



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 March 30, 2019 or Morbidity Weeks 1 – 13.

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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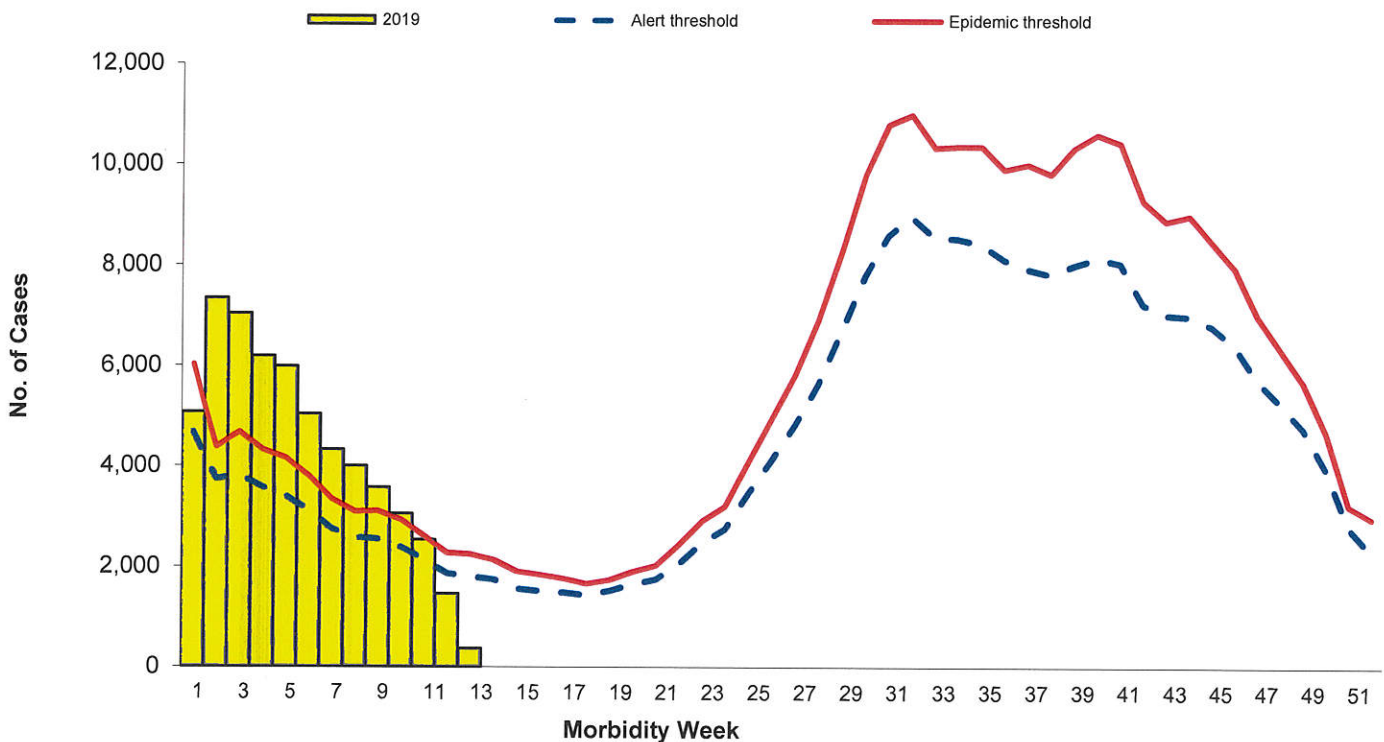
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I. Trend in the Philippines

A total of **55,976** Dengue cases were reported nationwide from January 1 to March 30, 2019. This is **79%** higher compared to the same period last year (**31,247**). Figure 1 shows weekly data of reported dengue cases in 2019 compared to alert and epidemic thresholds.

Figure 1. Reported Dengue Cases (N=55,976)
Morbidity Weeks 1 - 13 (January 1- March 30, 2019) vs Epidemic and Alert Thresholds



II. Geographic Distribution

Table 1 shows that majority of the cases were from the following regions: **Region VII** (6,189 or 11%), **Region IV-A** (5,366 or 10%), **NCR** (5,339 or 10%) and **CARAGA** (5,099 or 9%).

