I	159	1	113	0	↓ 29
II	22	0	21	0	↓ 5
III	115	0	202	3	↑ 76
IVA	297	3	217	2	↓ 27
MIMAROPA	20	0	26	0	↑ 30
V	18	0	25	0	↑ 39
VI	56	0	117	0	↑ 109
VII	31	0	151	1	↑ 387
VIII	64	0	12	0	↓ 81
IX	50	0	855	7	↑ 1,610
X	56	0	600	1	↑ 971
XI	38	0	1,017	13	↑ 2,576
XII	42	0	675	6	↑ 1,507
ARMM	30	1	1,730	19	↑ 5,667
CAR	55	0	38	0	↓ 31
CARAGA	19	0	81	0	↑ 326
NCR	200	0	614	9	↑ 207

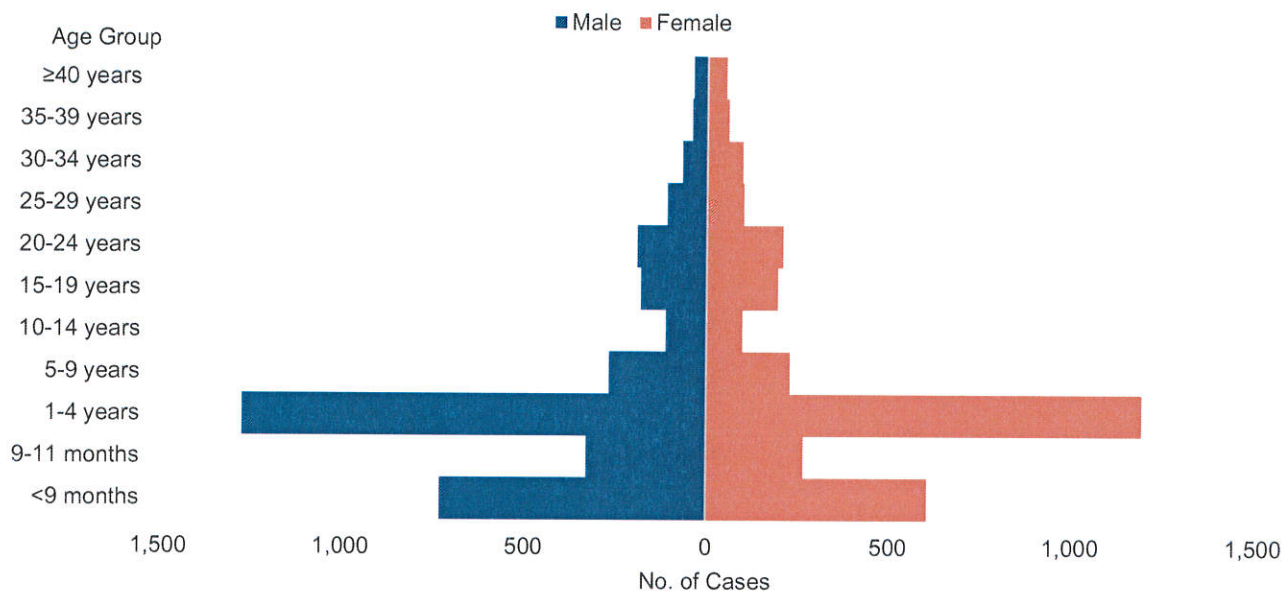
\*From the period of January 1 to April 28, 2018



### Profile of Reported Cases

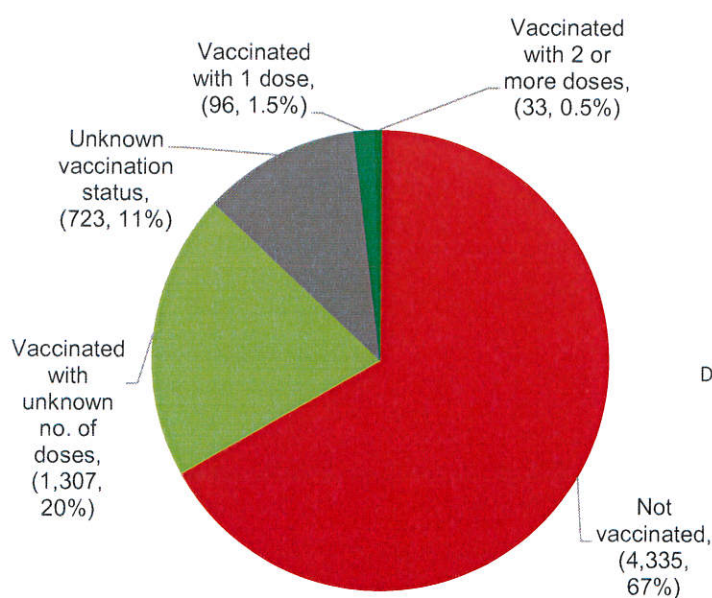
Majority (3,365, 52%) of the reported cases were males. Ages of cases ranged from **less than 1 month to 87 years old** (median age of 2 years). Age groups with the most number of cases were: 1-4 years old (2,466, 38%), less than 9 months old (1,336, 21%) and 9-11 months old (595, 9%) (Figure 2).

**Figure 2. Reported Measles-Rubella Cases by Age Group and Sex, Philippines, January to April 2018 (N=6,494)**

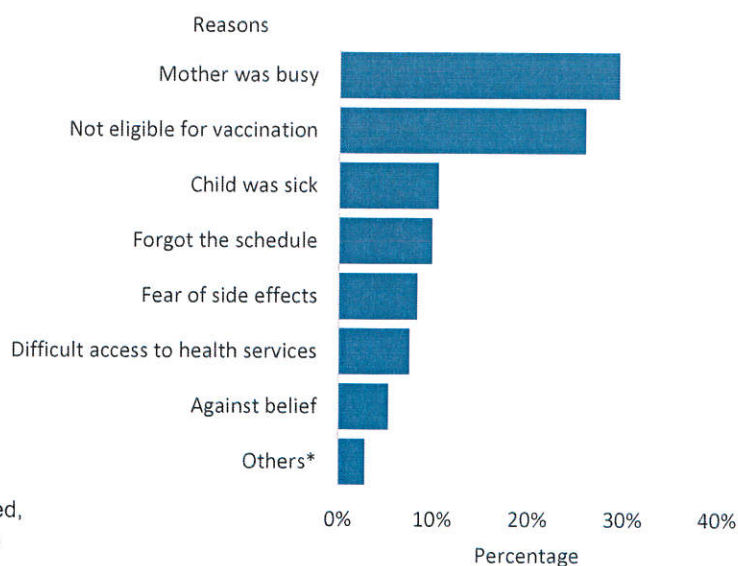


Majority (4,335, 67%) of the cases were not vaccinated (Figure 3). Top reasons for non-vaccination of measles-containing vaccine were: mother was busy (29%), not eligible for vaccination (26%) and child was sick (10%) (Figure 4).

**Figure 3. Vaccination Status of Reported Measles-Rubella Cases, Philippines, January to April 2018 (N=6,494)**



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



\*with data available

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

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 2017 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).

