

Chapter - 6. Components of Population Change (Dynamics of Population Change)

3 Components - Births, deaths & migration.

① Fertility:-

The term fertility refers to the occurrence of live births among a defined population.

② CBR = Ratio between number of births and total popⁿ in one year multiplied by 1000

i.e. -
$$\frac{\text{Total Births}}{\text{Total pop}^n} \times 1000 \text{ (specific year)}$$

- It fails to take into account the age and sex composition of the population.

Standardised birth rate

It involves the calculation of what the birth rate for a region would have been if its age composition had been the same as that of the country as whole.

General fertility index:-

It avoids some of the deficiencies of the crude birth rate by changing the denominator from total population to the number of women in the reproductive age group, usually defined as 15-45 or 15-49.

Factors Influencing Fertility Levels:-

① Religion:- Most of the religions did not favour family planning like Islam & Roman Catholics (not Protestants).

② Level of Education:- more advanced the level of educational attainment of parents the smaller the number of children per family.
⇒ Generally middle class have lowest level of fertility.

③ Economic Prosperity and depression.
It would seem that a sudden onset of prosperity favours an increase in family size, while a gradual rise in living standards has the reverse effect.
- on the other hand, economic depression, with accompanying unemployment, causes a sharp reduction in birth rates.

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Social customs & Taboos

Like want of male child etc.

(v) Diet and health:-

Relationships between fertility and "diet and health" have been examined by Jome-de-castro - in his book - The Geography of Fertility. He has drawn attention to the fact that the poorest and most undernourished people are usually characterised by the highest birth rates, but they also suffer from the highest rate of infant mortality, & lowest life expectancy.

(vi) Population structure:- (especially age composition). Areas with a high proportion of young adults may be expected to have high birth rate figures.

Mortality

- Defined as occurrence of deaths among a defined population. Infant mortality:- No. of deaths of infants under the age of one year expressed per thousand live births.

According to Lewis Mumford:- IMR is "perhaps the most sensitive barometer of the fitness of the social environment for human life". Medical Geography:- The effects of environment on spatial variations in mortality.

Crude death rates:- Ratio between numbers of death in a particular year to the total population multiplied by 1000.

Life Tables:- which were first compiled for insurance purposes and are concerned with the effects of present mortality rates on the future age and sex composition of population. They involve following a hypothetical generation of births through plotting the numbers of survivors at each stage. The life table mortality rate, which may be calculated from such a table, represents the probability of dying at a given age. Another measure which may be extracted from life tables is that of Expectation of life, or average length of life.