



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 **449** AFP cases were reported nationwide from January 1 to November 4, 2017 (Figure 1). Of these, **358 (79.7%)** have been **discarded as non-polio AFP**, **28 (6.2%)** did not fit the standard case definition and were classified as **Not AFP**, while **62 (13.8%)** are still pending for classification and **1 (0.3%)** was classified as **vaccine associated paralytic polio (VAPP)** (Table 1).

About **293 (65%)** of the total reported AFP cases have adequate stool specimen, while the rest are either with complete stool but with more than 14 days of specimen collection (**90, 20%**), **37 (8%)** had no stool specimen collected and a portion (**29, 6%**) had only 1 stool specimen collected.

FIGURE 1. CLASSIFICATION OF ACUTE FLACCID PARALYSIS CASES, PHILIPPINES, JANUARY 1 – NOVEMBER 4, 2017 (N=449)

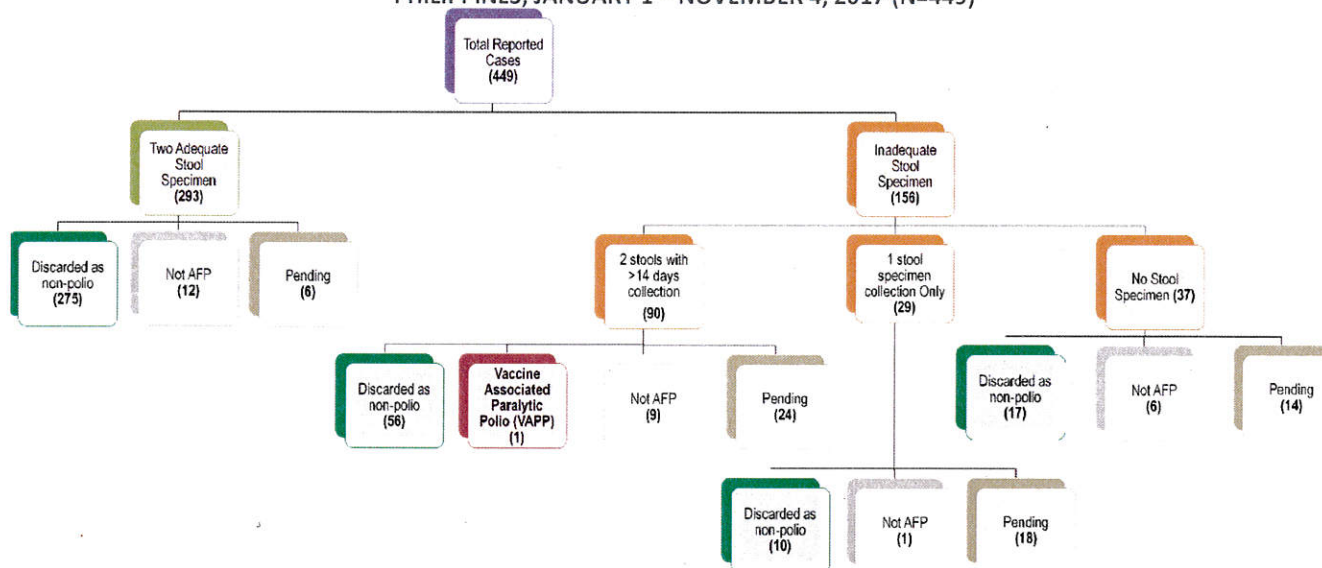


TABLE 1. AFP CASES BY REGION AND CLASSIFICATION PHILIPPINES, JANUARY 1 – NOVEMBER 4, 2017 (N=449)

