



ACUTE FLACCID PARALYSIS (AFP) SURVEILLANCE

Morbidity Week 34
January 1—August 27, 2016

Epidemiology Bureau
Public Health Surveillance Division

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.

From January 1 to August 27, a total of **219** AFP cases were reported; with **184** (87%) cases already classified as non-polio AFP and **35** (16%) of the cases still pending for classification. This provides the Philippines an annualized non-polio AFP rate of **0.80** per 100,000 children below 15 years old which is below the minimum required target of 1/100,000 population of <15 y/o. Currently only 3 regions were able to reach the minimum target for non-polio AFP.

Since the country was identified a high risk for poliovirus importation in 2011, the indicator of surveillance sensitivity was increased to two cases of non-polio acute flaccid paralysis (AFP) that should be detected annually per 100 000 population aged less than 15 years. Failure to reach the target requirement means that the system is probably missing AFP cases. Out of the 17 regions, only 4 regions were able to surpass the minimum target at present.

All AFP cases should have a full clinical and virological investigation with at least 80% of AFP cases having adequate stool specimens collected. From 2014-2016, the country failed to reach the 80% benchmark. Only 7 regions reached the target at present.

At least 80% of expected routine (weekly or monthly) AFP surveillance reports should be received on time, including zero reports where no AFP cases are seen. At least 88% of the AFP cases were timely reported and 92% were timely investigated.

NOTE: Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases.

Figure 1. Non-polio AFP rate (per 100,000 persons < 15 years of age), 2014-2016*

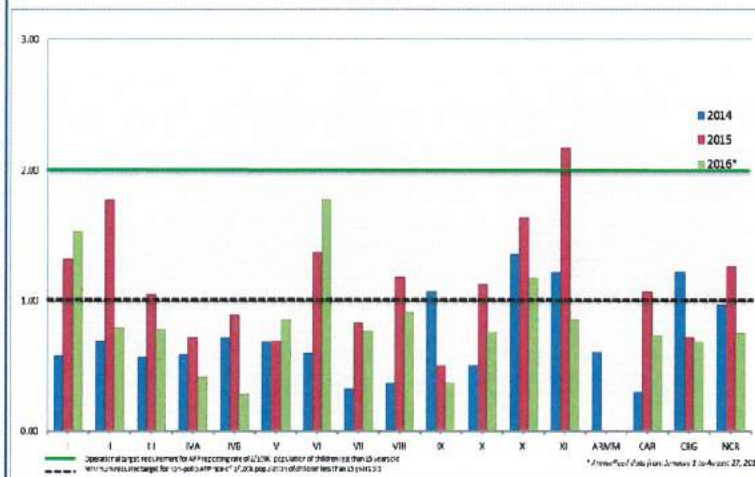


Figure 3. Percent distribution of AFP cases according to timeliness of report by region, 2016*

