



Dengue Surveillance Update

Dengue fever and the more severe form, dengue hemorrhagic fever, are caused by any of the four serotypes of dengue virus (types 1, 2, 3, and 4). An infected day-biting female Aedes mosquito transmits this viral disease to humans. This report provides data from the period of January 1 to February 23, 2019 or Morbidity Weeks 1 – 8.

PIDSR Case Definition for Dengue Diseases

Clinical Classification

- **Dengue Without Warning Signs**

A previously well person with acute febrile illness of 2-7 days duration plus two of the following:

- Headache
- Body malaise
- Myalgia
- Arthralgia
- Retro-orbital pain
- Anorexia
- Nausea
- Vomiting
- Diarrhea
- Flushed skin
- Rash (petechial, Herman's sign)

- **Dengue With Warning Signs**

A previously well person with acute febrile illness of 2-7 days duration plus any one of the following:

- Abdominal pain or tenderness
- Persistent vomiting
- Clinical signs of fluid accumulation
- Mucosal bleeding
- Lethargy, restlessness
- Liver enlargement
- Laboratory: increase in Hct and/or decreasing platelet count

- **Severe Dengue**

A previously well person with acute febrile illness of 2-7 days duration and any of the clinical manifestations for dengue with or without warning signs,

Plus any of the following:

Severe plasma leakage leading to

- Shock
- Fluid accumulation with respiratory distress

Severe bleeding

Severe organ impairment

- Liver: AST or ALT ≥ 1000
- CNS: e.g. seizures, impaired consciousness
- Heart: e.g. myocarditis
- Kidneys: e.g. renal failure

Case Classification

- **Suspect**

A previously well person with acute febrile illness of 2-7 days duration with clinical signs and symptoms of dengue

- **Probable**

A suspect case plus:

Laboratory test, at least CBC (leucopenia with or without thrombocytopenia) and/or Dengue NS1, antigen test or dengue IgM antibody test (optional)

- **Confirmed**

- Viral culture isolation,
- Polymerase Chain Reaction

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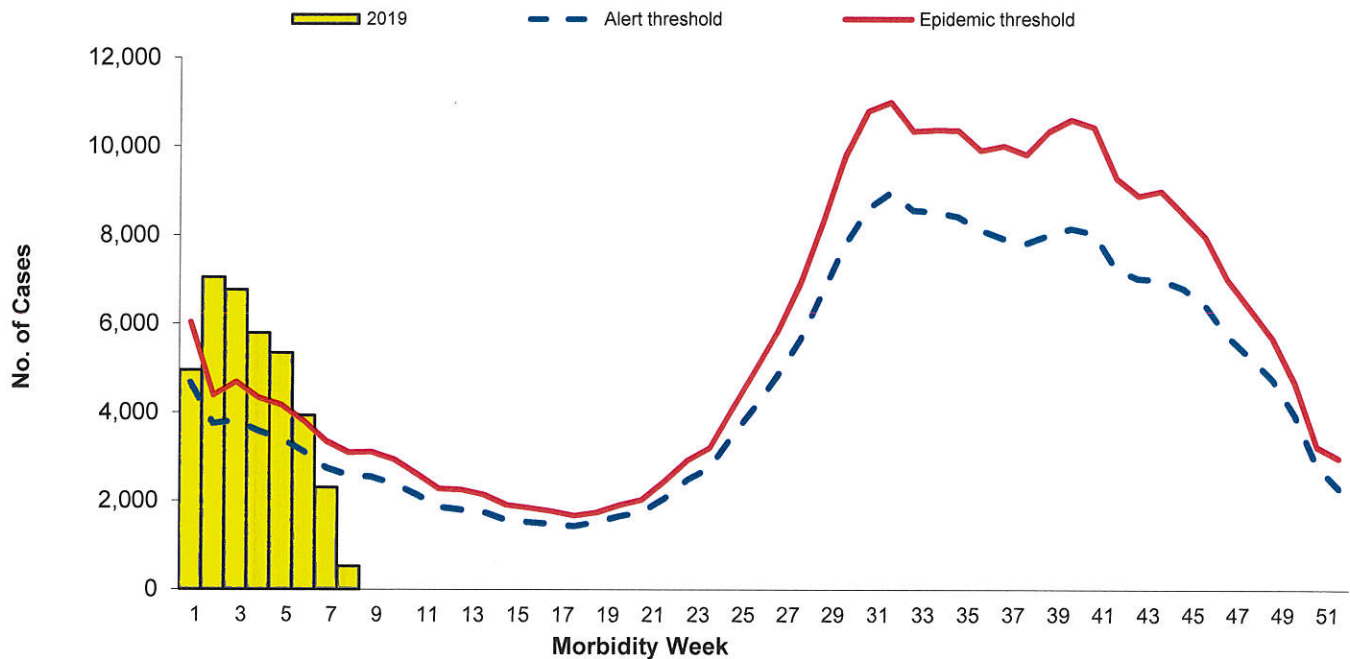
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I. Trend in the Philippines

A total of **36,664** Dengue cases were reported nationwide from January 1 to February 23, 2019. This is **67%** higher compared to the same period last year (**21,961**). Figure 1 shows weekly data of reported dengue cases in 2019 compared to alert and epidemic threshold.