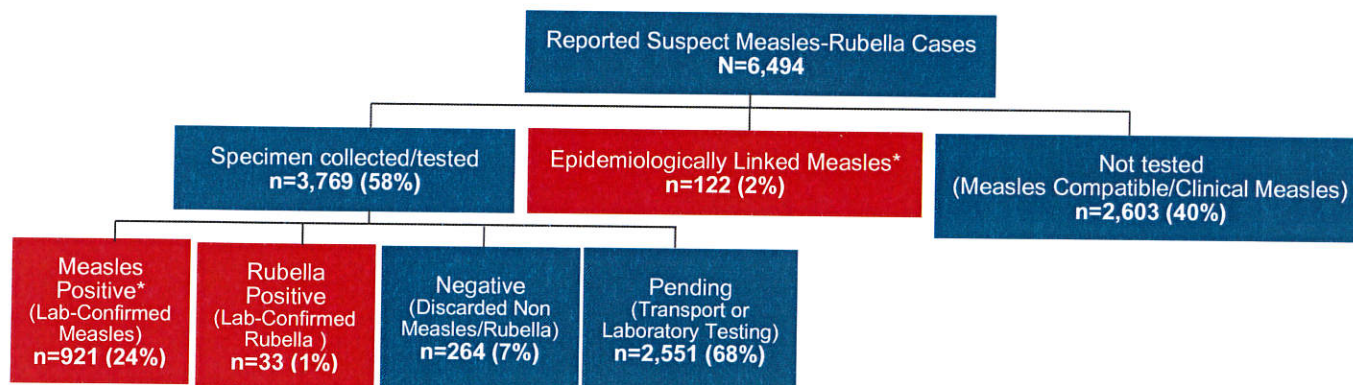




### Case Classification

Among the 6,494 reported cases, a total of 3,769 (58%) cases had specimens collected/tested for measles/rubella IgM and/or PCR. Among the tested cases, **921 (24%)** were positive for measles and **33 (1%)** were positive for rubella. **One hundred twenty two (2%)** 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 April 2018 (N=6,497)**



\*Total of confirmed measles cases (laboratory-confirmed and epidemiologically-linked measles cases) = 1,043

### Confirmed Measles Cases

#### Trend in the Philippines

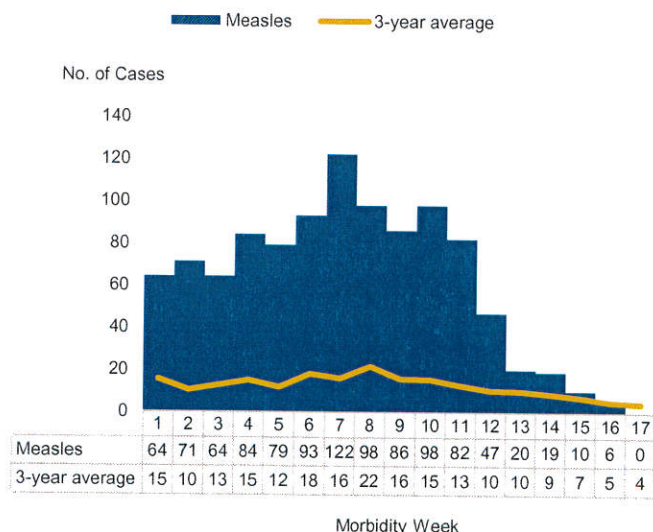
There were 1,043 confirmed measles cases with 16 deaths (CFR=2%). The distribution of confirmed measles cases for 2018 compared to the 3-year average of cases from 2015-2017 is shown in Figure 6.

#### Geographic Distribution

Most of the confirmed measles cases were from the following regions: Region XI (186, 18%), ARMM (177, 17%), NCR (172, 16%), Region IX (131, 13%) and Region XII (126, 12%). Confirmed measles cases in 2018 increased 41 times compared to the same period in 2017 (Table 2).

Top 5 provinces with confirmed cases include: Metro Manila (172, 16%), Davao del Sur (117, 11%), Zamboanga del Sur (85, 8%), Maguindanao (76, 7%) and Lanao del Sur (67, 6%).

**Figure 6. Confirmed Measles Cases by Morbidity Week, Philippines, January to April 2018 (n=1,043)**



**Table 2. Confirmed Measles Cases by Region, Philippines, January to April 2018 (n=1,043) vs. 2017 same time period**

Region	2017		2018		Percent Change
	Cases	Deaths	Cases	Deaths	
<b>PHL</b>	<b>25</b>	<b>0</b>	<b>1,043</b>	<b>16</b>	<b>↑ 4,072</b>
I	3	0	9	0	↑ 200
II	0	0	1	0	-
III	1	0	29	1	↑ 2,800
IVA	5	0	27	1	↑ 440
MIMAROPA	0	0	1	0	-
V	0	0	3	0	-
VI	0	0	20	0	-
VII	0	0	53	0	-
VIII	0	0	2	0	-
IX	7	0	131	0	↑ 1,771
X	1	0	84	1	↑ 8,300
XI	1	0	186	5	↑ 18,500
XII	0	0	126	2	-
ARMM	4	0	177	0	↑ 4,325
CAR	0	0	2	0	-
CARAGA	0	0	20	0	-
NCR	3	0	172	6	↑ 5,633

