



Morbidity Week 26: January 1 – July 1, 2017

Epidemiology Bureau  
Public Health Surveillance Division

### CLASSIFICATION OF ACUTE FLACCID PARALYSIS (AFP) CASES

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.

A total of 193 AFP cases were reported nationwide from January 1 to July 1, 2017 (Figure 1). Of these, 142 (74%) were **discarded as non-polio AFP**, 13 (7%) did not fit the standard case definition and were classified as **Not AFP**, 37 (19%) are still pending for classification and 1 (1%) was classified as **vaccine associated paralytic polio (VAPP)** (Table 2).

About 122 (63%) of the reported AFP cases have adequate stool specimen, while the rest are either with complete stool but with more than 14 days of specimen collection (34, 18%), 25 (13%) had no stool specimen collected and a portion (12, 6%) had only 1 stool specimen collected.

FIGURE 1. CLASSIFICATION ACUTE FLACCID PARALYSIS CASES,  
PHILIPPINES, JANUARY 1 – JULY 1, 2017 (N=193)

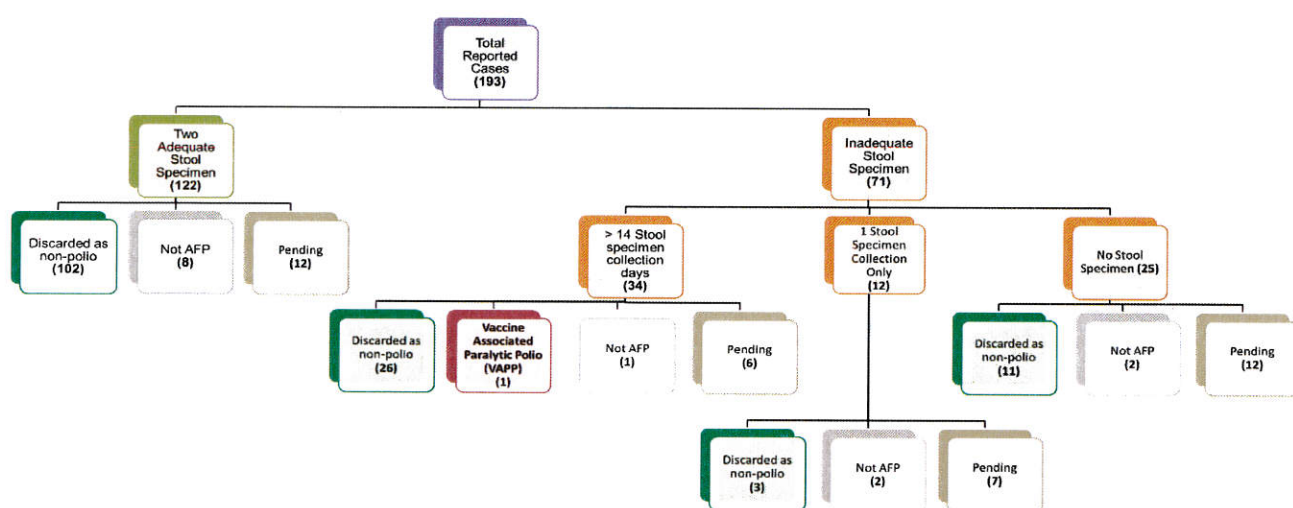


TABLE 1. AFP CASES BY REGION AND CLASSIFICATION  
PHILIPPINES, JANUARY 1 – JULY 1, 2017 (N=193)