REGION	2017 Target AFP Cases 2/100k	2017 Target AFP Cases 1/100k	Reported Cases as of MW 1-44	Classification				Total Number of Classified Cases
				Non-Polio (Discarded)	VAPP	NOT AFP	Pending	
Region I	32	16	54	47	0	3	4	50
Region II	22	11	20	17	0	2	1	19
Region III	67	34	56	39	0	1	16	40
Region IVA	88	44	57	41	1	6	9	48
Region IVB	23	12	5	4	0	0	1	4
Region V	44	22	27	23	0	1	3	24
Region VI	48	24	33	28	0	0	5	28
Region VII	47	24	14	14	0	0	0	14
Region VIII	32	16	16	13	0	1	2	14
Region IX	26	13	16	13	0	2	1	15
Region X	31	15	22	16	0	5	1	21
Region XI	35	18	30	25	0	2	3	27
Region XII	32	16	28	24	0	2	2	26
ARMM	30	15	7	5	0	0	2	5
CAR	11	6	7	6	0	0	1	6
CARAGA	19	10	6	6	0	0	0	6
NCR	98	49	51	37	0	3	11	40
PHIL	685	342	449	358	1	28	62	387



TABLE 2. STOOL SPECIMEN RESULT AMONG REPORTED AFP CASES, PHILIPPINES, JAN. 1 – NOV. 4, 2017, (N=449)

Stool Specimen Result	Stool Specimen 1		Stool Specimen 2	
Positive for poliovirus	0	0.0%	0	0.0%
Negative for poliovirus	367	81.7%	351	78.2%
Sabin-like poliovirus	5	1.1%	5	1.1%
Non-polio enterovirus	37	8.2%	25	5.6%
Not tested	1	0.2%	1	0.2%
No stool	38	8.5%	66	14.7%
Pending Lab Results	1	0.2%	1	0.2%
Total	449	100%	449	100%

VIRUS ISOLATION AND GENOTYPING

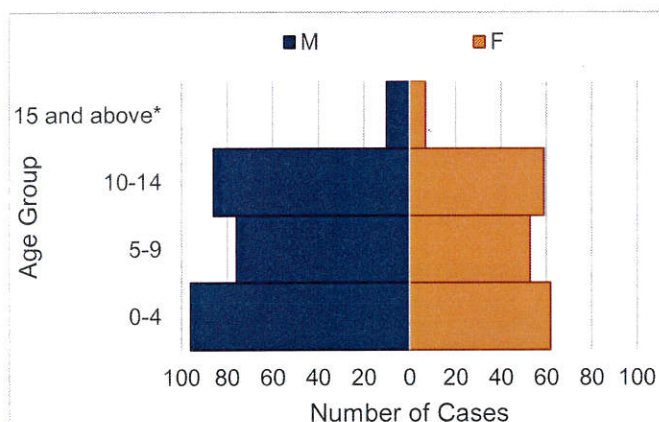
Table 2 shows the AFP stool specimen test results from the National Polio Laboratory (NPL) of the Research Institute of Tropical Medicine (RITM). There were **0** isolated poliovirus from January 1 to November 4, 2017. Among the 449 cases, majority of stool 1 and stool 2 tested negative for poliovirus. However, it should be noted that **66 (16%)** had no 2nd stool specimen. **Five (5)** 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 II (1), III (2), IV-A (1) and XI (1) respectively.

PROFILE OF CASES

Among the reported AFP cases, **268 (60%)** are Males and **181 (40%)** are Females. Age ranges from 0 days to 78 years of age. There were **17 (4%)** cases ages 15 and above who were reported as AFP but were classified as not AFP. Most of the AFP cases reported belong to the 0-4 age group (**158, 35%**) (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. Only **261 (58%)** had completed their OPV dose; the rest of the cases had either no OPV dose, incomplete OPV dose received or unknown. (Figure 3).

FIGURE 2 . AFP REPORTED CASES BY SEX AND AGE GROUP PHILIPPINES, JAN. 1 – NOV. 4, 2017 (N=449)



*Not AFP cases

FIGURE 3 . IMMUNIZATION STATUS AMONG AFP CASES BY POLIO VACCINATION DOSE AND AGE GROUP PHILIPPINES, JAN. 1 – NOV. 4, 2017 (N=449)

