



Morbidity Week 24 – June 14 – June 20, 2015

Epidemiology Bureau
Public Health Surveillance Division

Introduction

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 the viral disease to humans.

In the Philippines, *Aedes aegypti* and *Aedes albopictus* are the primary and secondary mosquito vectors, respectively. The mosquito vectors breed in the small amount of water collected in such as storages such as tanks, cisterns, flower vases, plant axils and backyard litter.

The incubation period is from 3 to 14 days, commonly 4-7 days.

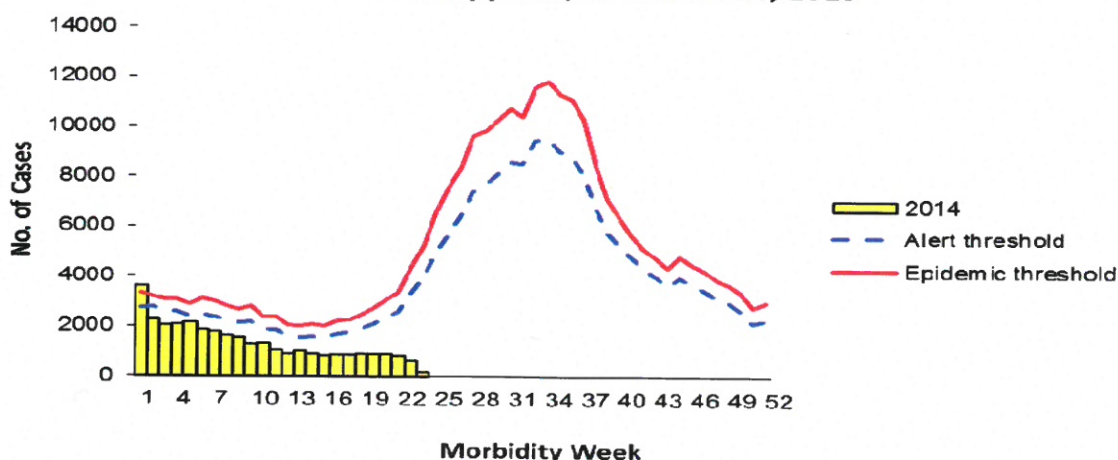
Signs and Symptoms

- Sudden onset of high fever which may last from 2 to 7 days.
- Joint and muscle pain and pain behind the eyes.
- Weakness
- Skin rashes
- Nosebleeding when fever starts to subside
- Abdominal pain
- Vomiting of coffee-colored matter
- Dark-colored stools
- Difficulty breathing.

Trend in the Philippines

A total of **32,440** suspect dengue cases was reported nationwide from January 1 to June 20, 2015. This is **3.44%** higher compared to the same time period last year (**31,362**).

