



Morbidity Week 28– January 1-July 16, 2016

Epidemiology Bureau
Public Health Surveillance Division

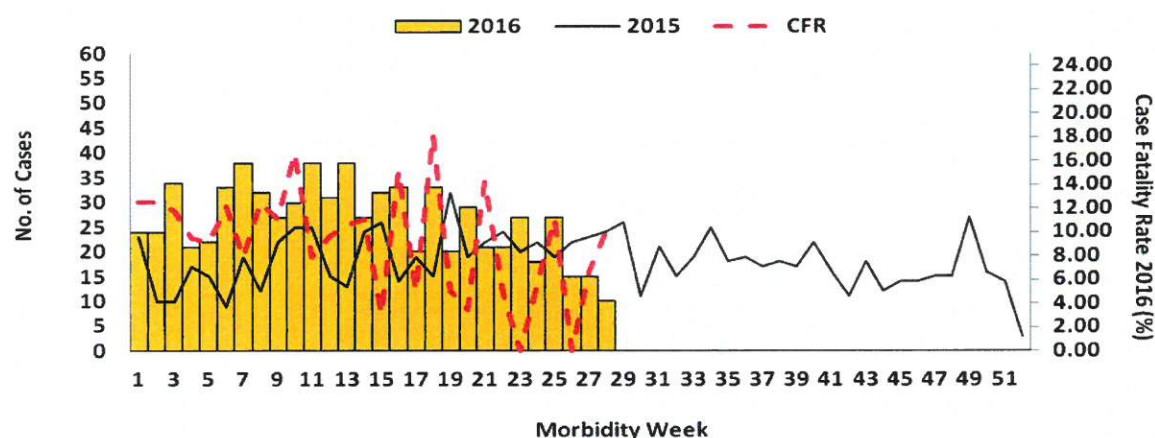
Introduction

The integrated surveillance for Acute Meningitis-Encephalitis Syndrome (AMES) Surveillance established in 2014 aimed to establish surveillance data on Acute Encephalitis Syndrome (AES) and Bacterial Meningitis (BM). Currently, there are 9 established sentinel sites nationwide.

Trend in the Philippines

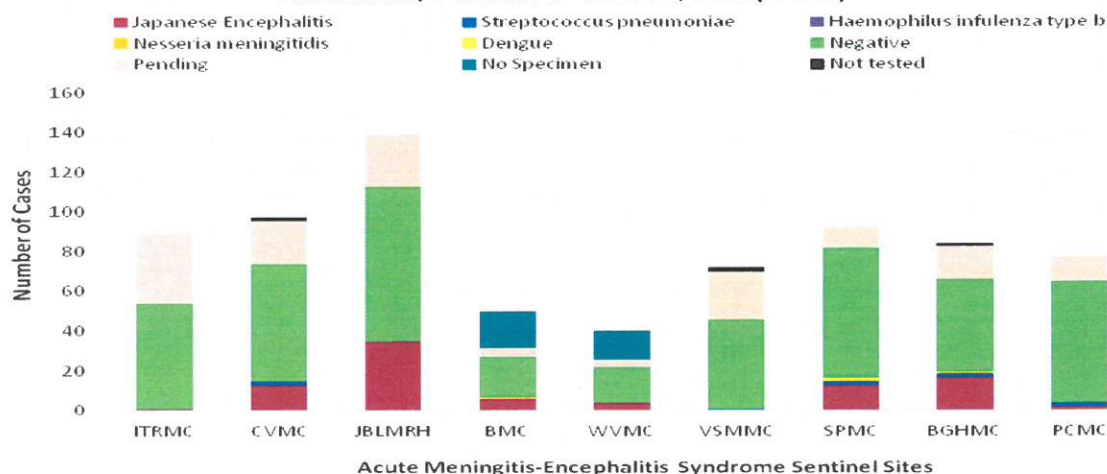
A total of 740 AMES suspected cases were reported from selected sentinel sites from January 1 to July 16, 2016 (Figure 1). This is 37% higher compared to the same period last year (540). Out of the total AMES suspected cases, 708 (96%) have specimens (either CSF, Serum 1 & 2) and 32 (4%) do not have. For those cases with specimen collected, there were 91 (13%) laboratory confirmed Japanese Encephalitis cases, 9 (1%) confirmed bacterial meningitis, 445 (63%) cases with negative laboratory results and 155 (22%) cases with pending results. Four (1%) specimens were not tested because the quantity is not sufficient.

