

Paratyphoid Enteric Fevers (WHO, 2001, 11 p.)

- (introduction...)
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- Disease fact sheet: Dengue and Dengue Haemorrhagic Fever
  - Disease fact sheet: Guinea-Worm Disease (Dracunculiasis)
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  - Disease fact sheet: Trachoma

Disease fact sheet: Dengue and Dengue Haemorrhagic Fever

The disease and its effect on people

Dengue is a mosquito-borne infection which in recent years has become a major international public health concern. Dengue fever is a severe, flu-like illness that affects infants, young children and adults but rarely causes death. Dengue haemorrhagic fever (DHF) is a potentially lethal complication and is today a leading cause of childhood death in several Asian countries.

The clinical features of dengue fever vary according to the age of the patient. Infants and young children may have a feverish illness with rash. Older children and adults may have either a mild feverish illness, or the classical incapacitating disease with abrupt onset and high fever, severe headache, pain behind the eyes, muscle and joint pains, and rash. The rash may not be visible in dark-skinned people. DHF is a potentially deadly complication that is characterized by high fever, haemorrhage - often with enlargement of the liver-and in the most severe cases, circulatory failure. The illness commonly begins with a sudden rise in temperature accompanied by facial flushing and other general symptoms of dengue fever. The fever usually continues for 2-7 days. It can be as high as 40-41° C, and may be accompanied by febrile convulsions.

#### The cause

There are four distinct, but closely related, viruses which cause dengue. Recovery from infection by one provides lifelong immunity against re-infection with that type, but confers only partial and transient protection against subsequent infection by any of the other three types. Indeed, there is good evidence that sequential infection with different types increases the risk of the more serious disease known as dengue haemorrhagic fever (DHF). Dengue viruses are transmitted to humans through the bites of infective female *Aedes* mosquitos. Mosquitos generally acquire the virus while feeding on the blood of infected people during the time the virus is circulating in their bloodstream. This is approximately the same time as they are experiencing fever. Once infected, a mosquito is capable of transmitting the virus to susceptible people for the rest of its life. Infected female mosquitos may also transmit the virus to the next

## generation of mosquitos.

#### **Distribution**

The global prevalence of dengue has grown dramatically in recent decades. Dengue is found in tropical and subtropical regions around the world, predominately in urban and periurban areas, where *Aedes* mosquitos are prevalent. The disease is now found in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, South and South-East Asia, and the Western Pacific. It is typically a disease of urbanized areas, where the mosquitoes find breeding opportunities in small water collections in and around houses: drinking water containers, discarded car tyres, flower vases and ant traps are well-known breeding places.

# Scale of the problem

Globally there are an estimated 50-100 million cases of dengue fever and around 500 000 cases of DHF each year.

### **Interventions**

At present, there is no vaccine to protect against dengue. The most effective method of prevention is to eliminate the mosquito that causes the disease. This requires removal of the mosquito breeding-sites, known as source reduction. Proper disposal of solid waste helps to reduce the collection of water in discarded

articles. Other control measures include preventing mosquito bites with screens, protective clothing and insect repellents; in epidemic risk areas, application of insecticide is practiced (through an application method known as fogging) to decrease the mosquito population.









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