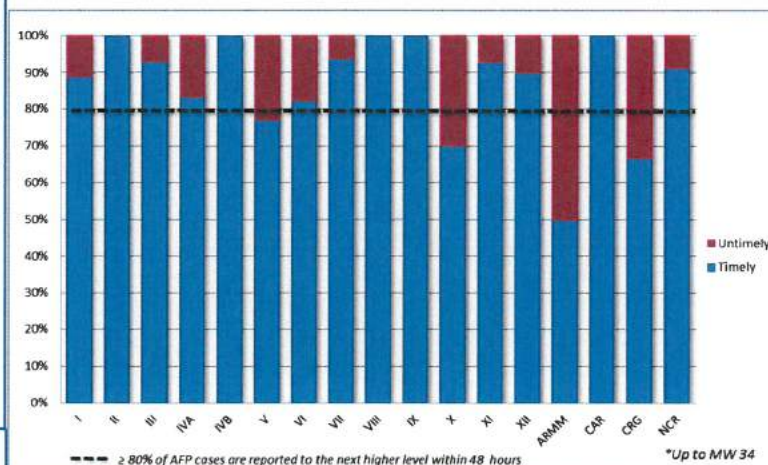


Figure 2. Adequate specimen collection rate, 2014-2016*

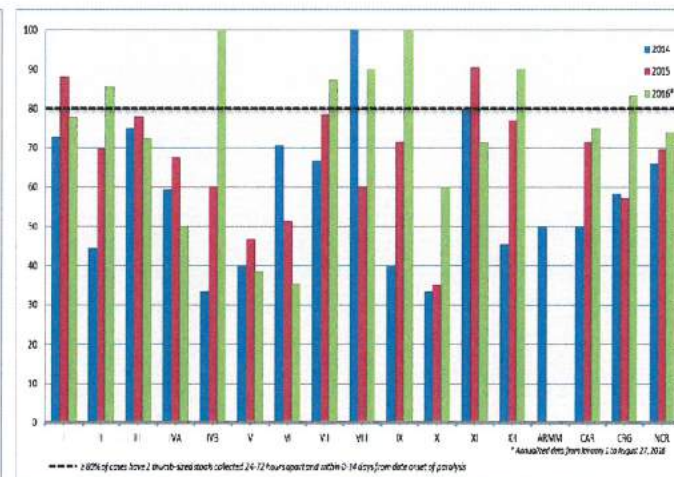
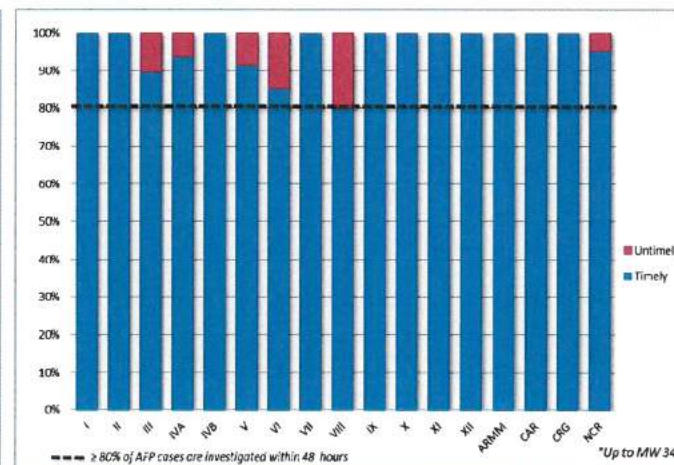


Figure 4. Percent distribution of AFP cases according to timeliness of investigation by region, 2016*





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All AFP detected are expected to be reported to the next higher level within 24-48 hours for timely collection of stools specimen and investigation. Although majority of the AFP cases are reported within 1 week from detection, almost half of these cases are detected late. Delayed health seeking behavior of the parents is one reason as to why detection of AFP cases continues to be a challenge for surveillance.

Information on the OPV doses of reported cases are also monitored to inform EPI coordinators and use this data to assist them in choosing supplementary strategies. At present, only 59% of the AFP cases age 5 years and below had completed their OPV dose and 53% of children ages 6 and above had completed the dose. Only Region 7 have AFP cases that completed the 3 OPV doses, and the majority are either with incomplete or unknown OPV dose.

Since the wild poliovirus (WPV) type 2 was eradicated in 1999, incidence of neuro-virulent circulating vaccine-derived poliovirus type 2 (cVDPV 2) around the globe led to the recommendation of global cessation of use of type 2 component of oral polio vaccine (OPV). Last April 27, the country has successfully implemented the synchronized switch from trivalent OPV (tOPV) to bivalent OPV (bOPV).

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Figure 5. Percent Distribution of AFP Cases by Time of Detection*
2015 (N=413)

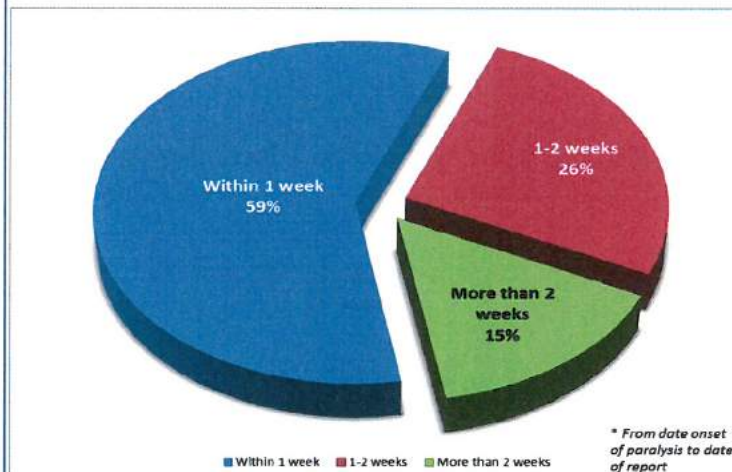


Figure 6 Percent Distribution of AFP Cases by Time of Detection*
2016† (N=219)