**FIGURE 1. SUSPECTED AMES CASES BY MORBIDITY WEEK,
PHILIPPINES, July 16, 2016
2016* vs 2015 (N=740)**



The distribution of suspected AMES cases varied considerably among the sentinel sites (Figure 2). Most of the reported cases were from Jose B. Lingad Memorial Hospital (19%), Cagayan Valley Medical Center (13%), Ilocos Training and Regional Medical Center (12%), Vicente Sotto Memorial Medical Center (11%) and Southern Philippines Medical Center (11%) (Figure 2).

**FIGURE 2. REPORTED AMES CASES AND LABORATORY RESULTS BY SENTINEL ,
PHILIPPINES, JANUARY 1 – JULY 16, 2016 (N=740)**



(see list of AMES sentinel sites in the last page)



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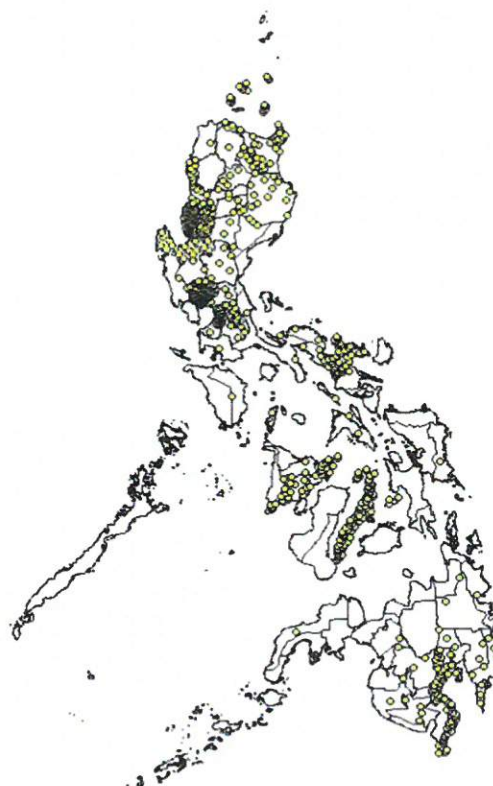
Geographic distribution

Most of the cases were from the following regions: Region III (20.5%), Region I (16.6%), Region II (13.0%), Region XI (10.4%) and Region VII (9.6%).

**FIGURE 3. SUSPECTED ACUTE MENINGITIS
ENCEPHALITIS SYNDROME CASES, MW28 (N=740)**

REGION	CASES
Region 1	= 123
Region 2	= 96
Region 3	= 152
Region 4A	= 19
Region 4B	= 2
Region 5	= 51
Region 6	= 40
Region 7	= 71
Region 8	= 1
Region 9	= 1
Region 10	= 1
Region 11	= 77
Region 12	= 10
ARMM	= 1
CAR	= 49
CARAGA	= 3
NCR	= 43
TOTAL	= 740

LEGEND
1 Dot = 1 Case



Profile of cases

Age of cases ranged from 2 days old to 88 years old, most of which were from the 0-11 mos (32%) and 1-10 years old (48%) age group. Fifty-eight percent of the suspected AMES cases were male (Figure 4). Among the suspected AMES cases, 44% received vaccination of measles vaccine, MMR, PCV 10, PCV 13, Haemophilus Influenza type b and Meningococcal vaccine (Figure 5). Seventy-one among the suspected AMES died (CFR=9.59).