The regions with the highest percent increase in the number of reported cases for this year compared to last year were: **CARAGA** (516%), **Region II** (433%), **Region VII** (248%), **Region XI** (226%), and **Region XII** (193%).



Table 1. Reported Dengue Cases by Region
Philippines, January 1 – March 30, 2019 vs January 1 – March 30, 2018

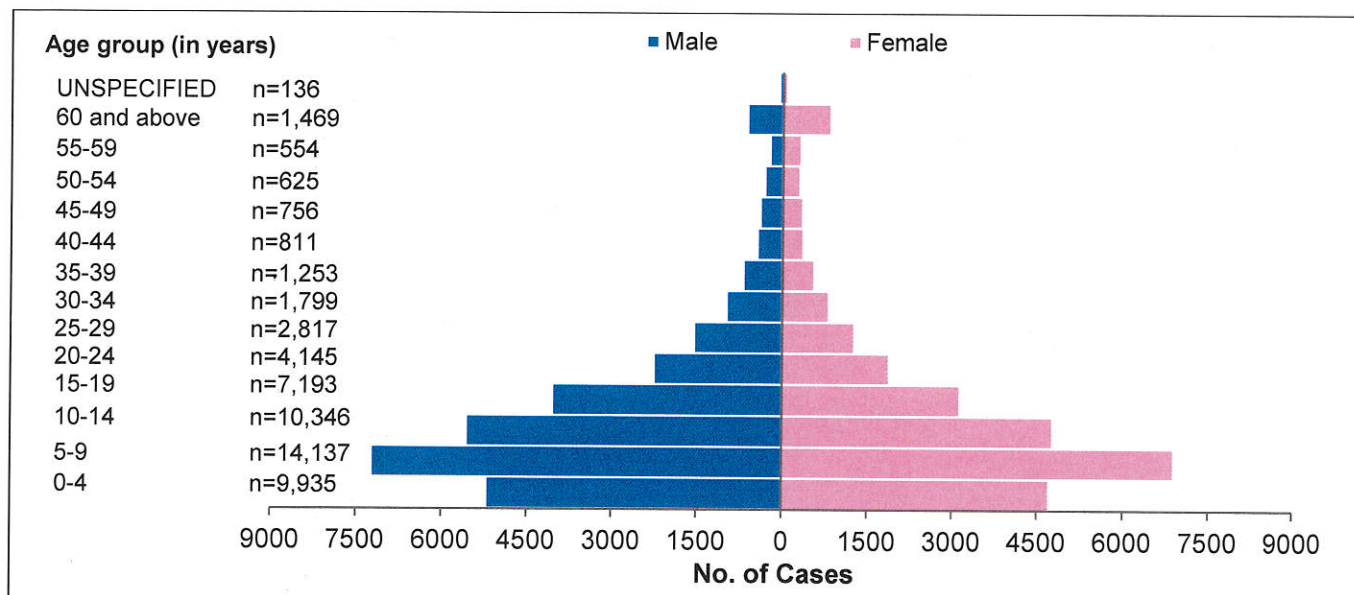
Region	2018		2017		% Change of Reported Cases
	Cases	Deaths	Cases	Deaths	
PHILIPPINES	55,976	227	31,247	168	↑79
I	1,234 or 2%	2 or 1%	1,415 or 5%	9 or 5%	↓13
II	4,163 or 7%	22 or 10%	781 or 2%	3 or 2%	↑433
III	4,429 or 8%	8 or 4%	5,699 or 18%	12 or 7%	↓22
IV-A	5,366 or 10%	20 or 9%	5,342 or 17%	32 or 19%	↑0.4
MIMAROPA	1,611 or 3%	6 or 3%	671 or 2%	5 or 3%	↑140
V	1,104 or 2%	8 or 4%	687 or 2%	5 or 3%	↑61
VI	4,719 or 8%	27 or 12%	1,752 or 6%	14 or 8%	↑169
VII	6,189 or 11%	37 or 16%	1,779 or 6%	13 or 8%	↑248
VIII	2,383 or 4%	9 or 4%	1,125 or 4%	11 or 7%	↑112
IX	2,553 or 4%	19 or 8%	974 or 3%	10 or 6%	↑162
X	4,287 or 8%	12 or 5%	1,664 or 5%	18 or 11%	↑158
XI	2,059 or 4%	3 or 1%	631 or 2%	1 or 1%	↑226
XII	3,615 or 6%	13 or 6%	1,235 or 4%	3 or 2%	↑193
ARMM	637 or 1%	5 or 2%	364 or 1%	4 or 2%	↑75
CAR	1,189 or 2%	3 or 1%	676 or 2%	3 or 2%	↑76
CARAGA	5,099 or 9%	15 or 7%	828 or 3%	1 or 1%	↑516
NCR	5,339 or 10%	18 or 8%	5,624 or 18%	24 or 14%	↓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 (29,626 or 53%) were male. Most of the cases belonged to the 5-9 years age group (14,137 or 25%) (Figure 2).

