



Background:

Japanese encephalitis (JE) is a mosquito-borne flavivirus, and belongs to the same genus as dengue, yellow fever and West Nile viruses. JE is the main cause of viral encephalitis in many countries of Asia. In the Philippines, JE was found to be endemic with an extensive geographic range. JE virus was the causative agent in 7% to 18% of cases of clinical meningitis-encephalitis, and 16% to 40% of clinical encephalitis cases. In addition, JE predominantly affects children under 15 years of age and 6% to 7% of cases resulted in deaths.¹ In 2015, Acute Meningitis Encephalitis Surveillance (AMES) was initiated in nine sentinel hospitals.

PIDSR Case Definition:

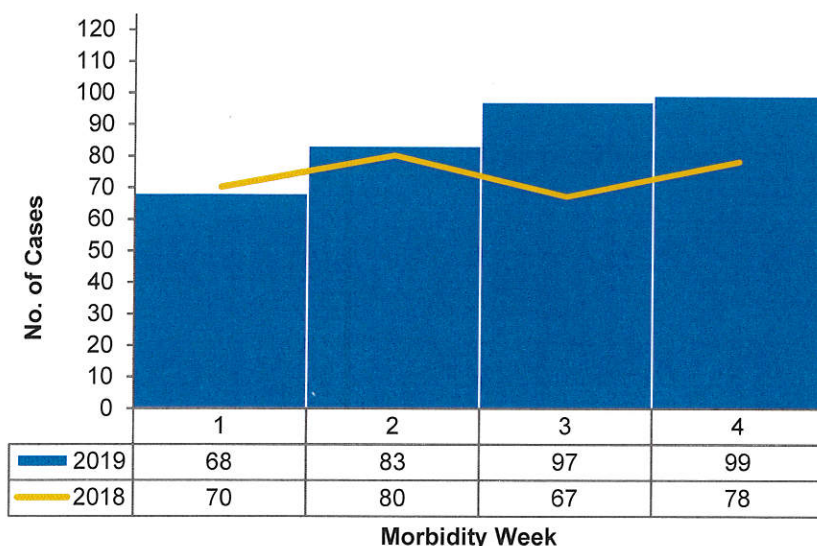
Japanese encephalitis cases are captured under AMES, which comes from the combined surveillance data of AMES from the sentinel sites, and the surveillance data of Acute Encephalitis Syndrome (AES) and Bacterial Meningitis (BM). The case definition for AMES shall be the combined case definition of AES and BM.

Case Classification	Criteria
Suspected AMES Case	a person of any age, with acute onset of fever and at least one of the ff.: <ul style="list-style-type: none"> - Change in mental status (including altered consciousness, confusion, or inability to talk) - New onset of seizures (excluding simple febrile seizures) - Neck stiffness or other meningeal signs (Kernig's sign, Brudzink's sign, bulging fontanel, etc.) - Case diagnosed by the physician as either encephalitis or meningitis
Probable JE	a suspected case that occurs in close geographical and temporal relationship to a lab-confirmed case of JE, in the context of an outbreak
Lab-confirmed JE	a suspected case that has been lab-confirmed as JE, by detecting presence of JE virus- specific IgM antibody in a single sample of CSF or serum, as detected by an IgM capture of ELISA
AES – other agent	a suspected case in which diagnostic testing is performed and an etiologic agent other than JE virus is identified
AES – unknown	a suspected case in which testing was performed but no etiologic agent was identified or in which the test results were indeterminate

Trends in the Philippines

A total of **347** AMES cases were reported from January 1 to January 26, 2019 or Morbidity Weeks 1 to 4 (Figure 1). This is **18% higher** than that of the same reporting period last year (n=295).

Figure 1. Reported AMES cases by Morbidity Week (N=347)
Philippines, January 1 – January 26, 2019 vs 2018



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¹ Lopez, A.L. et al, 2013



I. Geographic Distribution of Cases

Most of the cases came from Region III (56, 16%), NCR (41, 12%), Region 1 (38, 11%). Likewise, Regions II, IV-A, MIMAROPA, IX, XI, XII and CARAGA showed an increased number of cases compared with the same time period in 2017. There were 12 reported deaths with a Case-Fatality Ratio (CFR) of 3% (Table 1).