REGION	2017 Target AFP Cases 2/100k	2017 Target AFP Cases 1/100k	Reported Cases as of MW 26	Classification				Total Number of Classified Cases
				Non-Polio (Discarded)	VAPP	NOT AFP	Pending	
Region I	40	20	24	22	0	2	0	24
Region II	27	14	10	8	0	1	1	9
Region III	87	43	11	8	0	0	3	8
Region IVA	111	56	20	14	1	3	2	18
Region IVB	24	12	3	2	0	0	1	2
Region V	48	24	16	12	0	0	4	12
Region VI	35	18	11	8	0	0	3	8
Region VII	47	24	6	6	0	0	0	6
Region VIII	36	18	6	3	0	1	2	4
Region IX	30	15	7	2	0	2	3	4
Region X	37	18	16	10	0	2	4	12
Region XI	42	21	18	9	0	2	7	11
Region XII	36	18	13	13	0	0	0	13
ARMM	30	15	4	3	0	0	1	3
CAR	14	7	5	5	0	0	0	5
CARAGA	21	11	3	3	0	0	0	3
NCR	98	49	13	8	0	0	5	8
NIR	36	18	7	6	0	0	1	6
<b>PHIL</b>	<b>800</b>	<b>400</b>	<b>193</b>	<b>142</b>	<b>1</b>	<b>13</b>	<b>37</b>	<b>156</b>





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**TABLE 2. STOOL SPECIMEN RESULT AMONG REPORTED AFP CASES, PHILIPPINES, JAN. 1 – JUL 1, 2017, (N= 193)**

Stool Specimen Result	Stool Specimen 1		Stool Specimen 2	
Positive for poliovirus	0	0%	0	0%
Negative for poliovirus	138	72%	132	68%
Sabin-like poliovirus	2	1%	2	1%
Non-polio enterovirus	12	6%	9	5%
Not Tested	26	13%	38	20%
Pending Lab Results	15	8%	12	6%
<b>Total</b>	<b>193</b>	<b>100%</b>	<b>193</b>	<b>100%</b>

#### VIRUS ISOLATION AND GENOTYPING

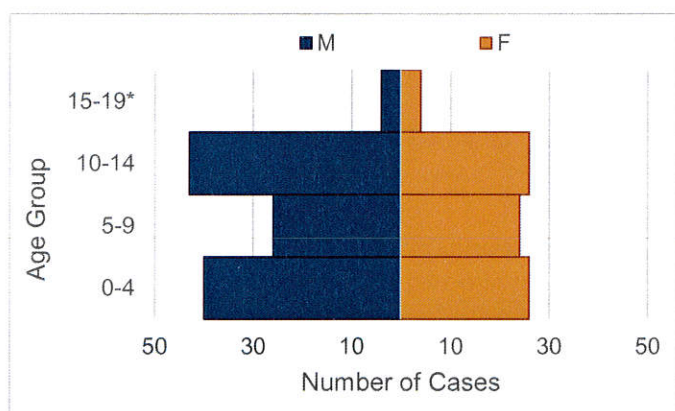
Table 2 shows the AFP stool specimen test results from the National Polio Laboratory (NPL) of the Research Institute of Tropical Medicine (RITM). There were **0** isolated poliovirus from January 1 to July 1, 2017. Among the **193** cases, **138 (72%)** from from the 1<sup>st</sup> stool specimen and **132 (68%)** from the 2<sup>nd</sup> stool specimen tested negative for poliovirus. Two (**2**) cases had viral isolation of Sabin-like poliovirus type 1 and 3 from both stool 1 and stool 2 specimen. These cases were reported from Regions IV-A and XI respectively.

#### PROFILE OF CASES

Among the reported AFP cases, **113 (59%)** are Males and **80 (41%)** are Females. Most of the AFP cases reported belong to the 10-14 age group (**69, 36%**) (Figure 2).

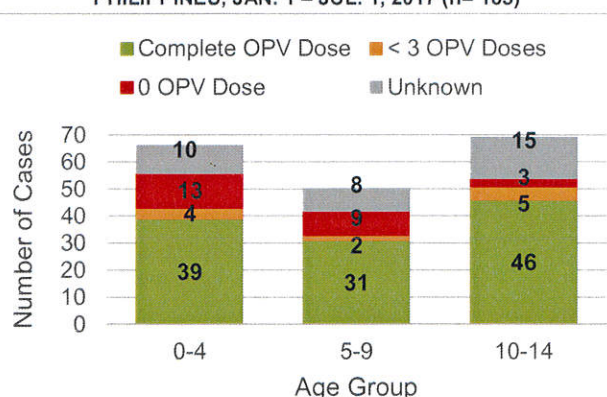
Information on the immunization status of reported cases are essential for the EPI coordinators in choosing appropriate strategies on targeting specific age groups for immunization. Between ages 0-14 yrs old, only **116 (63%)** had completed their OPV dose; the rest of the cases had 0 OPV dose, incomplete OPV dose received or unknown. (Figure 3).

