

## Situation Report 1 Dengue Outbreak

	Cases	Deaths	CFR
2018	57,564	317	0.55%
2019	106,630	456	0.43%

*Between 1 January and 29 June*

16 July 2019

### Overview

With 106,630 dengue cases reported through the Philippines Integrated Disease Surveillance and Response (PIDSRS) system from 1 January to 29 June 2019, including 456 deaths, the current dengue incidence is 85% higher than in 2018, in spite of a delayed rainy season. Whereas the Case Fatality Rate (CFR) of 0.43% as of 29 June 2019 is lower than in the same time period in 2018 (0.55%), this is still significantly higher than the regional average of 0.22% in the Western Pacific.

The Philippines Department of Health (DoH) declared a **National Dengue Alert** on 15 July 2019, urging regional DoH offices to step up dengue surveillance, case management and outbreak response in primary health facilities and hospitals, as well as through community and school-based health education campaigns, clean-up drives, surveillance activities, case investigations, vector control, and logistics support for dengue control (insecticides, RDTs, medicine, etc) in line with an **Advisory on Dengue Preparedness and Outbreak Response** issued earlier this year. The National Disaster Risk Reduction Management Council (NDRRMC), raised the code blue alert, activating the national Health Cluster, led by DoH.

### Current Situation

Between 1 January to 29 June 2019, including 456 deaths were officially reported through the routine surveillance system from the DOH, with a CFR of 0.43% (see Table 1).

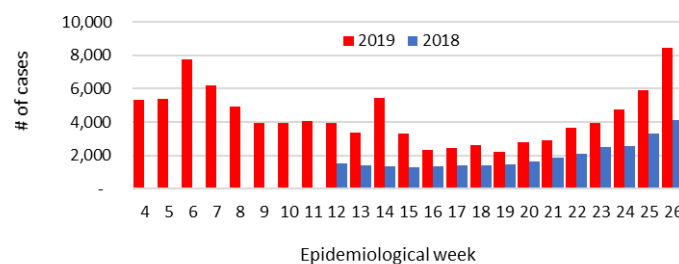
With a median age of 12 years, the most affected age group among dengue cases is 5-9 years (23%). Similarly, the most affected age group among dengue deaths is 5-9 years (39%). The majority of dengue cases are male (53%), whereas the majority of dengue deaths are female (52%).

Most affected regions are II, IVA, V, VI, VII, VIII, IX, II, BARMM and NCR. Iloilo, Capiz, Aklan, Antique and Guimaras provinces in Region VI declared an outbreak, with many municipalities seeking a state of calamity to access emergency funding to mobilise additional resources.

Table 1. Cumulative Reported Dengue Cases by Region January 1- June 29, 2019 vs January 1- June 29, 2018

Region	2019			2018		
	Cases	Deaths	%CFR	Cases	Deaths	%CFR
<b>PHILIPPINES</b>	<b>106,630</b>	<b>456</b>	<b>0.4</b>	<b>57,564</b>	<b>317</b>	<b>0.6</b>
I	2,516	5	0.2	3,131	13	0.4
II	6,499	24	0.4	1,742	7	0.4
III	7,271	15	0.2	8,609	20	0.2
IV-A	11,474	46	0.4	7,758	47	0.6
MiMaRoPa	3,166	9	0.3	1,729	10	0.6
V	2,103	22	1.0	1,197	14	1.2
VI	13,164	78	0.6	4,012	33	0.8
VII	9,199	60	0.7	3,278	25	0.8
VIII	4,177	17	0.4	2,309	19	0.8
IX	8,256	43	0.5	1,947	15	0.8
X	8,739	25	0.3	4,922	38	0.8
XI	3,377	6	0.2	1,571	6	0.4
XII	9,107	41	0.5	3,009	12	0.4
ARMM	1,784	17	1.0	913	13	1.4
CAR	2,306	5	0.2	1,504	4	0.3
Caraga	6,177	17	0.3	1,766	3	0.2
NCR	7,315	26	0.4	8,167	38	0.5