**Fig. 1 Distribution of Suspect Dengue Cases by Morbidity Week
Philippines, as of June 20, 2015**



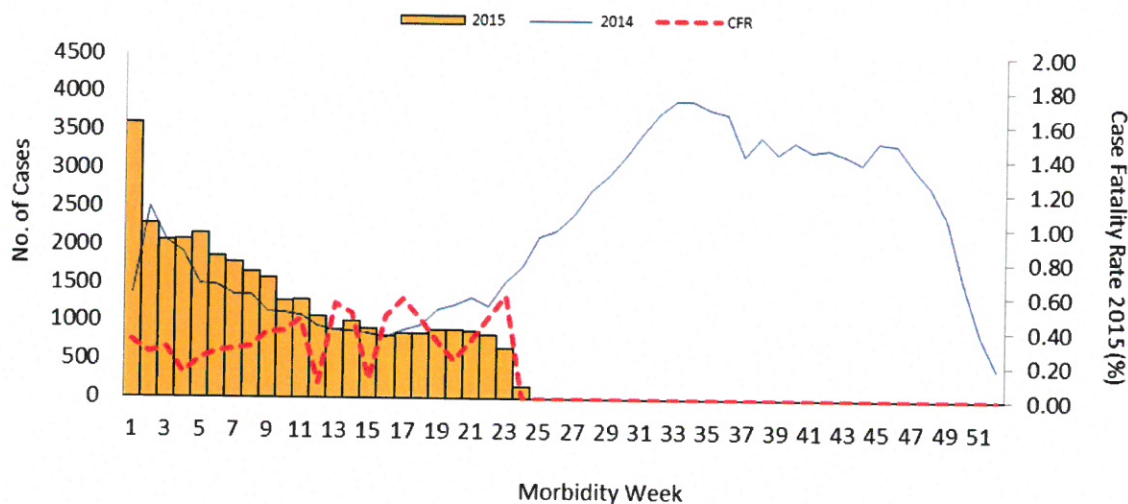
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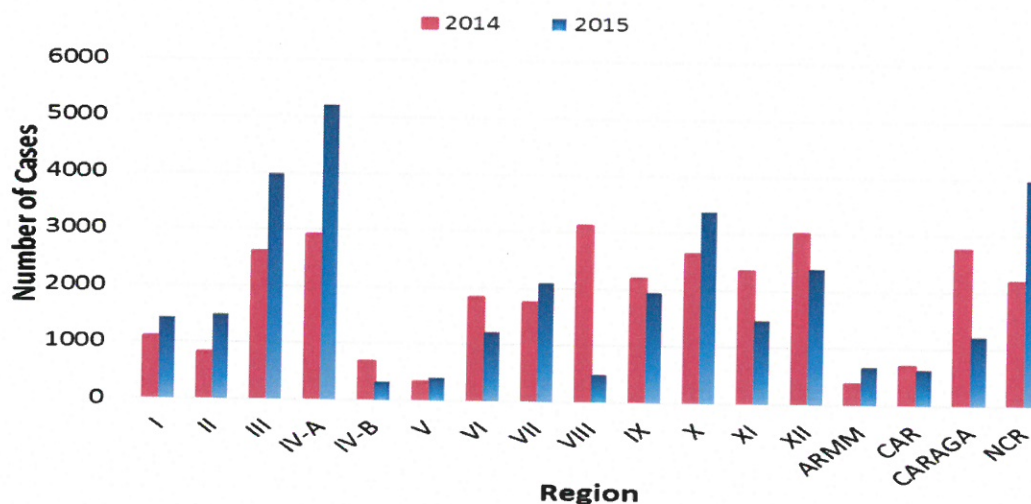
**Fig. 2 Suspect Dengue Cases by Morbidity Week, Philippines, as of June 20, 2015
2015* vs 2014 (N=32,440)**



Geographic Distribution

Most of the cases were from the following regions: **Region IV-A (16.1%)**, **NCR & Region III (12.3%)**, **Region X (10.5%)** and **Region XII (7.4%)**.

Fig. 3 Suspect Dengue Cases by Region Philippines, 2015 vs 2014



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Fig 4. Suspect Dengue Cases as of January 1 to June 20, 2015

Region	Cases
Region 1	= 1434
Region 2	= 1493
Region 3	= 3988
Region 4A	= 5214
Region 4B	= 320
Region 5	= 396
Region 6	= 1229
Region 7	= 2106
Region 8	= 484
Region 9	= 1960
Region 10	= 3390
Region 11	= 1489
Region 12	= 2403
ARMM	= 671
CAR	= 634
CARAGA	= 1231
NCR	= 3998
Total	= 32440

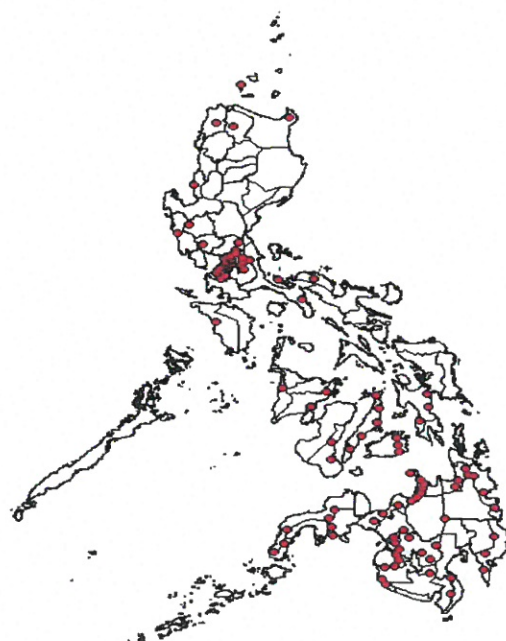
Legend
1 Dot = 20 Cases



Fig 5. Suspect Dengue Deaths as of January 1 to June 20, 2015

Region	Deaths
Region 1	= 5
Region 2	= 2
Region 3	= 5
Region 4A	= 13
Region 4B	= 1
Region 5	= 1
Region 6	= 3
Region 7	= 10
Region 8	= 3
Region 9	= 7
Region 10	= 11
Region 11	= 4
Region 12	= 11
ARMM	= 6
CAR	= 1
CARAGA	= 7
NCR	= 15
Total	= 105