Figure 2. Reported Dengue Cases by Age Group and Sex (N=55,976)
Philippines, January 1 – March 30, 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 55,976 reported Dengue cases nationwide, 20,688 (37%) cases were tested. Out of the tested, 246 (1%) cases were confirmed via PCR.

Figure 3. Confirmed Dengue Cases by Morbidity Week (n=246)
Philippines, January 1 – March 30, 2019

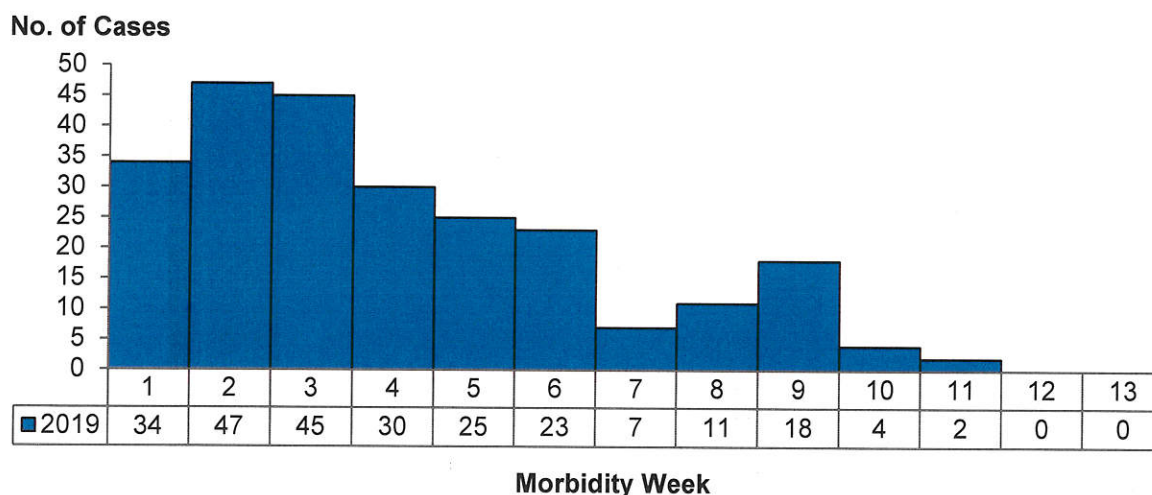


Table 2 shows that majority of the confirmed Dengue cases were from the following regions: **Region II** (56 or 23%), **Region IX** (52 or 21%), **NCR** (33 or 13%), and **Region XI** (27 or 11%). The predominant serotype from January 1 to March 30, 2019 is **DENV3** (150 cases or 61%) followed by **DENV 1** (65 cases or 26%), **DENV 2** (27 cases or 11%), **DENV 4** (3 cases or 1%) and **mixed serotype** (1 case or 0.4%)