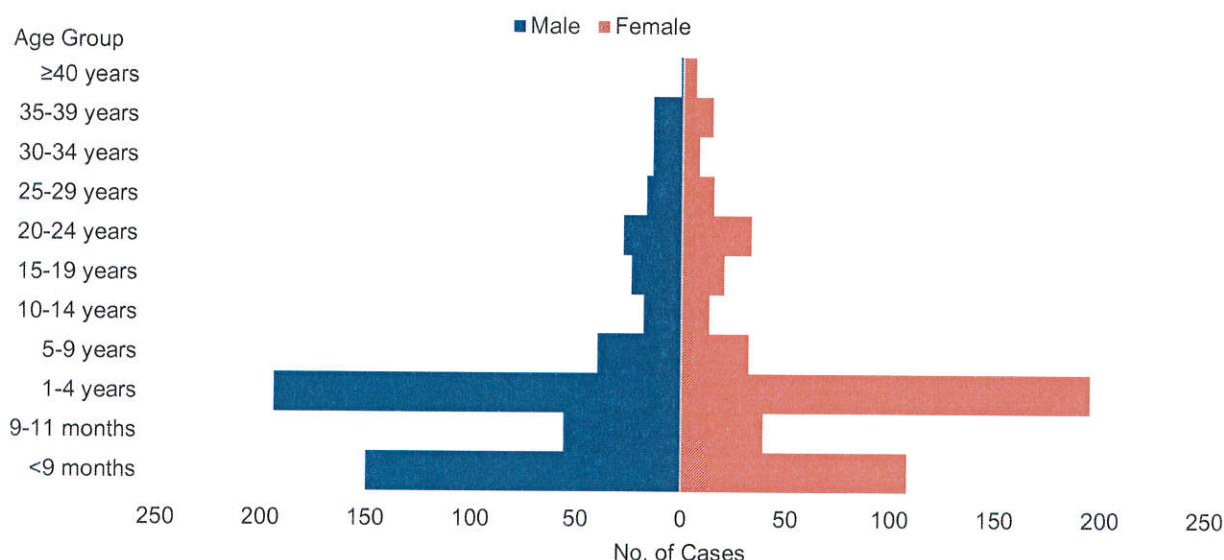




### Profile of Confirmed Measles Cases

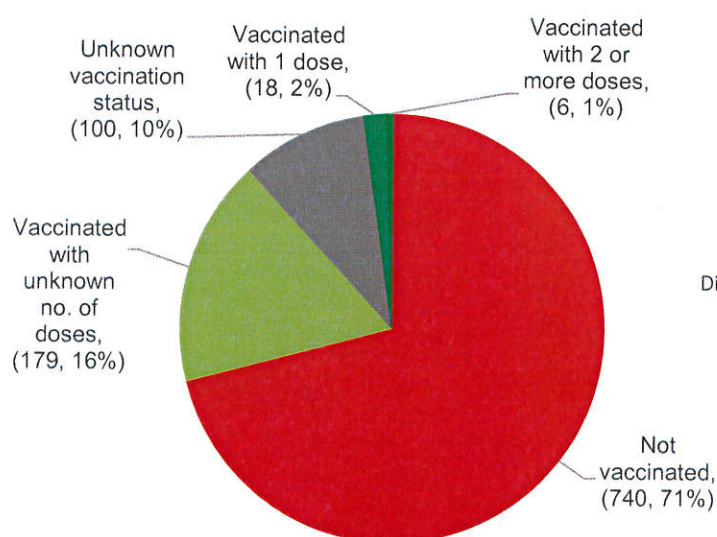
Majority (559, 54%) of the confirmed measles cases were males. Ages of cases ranged from **less than 1 month to 46 years** old (median age of 2 years). Age groups with the most number of cases were: 1-4 years old (389, 37%), less than 9 months old (258, 25%) and 9-11 months old (95, 9%) (Figure 7).

**Figure 7. Confirmed Measles Cases by Age Group and Sex, Philippines, January to April 2018 (n=1,043)**

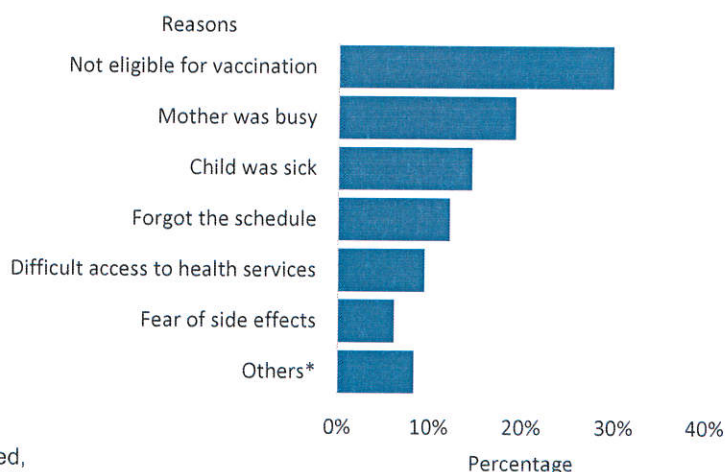


Majority (740, 71%) of the confirmed measles cases were not vaccinated (Figure 8). Top reasons for non-vaccination of measles-containing vaccine among confirmed cases were: not eligible for vaccination (30%), mother was busy (19%) and child was sick (15%) (Figure 9).

**Figure 8. Vaccination Status of Confirmed Measles Cases, Philippines, January to April 2018 (n=1,043)**



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



\*with available data

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

### Profile of Confirmed Measles Deaths

There were 16 deaths (CFR=2%) out of the 1,043 confirmed measles cases. Ages of deaths ranged from **4 months to 3 years** old (median age of 9 months). Age groups of these deaths were: less than 9 months old (7, 44%), 1-4 years old (5, 31%), 9-11 months old (3, 19%) and 1 death with unknown age (6%). Most (11, 69%) of the deaths had pneumonia complications. All died in the hospital with 0 to 28 days (median hospital days of 4 days) interval from date of admission to date of death.





## Confirmed Rubella Cases

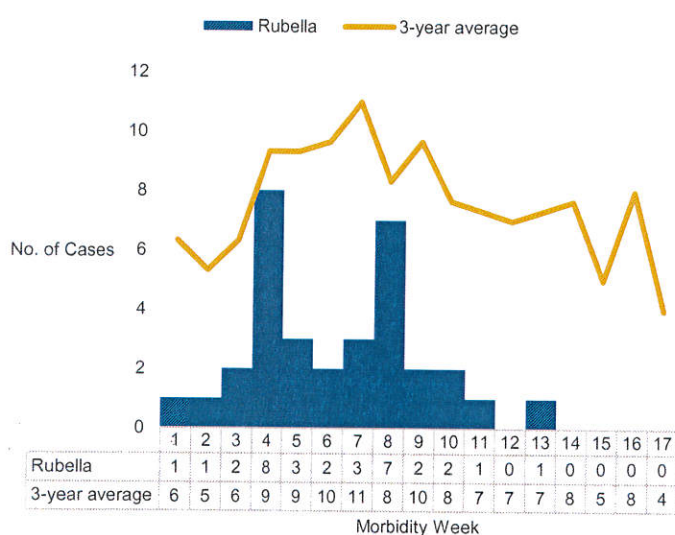
### Trend in the Philippines

There were 33 confirmed rubella cases from January 1 to April 28, 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 (11, 33%), Region IVA (8, 24%) and Region XII (4, 12%). Confirmed rubella cases in 2018 is 86% lower compared to the same time period in 2017 (228). No deaths were reported (Table 3).

**Figure 10. Confirmed Rubella Cases by Morbidity Week, Philippines, January to April 2018 (n=33)**



**Table 3. Confirmed Rubella Cases by Region, Philippines, January to April 2018 (n=33) vs. 2017 same time period**

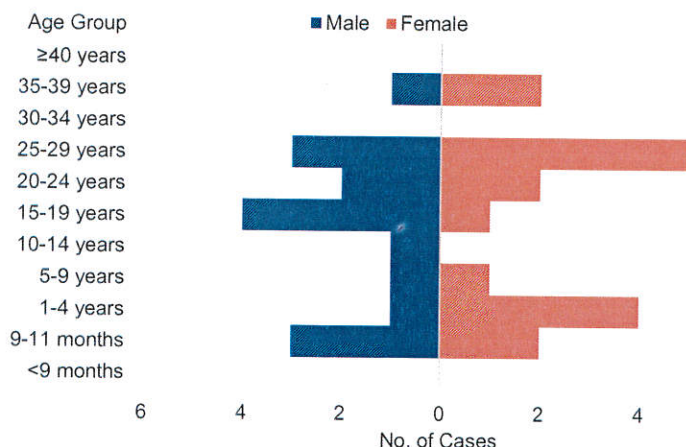
Region	2017		2018		Percent Change
	Cases	Deaths	Cases	Deaths	
PHL	228	0	33	0	↓ -86
I	21	0	0	0	↓ 100
II	2	0	2	0	0
III	24	0	0	0	↓ 100
IVA	69	0	8	0	↓ 88
MIMAROPA	1	0	1	0	0
V	2	0	0	0	↓ 100
VI	18	0	1	0	↓ 94
VII	3	0	1	0	↓ 67
VIII	40	0	0	0	↓ 100
IX	3	0	1	0	↓ 67
X	3	0	2	0	↓ 33
XI	2	0	11	0	↑ 450
XII	1	0	4	0	↑ 300
ARMM	0	0	0	0	0
CAR	14	0	1	0	↓ 93
CARAGA	0	0	0	0	0
NCR	25	0	1	0	↓ 96