Legend
1 Dot = 1 Death



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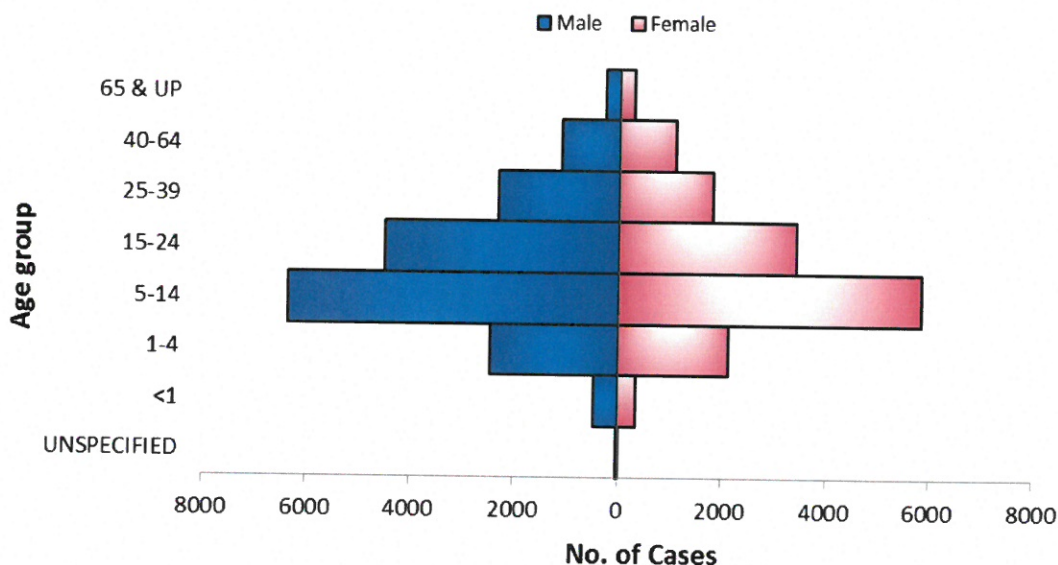
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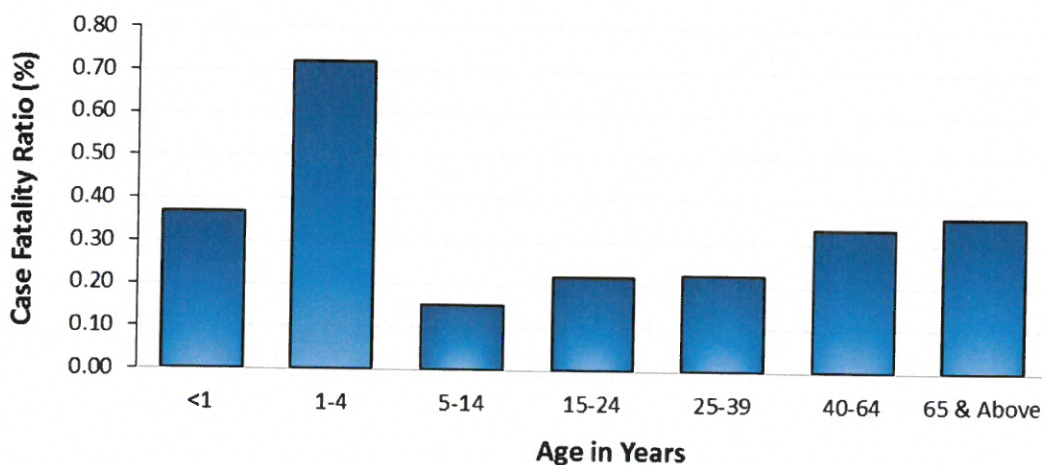
Profile of Cases

Ages of cases ranged from less than 1 month to 97 years old (median = 13 years). Majority of cases were male (54%). Most (37.6%) of the cases belonged to the 5 to 14 years age group (Fig. 6). There were 105 deaths (CFR = 0.32%).