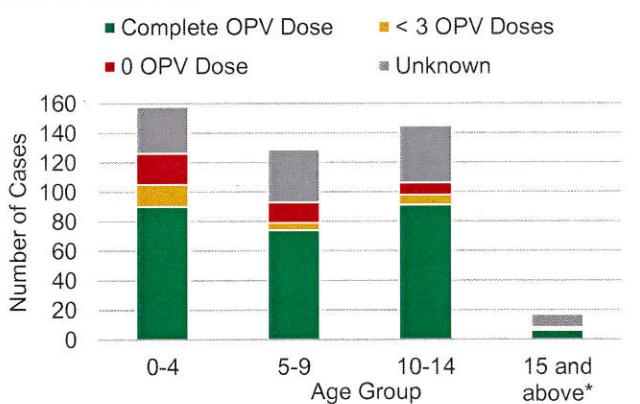
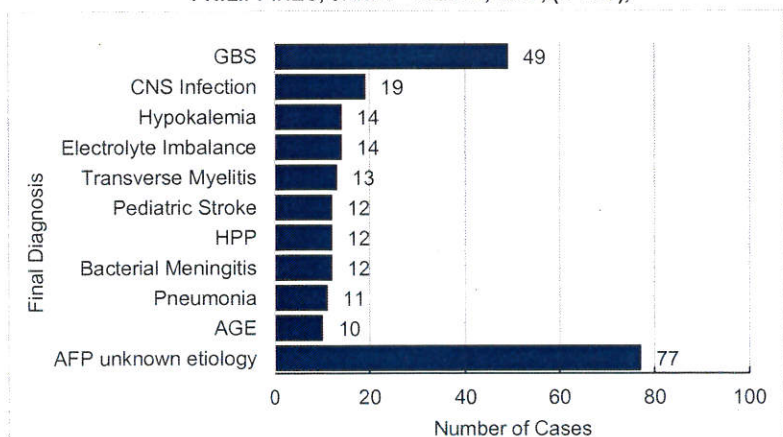


FIGURE 4 . TOP 10 DIAGNOSIS OF NON-POLIO AFP CASES, PHILIPPINES, JAN. 1 – NOV. 4, 2017, (n=243),



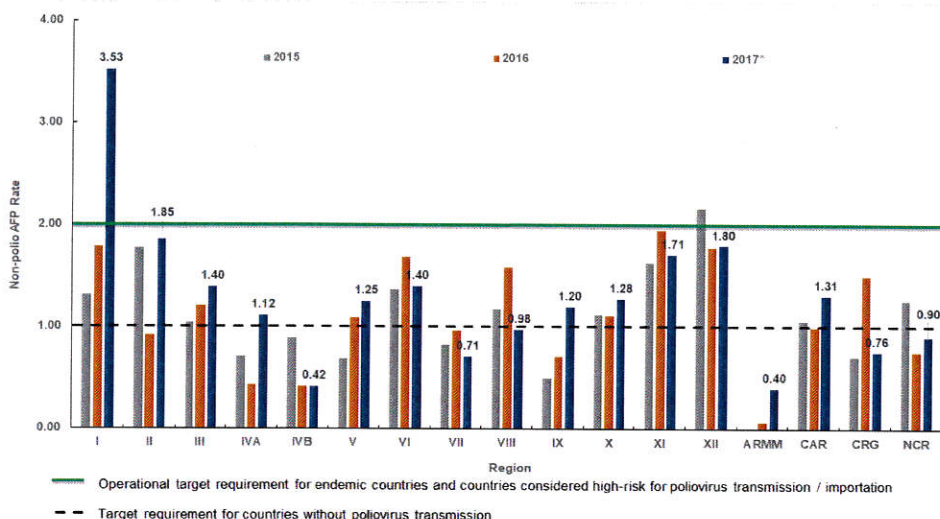
The differential diagnosis of AFP includes but is not limited to, poliomyelitis, Guillain Barre Syndrome (GBS), traumatic neuritis and transverse myelitis. These four are the common diseases that represent the most common causes of AFP; however, there are other differential diagnosis that have numerous 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.