Figure 1. Reported Dengue Cases (N=36,664)
Morbidity Weeks 1 - 8 (January 1- February 23, 2019) vs Epidemic and Alert Thresholds



II. Geographic Distribution

Table 1 shows that majority of the cases were from the following regions: **Region VII** (11%), **CARAGA** (11%), **Region IV-A** (10%), and **NCR** (10%).

The regions with the highest percent increase in the number of reported cases for this year compared to last year were: **CARAGA** (574%), **Region II** (420%), **Region XI** (234%), **Region VII** (234%), and **Region XII** (201%).



Table 1. Reported Dengue Cases by Region
Philippines, January 1 – February 23, 2019 vs January 1 – February 23, 2018

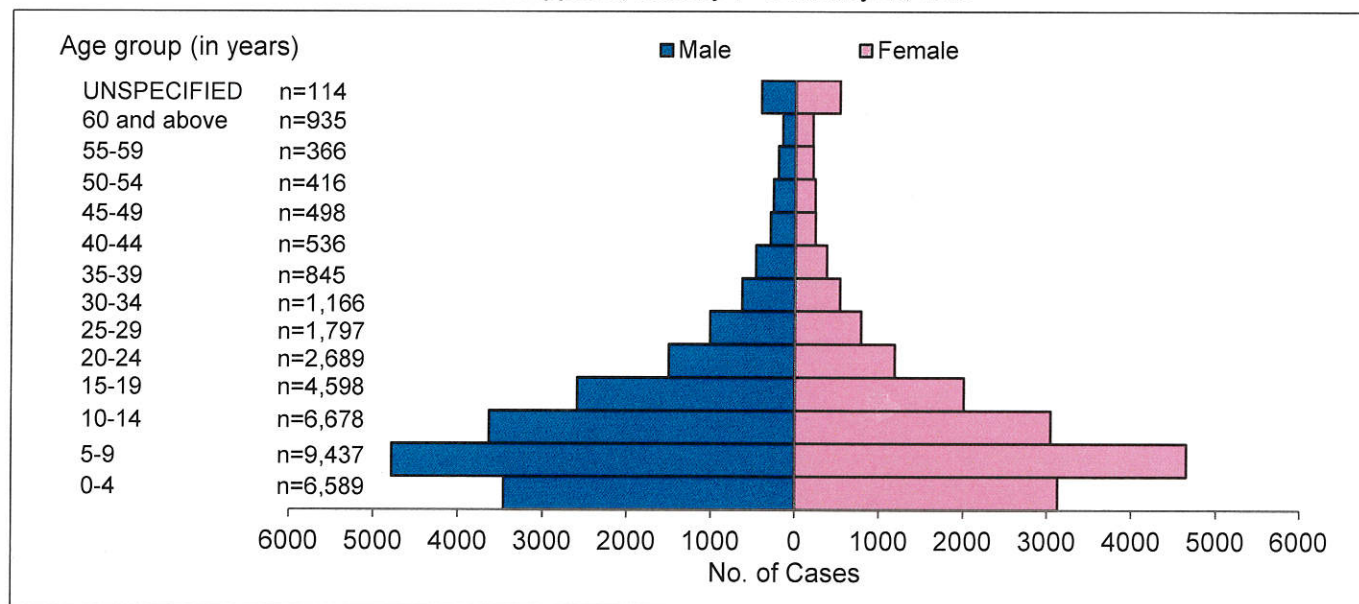
Region	2018		2017		% Change of Reported Cases
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	36,664	140	21,961	104	↑67
I	827, (2%)	2, (1%)	1,122, (5%)	5, (5%)	↓26
II	2,810, (8%)	17, (12%)	540, (2%)	1, (1%)	↑420
III	3,070, (8%)	6, (4%)	4,274, (19%)	10, (10%)	↓28
IV-A	3,767, (10%)	12, (9%)	3,904, (18%)	21, (20%)	↓4
MIMAROPA	946, (3%)	4, (3%)	432, (2%)	3, (3%)	↑119
V	713, (2%)	5, (4%)	479, (2%)	5, (5%)	↑49
VI	2,703, (7%)	12, (9%)	1,201, (5%)	8, (8%)	↑125
VII	4,089, (11%)	29, (21%)	1,226, (6%)	5, (5%)	↑234
VIII	1,299, (4%)	5, (4%)	812, (4%)	6, (6%)	↑60
IX	1,467, (4%)	10, (7%)	655, (3%)	7, (7%)	↑124
X	2,685, (7%)	2, (1%)	894, (4%)	7, (7%)	↑200
XI	1,320, (4%)	2, (1%)	395, (2%)	1, (1%)	↑234
XII	2,182, (6%)	4, (3%)	725, (3%)	2, (2%)	↑201
ARMM	363, (1%)	1, (1%)	267, (1%)	2, (2%)	↑36
CAR	726, (2%)	3, (2%)	457, (2%)	3, (3%)	↑59
CARAGA	3,876, (11%)	12, (9%)	575, (3%)	1, (1%)	↑574
NCR	3,821, (10%)	14, (10%)	4,003, (18%)	17, (16%)	↓5

