



FACT SHEET 1: What is dengue fever and where is it found?

- Dengue fever is a viral disease transmitted primarily by the highly domesticated 'dengue mosquito', the female of the *Aedes aegypti* species.
- This mosquito occurs in more than 100 countries worldwide with over 40% of the world's population at risk of infection from the virus.
- 50-100 million dengue cases are reported annually with 500,000 of these developing into dengue haemorrhagic fever which results in up to 25,000 deaths annually worldwide.
- The disease has spread rapidly in recent decades, attributed to a rise in urban populations and the subsequent creation of areas favourable to breeding the predominantly urban mosquito together with greatly increased international travel allowing the virus to be brought into communities with travelers.
- The transmission cycle for dengue is human - mosquito – human. A female mosquito only acquires dengue virus after ingesting blood from a person sick with dengue.
- The virus incubates in the mosquito for at least 10-12 days before the mosquito is infective (is able to transmit the virus).
- After being bitten by an infective mosquito, a human may then become ill with dengue fever 4-7 days later.
- Symptoms of dengue include sudden fever, headache (usually behind the eyes), rash, loss of appetite, muscle and joint pain, vomiting, diarrhea and fatigue, amongst others.
- There is currently no known vaccine or cure for dengue fever.
- Scientists believe the only immediate way of preventing and controlling the further spread of dengue fever is to control the vector (the carrier) the *Aedes aegypti* mosquito through environmental control (e.g. eliminating their breeding habitats) and/or insecticide use.
- Dengue mosquitoes lay their eggs at the edge of water-filled containers (buckets, tyres, pot plant bases, clogged roof gutters, etc.) around the home or place of business.

- Contrary to public belief, dengue mosquitoes are not found in swamps, creeks, ponds, puddles or lagoons. They are a highly domesticated mosquito – they live near people, in and around their homes.
- In north Queensland, dengue fever outbreaks occur during the warm wet season.

Dengue in Australia

- Australia has a history of dengue epidemics dating back to 1879, most of which occurred in Queensland
- Since the 1990s several large outbreaks of dengue fever occurred in Cairns, Townsville, Charters Towers, Mossman/Port Douglas and the Torres Strait. These outbreaks have resulted in a total of 4100 confirmed cases since 1990.
- Still about a dozen cases of dengue are imported to North Queensland each year via infected travelers visiting or returning home to Australia.
- Historically, Dengue has been reported as far south as NSW and as far west as NT. There is a potential for *Aedes aegypti* to establish itself again in some of these areas.

Dengue worldwide

- Dengue is endemic in over 100 countries worldwide and is found primarily in urban settings in the tropics.
- Between 50 and 100 million cases of dengue are reported around the world each year and over 2.5 billion people are at risk of infection. Several hundred thousand dengue cases each year result in dengue haemorrhagic fever which usually affects children under 15 years of age. The average fatality rate with dengue haemorrhagic fever is 5% although with timely treatment this is often reduced to less than 1%.
- The incidence of dengue worldwide is increasing and the main reasons for this are:
 - increased use of consumer goods such as disposable man-made containers that hold water are ideal for dengue mosquito breeding
 - increased urbanisation, with many poor rural people moving to cities
 - improved transport and air travel (transporting people infected with the dengue virus to other dengue risk areas)
 - poverty and underdevelopment (the storage of water in containers for household use when reticulated water is not available).