**FIGURE 2 . AFP REPORTED CASES BY SEX AND AGE GROUP, PHILIPPINES, JAN. 1 – JUL. 1, 2017 (N=193)**

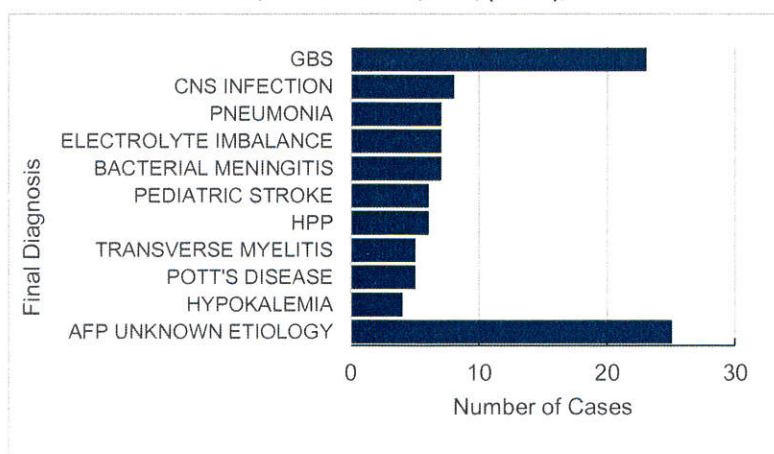


\*Not AFP cases

**FIGURE 3 . IMMUNIZATION STATUS AMONG AFP CASES BY POLIO VACCINATION DOSE AND AGE GROUP, PHILIPPINES, JAN. 1 – JUL. 1, 2017 (n= 185)**



**FIGURE 4 . TOP 10 DIAGNOSIS OF NON-POLIO AFP CASES, PHILIPPINES, JAN. 1 – JUL. 1, 2017, (n=141),**



The differential diagnosis of AFP includes but is not limited to, poliomyelitis, Guillain Barre Syndrome (GBS), traumatic neuritis and transverse myelitis. These four are the common diseases that represent the most common causes of AFP; however, there are other differential diagnosis that have numerous etiologies. Hence, any diseases that represents AFP, even if diagnosed as disease other than polio by the physician should be reported and collected with stool specimen. Figure 4 shows that GBS is the most common disease among the non-polio AFP cases reported.





