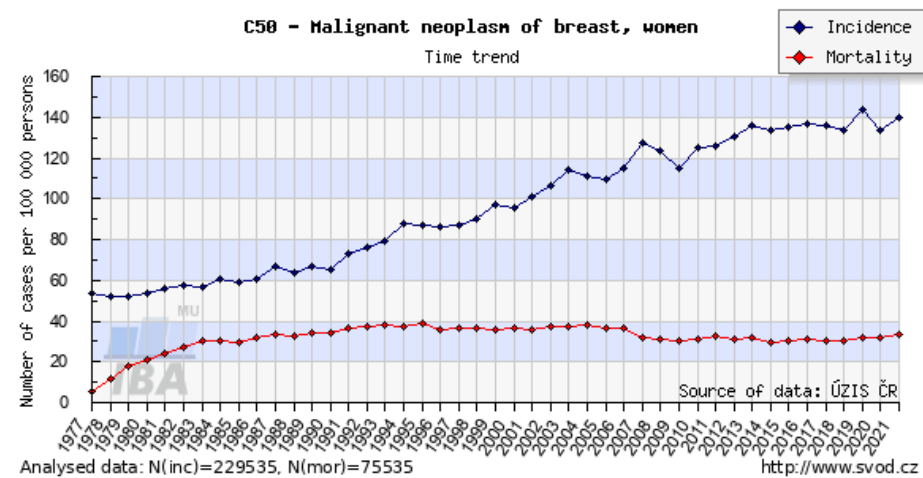


Introduction to Epidemiology and Environmental Health

Week 2 (practice)

Graph A. Incidence and mortality of breast cancer (women) per 100 000 women



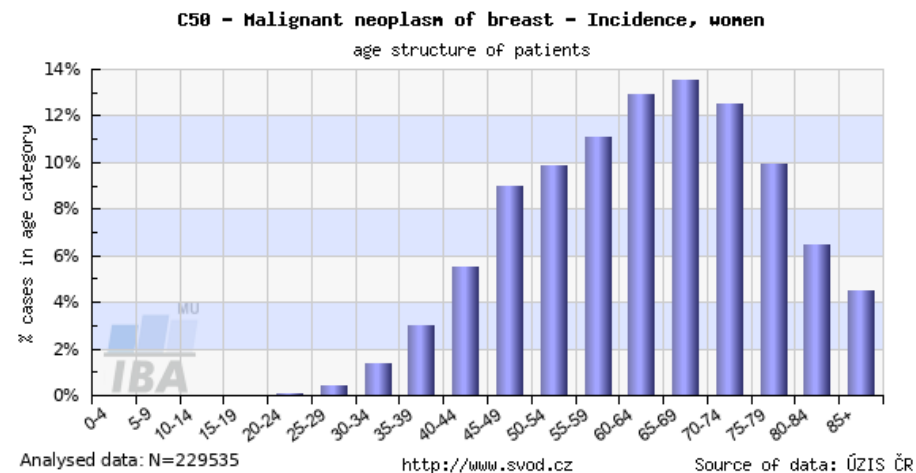
Example 1.

Incidence and mortality of the breast cancer in women, Czech Republic. (Source: SVOD).

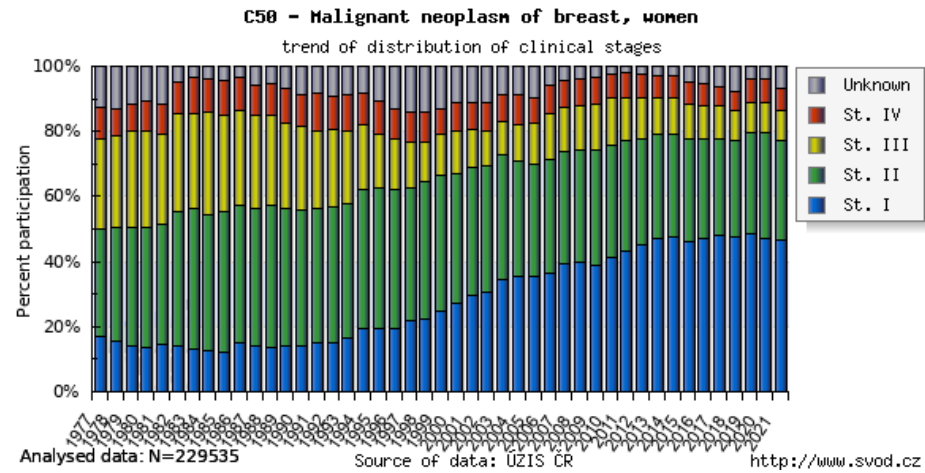
Look at the Graphs A, B and C and answer the following questions.

1. What is a long-term trend of the incidence and mortality of breast cancer?
2. What is the possible explanation of different trends in incidence and mortality?
3. What is the trend of the incidence according to age groups? Do you think that age is the risk factor of breast cancer? What are the other factors associated with breast cancer?