III. Profile of Cases

A. Profile of Reported Dengue Cases

Age of suspect cases ranged from less than 1 month to 98 years (median age of 11 years). Majority of the cases (19,455, 53%) were male. Most of the cases belonged to the 5-9 years age group (9,437, 26%) (Figure 2).

Figure 2. Reported Dengue Cases by Age Group and Sex (N= 36,664)
Philippines, January 1 – February 23, 2019



Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2018 data reflects partial data only of all regions, subject to change once annual 2018 data is completed. Percentages may not equal to 100 due to rounding off of figures. A PDF file of this report is available at www.doh.gov.ph/statistics.



B. Profile of Confirmed Dengue Cases

Out of 36,664 reported Dengue cases nationwide, **13,367 (36%)** cases were tested. Out of the tested, **160 (1%)** cases were confirmed via PCR.

Figure 3. Confirmed Dengue Cases by Morbidity Week (n=160)
Philippines, January 1 – February 23, 2019

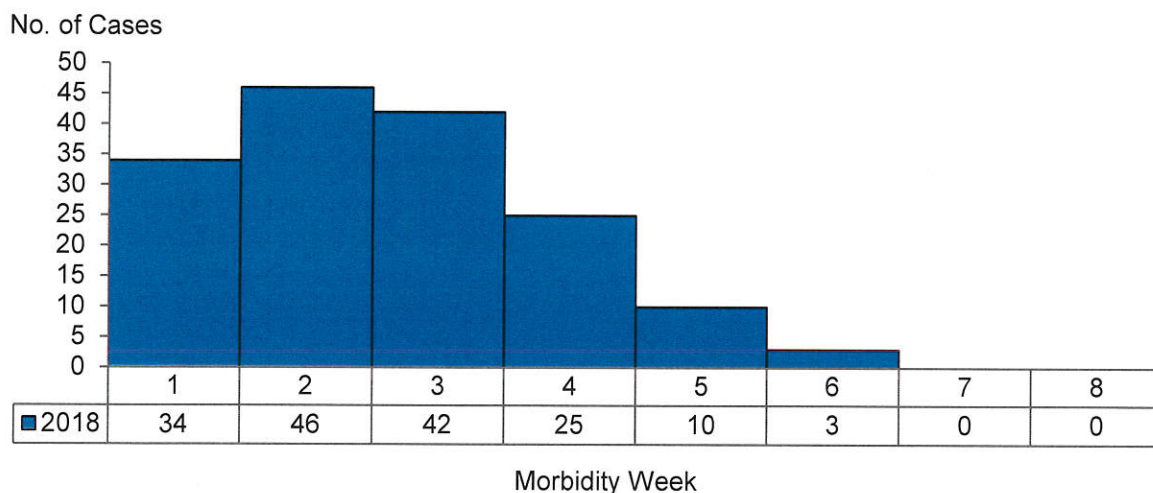


Table 2 shows that majority of the confirmed Dengue cases were from the following regions: **Region II** (42, 26%), **Region IX** (37, 23%), **NCR** (23, 14%), and **Region XI** (15, 9%). The predominant serotype from January 1 to February 23, 2019 is **DENV3** (96 cases, 60%) followed by **DENV 1** (46 cases, 29%), **DENV 2** (16 cases, 10%), **DENV 4** (1 case, 1%) and **mixed serotype** (1 case, 1%)

