

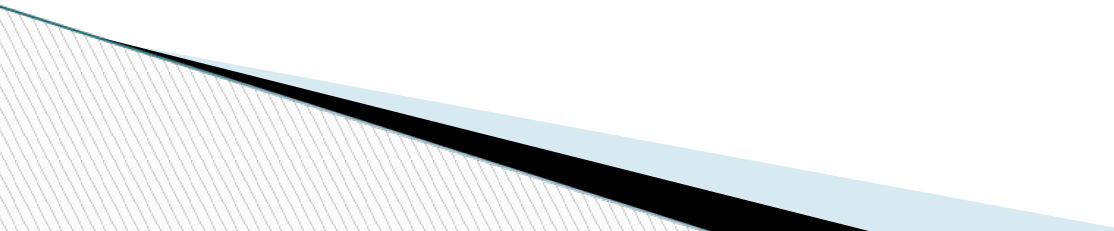
UNIT 3

**INDICATORS OF
HEALTH**

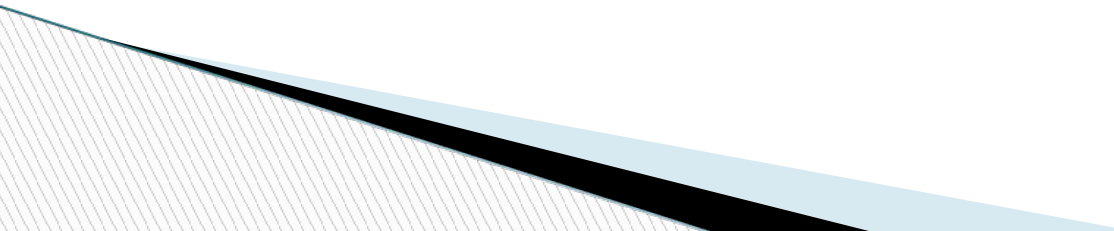
By: Prof. Rekha Sharma Sen



OBJECTIVES

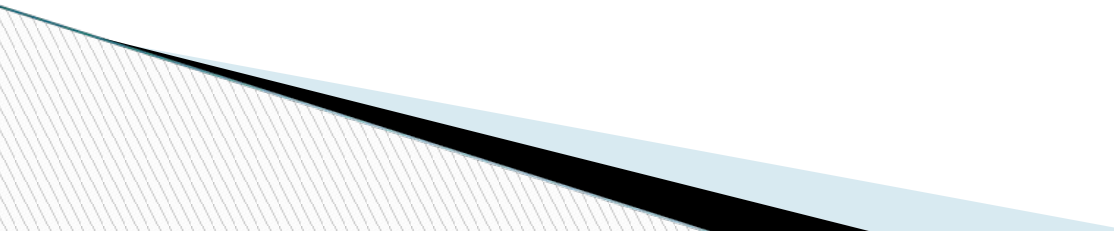
- **Enumerate some health indicators**
 - **Describe the health situation in India**
 - **Provide examples of morbidity and mortality from India**
 - **Explain the important components of the National Health Policy in India**
 - **Outline the health care delivery system in India**
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INDICATORS OF HEALTH

- Indicators of health are regarded as variables that help to measure the changes in the health status.
 - Health is an end product of several variables and hence needs to be measured multidimensionally.
 - Indicators of health:
 - Mortality indicators
 - Morbidity indicators
 - Disability rates
 - Nutritional status indicators
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- **Health care delivery indicators**
 - **Utilization rates**
 - **Indicators of social and mental health**
 - **Environmental indicators**
 - **Indicators of Quality of life**
 - **Health policy indicators**
 - **Socio-economic indicators**
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CHARACTERISTICS OF AN INDICATOR

- **An ideal indicator should be:**
 - **Valid:** It should actually measure what it is supposed to measure
 - **Reliable:** If measurement is taken by different people in similar circumstances, the answers yielded should be the same.
 - **Sensitive:** Even if there is a minor change in the situation concerned, the indicator should be sensitive enough to detect and reflect the change
 - **Specific:** It should reflect changes only in the situation and parameters concerned, and not in any other.
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MORTALITY INDICATORS

- ▣ **CRUDE DEATH RATE:** It indicates the rate at which people are dying. It is defined as the number of deaths in a year per 1,000 population, and is calculated using the formula:

No. of deaths in a year/mid-year population x 1000

- ▣ **INFANT MORTALITY RATE (IMR):** It refers to the number of deaths of infants (below one year of age) in a year per 1,000 live births. Formula:

No. of deaths of children less than 1 year of age in a year/No. of live births in the same year/1,000

- ▣ **CHILD MORTALITY RATE:** It tells us about the number of children dying after the 1st birthday but before their 5th birthday.

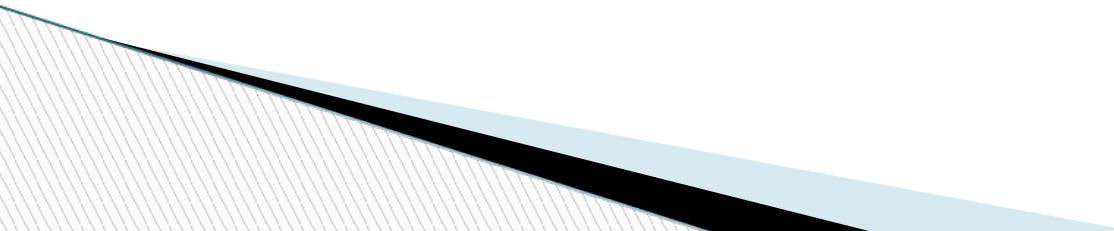
No. of deaths of children aged 1-4 years during a year/Total no. of children aged 1- 4 years at the middle of the year. X 1,000

- ▣ **UNDER- 5 MORTALITY RATE:** Here we club all the deaths taking place before 5 years of age.