**FIGURE 4. AMES CASES BY AGE GROUP AND SEX,
PHILIPPINES JANUARY 1 – JULY 16, 2016 (N=740)**

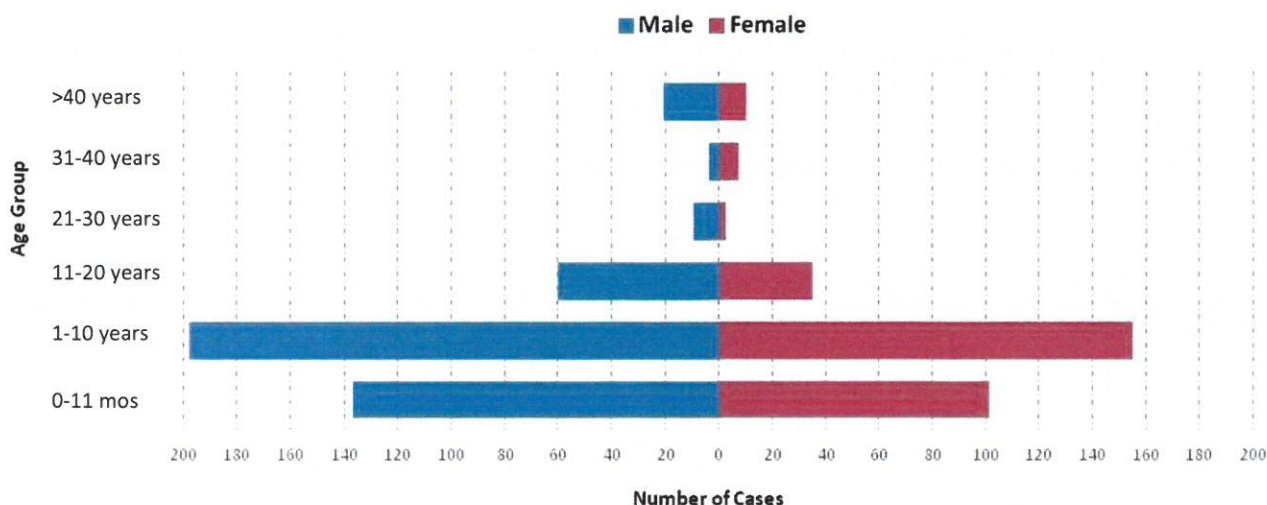
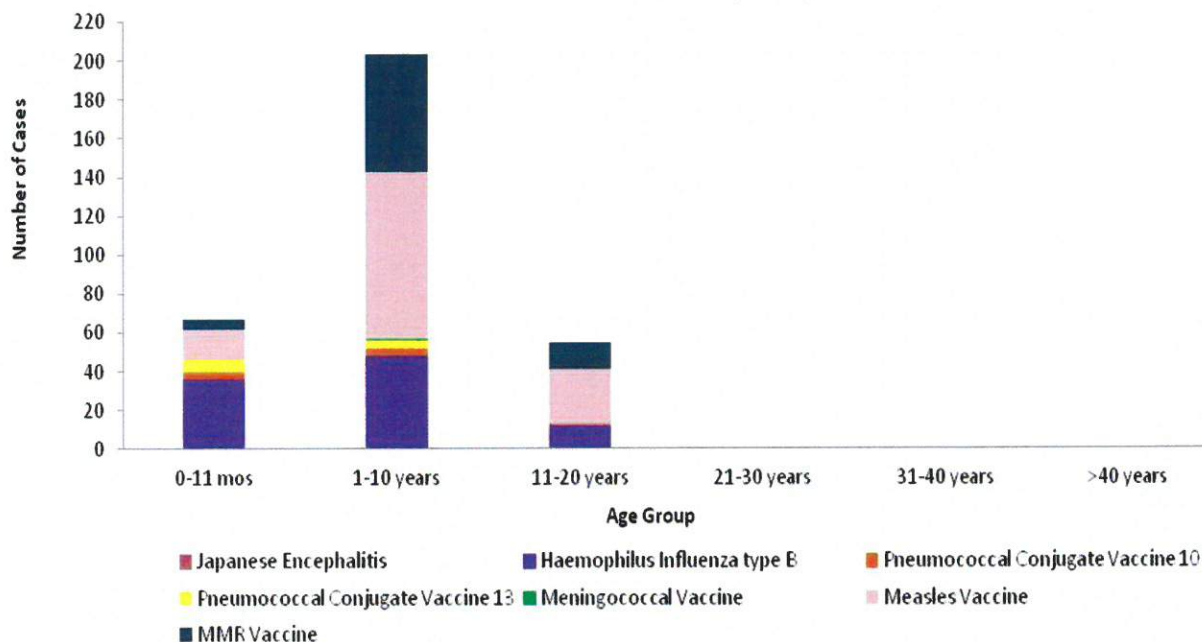