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

From January 1 to November 4, 2017, there were **449** AFP cases reported, providing the Philippines a reporting rate of **1.58 / 100,000** population of children under 15 years old. **Thirteen (13)** regions were able to reach and surpass the target. The incidence of AFP (**non-polio AFP rate**) caused by diseases other than poliomyelitis is **1.26 / 100,000** population of children under 15 years of age. **Eleven (11)** regions reached the target while **two (2)** regions were substantially below the target. (Figure 5 & Table 3)

FIGURE 5. THREE-YEAR COMPARISON OF NON-POLIO AFP RATE BY REGION, PHILIPPINES, 2015 – 2017*



*data from January 1 to November 4, 2017

TABLE 3. REPORTING AND NON-POLIO AFP RATE AS OF MW 1-44

REGION	Reporting Rate	Non-Polio AFP Rate
I	4.05	3.53
II	2.18	1.85
III	2.01	1.40
IVA	1.55	1.12
IVB	0.52	0.42
V	1.47	1.25
VI	1.65	1.40
VII	0.71	0.71
VIII	1.20	0.98
IX	1.48	1.20
X	1.76	1.28
XI	2.06	1.71
XII	2.10	1.80
ARMM	0.56	0.40
CAR	1.53	1.31
CRG	0.76	0.76
NCR	1.25	0.90
PHL	1.58	1.26

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 **359*** AFP cases, **275 (77%)** cases have 2 stool specimens collected within 14 days from onset which gives us an adequacy rate of **77%**. (Table 4). A portion (**57, 16%**) had 2 stool specimen collected beyond the required collection period. Among the 17 Regions, **10** Regions have reached or surpassed the target rate of at 80%. (Figure 6 & Table 4)

FIGURE 6. STOOL SPECIMEN ADEQUACY RATE BY REGION PHILIPPINES, JAN. 1 – NOV. 4, 2017

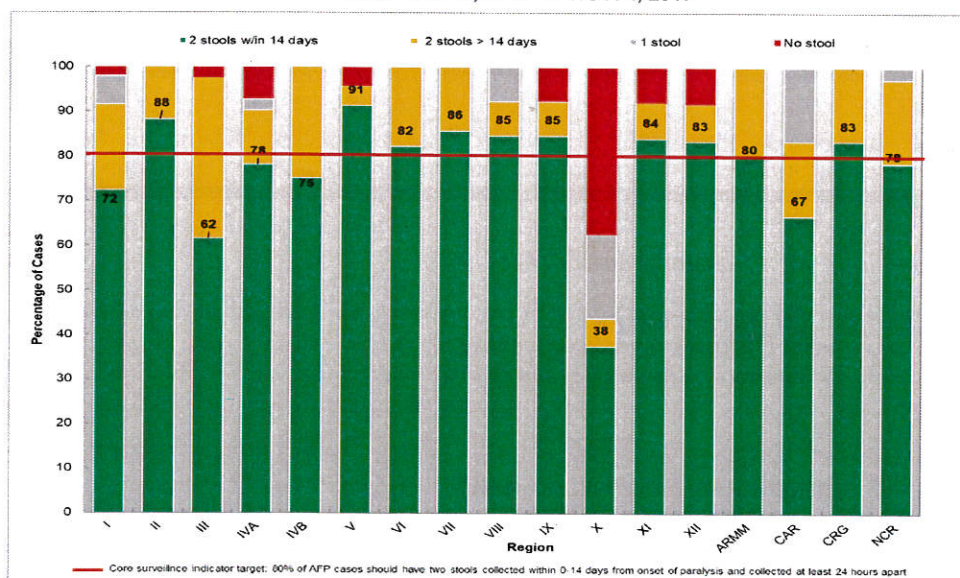


TABLE 4. STOOL SPECIMEN ADEQUACY RATE OF MW 1-44

Region	Stool Specimen Adequacy Rate
I	72
II	88
III	62
IVA	78
IVB	75
V	91
VI	82
VII	86
VIII	85
IX	85
X	38
XI	84
XII	83
ARMM	80
CAR	67
CRG	83
NCR	78
PHL	77

*not AFP and pending cases excluded in the analysis

Legend:


Reached or surpassed target
0.5 - 0.99 for non-polio; 60-79% for specimen adequacy
Substantially below target



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 AFP Rate	Incidence of AFP caused by diseases other than poliomyelitis.
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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