KEY FACTS

- Dengue is a mosquito-borne viral infection.
- The infection causes flu-like illness, and occasionally develops into a potentially lethal complication called severe dengue (previously known as dengue hemorrhagic fever).
- The global incidence of dengue has grown dramatically in recent decades.
- Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas. This includes the Philippines.
- Severe dengue is a leading cause of serious illness and death among children in some Asian and Latin American countries.
- There is no specific treatment for dengue/severe dengue, but early detection and access to proper medical care lowers fatality rates to below 1%.
- Dengue prevention and control depends on effective vector control and sensible personal protective measures.

EPIDEMIOLOGY AND BURDEN OF DENGUE

- Dengue is a mosquito-borne infection found in tropical and sub-tropical regions around the world.
- In recent years, transmission has increased predominantly in urban and semi-urban areas and has become a major international public health concern.
- Severe dengue (previously known as Dengue Haemorrhagic Fever) was first recognized in the 1950s during dengue epidemics in the Philippines and Thailand. Today, severe dengue affects most Asian and Latin American countries and has become a leading cause of hospitalization and death among children in these regions.
- There are four distinct, but closely related, serotypes of the virus that cause dengue (DEN-1, DEN-2, DEN-3 and DEN-4). Recovery from infection by one provides lifelong immunity against that particular serotype but not the others.
- However, cross-immunity to the other serotypes after recovery is only partial and temporary. Subsequent infections by other serotypes increase the risk of developing severe dengue.
- Over 2.5 billion people – over 40% of the world’s population – are now at risk from dengue. 1.8 billion (>70%) live in Asia Pacific countries.
- WHO currently estimates there may be 50-100 million dengue infections worldwide every year. An estimated 500 000 people with severe dengue require hospitalization each year, a large proportion of whom are children. About 2.5% of those affected die.
- In the Western Pacific Region, 31 countries or areas have reported dengue cases in the last two decades.
- Before 1970, only nine countries had experienced severe dengue epidemics. The disease is now endemic in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, South-East Asia and the Western Pacific. South-East Asia and the Western Pacific regions are the most seriously affected.
- In 2012 there were 182,761 cases and 902 deaths from dengue. In 2013 (through 14 December) there were 181 726 cases and 579 deaths.

TRANSMISSION

- The Aedes aegypti mosquito is the main vector of dengue.
- The virus is transmitted to humans through the bites of infected female mosquitoes.
- After virus incubation for 4-10 days, an infected mosquito is capable of transmitting the virus for the rest of its life (a few weeks).
- Infected humans are the main carriers and multipliers of the virus, serving as a source of the virus for uninfected mosquitoes.
- Patients who are already infected with the dengue virus can transmit the infection (for 4-5 days; maximum 12) via Aedes mosquitoes after their first symptoms appear.
- Unlike other mosquitoes Ae. aegypti is a daytime feeder; its peak biting periods are early in the morning and in the evening before dusk.
SIGNS AND SYMPTOMS

- Dengue fever typically presents as a severe, flu-like illness that affects infants, young children and adults, but seldom causes death.
- Dengue should be suspected when a high fever (40°C/104°F) is accompanied by two of the following symptoms: severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands or rash.
- Symptoms usually last for 2-7 days, after an incubation period of 4-10 days following the bite from an infected mosquito.
- Severe dengue is a potentially deadly complication due to plasma leaking, fluid accumulation, respiratory distress, severe bleeding, or organ impairment.
  - Warning signs occur 3-7 days after the first symptoms in conjunction with a decrease in temperature (below 38°C/100°F) and include:
    - severe abdominal pain, persistent vomiting, rapid breathing, bleeding gums, fatigue, restlessness, blood in vomit
  - A complete blood count can be a useful diagnostic tool. Leukopenia (low white blood cells) and thrombocytopenia (low platelets) are common in dengue patients.
- The next 24-48 hours of the critical stage can be lethal. Proper medical care is needed to avoid complications and risk of death.

TREATMENT

- There is no specific treatment for dengue fever, but patients with dengue signs and symptoms should seek medical care.
- For severe dengue, medical care by physicians and nurses experienced with the effects and progression of the disease can save lives – decreasing mortality rates from more than 20% to less than 1%. Maintenance of the patient’s body fluid volume is critical to severe dengue care.

IMMUNIZATION

- There is no vaccine to protect against dengue.
- WHO provides technical advice and guidance to countries and private partners to support vaccine research and evaluation.
- Several candidate vaccines are in various phases of trials.

PREVENTION AND CONTROL

- At present, the only method to control or prevent the transmission of dengue virus is to combat vector mosquitoes through:
  - preventing mosquitoes from accessing egg-laying habitats by environmental management and modification;
  - disposing of solid waste properly and removing artificial man-made breeding sites;
  - covering, emptying and cleaning of domestic water storage containers on a routine basis;
  - applying insecticides to water storage containers;
  - using personal and household protection such as window screens, long-sleeved clothes, insecticide treated materials, coils and vaporizers;
  - improving community participation and mobilization for sustained vector control;
  - applying insecticides as space spraying to specific high-risk areas during outbreaks as one of the emergency vector control measures;
  - selective residual insecticide treatment on indoor mosquito resting sites;
  - active monitoring and surveillance of vectors to determine their distribution and key breeding sites for planning of effective control interventions.
- Individuals should follow the 4-S against dengue (pictured) and practice the four o’clock “stop look and listen” habit by stopping what they do every day at 4pm, looking inside and outside their houses to search and destroy possible mosquito breeding sites, and listening to officials for the proper ways of eliminating dengue.

More information at: http://www.wpro.who.int/topics/dengue/en/

Source: http://pia-sorsogon.blogspot.com/2013/06/health-officials-warn-public-against.html