FIGURE 5. NUMBER OF IMMUNIZED AMONG SUSPECTED AMES CASES BY AGE GROUP
PHILIPPINES, 2016* (n=325)

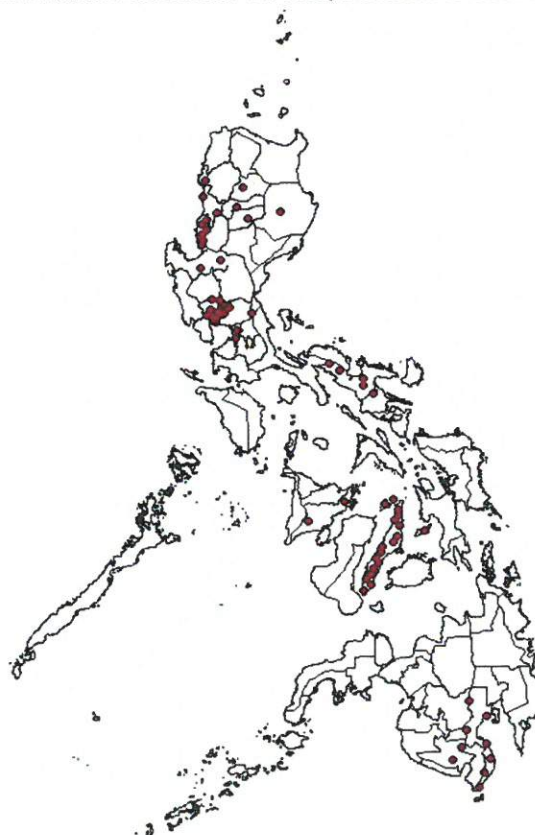


*Legend-Multiple Responses

FIGURE 6. SUSPECTED ACUTE MENINGITIS ENCEPHALITIS SYNDROME DEATHS, JANUARY 1- JULY 16, 2016

REGION	CASES
Region 1	= 11
Region 2	= 1
Region 3	= 19
Region 4A	= 0
Region 4B	= 0
Region 5	= 5
Region 6	= 2
Region 7	= 19
Region 8	= 0
Region 9	= 0
Region 10	= 0
Region 11	= 7
Region 12	= 2
ARMM	= 0
CAR	= 3
CARAGA	= 0
NCR	= 2
TOTAL	= 71

LEGEND
1 Dot =1 Case





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**TABLE 1. TOTAL NUMBER OF CEREBROSPINAL FLUID (CSF), SERUM 1 & 2 COLLECTED FROM SUSPECTED AMES CASES
JANUARY 1 – JULY 16, 2016**

