Summary

For public health purposes the force of mortality in a population is usually measured by means of such indices as **crude death rate**, **infant mortality rate**, and **specific death rate** at different ages by sex, etc. Another effective and at the same time comprehensive method of describing mortality in a population is by means of life table.

Life table

It is composed of several sets of values showing how a group of infants all supposed to be born at the same time and experiencing unchanging mortality conditions would gradually die out. In other words the life table is a convenient method for summarizing the mortality experience of any population group – that is, it provides concise measures of the longevity of that population. Such tables are usually worked out after each decennial census to represent mortality conditions either during the previous decennium or during shorter periods covering the date of the census. Separate tables for males and females are usually prepared. For detailed study it is not uncommon to construct tables for each geographical subdivision of a country or different population segments. A life table can also be constructed to show how a group of babies would die if, hypothetically, one or more causes of death are eliminated. In recent years life table techniques are being increasingly applied to follow up studies of chronic diseases or hospital patients.

The life table gives the life history of a hypothetical group or cohort as it is gradually diminished by deaths. It is a conventional method of expressing the most fundamental and Essential facts about the age distribution of mortality in a tabular form and is a powerful tool for measuring the probability of life and death of various age sectors.

A life table provides answers for the following questions:

1. How will a group of infants all born at the same time and experiencing unchanging mortality conditions throughout the life time, gradually die out?
2. When in the course of time all these infants die, what would be the average longevity per person?
3. What is the probability that persons of specified age will survive a specified number of years?
4. How many persons, out of selected number of persons living at some initial age, survive on the average to each attained age?

The life table thus, gives a summary of the mortality experience of any population group during a given period and is very effective and comprehensive method for providing concise measures of the longevity of that population.

The data for constructing a life table are the census data and death registration data. Life tables are generally constructed for various sections of the people which, as experience shows, have sharply different patterns of mortality. Thus there are life tables constructed for different races, occupational groups and sex. Life tables are as well constructed on regional basis and other factors accounting differential mortality.

Uses of life table

Although the basic objective of life tables is to give a clear picture of the age distribution of mortality in a given population group, it has been used widely in a large number of spheres. Today life table is widely accepted as important basic material in demographic and public health studies. In the words of William Farr, life table is the 'Bio meter' of the population. We enumerate below some of the important applications of life tables.