### Profile of Confirmed Rubella Cases

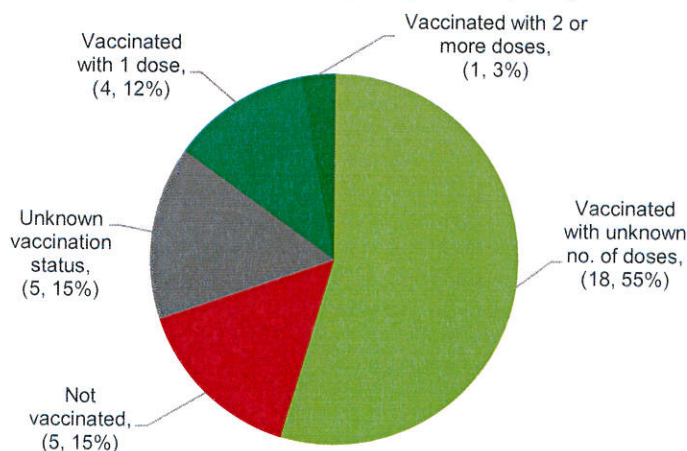
Majority (17, 52%) of the confirmed rubella cases were females. Ages of cases ranged from 10 months to 39 years old (median age of 17 years). Age groups with the most number of cases were: 25-29 years old (8, 24%), 15-19 years, 1-4 years and 9-11 months old (5, 15% each). It can be noted that most of the cases were adults (Figure 11).

Majority (18, 55%) of the confirmed rubella cases were vaccinated but with unknown number of doses. Only 1 case (3%) 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 to April 2018 (n=33)**



**Figure 12. Vaccination Status of Confirmed Rubella Cases, Philippines, January to April 2018 (n=33)**





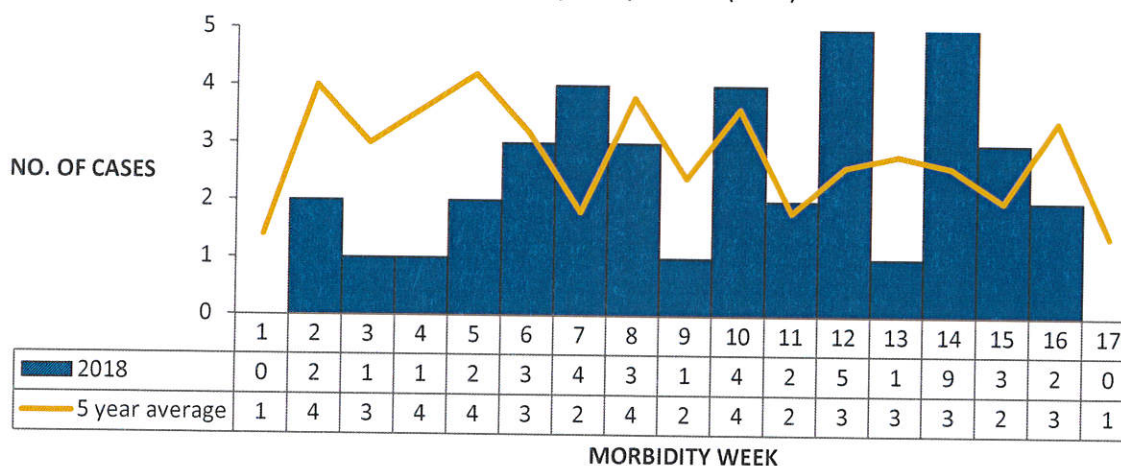


## II. DIPHTHERIA

### Trend in the Philippines

A total of **43** diphtheria cases were reported nationwide from January – April 2018. The distribution of diphtheria cases for 2018 compared to the 5-year average of cases from 2013 to 2017 is shown below (Figure 13).

**Figure 13. Reported Diphtheria Cases by Morbidity Week, Philippines, January to April 2018 (N=43)**



### Geographic Distribution

There has been a **41%** decrease of diphtheria cases from 73 cases in 2017 to 43 cases in 2018, same time period. Most of the reported diphtheria cases came from NCR (16, 37%) followed by Region 4A (10, 23%) and Region 3 (8, 19%) (Table 5). Eighteen (42%) cases were confirmed out of the reported cases. There were two diphtheria clusters identified as of April 2018. A cluster is defined as two (2) or more diphtheria cases from the same barangay reported within four (4) consecutive weeks

**Table 5. Reported Diphtheria Cases by Region, Philippines, January to April 2018 (N=43) vs. 2017 same time period\***

REGION	2017		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
PHILIPPINES	73	17	43	12	↓41
I	1	0	1	1	→0
II	1	1	0	0	↓100
III	5	1	8	2	↑60
IVA	11	4	10	2	↓9
MIMAROPA	1	1	0	0	↓100
V	0	0	1	1	-
VI	2	1	1	0	↓50
VII	0	0	1	0	-
VIII	0	0	1	0	-
IX	14	3	0	0	↓100
X	0	0	0	0	-
XI	2	2	2	1	→0
XII	0	0	0	0	-
ARMM	2	1	2	1	→0
CAR	3	0	0	0	↓100
CARAGA	0	0	0	0	-
NCR	31	3	16	4	↓48

\*From the period of January 1 to April 28, 2018



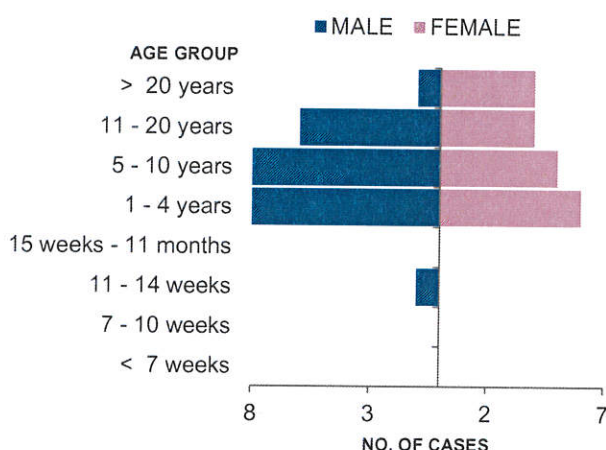


**Profile of Cases**

**A. Suspect cases**

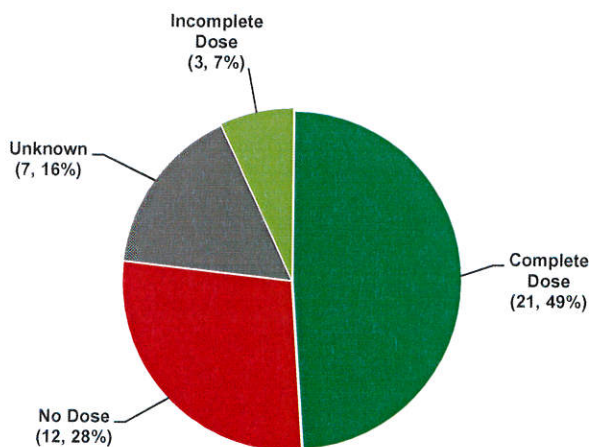
There were **24 males (56%)** and **19 females (44%)** among the reported diphtheria cases. Age of cases ranged from **4 months to 36 years old** (median age of 6 years). Age groups with the most number of cases were **1 - 4 years old (14, 33%)**, followed by 5-10 years old (13, 30%) and 11 - 20 years old (10, 23%) (Figure 14).