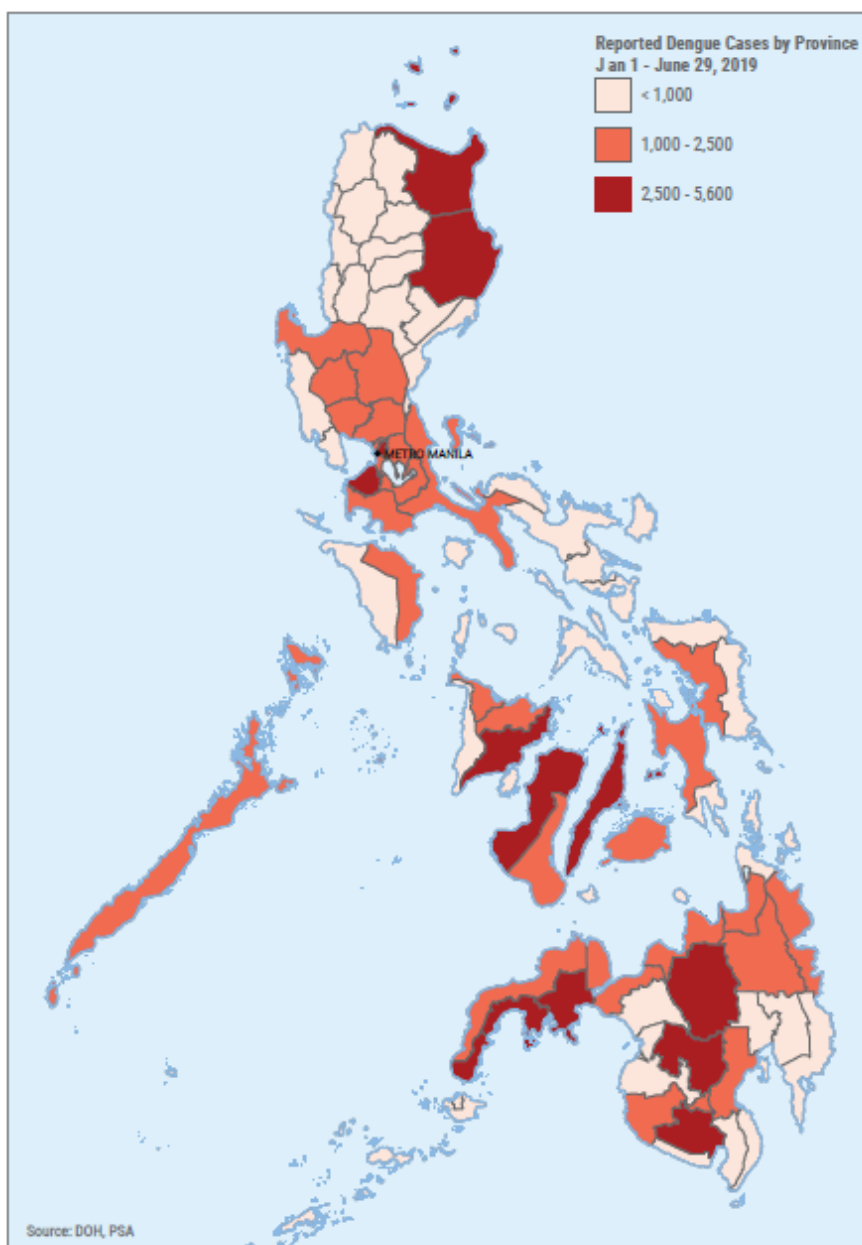
**Figure 1: Weekly reported dengue cases \***  
in the Philippines, epidemiological week 1-26 2018 and 2019



\* Calculated as the weekly difference in accumulative reported cases

Source: Philippines Department of Health Surveillance Reports

**Map: Reported dengue cases by province 1 January-29 July 2019\***



\* Map provided by OCHA

## Response so far

### Risk assessment

Overall risk		
National	Regional	Global
High	Low	Low

Risk of the current dengue situation is considered high at national level, and low at regional and global level.