Graph B. Incidence of breast cancer (women) according to age



Graph C. Trend of clinical stages of breast cancer



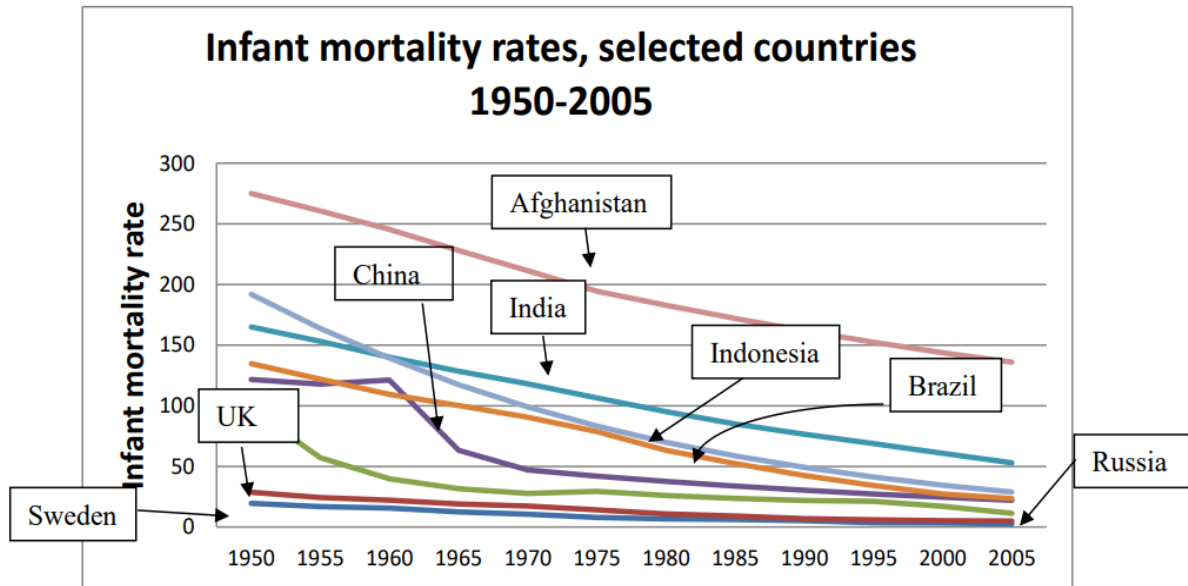
4. Describe the trend of the clinical stages of the breast cancer.

5. What is the possible explanation of changes in distributions between 1990 and 2020?

Example 2

Infant mortality rate is defined as the death of an infant before his or her first birthday. The infant mortality rate is the number of infant deaths for every 1,000 live births.

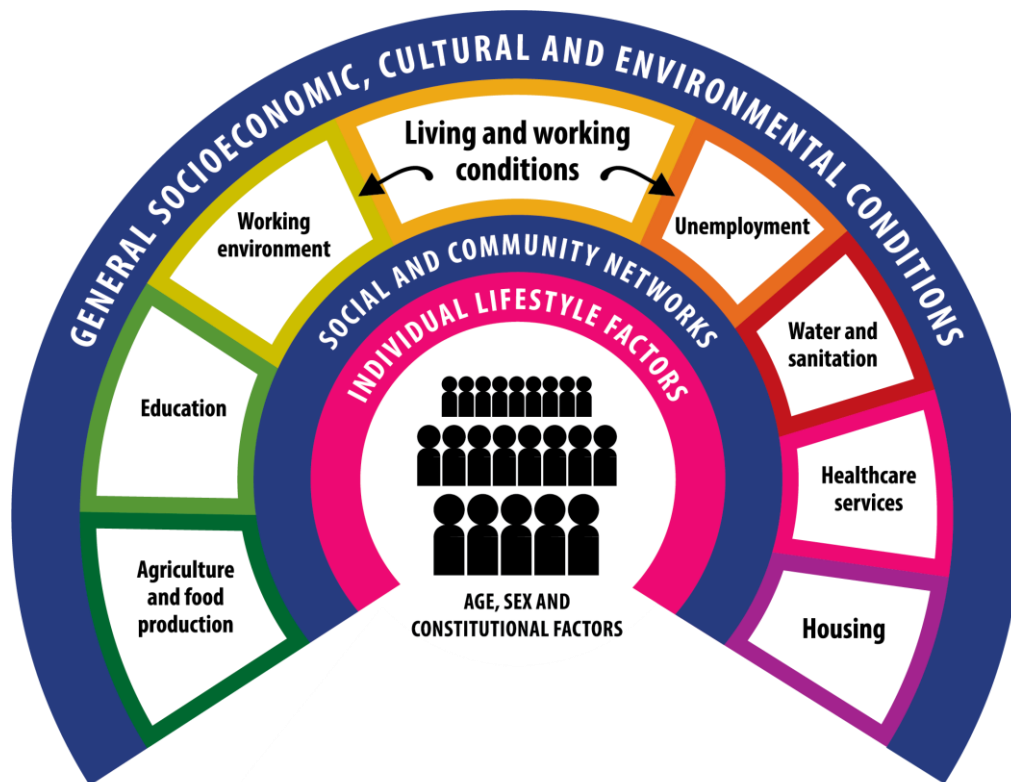
This graph describes a trend of infant mortality rates in 8 countries.



Look at the Graph and answer the following questions.

1. What is an overall trend of the infant mortality?
2. Why do we express the infant mortality in relative numbers instead of absolute numbers?
3. What is the approximate infant mortality in India in 1950 and 2005?
4. What is the approximate infant mortality in UK in 1950 and 2005?
5. Calculate the relative decrease in infant mortality in India and UK. In which country we observe a greater improvement in infant mortality?

Example 3



Using the Dahlgren and Whitehead's model, think about health determinants of the following diseases. Describe the possible risk and protective factors in every level and possible between-level interactions.

1. Obesity
2. Colorectal carcinoma
3. Asthma bronchiale
4. Childhood injuries
5. Alzheimer disease