**Table 1. Reported AMES Cases and Deaths by Region (N=3,953)
Philippines, January 1-January 26, 2019 vs 2018**

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	347	12	295	16	↑18
I	38	2	43	2	↓12
II	32	1	12	1	↑167
III	56	0	39	1	↑44
IV-A	38	1	25	2	↑52
MIMAROPA	5	0	3	0	↑67
V	6	0	15	1	↓60
VI	36	1	45	5	↓20
VII	20	1	23	2	↓13
VIII	0	0	1	0	↓100
IX	6	0	5	0	↑20
X	12	0	12	1	0
XI	24	0	7	0	↑243
XII	14	1	4	0	↑250
ARMM	7	1	11	0	↓36
CAR	5	0	9	0	↓44
CARAGA	7	0	6	0	↑17
NCR	41	4	35	1	↑17

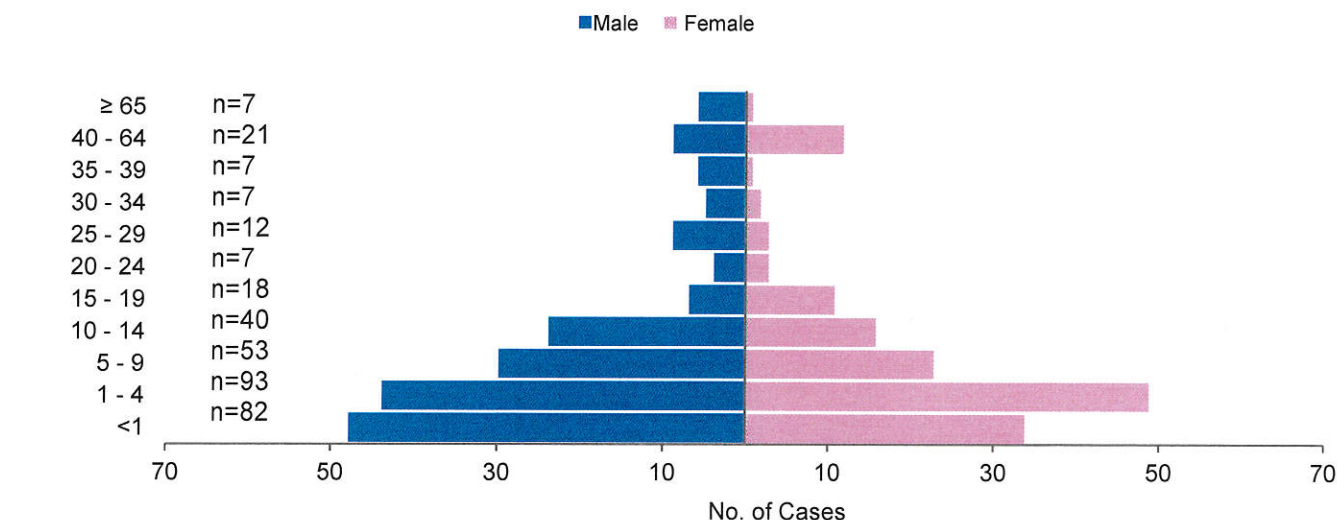
II. Profile of Cases

A. AMES Cases

1. Age group and Sex

Among the 347 suspect AMES cases, majority (192 55%) were male. Age ranges from less than 1 month to 84 years (median: 5 years). Majority (175, 50%) of those affected were children less than 5 years of age (Figure 2).

**Figure 2. Reported AMES cases by Age group and Sex (N=347)*
Philippines, January 1 – January 26, 2018**

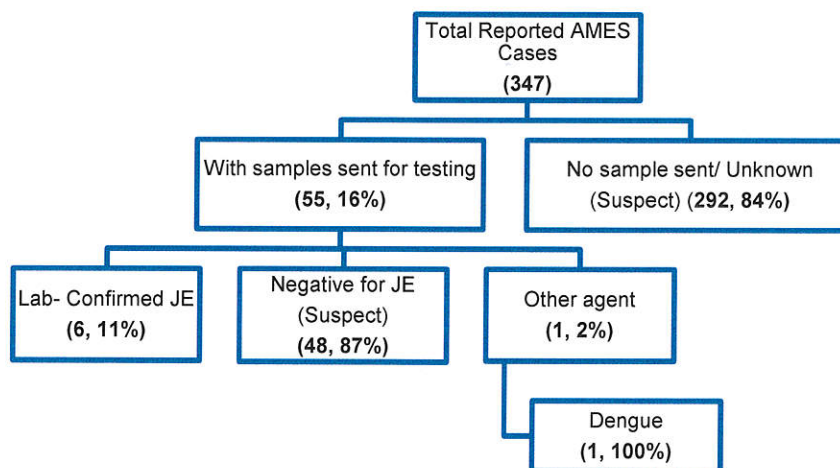




2. Laboratory Status

Out of the **347** AMES cases, **55 (16%)** cases had specimens sent to the Research Institute for Tropical Medicine (RITM) for virology to test for *Japanese encephalitis* (JE) IgM. Among tested, **6 (11%)** were laboratory confirmed JE. **48 (87%)** were negative for JE.