Dengue is endemic in the Philippines (Figure 2) with seasonal peaks between July and September each year following the rains. With a delayed rainy season due to a weak El Niño likely to continue until August 2019, and the number of cases already 85% higher than in the same time period in 2018, the dengue caseload is expected to significantly rise, possibly similar to large outbreaks which occurred in 2016, 2013 and 2010. This would be in line with a 3 to 4 years interval at which epidemics tend to occur in endemic countries.

## Case management

Dengue causes severe health, social and economic impact. Those with symptoms get ill between 4 to 7 days after a bite from an infected *Aedes* mosquito. The infection is characterized by flu-like symptoms, including a sudden high fever coming in separate waves, pain behind the eyes, muscle, joint and bone pain, severe headache, and a skin rash with red spots. The illness may progress to potentially fatal Severe Dengue, characterised by severe abdominal pain, vomiting, diarrhoea, convulsions, bruising, uncontrolled bleeding, and high fever which can last from 2 to 7 days. Complications can lead to circulatory system failure, shock, and death.

There are 4 dengue virus serotypes (DENV 1, 2, 3 and 4), transmitted by the *Aedes aegypti* and *Aedes albopictus* mosquitoes. The viruses act as different viruses: infection with one serotype does not protect against others, and sequentially infected by a different serotype put people at greater risk of developing Severe Dengue.

There is no antiviral treatment, beyond supportive care including rest and plenty of fluids.

DoH is urging all health facilities to reactivate so-called Dengue Fast Lanes where needed and to step up dengue case management in line with existing dengue clinical management guidelines from 2012. WHO is currently updating the clinical management guidelines as well as rapid advice on clinical management targeting clinicians, nurses, community health workers and the community.

WHO is also supporting DoH with preparing targeted risk communication messages for health workers and communities, to ensure early detection and access to proper medical care, which are essential to lower fatality rates.

Although the current CFR is lower than for the same time period in 2018 (Figure 3), it is considered high compared to the regional average of 0.22%.

## Surveillance

DoH Epidemiological Surveillance Units at municipal, provincial and regional level are proactively looking for clusters of dengue cases up to the barangay level, to launch specific response activities in line with identified needs. Furthermore, Regional Dengue Coordinators are currently submitting weekly dengue outbreak response reports to DoH to provide a comprehensive overview of all response actions and where needed, to mobilise additional resources.

Rapid diagnostics at barangay level is facilitated through the distribution of Rapid Diagnostics Tests (RDT).

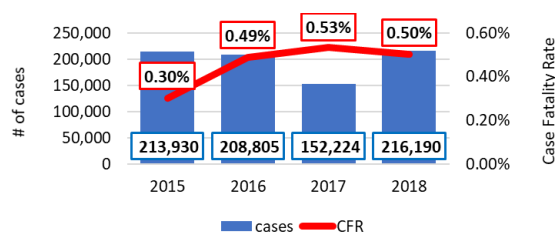
## Laboratory testing

As per 29 July 2019, 43,823 samples (40% of the total number of cases) were tested for dengue at the Research Institute for Tropical Medicine (RITM).

