



### Dengue situation in Viet Nam

- **Recently, there has been a sharp increase in the number of Dengue cases in Viet Nam, including a sharp increase in cases in Hanoi.**
- **As of 13 August, over 90,000 Dengue cases have been reported** across the country since the beginning of 2017, which is approximately 2.5 times increase compared to same period of past five years (2012-2016). While most people recovered, 24 people died. Of all the reported cases, 53% have been reported from the Southern Region, 26% from the Northern Region, 17% from the Central Coastal Region and 4% from the Central Highland Region.
- **Ha Noi, the capital city, has been particularly affected as compared to previous years.** As of 13 August, the total number of cases reported was 17,365, including seven deaths, almost 33 times higher compared to the same period in 2016. Inner city districts, such as Dong Da, Hoang Mai, Hai Ba Trung and Thanh Xuan are reporting the highest number of cases.
- The following provinces and cities have reported the highest number of dengue cases per 100,000 population in 2017: **Da Nang (525), Binh Duong (248), Hanoi (197), Khanh Hoa (138) and Ho Chi Minh City (126).**
- **Based on the risk assessment,** it is likely that a large number of Dengue cases will continue to be reported. Viet Nam's peak season for Dengue is expected to last until October or November due to high temperatures and increasing rain fall. These conditions are conducive to the breeding of mosquitos transmitting Dengue.
- **The Government of Viet Nam has been very proactive** providing a national response, including the following activities:
  - Overall coordination of the response through the National Steering Committee to engage stakeholders from different sectors.
  - Emergency operation center activated to closely monitor the Dengue situation through Viet Nam's epidemiological and entomological surveillance systems. Risk assessment being conducted, engaging key international partners.
  - Intensified breeding site reduction through mobilizing communities and community collaborators.
  - Space spraying and targeted indoor residual spraying for heavily affected communes.
  - Active risk communication to inform the public on the dengue situation, associated risks, preventive measures and actions they can take.
  - Clinical management of Dengue cases, through hospital inpatient and outpatient services.
- **WHO, together with partners, provides technical assistance** to the Ministry of Health including information sharing, and strengthening of surveillance, risk assessment, vector control, and risk communication.

## General characteristics of Dengue

- **The Dengue virus is primarily transmitted to people through the bite of an infected Aedes mosquito** which also transmits chikungunya and Zika.
- **As many as one half of all Dengue infected individuals are asymptomatic**, meaning, they have no clinical signs or symptoms of disease.
- **Symptoms:** Dengue infection usually causes high fever. Some people develop other symptoms, such as headaches, joint, bone or muscle pains, rash, pain behind eyes, or nausea. Symptoms usually last for 2-7 days. Dengue fever usually occurs after an incubation period of 4-10 days after the bite of the infected mosquito.

## Behavior of Aedes Mosquito

- **Mosquitoes carrying the Dengue Virus are most active during the day:** The peak biting periods are early in the morning and in the evening before dusk.
- **The mosquitoes thrive in areas close to human population (urban areas).**
- **The dengue mosquito lays its eggs in water-filled containers inside the house and surrounding areas of dwellings** (these include non-used bottles, containers, discarded waste, flower pots and plates, and tires which hold stagnant water).

## Treatment of Dengue

- **Patients should seek medical advice, rest and drink plenty of fluids.** Paracetamol can be taken to bring down fever and reduce joint pains. However, aspirin or ibuprofen should not be taken since they can increase the risk of bleeding.
- **Patients who are already infected with the Dengue virus can transmit the infection via Aedes mosquitoes after the first symptoms appear (during 4-5 days; maximum 12 days).** As a precautionary approach, patients can adopt measures to reduce transmission by sleeping under a treated net especially during the period of illness with fever.
- **There is a surge in the number of people being admitted with Dengue to the tertiary hospital.** This may make hospitals and health care facilities overcrowded and difficult to access. Please consult carefully with your health care provider at local health care facilities to understand if you need to be admitted or your condition can be treated on ambulatory basis.

## Preventive efforts should focus on:

1. **Mosquito control. Vector control is the most effective way to stop the transmission of Dengue virus.**
  - Empty and clean containers that can store (standing) water to destroy mosquito breeding sites at **least once a week**. Potential mosquito breeding sites include buckets, drums, pots, flower pots, used tires, empty coconut shells, and roof gutters. If water needs to be stored for a long term, cover the container to avoid entry of mosquitoes, or use of larvicide could be considered.
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## 2. **Personal protection of people living in or traveling to areas where the virus is circulating.**

- Residents and travelers are recommended to use personal protection from mosquito bites:
  - Wearing light-colored clothes that cover the body (long sleeve and long pants);
  - Using mosquito repellents, containing DEET (diethyltoluamide), IR 3535 or Icaridin (see the Annex for the examples). If you are also using sunscreen, apply it first, let it dry, and then apply repellent.
  - Using physical barriers such as mesh screens on windows.
  - Sleeping under mosquito nets, especially during the day.

### **Travel advice**

- **There are no general restrictions on travel to Viet Nam**, also not to areas with ongoing Dengue virus transmission.
- **Travelers to areas with Dengue virus should be provided with up-to-date advice** on potential risks and take appropriate measures to reduce the possibility of exposure to mosquito bites (see above).

### **Additional resources**

- WHO has a dedicated website providing more detailed information, Q&As, information for travelers
  - <http://www.who.int/denguecontrol/en/>
- The Ministry of Health of Viet Nam also provides information in Vietnamese through the website of the General Department of Preventive Medicine
  - <http://vncdc.gov.vn/>
- The WHO Viet Nam country office in Viet Nam keeps abreast of the situation. For more specific inquiries please contact.

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## Annex. Mosquito repellents containing DEET or IR3535 and available in Viet Nam

The products below are examples of mosquito repellents that are available in the market in Viet Nam, and contain DEET (diethyltoluamide) or IR3535. WHO does not endorse any particular product and has no commercial ties to any particular manufacturer.

### Repellents containing DEET (diethyltoluamide)



Soffell



Remos

### Repellents containing IR3535



Mosquitall



APAISYL