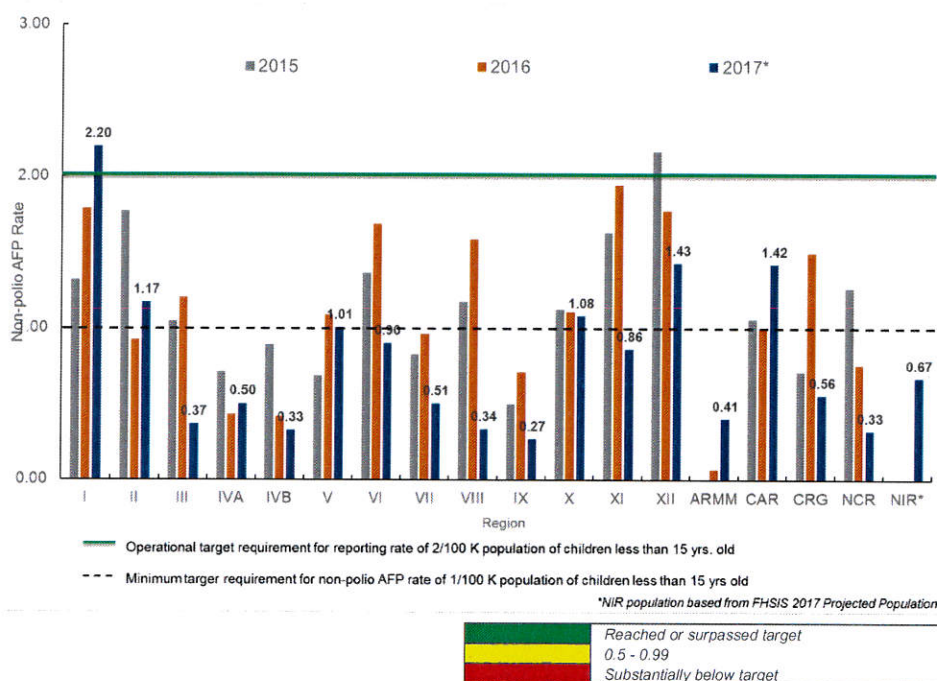
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**SURVEILLANCE PERFORMANCE INDICATORS - AFP REPORTING RATE AND NON-POLIO AFP RATE**

From January 1 to July 1, 2017, there were **193** AFP cases reported, providing the Philippines a reporting rate of **0.97** per 100,000 population of children below 15 years old. Only **Region I** reached the 2/100 K target while **7** Regions were able to reach the minimum target. **One hundred forty-two (142)** have been discarded as non-polio; which gives us a non-polio AFP rate of **0.71/100,000**. At present, only **Region I** was able to reach the target of 2/100,000 and only **5** Regions were able to reach the minimum target. (Figure 5 and Table 3)

**FIGURE 5. NON-POLIO AFP RATE BY REGION AND YEAR, PHILIPPINES, JAN. 1 – JUL. 1, 2017 (n=142)**



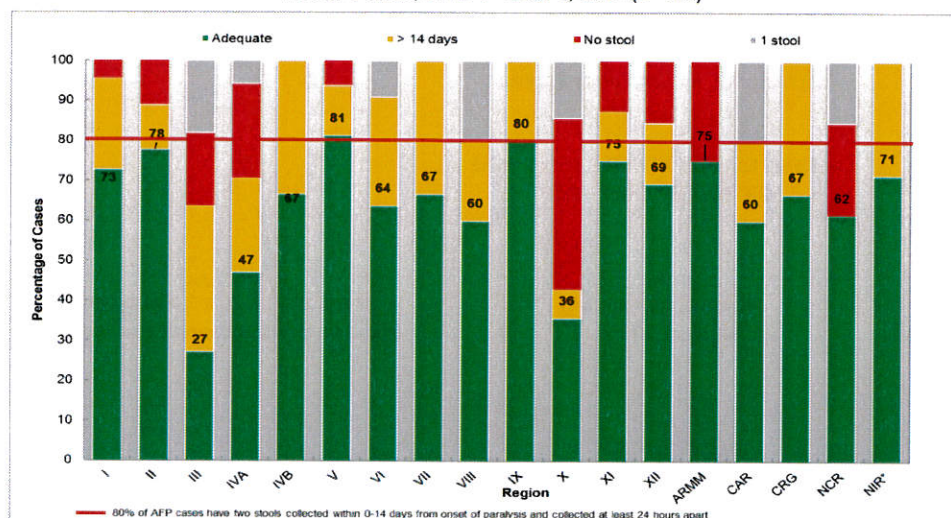
**TABLE 3. REPORTING AND NON-POLIO AFP RATE AS OF MW 26**

REGION	Reporting Rate	Non-Polio AFP Rate
Region I	2.40	2.20
Region II	1.46	1.17
Region III	0.51	0.37
Region IVA	0.72	0.50
Region IVB	0.49	0.33
Region V	1.34	1.01
Region VI	1.24	0.90
Region VII	0.51	0.51
Region VIII	0.67	0.34
Region IX	0.95	0.27
Region X	1.73	1.08
Region XI	1.73	0.86
Region XII	1.43	1.43
ARMM	0.54	0.41
CAR	1.42	1.42
CARAGA	0.56	0.56
NCR	0.53	0.33
NIR	0.78	0.67
PHIL	0.97	0.71