**Figure 14. Suspect Diphtheria Cases by Age Group and Sex, Philippines, January to April 2018 (N=43)**



Vaccination status showed almost half (**21,49%**) of the reported cases received **complete 3 primary doses** of the DPT/Pentavalent vaccine. Twelve (28%) did not receive a dose of the DPT/Pentavalent vaccine, 7 (16%) had unknown vaccination status while 3 (7%) received an incomplete dose of the vaccine (Figure 15).

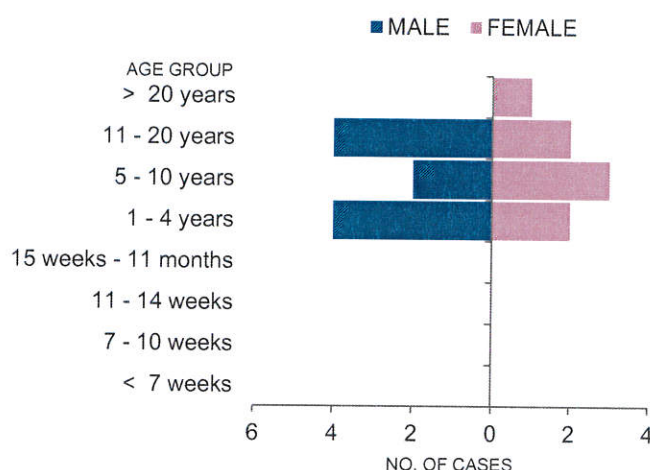
**Figure 15. Suspect Diphtheria Cases by DPT Dose Received, Philippines, January to April 2018 (N=43)**



**B. Confirmed cases**

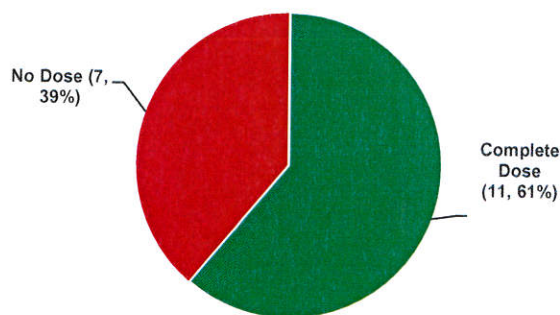
There were **8 females (44%)** and **10 males (56%)** among the confirmed diphtheria cases. Age of cases ranged from 1 year to 22 years old (median age of 7 years). Age groups with the most number of cases were **1 - 4 years old (6, 33%)** and **11 - 20 years (6, 33%)** (Figure 16).

**Figure 16. Confirmed Diphtheria Cases by Age Group and Sex, Philippines, January to April 2018 (n=18)**



Majority (11,61%) of the confirmed cases received **complete 3 primary doses** of the DPT/Pentavalent vaccine while seven (7) or 39% did not receive a dose of the DPT/Pentavalent vaccine (Figure 17).

**Figure 17. Confirmed Diphtheria Cases by DPT Dose Received, Philippines, January to April 2018 (n=18)**



**Profile of Confirmed Diphtheria Deaths**

There were 5 deaths (CFR=28%) among the 18 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.



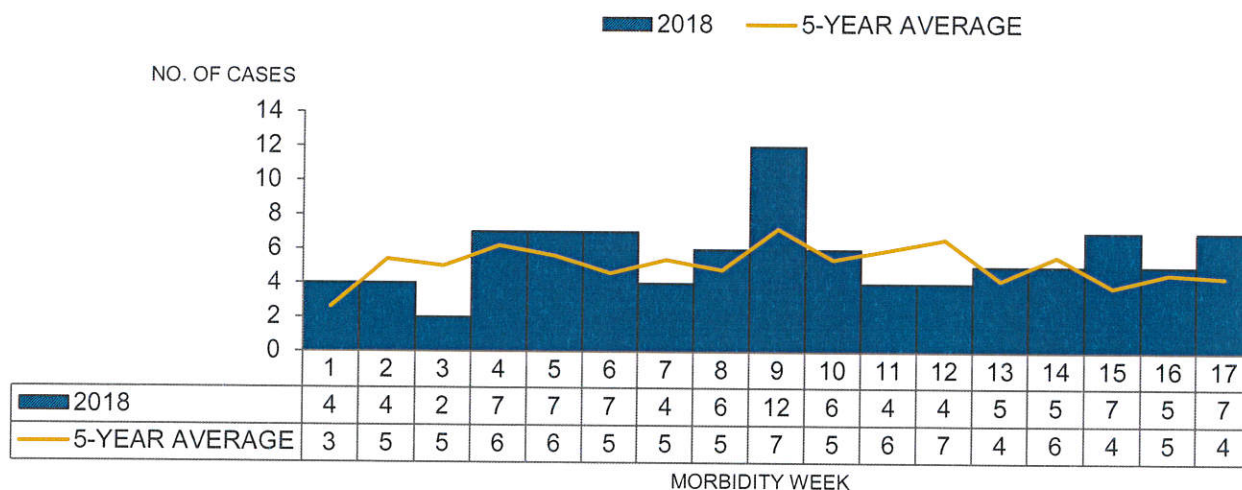


### III. PERTUSSIS

#### Trend in the Philippines

A total of **96** pertussis cases were reported nationwide from January to April 2018. The distribution of pertussis cases for 2018 compared to the 5-year average of cases from 2013 to 2017 is shown below (Figure 18).