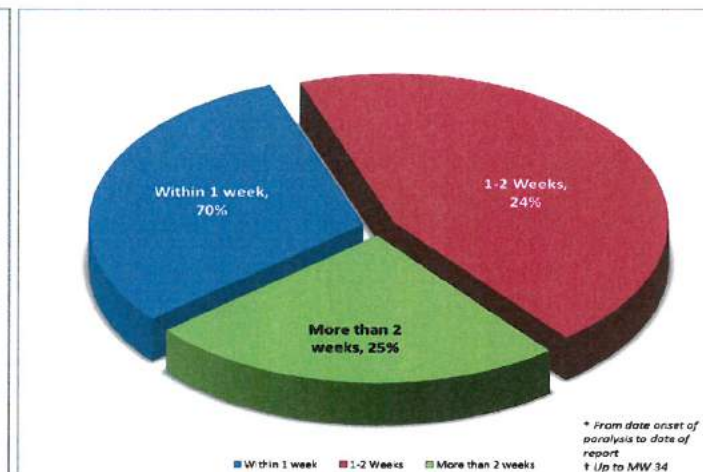


Figure 7. Percentage of reported AFP cases by number of polio vaccination doses and age group, 2016

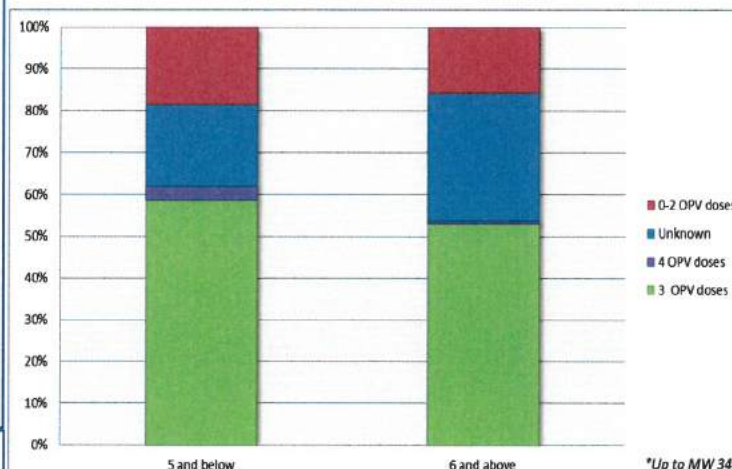
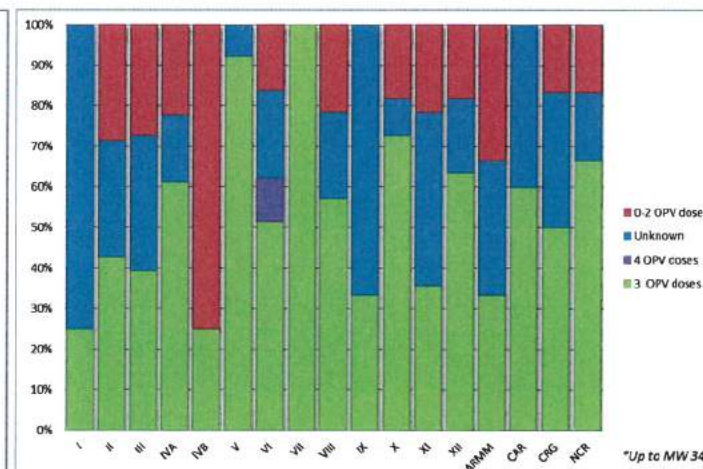


Figure 8. Percentage of reported AFP cases by number of polio vaccination doses and region, 2016





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The first links in the surveillance chain are the staff in all health facilities; from district health centers to large hospitals. In addition, public health staff make regular visits to hospitals to search for AFP cases which may have been overlooked or misdiagnosed (*The Global Polio Eradication Initiative, 2010*).

In the Philippines, 80% of the AFP cases that were detected from January 1–July 23 came from the government hospitals, while only 14% were detected from private hospitals. There were only a few cases that were detected at the RHU, MHO and CHO level.

The country also follows the WHO classification scheme for AFP cases. As of morbidity week 29, 87% of the cases has been classified as non-polio; with only 16% left which are pending for classification. No VDPV has been detected since January.

The differential diagnosis of AFP includes but is not limited to, poliomyelitis, GBS¹, 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 presents as AFP, even if diagnosed as disease other than polio by the physician should be reported, collected with specimen and investigated.