AMES Sentinel Site	Number of Suspected AMES Cases	No. of CSF collected	Percentage (%)	No. of Serum 1 collected	Percentage (%)	No. of Serum 2 collected	Percentage (%)
Ilocos Training Regional Medical Center	89	88	99	43	48	4	4
Cagayan Valley Medical Center	97	97	100	0	0	0	0
Jose B. Lingad Memorial Regional Hospital	139	75	54	139	100	82	59
Bicol Medical Center	50	17	34	27	54	1	2
Western Visayas Medical Center	40	25	63	21	53	3	8
Vicente Sotto Memorial Medical Center	72	72	100	0	0	0	0
Southern Philippines Medical Center	92	92	100	92	100	65	71
Philippine Children's Medical Center	77	72	94	40	52	3	4
Baguio General Hospital and Medical Center	84	84	100	71	85	24	29
Grand Total	740	622	84	433	59	182	25

Cerebrospinal Fluid (CSF) and a paired serum (serum 1 - acute phase and serum 2 - convalescent phase) are recommended for collection and testing in RITM to confirm the diagnosis. Majority (84%) of the cases were collected with CSF, however percentage of collection for serum 1 and serum 2 were not that high.

**FIGURE 7. CONFIRMED JAPANESE ENCEPHALITIS AND BACTERIAL MENINGITIS CASES,
REGION AND PROVINCE, PHILIPPINES 2016, JANUARY 1- JULY 16, 2016***

Region/Province	Confirmed JE
01	12
ILOCOS NORTE	1
LA UNION	2
PANGASINAN	9
02	13
CAGAYAN	9
ISABELA	3
NUEVA VIZCAYA	1
03	37
NUEVA ECIJA	3
PAMPANGA	34
05	6
CAMARINES NORTE	1
CAMARINES SUR	5
06	4
CAPIZ	1
ILOILO	3
11	8
COMPOSTELA VALLEY	1
DAVAO DEL SUR	4
DAVAO ORIENTAL	3
12	4
NORTH COTABATO	3
SOUTH COTABATO	1
CAR	5
BENGUET	4
KALINGA	1
CARAGA	1
AGUSAN DEL NORTE	1
NCR	1
METRO MANILA	1
QUEZON CITY	1
Grand Total	91

Region/Province	Confirmed BM
02	3
CAGAYAN	2
NUEVA VIZCAYA	1
04A	2
CAVITE	1
QUEZON	1
07	1
CEBU	1
10	1
BUKIDNON	1
11	1
DAVAO DEL SUR	1
CAR	1
BENGUET	1
Grand Total	9

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



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CASE DEFINITION of Acute Meningitis-Encephalitis Surveillance

A combined case definition for BM and AES surveillance shall be used. Suspected cases will be captured through the standard case definition of **Acute Meningitis-Encephalitis Surveillance System** (which includes meningitis, encephalitis, and overlapping cases)

A case of suspected Acute Meningitis-Encephalitis is a person of any age, WITH a sudden onset of fever, plus one of the following:

- change in mental status (including altered consciousness, confusion, or inability to talk)
- new onset of seizures
- neck stiffness
- other meningeal sign

Selected Sentinel Sites of Acute Meningitis-Encephalitis Surveillance

Region I- Ilocos Training Regional Medical Center

Region II- Cagayan Valley Medical Center

Region III- Jose B. Lingad Memorial Regional Hospital

Region V- Bicol Medical Center

Region VI- Western Visayas Medical Center

Region VII- Vicente Sotto Memorial Medical Center

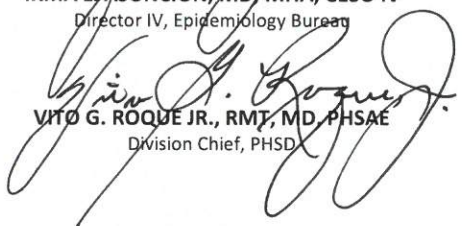
Region XI- Southern Philippines Medical Center

Region NCR- Philippine Children's Medical Center

Region CAR- Baguio General Hospital and Medical Center

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