**Figure 18. Reported Pertussis Cases by Morbidity Week, Philippines, January to April 2018 (N=96)**



#### Geographic Distribution

There has been a **10%** decrease of reported pertussis cases from 107 cases in 2017 to 96 cases in 2018, same time period. Majority of the reported pertussis cases came from NCR (21, 22%) followed by Region IVA (17, 18%) and Regions III and XI (11 each, 11%) (Table 6). Twenty one (22%) cases were confirmed out of 96 cases. Two pertussis clusters were identified as of April 2018. 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 to April 2018 (N=96) vs. 2017 same time period\***

REGION	2017		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
PHILIPPINES	107	10	96	4	↓10
I	1	0	3	0	↑200
II	5	1	4	2	↓20
III	12	2	11	0	↓8
IVA	30	6	17	1	↓43
MIMAROPA	0	0	0	0	-
V	1	0	1	0	→0
VI	0	0	2	0	-
VII	4	0	9	1	↑125
VIII	1	0	0	0	↓100
IX	0	0	0	0	-
X	2	0	1	0	↓50
XI	17	0	11	0	↓35
XII	4	0	0	0	↓100
ARMM	1	0	0	0	↓100
CAR	0	0	10	0	-
CARAGA	6	0	6	0	→0
NCR	23	1	21	0	↓9

\*From the period of January 1 to April 28, 2018



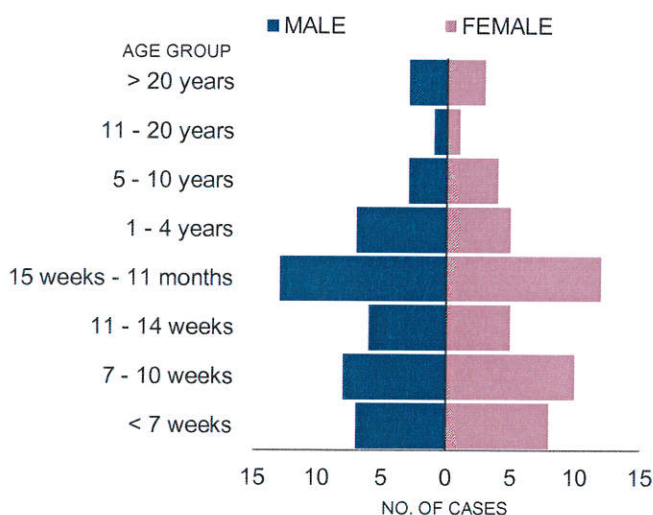


**Profile of Cases**

**A. Suspect cases**

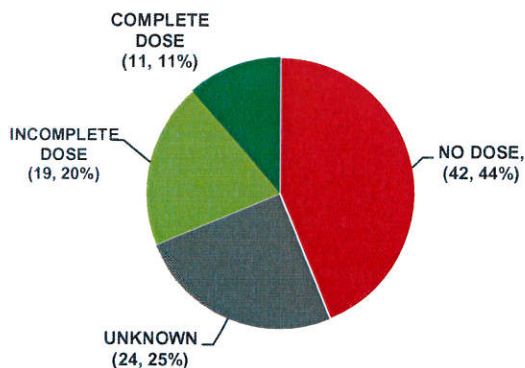
There were **48 (50%) males** and **48 (50%) females** among the reported pertussis cases. Age of cases ranged from **9 days to 77 years old** (median age of 4 months). Age groups with most number of cases were **15 weeks to 11 months** (25,26%), followed by those from the 7-10 weeks old (18,19%) and <7 weeks old (15,16%) group (Figure 19).

**Figure 19. Reported Pertussis Cases by Age Group and Sex, Philippines, January to April 2018 (N=96)**



Majority of the reported cases (**42, 44%**) were **not vaccinated** with the DPT/pentavalent vaccine. Twenty four cases (25%) had unknown vaccination status, 19 (20%) received an incomplete dose, while the remaining 11 cases (11%) received complete 3 primary doses of the vaccine (Figure 20).

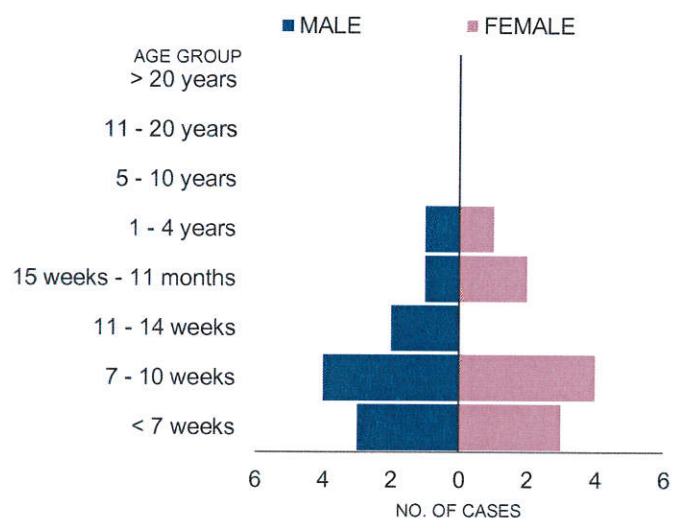
**Figure 20. Suspect Pertussis Cases by DPT Dose Received, Philippines, January to April 2018 (N=96)**



**B. Confirmed cases**

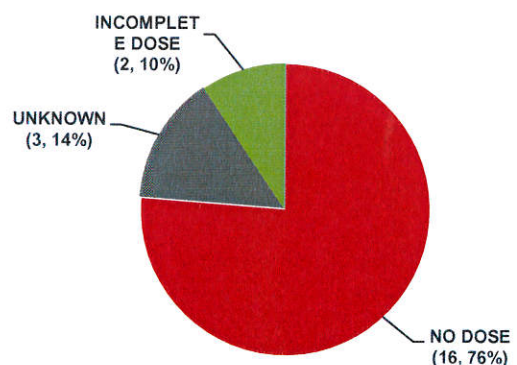
There were **10 females (48%)** and **11 males (52%)** among the confirmed pertussis cases. Age of cases ranged from **21 days to 4 years old** (median age of 2 months). Age groups with the most number of cases were **7 to 10 weeks** (8, 38%), followed by those less than 7 weeks (6, 29%) and 15 weeks to < 1 year (3, 14%) (Figure 21).

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



Majority (**16,76%**) of the confirmed cases were **not vaccinated** with the DPT/Pentavalent vaccine. Three (3) or 14% had an unknown vaccinated status while 2 cases (10%) received an incomplete dose (Figure 22).

**Figure 22. Confirmed Pertussis Cases by DPT Dose Received, Philippines, January to March 2018 (n=21)**



**Profile of Confirmed Pertussis Death**

There was 1 death (CFR=4.76%) among the 21 confirmed pertussis cases. The case was a 1 month old Male from Abulug, Cagayan who was not vaccinated with the DPT/Pentavalent vaccine.