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Figure 9 Total AFP Cases by Classification, as of MW 34

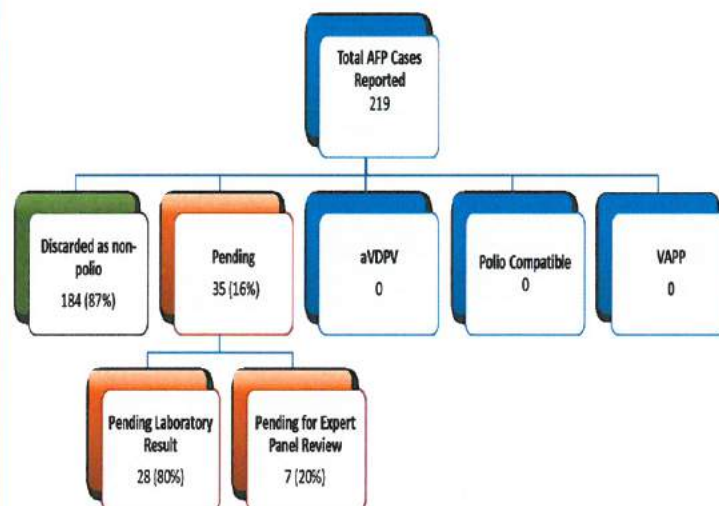


Figure 11. Ten most reported AFP Cases by Differential Diagnosis,

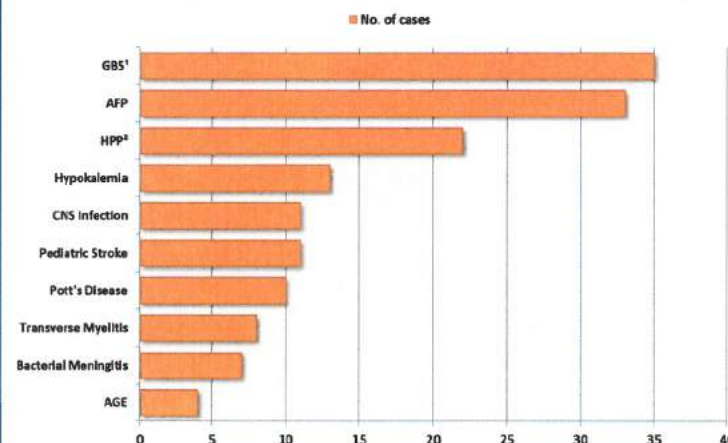


Figure 10. Types of Disease Reporting Units (DRUs), 2016*

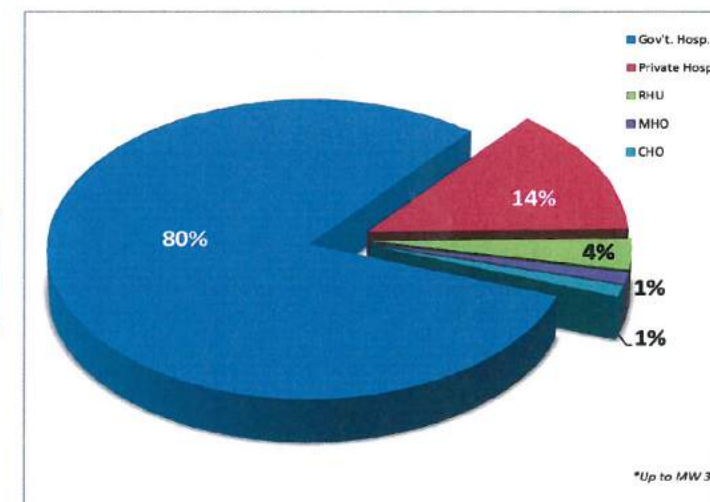
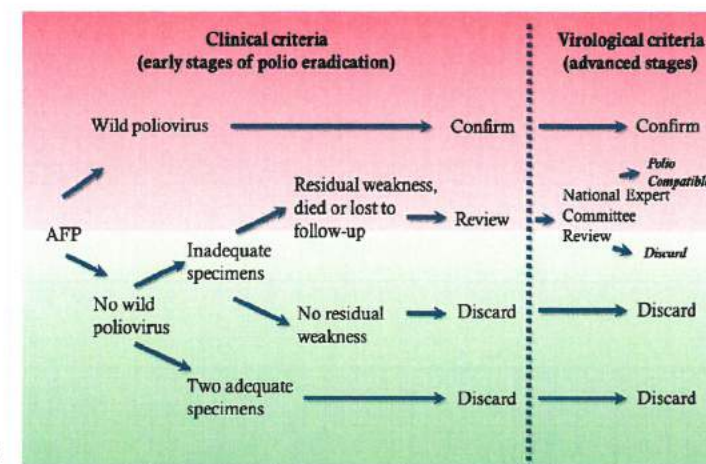