Figure 3. Reported AMES cases by Laboratory Status (N=347)
Philippines, January 1 – January 26, 2018

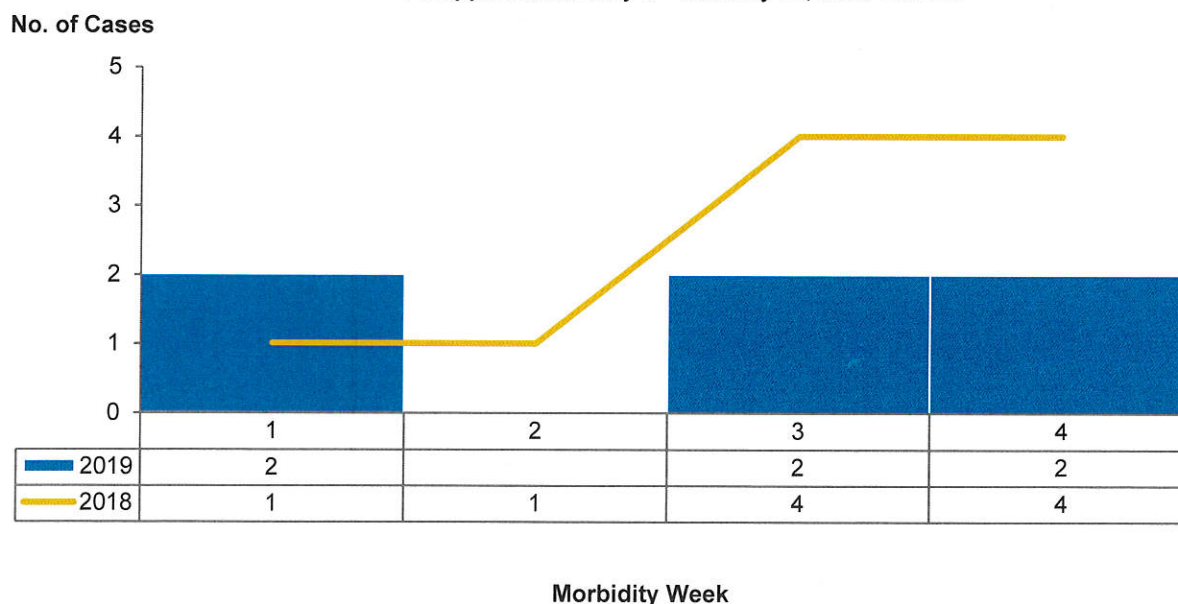


A. Confirmed Japanese Encephalitis Cases

1. Distribution of cases by Morbidity Week

Out of the **347** AMES cases, a total of **6** laboratory-confirmed JE cases were reported from January 1 to January 26, 2019 or Morbidity Week 1 - 4 (Figure 4). This is **40% lower** than same period last year (n=10).

Figure 4. Distribution of Confirmed JE Cases by Morbidity Week (n=6)
Philippines, January 1 – January 26, 2019 vs 2018





2. Geographic Distribution

Most of the lab-confirmed JE cases were reported from **Region III (3, 50%)**. Likewise, Regions II, MIMAROPA, and XII showed an increased number of cases compared with the same time period in 2018. (Table 2).

Table 2. Confirmed Japanese Encephalitis Cases and Deaths by Region (n=6)
Philippines, January 1 – January 26, 2019 vs 2018

Region	2019		2018		% Change
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	6	0	10	0	↓40
I	0	0	0	0	-
II	1	0	0	0	↑
III	3	0	6	0	↓50
IV-A	0	0	0	0	-
MIMAROPA	1	0	0	0	↑
V	0	0	0	0	-
VI	0	0	3	0	↓100
VII	0	0	0	0	-
VIII	0	0	0	0	-
IX	0	0	0	0	-
X	0	0	0	0	-
XI	0	0	0	0	-
XII	1	0	0	0	↑
ARMM	0	0	0	0	-
CAR	0	0	0	0	-
CARAGA	0	0	1	0	↓100
NCR	0	0	0	0	-

3. Age group and Sex

Among the 6 confirmed JE cases, majority (**4, 67%**) were female. Age ranges from **3 years to 16 years** (median: 6 years). Most of those affected were children 1 to 4 years of age (**3, 50%**) (Figure 5).

Figure 5. Confirmed Japanese Encephalitis Cases by Age group and Sex (n=6)*
Philippines, January 1 – January 26, 2019