**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 180 AFP cases, **114 (63%)** were adequately collected with stool specimen 1 and 2, while the rest had either specimens collected for more than 14 days (**33, 18%**) or had no stool or 1 stool specimen only (Figure 6). As of MW 26, the adequate stool specimen rate is **63%** with only **2 Regions (V and IX)** reaching the target (Table 4)

**FIGURE 6. STOOL SPECIMEN ADEQUACY RATE BY REGION PHILIPPINES, JAN. 1 - JUL. 1, 2017 (n=180)**



**TABLE 4. STOOL SPECIMEN ADEQUACY RATE OF MW 26**

Region	Stool Specimen Adequacy Rate
I	73%
II	78%
III	27%
IVA	47%
IVB	67%
V	81%
VI	64%
VII	67%
VIII	60%
IX	80%
X	36%
XI	75%
XII	69%
ARMM	75%
CAR	60%
CRG	67%
NCR	62%
NIR	71%
PHL	63%

\* NIR population based from FHSIS Projected Population for 2017





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### Definition of Terms


Acute flaccid paralysis (AFP) case	Refers to any child less than 15 years of age with acute onset of floppy paralysis, or a person of any age in whom poliomyelitis is suspected by a physician.
Cluster of AFP cases	Refers to the occurrence of two or more AFP cases in one province or city with the date of paralysis onset of within 1 month of each other.
Circulating Vaccine-derived poliovirus (cVDPV)	Refers to a sub-classification of VDPV found in areas with gaps in OPV coverage; considered in the context of person-to-person transmission when non-identical but related VDPVs are identified in at least 2 AFP cases.
Confirmed polio	Refers to an AFP case that was laboratory-confirmed with wild poliovirus.
Discarded as non-polio	Refers to AFP cases classified by the expert panel committee as non-polio in which the paralysis is not caused by poliovirus.
Hot case	Refers to an AFP case that is less than 5 years old, with less than 3 doses of OPV and has fever at the onset of asymmetrical paralysis; OR an AFP case or a person of any age whose stool specimen/s has poliovirus isolate.
Non-polio Enterovirus	Refers to enterovirus (i.e. echovirus, coxsackie virus) other than poliovirus isolated from specimens.
Oral poliovirus vaccine (OPV)	Refers to an attenuated vaccine administered orally that protects against either one (mOPV), two (bOPV) or three (tOPV) serotypes of poliovirus present in the formulation.
Polio compatible	Refers to an AFP case which does not have an adequate stool collected, died or was lost to follow-up.
Sabin-like	Refers to an AFP case with isolates consistent with a limited period of virus excretion or person-to-person transmission demonstrating less than 1% difference from parent OPV strains for poliovirus types 1 and 3, and less than 0.6 % difference from the type 2 OPV strain by full Viral Protein 1 sequence homology.
Vaccine-derived poliovirus (VDPV)	Refers to live, attenuated strains of the vaccine poliovirus that have undergone mutation and recombination and differ from (original) Sabin strains by 1 to 15% of VP1 nucleotides, the extent of genetic change of which is indicative of prolonged replication.
Vaccine-associated paralytic poliomyelitis (VAPP)	Refers to the only rare adverse event associated with OPV use which may occur in vaccine recipients or their contacts. The onset of symptoms with VAPP usually occurs 4-30 days following receipt of OPV or within 4-75 days after contact with a recipient of OPV. In immune-deficient individuals, VAPP may occur outside these windows.
Wild poliovirus (WPV)	Refers to the wild poliovirus that is targeted for global eradication consisting of three types: poliovirus type 1, 2 and 3.


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