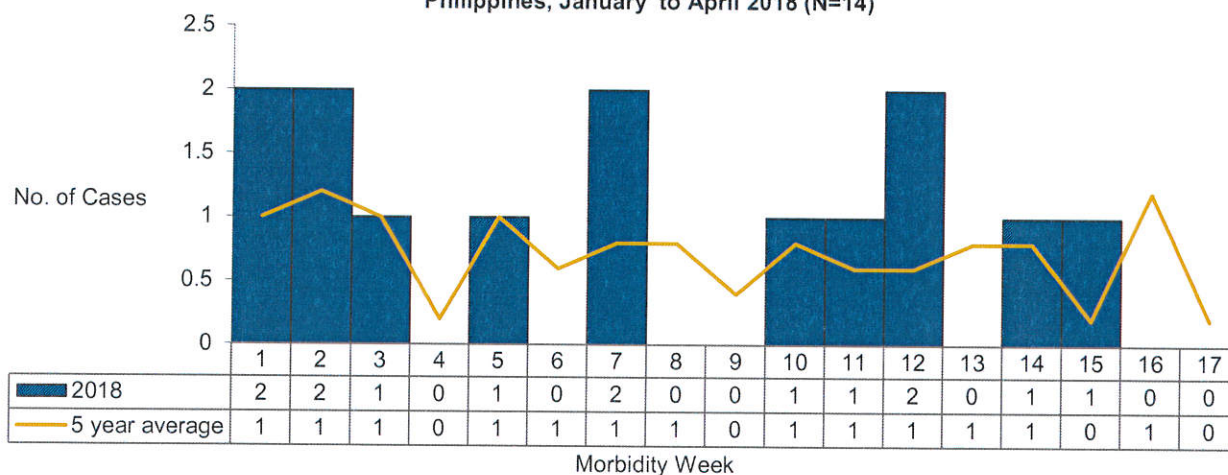


#### IV. NEONATAL TETANUS

##### Trend in the Philippines

A total of **fourteen (14)** clinically confirmed neonatal tetanus (NT) cases were reported nationwide from January – April 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 April 2018 (N=14)**



##### Geographic Distribution

There has been a **50%** decrease of reported neonatal tetanus cases from 28 cases in 2017 to 14 cases in 2018. **ARMM** reported the most number of cases (**7, 50%**), followed by Region IX with 3 cases (21%) (Table 7).

**Table 7. Neonatal Tetanus Cases by Region, Philippines, January to April 2018 (N=14) vs. 2017 same time period\***

REGION	2017		2018		PERCENT CHANGE
	CASES	DEATHS	CASES	DEATHS	
<b>PHILIPPINES</b>	<b>28</b>	<b>23</b>	<b>14</b>	<b>9</b>	<b>↓50</b>
I	0	0	0	0	-
II	1	1	1	0	→0
III	2	1	1	1	↓50
IVA	1	0	0	0	↓100
MIMAROPA	3	3	0	0	↓100
V	1	1	0	0	↓100
VI	1	1	0	0	↓100
VII	1	1	0	0	↓100
VIII	0	0	1	1	-
IX	1	1	3	2	↑200
X	0	0	0	0	-
XI	0	0	0	0	-
XII	5	4	1	0	-80
ARMM	9	7	7	5	↓22
CAR	0	0	0	0	-
CARAGA	2	2	0	0	↓100
NCR	1	1	0	0	↓100

\*From the period of January 1 to April 28, 2018



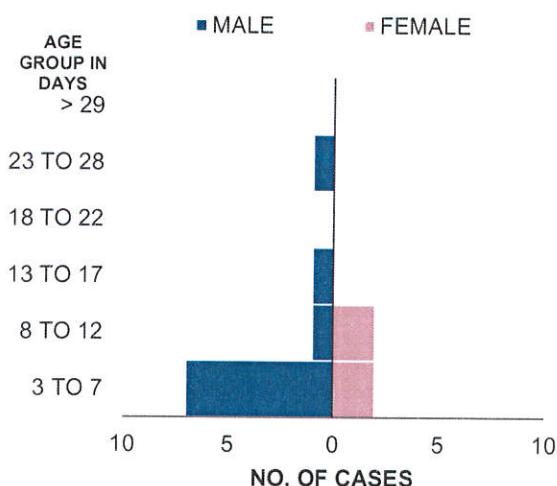


**Profile of Cases**

**A. Age group and Sex**

Ten clinically-confirmed cases (71%) 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, 64 %), followed by cases 8 to 12 days old (3, 21%) (Figure 24).

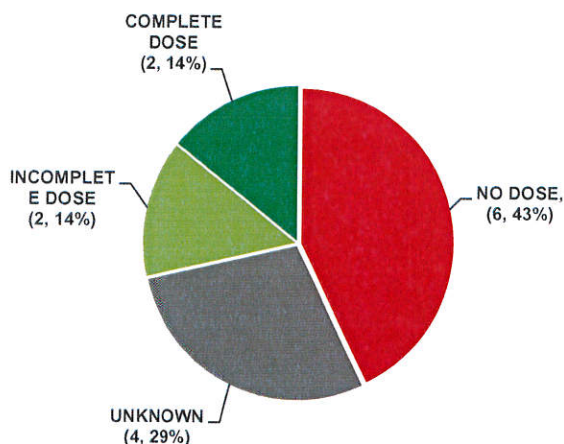
**Figure 24. Clinically Confirmed Neonatal Tetanus Cases by Age Group and Sex, Philippines, January to April 2018 (N=14)**



**B. Vaccination Status**

Most (6, 43%) 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, 29%), incomplete dose (2, 14%) and those who received a complete dose (2, 14%) (Figure 25).

**Figure 25. Clinically Confirmed Neonatal Tetanus Cases by Vaccination Status, Philippines, January to April 2018 (N=14)**



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

In terms of delivery practices, thirteen (93%) of the neonatal tetanus cases were delivered at home, while 1 (7%) was delivered at a lying-in clinic. Ten (72%) of the cases were attended by a hilot. Seven (50%) cases had scissors as the common cord cutting tool used. Umbilical stump treatment of majority of the NT cases was alcohol (8, 57%) (Table 8).

**Table 8. Delivery Practices of Clinically Confirmed Neonatal Tetanus Cases, Philippines, January to April 2018 (N=14)**

Delivery Practices	No. of Cases	Percentage
<b>Place of Delivery</b>		
Home	13	93%
Hospital/Lying-In/Clinic	1	7%
<b>Delivery Attendant</b>		
Hilot	10	72%
Lay person	2	14%
Midwife	1	7%
Unknown	1	7%
<b>Cord Cut Tool Used</b>		
Scissors	7	50%
Bamboo	3	22%
Blade	2	14%
Unknown	2	14%
<b>Stump Treatment Used</b>		
Alcohol	8	57%
Unknown	4	29%
Powder	1	7%
None	1	7%

**Profile of Neonatal Tetanus Deaths**

There were 9 deaths (CFR=64.29%) among the 14 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.





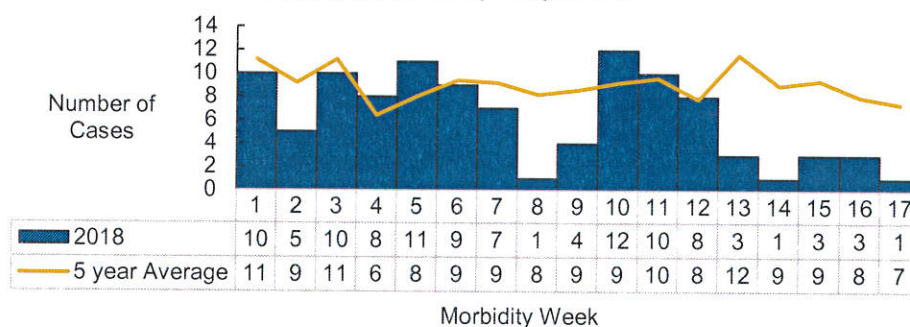
## V. ACUTE FLACCID PARALYSIS

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 **one hundred six (106)** cases were reported nationwide from January to April 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 AFP Cases by Morbidity Week (N=106)**  
**Philippines, January to April 2018\***



