

Understanding Epidemics

Understanding Epidemics Section 3: Malaria & Modelling

PART A: Introduction & emergence

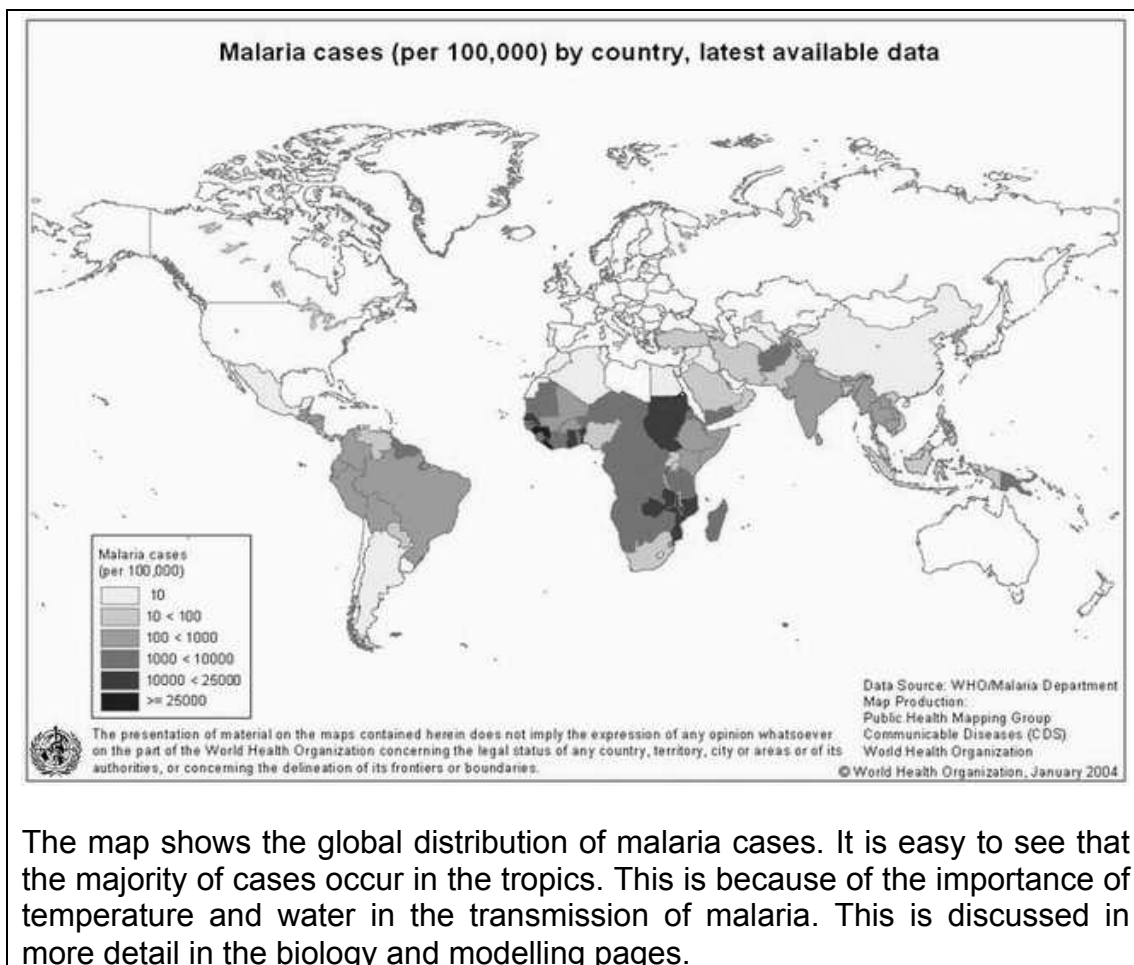
Contents:

- [Some statistics](#)
- [Symptoms & signs](#)
- [Emergence](#)

Statistics

Malaria kills as a minimum between 700,000 and 2,700,000 people per year and over 75% of the victims are African children (MIM, 2001).

There are at least 300 million acute cases of malaria each year globally and more than two billion people are at risk in over 100 countries. The map on the below shows the distribution of malaria cases.



Understanding Epidemics – Section 3A: Introduction & emergence

Malaria is endemic to the tropics and sub-tropics except for the areas where there has been effective control

The diseases can both be endemic, often with seasonal reoccurrence or where conditions persist year round it may be described as holoendemic.

In other areas it is an epidemic disease that it is to say that it occurs less frequently only arriving during anomalous weather conditions.

Symptoms & signs

The initial symptoms are similar to 'flu like illnesses and can include fevers, aches, sore throat and pains and chills.

Other symptoms may include vomiting and nausea, diarrhea; and can rapidly lead to more serious life threatening affects that can develop without treatment.

The main problem is that the early symptoms can be mistaken for something less serious. Symptoms can occur within seven days of entering a malarious area or up to six months of leaving such an area.

People who have visited malaria areas are told that if in any doubt they should seek medical help as deterioration can be rapid leading to complication affecting kidneys or the brain. In the case of cerebral (brain) malaria, cases are often fatal.

Emergence

Malaria has probably evolved with humans and certain diseases resembling malaria are reported by most of the ancient civilizations.

There are mosquito fossils which are far older than the ascent of man. It has been suggested that Hippocrates in the 5th century BC was the first to describe the disease.

It has also been recently reported that DNA evidence from skeletons from the late Roman period proves that malaria was a known to this society.