Figure 12. WHO Classification Scheme for AFP



¹ Guillain-Barre Syndrome, ² Hypokalemic-Periodic Paralysis



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Table 1. Classification of AFP cases and key surveillance indicators

January 1 - August 27, 2016												
REGION	Expected AFP Rate 2016 2/100k	Expected AFP Rate 2016 1/100k	Reported Cases	Classification			Total Number of Classified Cases	Performance Indicators (Non-Polio AFP Cases)				
				Non-Polio (Discarded)	NOT AFP	Pending		Annualized Report- ing Rate	Annualized Non- Polio AFP Rate	Adequacy of Stool Specimen	Timeliness of Reporting	Timeliness of Investigation
								AFP cases reported in a specified period	Discarded as non-polio AFP cases in a specified period	≥80 % of AFP cases with adequate stool specimen collected	≥80 % of AFP cases reported within 14 days of onset	≥80 % AFP cases investigated within 2 days of report
Region I	39	19	20	17	2	1	19	1.80	1.53	78	89	100
Region II	27	13	7	6	0	1	6	0.92	0.79	86	100	100
Region III	88	44	33	20	4	9	24	1.29	0.78	72	93	90
Region IVA	115	58	18	14	0	4	14	0.53	0.41	50	83	83
Region IVB	23	12	4	2	1	1	3	0.57	0.29	100	100	100
Region V	45	22	13	11	0	2	11	1.01	0.86	38	77	85
Region VI	59	29	37	30	3	4	33	2.19	1.77	35	82	85
Region VII	57	29	16	13	0	3	13	0.95	0.77	88	94	94
Region VIII	34	17	14	9	4	1	13	1.41	0.91	90	100	80
Region IX	29	14	3	3	0	0	3	0.37	0.37	100	100	100
Region X	37	18	11	8	1	2	9	1.05	0.76	60	70	100
Region XI	38	19	14	13	0	1	13	1.26	1.17	71	93	100
Region XII	36	18	11	9	1	1	10	1.05	0.86	90	90	100
ARMM	27	14	3	0	2	1	2	0.37	0.00	0	100	100
CAR	14	7	5	3	1	1	4	1.22	0.73	75	100	100
CARAGA	20	10	6	4	0	2	4	1.03	0.69	83	67	100
NCR	100	50	24	22	1	1	23	0.82	0.75	74	91	91
PHIL	788	393	239	184	20	35	204	1.04	0.80	67	88	92

Reporting Rate: target of 2/100K population of children less than 15 years old

Non-Polio AFP Rate: target of 1/100k population of children less than 15 years old

Non-Polio (Discarded): AFP cases classified by the expert panel committee as non-polio in which the paralysis is not caused by poliovirus

Not AFP: Reported AFP cases that did not fit the case definition of AFP

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Legend:

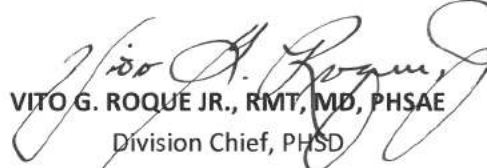
Green	Reached or surpassed target
Yellow	Nearly reached target: 0.5-0.99 for non-polio AFP target; 60-79% for other indicators
Red	Substantially below target

Definition of Terms


Editorial Board


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.
Epidemiology	Refers to the study of the distribution and determinants of health-related states or events in specified populations, and the application of this study to the control of health problems.
Epidemiology and Surveillance Unit (ESU)	Refers to the unit established in the Regional Offices (ROs), Provincial Health Offices (PHOs), City Health Offices (CHOs) and Rural Health Units (RHUs) that provide services on public health surveillance and epidemiology.
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 (PV)	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.
Philippine Integrated Disease Surveillance and Response (PIDSRS)	Refers to the system whose framework embodies integrated functional disease surveillance and response system institutionalized from the national level down to the community level.
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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