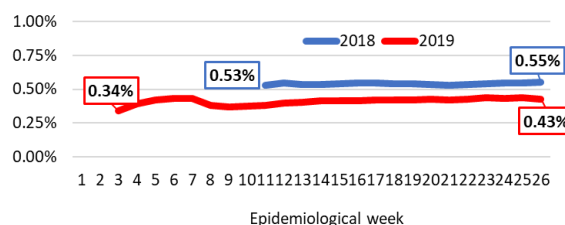
Of all tested samples, 81% were confirmed, using the below tests:

Test	%	Of all laboratory confirmed dengue cases, the majority are DENV 3 (72%) (Figure 4).
PCR	1	
NS1	63	
IgM	15	
IgG	21	

**Figure 2: Annual total dengue cases and CFR in the Philippines 2015-2018**

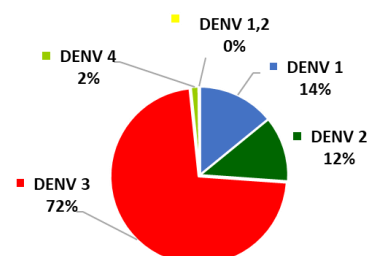


**Figure 3: Case Fatality Rate for Dengue in the Philippines 2018-2019**



\* Calculated as the total accumulative reported deaths divided by the total accumulative reported cases

**Figure 4: Laboratory confirmed dengue virus (DENV) serotypes in the Philippines as of 29 July 2019**



## Vaccination

Dengvaxia® is the only dengue vaccine currently licenced globally, but it is currently not licensed in the Philippines.

## Vector Control

Dengue is a mosquito-borne viral infection transmitted by infected *Aedes* mosquitoes which feed both indoors and outdoors during the daytime (during early morning hours and early evening hours). Those mosquitoes thrive in areas with standing clean water, including water tanks, containers and old tires. Lack of regular water supply and garbage collection contribute to increased breeding of the mosquitoes.

Recent budget limitations have negatively affected dengue control activities including for clean-up efforts and vector control. While shortage of insecticides has been reported, better targeting of vector control is necessary.

Besides clean-up drives, DoH is urging regional-level Centres for Health Development (CHD) to mobilise sufficient resources including insecticides for effective vector control at the barangay levels.

## Risk Communication

The distribution of information, education and communication (IEC) materials has also been limited. Targeted risk communication messages have been developed and are in process of validation with health workers and specific target groups from the community, raising awareness about dengue symptoms and warning signs of severe dengue, home-treatment of mild cases, and the importance of seeking immediate medical care if warning signs are presented.

## Response plan

- Daily dengue epidemiology analysis at barangay level by Regions and LGUs: plotting of epi curve, age cohort of new cases.
- Any cluster of dengue cases to be immediately notified to DoH/EB for appropriate follow up.
- Establishment of Dengue Fast Lanes in health facilities
- Community and school-based health education campaigns and clean-up drives
- Vector control, including logistics support (insecticides)
- National Health Cluster coordination through NDRRMC mechanism led by DoH
- In response to a DOH request, WHO is currently preparing a training for CHDs aimed at strengthening their coordination capacity to ensure proper prevention, control, and response measures are taken by the provincial, municipal, and city health offices in dengue outbreak control, especially looking at:
  - o Targeted risk communication among broader population to increase awareness of warning signs for improved health-seeking behaviour and dengue prevention and control
  - o Risk Communication increasing primary healthcare worker awareness on clinical signs of dengue for early detection of cases and outbreaks
  - o Improved case management by ensuring:
    - Knowledge of severe dengue signs and symptoms among health workers
    - Strengthening intensive care management for severe cases
    - Better home based management of non-severe dengue, and in primary care settings and improved use of referral system
  - o Sustainable and effective integrated vector control to reduce breeding opportunities for dengue mosquito and improved targeting of strengthened vector control during outbreaks

## Partners' engagement so far

WHO are supporting with:

- Development and dissemination of rapid advice on clinical management targeting clinicians, nurses, community health workers and the community.
- Updating of clinical management guidelines of dengue cases
- Support with epidemiological analysis and rapid risk assessment
- Building clinical capacity in support of centres of excellence
- Preparations for dengue outbreak response training for CHDs
- Development and dissemination of targeted risk communication messages for health workers and communities
- Dissemination of key guidelines and IEC materials to health partners