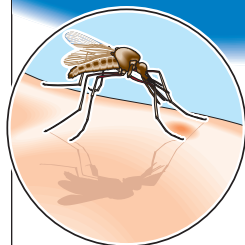


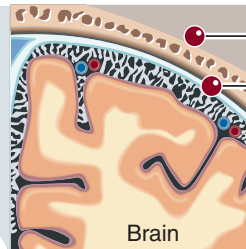
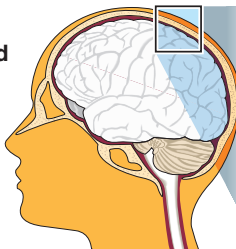
Warmer world drives spread of diseases

Climate change may be fuelling the spread of vector-borne infections, with warming temperatures causing organisms – and the viruses and bacteria they carry – to migrate. The World Health Organization has identified more than 30 new or resurgent diseases in the past three decades



Vector-associated human diseases:

Blood-sucking mosquitoes, ticks, and fleas spread encephalitis (inflammation of brain), meningitis, malaria, dengue and yellow fever



Bone

Meningitis: Inflammation of protective membrane covering brain and spinal cord

West Nile virus: First isolated in Uganda in 1937. Appeared

in United States in 1999, spread to Canada in 2002

West Nile virus causes meningitis or encephalitis in about one in 50 people

United States

Cases (1999-2006) **21,340**
Deaths **837**

Canada

Cases (2002-2006) **2,296**
Deaths **38**

Dengue and dengue haemorrhagic fever:

Re-emerged in Caribbean, Central, and South America in 1970 after Pan America Health Organization discontinued mosquito eradication programme

Dengue cases (2001) **609,000**
Dengue haemorrhagic fever **15,000**

Tick-borne encephalitis: First isolated in 1937. Infections have risen from 5-30 cases per million people in 1960-80 to between 20-45 cases

from 1981 to the mid-1990s

Arctic Circle

Murray Valley encephalitis:

Seven major outbreaks since 1917

Indonesia

Dengue fever cases (2005) **80,837**
(2002) **40,377**

New Zealand: Fighting invasion of "Aussie Mizzie" which carries Murray Valley encephalitis virus

Yellow fever: Endemic in 33 countries in Africa and 11 countries in South America

Cases (annual) **200,000**
Deaths **30,000**

Japanese encephalitis: 2005 outbreak in India killed more than 1,400 people

Cases (annual) **30,000-50,000**
Deaths **9,000-15,000**