Impact of Dengue

During the 19th century, dengue was considered a sporadic disease that caused epidemics at long intervals, a reflection of the slow pace of transport and limited travel at that time. Today, dengue ranks as the most important mosquito-borne viral disease in the world. In the last 50 years, incidence has increased 30-fold. An estimated 2.5 billion people live in over 100 endemic countries and areas where dengue viruses can be transmitted. Up to 50 million infections occur annually with 500,000 cases of dengue haemorrhagic fever and 22,000 deaths mainly among children. Prior to 1970, only 9 countries had experienced cases of dengue haemorrhagic fever (DHF); since then the number has increased more than 4-fold and continues to rise.

A pandemic in 1998, in which 1.2 million cases of dengue fever and DHF were reported from 56 countries worldwide, was unprecedented. Data for 2001-2002 indicate a situation of comparable magnitude. In 2001, the Americas alone reported over 652,212 cases of dengue of which 15,500 were DHF nearly double the cases reported for the same region in 1995. The challenge for national and international health agencies is to reverse the trend of increased epidemic dengue activity and increased incidence of DHF.
Geographic spread

Dengue and dengue haemorrhagic fever are present in urban and suburban areas in the Americas, South-East Asia, the Eastern Mediterranean and the Western Pacific and dengue fever is present mainly in rural areas in Africa. Several factors have combined to produce epidemiological conditions in developing countries in the tropics and subtropics that favour viral transmission by the main mosquito vector, Aedes aegypti: rapid population growth, rural-urban migration, inadequate basic urban infrastructure (e.g. unreliable water supply leading householders to store water in containers close to homes) and increase in volume of solid waste, such as discarded plastic containers and other abandoned items which provide larval habitats in urban areas. Geographical expansion of the mosquito has been aided by international commercial trade particularly in used tyres which easily accumulate rainwater. Increased air travel and breakdown of vector control measures have also contributed greatly to the global burden of dengue and DHF.