**Fig.6 Suspect Dengue Cases by Agegroup and Sex
Philippines, as of June 20, 2015 (N=32,440)**



**Fig. 7 Suspect Dengue Case Fatality Rate (CFR) by Age Group,
Philippines, as of June 20, 2015**



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Dengue Virus Serotype Distribution in the Philippines

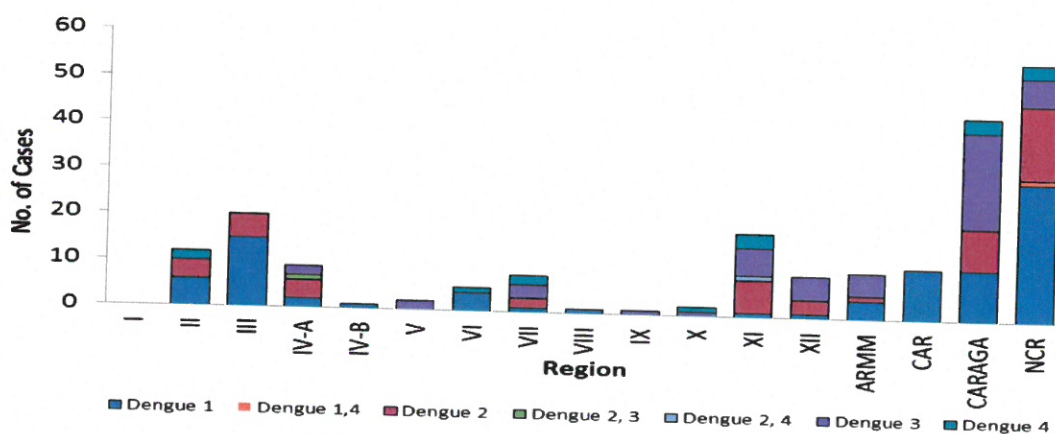
Dengue Fever/Dengue Hemorrhagic Fever has emerged as a major public health problem in the past 20 years, with an increasing incidence and expanding geographical distribution in both the vector and the disease (Gubler, 2002). Increased human migration and travel, climate change, urbanization and social changes have all contributed to this resurgence. These factors will continue to increase in the future, thus, an effective prevention and control program needs to be in place in order to predict and prevent epidemics.

Dengue is considered a Category II notifiable disease in the syndromic based Philippine Integrated Disease Surveillance and Response (PIDSR) of the country lead by the Epidemiology Bureau. Dengue cases from health facilities nationwide are reported to the NEC on a weekly basis. However, laboratory confirmation of these cases has been limited. An active surveillance obtained from a smaller percentage of cases on a sentinel basis may provide a more detailed serotype-specific incidence data. Using the data from both systems, disease burden estimates could be determined.

The Research Institute for Tropical Medicine (RITM) served as the National Reference Laboratory for Dengue and other arboviruses together with NEC has started laboratory confirmation of Dengue cases in 2008, thus providing the serotype incidence over the years. With that, the Epidemiology Bureau – Philippine Integrated Disease Surveillance and Response (PIDSR), in collaboration with the Research Institute for Tropical Medicine (RITM), has developed a guideline entitled, “**Interim Guidelines on the Sentinel-based Active Dengue Surveillance**” (DM 2014-0112).

Dengue serotype data are based on samples systematically collected from 20 sentinel site hospitals in all regions of the Philippines. Based from the Sentinel Based Active Dengue Surveillance, there were **209** laboratory confirmed dengue cases in the Philippines, in which all four DENV serotypes were present from January 1 to June 20, 2015. The predominant serotype during the first four months of 2015 is **DENV-1** (41.1%) followed by **DENV-2** (24.9%), mostly occurring in the NCR region (26.8%).

**Fig. 8 Confirmed Dengue Cases by Region and Serotype
Philippines, as of June 20, 2015 (n=209)**



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Fig. 9 Dengue virus serotype distribution in the Philippines, as of June 20, 2015 (n=209)