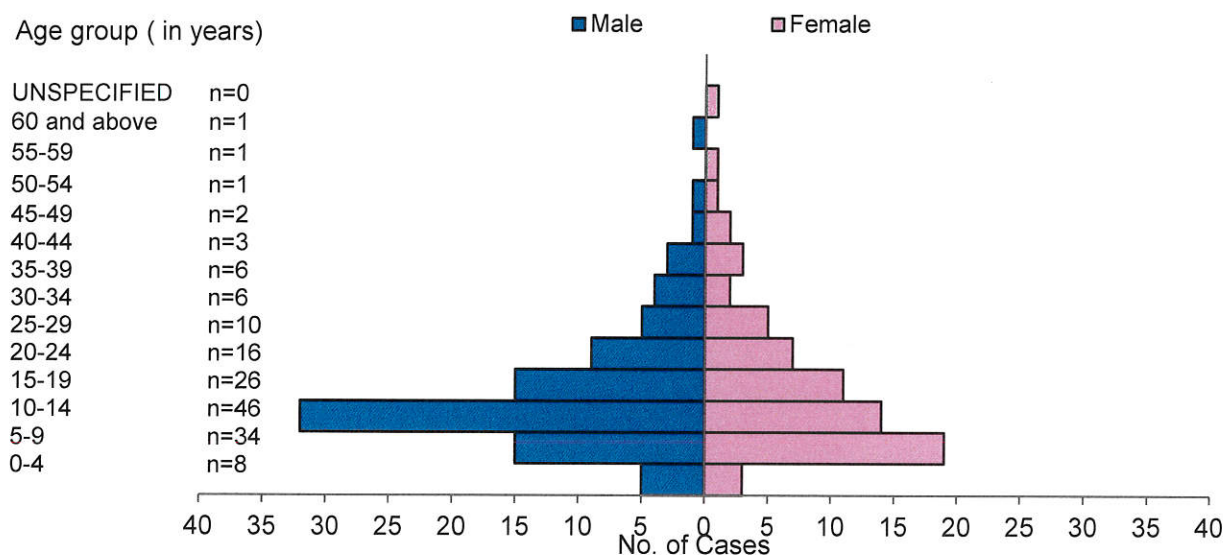
Table 2. Confirmed Dengue Cases by Region and Serotype (n=160)
Philippines, January 1 – February 23, 2019

Region	Serotype					Total
	Dengue 1	Dengue 2	Dengue 3	Dengue 4	Mixed Serotype	
PHILIPPINES	46	16	96	1	1	160
I	0	0	6	0	0	6
II	0	1	41	0	0	42
III	0	0	0	0	0	0
IV-A	0	0	6	0	0	6
MIMAROPA	0	0	0	0	0	0
V	0	0	0	0	0	0
VI	0	0	0	0	0	0
VII	0	6	8	0	0	14
VIII	0	0	0	0	0	0
IX	33	1	3	0	0	37
X	0	0	0	0	0	0
XI	6	3	6	0	0	15
XII	0	1	3	1	0	5
ARMM	4	2	3	0	0	9
CAR	0	0	2	0	0	2
CARAGA	1	0	0	0	0	1
NCR	2	2	18	0	1	23



Age of confirmed Dengue cases ranged from less than 1 year old to 60 years old (median year of 14 years). Majority of the confirmed cases (91, 57%) were male. Forty-six (46,29%) of the confirmed cases belonged to the 10-14 years age group (Figure 4).

Figure 4. Confirmed Dengue Cases by Age Group and Sex (n=160)
Philippines, January 1 – February 23, 2019



C. Profile of Reported Dengue Deaths

There were 140 deaths (CFR = 0.38%) reported from January 1 to February 23, 2019. The case fatality rate is lower compared to the same period last year, 104 deaths (CFR=0.47%). The provinces or city with the highest number of deaths were: **Cebu** (23 deaths, 16%), **Cagayan** (13 deaths, 9%), **Quezon City** (8 deaths, 6%) and **Negros Occidental** (7 deaths, 5%).

Table 3. Top Provinces/Cities with Highest Reported Dengue Deaths (n=49)
Philippines January 1 – February 23, 2019

Province	Deaths	% among Deaths
Cebu	23	16
Cagayan	13	9
Quezon City	8	6
Negros Occidental	7	5



Age of deaths ranged from less than 1 year old to 88 years old (median age of 8 years). Majority (74, 53%) of the cases were female. Most of the reported Dengue deaths belonged to 5-9 years age group (60, 43%) (Figure 5).

Figure 5. Reported Dengue Deaths by Age Group and Sex (n=140)
Philippines, January 1 – February 23, 2019