\*From the period of January 1 to April 28, 2018

### Geographic Distribution

From January to April 2018, there was a 43% decrease of AFP cases reported compared to the same time period last year (185). Among the 106 reported AFPs, 59 (55.7%) have been *discarded as non-polio AFP*, while 35 (33%) are still pending for 60 day follow-up, expert panel review and for official laboratory result. There were 12 (11.3%) 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=106)**  
**Philippines, January to April 2018\***

Region	2017	2018*	Classification					Percent Change
	Reported Cases	Reported Cases	Non-Polio (Discarded)	NOT AFP	Pending (35, 33%)			
					For 60-day ff-up	For EPM	For Lab Result	
PHILIPPINES	185	106	59 (55.7%)	12 (11.3%)	21	5	9	↓43
I	20	6	5	0	0	0	1	↓70
II	6	2	2	0	0	0	0	↓67
III	27	13	5	1	5	2	0	↓52
IVA	22	19	10	4	4	1	0	↓14
MIMAROPA	3	1	1	0	0	0	0	↓67
V	12	10	8	1	1	0	0	↓17
VI	12	13	7	0	3	1	2	↑8
VII	3	4	3	0	0	0	1	↑33
VIII	6	8	5	1	1	0	1	↑33
IX	6	2	2	0	0	0	0	↓67
X	14	3	0	3	0	0	0	↓79
XI	12	4	1	1	0	1	1	↓67
XII	14	6	5	0	0	0	1	↓57
ARMM	4	0	0	0	0	0	0	↓100
CAR	5	4	1	1	1	0	1	↓20
CARAGA	3	1	1	0	0	0	0	↓67
NCR	16	10	3	0	6	0	1	↓38

\*From the period of January 1 to April 28, 2018



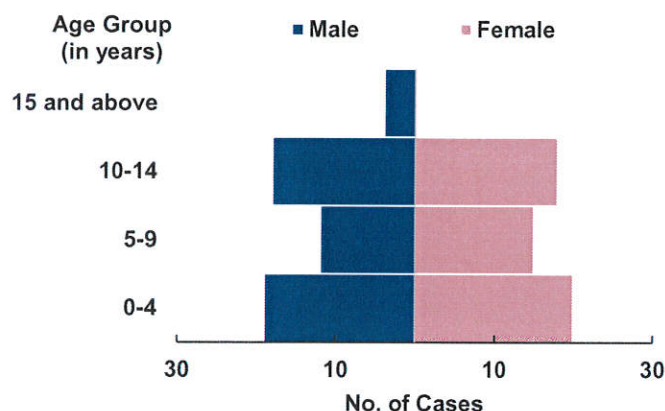


## Profile of Cases

### A. Age group and Sex

There is an equal distribution of males and females among the AFP cases reported. Age ranges from 9 months to 42 years (median age of 7 years old). Thirty-nine (37%) of the AFP cases reported belong to 0-4 age group (Figure 27).

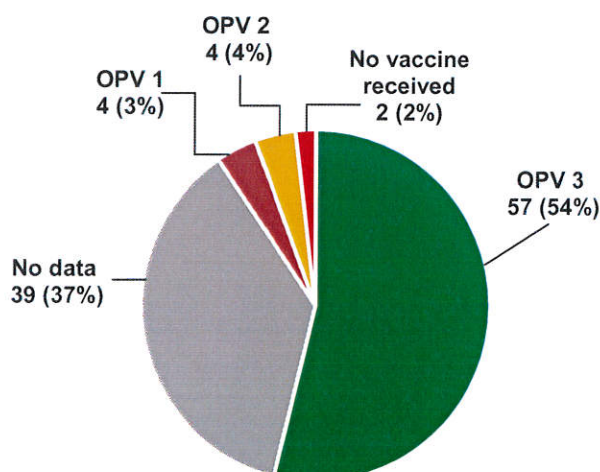
**Figure 27 . AFP Cases by Sex and Age Group (N=106)**  
Philippines, January to April 2018



### B. Vaccination Status

Among the 106 reported AFPs, 57 (54%) completed their 3 doses of OPV. Thirty-nine (37%) had no data (Figure 28).

**Figure 28. Vaccination Status of AFP Cases (N=106)**  
by Dose and Age Group  
Philippines, January to April 2018



### C. Laboratory Status

There were no isolated wild poliovirus from January 1 to April 28, 2018. Among 106 AFP cases, 98 (92%) had Stool 1. 88 (83%) had Stool 2. Two cases had poliovirus Sabin-like type 1 and 3 isolated (Table 10).

**Table 10. Laboratory Status of Reported AFP Cases (N=106)**  
Philippines, January to April 2018

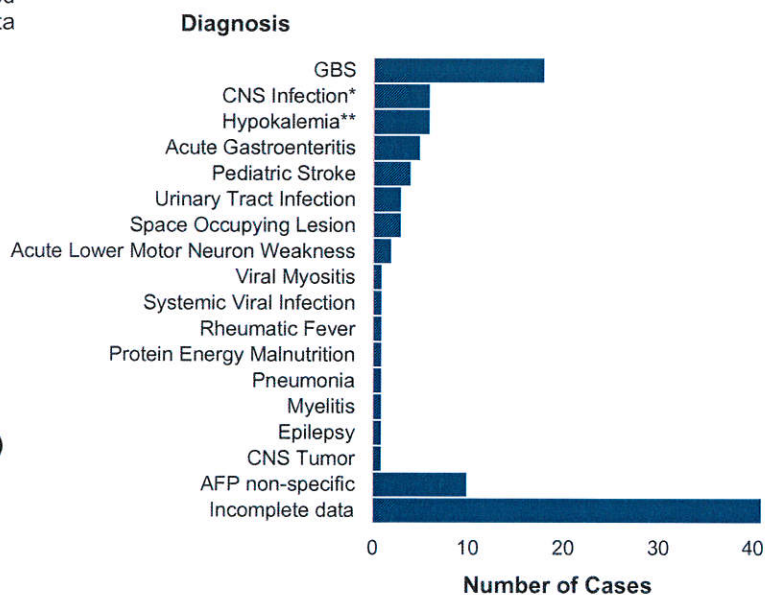
Stool Specimen Result	Stool Specimen 1		Stool Specimen 2	
<b>Total</b>	<b>98</b>	<b>92%</b>	<b>88</b>	<b>83%</b>
Negative for poliovirus	82	84%	72	82%
Others				
Poliovirus (Sabin-Like)*	2	2%	2	2%
Non-polio enterovirus (NPEV)	3	3%	3	3%
Pending Lab Results	11	11%	11	13%

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

### D. Differential Diagnosis

The top diagnosis among AFP cases reported were Guillain Barre Syndrome or GBS (18,17%), CNS Infection\* (6,6%) and hypokalemia\*\* (6,6%) (Figure 22).

**Figure 29. AFP Cases by Differential Diagnosis (N=106)**  
Philippines, January to April 2018



\*Includes Bacterial Meningitis, TB Meningitis

\*\*Includes Hypokalemic Periodic Paralysis and Electrolyte Imbalance