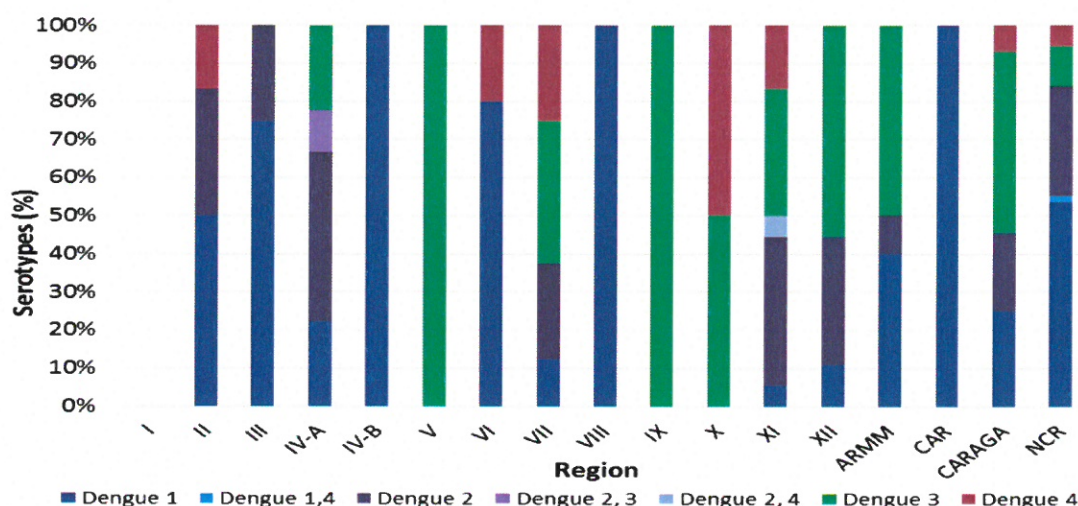


Table 1. Dengue Cases & Deaths by Region
Philippines, 2015* vs 2014

Region	Cases			Deaths			
	2015	2014	% Change	2015	CFR (%)	2014	CFR (%)
I	1434	1095	↑ 31.0	5	0.35	2	0.18
II	1493	819	↑ 82.3	2	0.13	7	0.85
III	3988	2602	↑ 53.3	5	0.13	4	0.15
IV-A	5214	2919	↑ 78.6	13	0.25	8	0.27
IV-B	320	679	↓ -52.9	1	0.31	4	0.59
V	396	326	↑ 21.5	1	0.25	2	0.61
VI	1229	1831	↓ -32.9	3	0.24	9	0.49
VII	2106	1752	↑ 20.2	10	0.47	7	0.40
VIII	484	3114	↓ -84.5	3	0.62	13	0.42
IX	1960	2190	↓ -10.5	7	0.36	11	0.50
X	3390	2641	↑ 28.4	11	0.32	15	0.57
XI	1489	2352	↓ -36.7	4	0.27	10	0.43
XII	2403	3022	↓ -20.5	11	0.46	24	0.79
ARMM	671	374	↑ 79.4	6	0.89	3	0.80
CAR	634	691	↓ -8.2	1	0.16	1	0.14
CARAGA	1231	2765	↓ -55.5	7	0.57	15	0.54
NCR	3998	2190	↑ 82.6	15	0.38	4	0.18
Total	32440	31362	↑ 3.44	105	0.32	139	0.44

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Table 2. Weekly Dengue Summary Report by Region
Philippines, as of June 20, 2015

Region	Morbidity Week				24th Morbidity Week		Cumulative Total	
	20	21	22	23	2015	2014	1st wk to 24th wk	
							2015	2014
I	67	65	63	60	5	72	1434	1095
II	87	92	65	9	0	40	1493	819
III	79	78	72	41	6	60	3988	2602
IV-A	112	91	105	116	32	73	5214	2919
IV-B	5	4	4	2	0	26	320	679
V	8	17	13	9	1	14	396	326
VI	45	34	33	21	0	144	1229	1831
VII	25	23	24	39	19	74	2106	1752
VIII	9	11	5	12	5	91	484	3114
IX	80	88	69	29	6	190	1960	2190
X	82	104	147	116	54	287	3390	2641
XI	53	37	54	74	7	200	1489	2352
XII	107	114	74	17	0	165	2403	3022
ARMM	28	23	32	24	8	28	671	374
CAR	37	35	15	46	11	28	634	691
CARAGA	15	10	13	27	1	197	1231	2765
NCR	63	65	57	24	8	37	3998	2190
Total	902	891	845	666	163	1726	32440	31362

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Treatment

- Do not give aspirin for fever.
- Give sufficient amount of water or rehydrate a dengue suspect.
- If fever or symptoms persist for 2 or more days, bring the patient to the nearest hospital.

Prevention and Control

Follow the 4-S against Dengue:

1. Search and Destroy
 - Cover water drums and pails.
 - Replace water in flower vases once a week.
 - Clean gutters of leaves and debris.
 - Collect and dispose all unsuable tin, cans, jars, bottles and other items that can collect and hold water.
2. Self-protection Measures
 - Wear long pants and long sleeved shirt.
 - Use mosquito repellent every day.

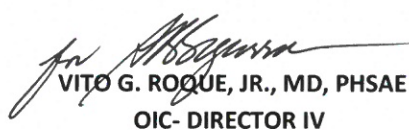


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3. Seek Early Consultant
 - Consult the doctors immediately if fever persist after 2 days and rashes appears.
4. Say Yes to Fogging When There is an Impending Outbreak or a Hotspot.


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