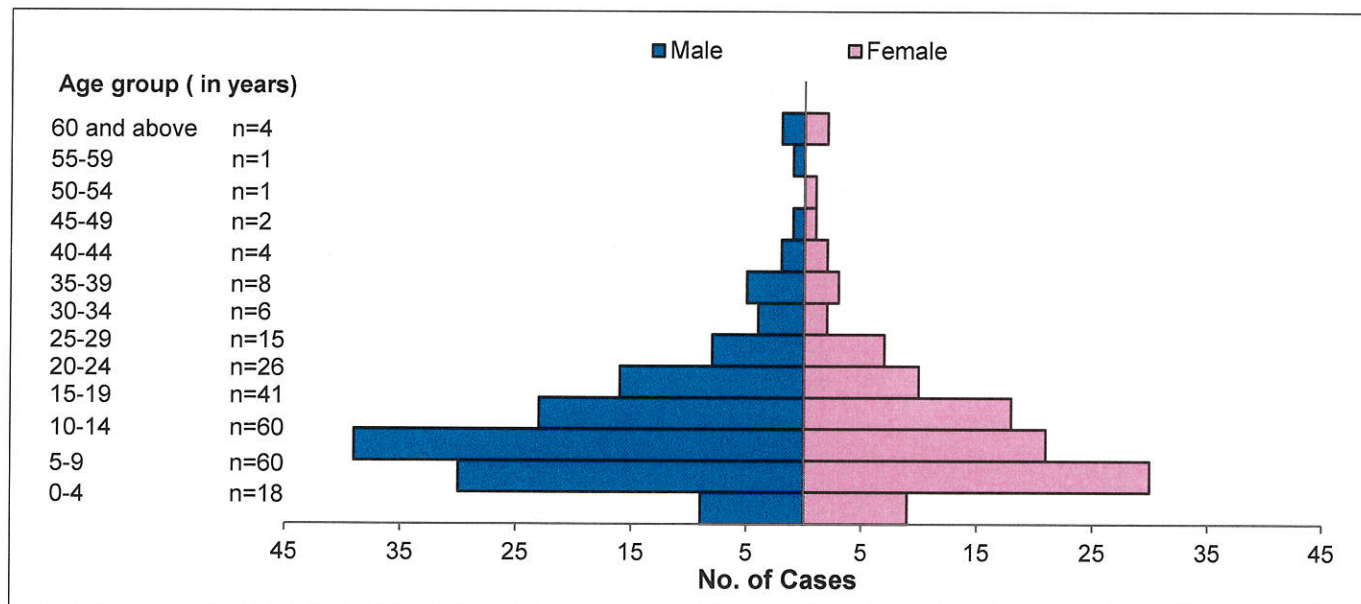
Table 2. Confirmed Dengue Cases by Region and Serotype (n=246)
Philippines, January 1 – March 30, 2019

Region	Serotype					Total
	Dengue 1	Dengue 2	Dengue 3	Dengue 4	Mixed Serotype	
PHILIPPINES	65	27	150	3	1	246
I	0	0	6	0	0	6
II	0	2	54	0	0	56
III	0	0	1	0	0	1
IV-A	0	0	8	0	0	8
MIMAROPA	0	0	0	0	0	0
V	1	1	4	1	0	7
VI	0	0	0	0	0	0
VII	0	7	9	0	0	16
VIII	0	0	0	0	0	0
IX	38	6	8	0	0	52
X	0	0	0	0	0	0
XI	13	5	9	0	0	27
XII	1	2	13	1	0	17
ARMM	5	2	5	0	0	12
CAR	0	0	3	0	0	3
CARAGA	5	0	3	0	0	8
NCR	2	2	27	1	1	33



Age of confirmed Dengue cases ranged from less than 1 year old to 70 years old (median age of 13 years). Majority of the confirmed cases (140 or 57%) were male. Sixty or 29% of the confirmed cases belonged to the 5-9 and 10-14 years age groups (Figure 4).

Figure 4. Confirmed Dengue Cases by Age Group and Sex (n=246)
Philippines, January 1 – March 30, 2019



C. Profile of Reported Dengue Deaths

There were 227 deaths (CFR = 0.41%) reported from January 1 to March 30, 2019. The case fatality rate is lower compared to the same period last year, 168 deaths (CFR=0.54%). The provinces or city with the highest number of deaths were: **Cebu** (29 or 13%), **Negros Occidental** (15 or 7%), **Cagayan** (14 or 6%), and **Quezon City** (8 or 4%).

Table 3. Top Provinces/Cities with Highest Reported Dengue Deaths (n=227)
Philippines January 1 – March 30, 2019

Province	Deaths	% among Deaths
Cebu	29	13
Negros Occidental	15	7
Cagayan	14	6
Quezon City	8	4



Age of deaths ranged from less than 1 year old to 88 years old (median age of 8 years). Most of the reported deaths (122 or 54%) were female. Majority belonged to 5-9 years age group (89 deaths or 39%) (Figure 5).

Figure 5. Reported Dengue Deaths by Age Group and Sex (n=227)
Philippines, January 1 – March 30, 2019