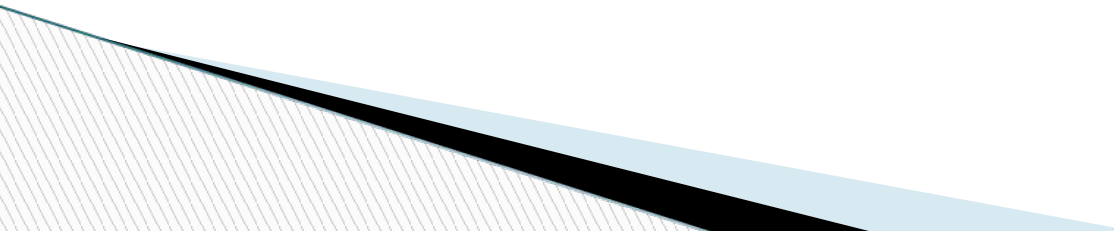
No. of deaths of children before 5 years of age/No. of live births X 1,000

MATERNAL MORTALITY RATE: Death of women due to pregnancy, child birth etc.

No. of death of females due to [pregnancy, child birth or within 42 days of delivery from related causes in an area during a given year/Total no. of live births in the same area and year X 1,000

- ▣ **DISEASE – SPECIFIC MORTALITY:** it is the simplest method of calculating the disease burden in a society. Mortality rates can be computed for particular diseases. The number of deaths due to a specific disease is expressed in terms of 1,000 or 1,00,000 population depending upon the number of deaths due to that disease.
 - ▣ **Expectation of Life:** Life expectancy at birth is the “the average number of years that will be lived by those by those born into a population if the current age-specific mortality rates of the population persist”.
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MORBIDITY INDICATORS

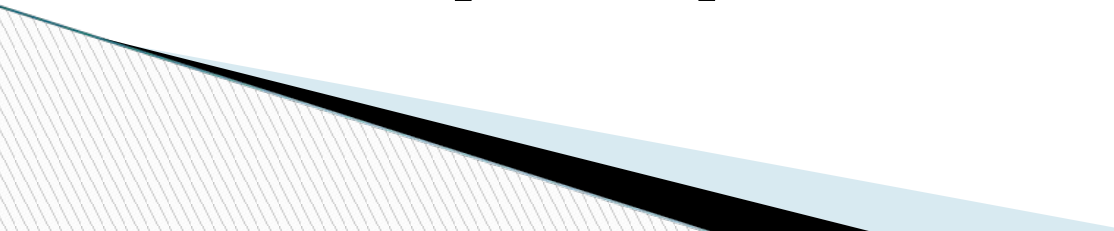
- ❑ **Morbidity refers to ill health.**
 - ❑ **Incidence: It refers to the occurrence of new cases in a specified population within a specified time frame.**
 - ❑ **Incidence rate: No. of new cases of specific disease during a given time period/population at risk X 1,000**
 - ❑ **Prevalence: prevalence refers to the number of existing cases of a particular disease at one point of time, in a defined population.**
 - ❑ **Attendance rates at out-patient departments, health centres etc.**
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DISABILITY RATES

- **Bed disability days**
- **Work–loss days**
- **Sullivan’s index:** This index is calculated by subtracting from the life expectancy the probable duration of bed disability and inability to perform major activities.
- **NUTRITIONAL STATUS INDICATORS:**
 - **PEM**
 - **Vitamin A deficiency**
 - **Prevalence of low birth weight (LBW):** The cut-off point for calling a baby a low birth weight baby is 2,500 gms.

- ❑ **Prevalence of PEM in the under-fives**
- ❑ **Prevalence of Vitamin A deficiency**

HEALTH CARE DELIVERY INDICATORS

- **Health manpower**
 - **Health infrastructure**
 - **Population**
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- **Doctor-population ratio**
 - **Doctor-nurse ratio**
 - **Population per health centre**
 - **Population per hospital bed**
 - **Population per trained birth attendant etc.**
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UTILIZATION RATES

- **Proportion of fully immunized children**
- **Proportion of pregnant women who receive antenatal care**
- **Bed occupancy rate**

INDICATORS OF SOCIAL AND MENTAL HEALTH

- **The events indicating social and mental pathology are suicide, homicide, juvenile delinquency, alcohol and drug abuse, road traffic accidents, smoking, family violence, battered – baby and battered – wife syndromes etc.**

ENVIRONMENTAL INDICATORS

- ❑ **These refer to the physical and biological environment in which people live and in which diseases occur.**
- ❑ **Of these, the most useful indicators are measuring the percentage of households with safe drinking water facility, percentage of households with appropriate sanitary facility etc.**

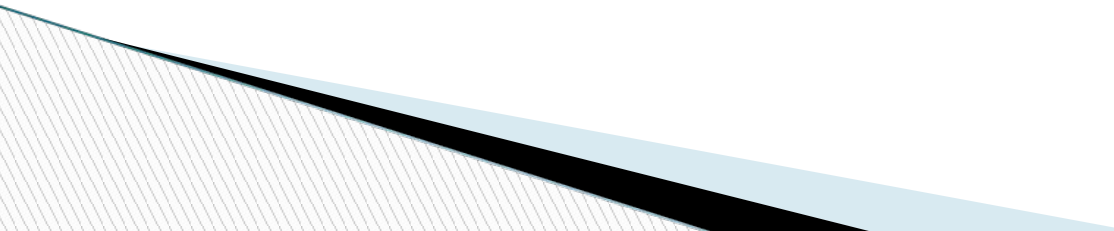
INDICATORS OF QUALITY OF LIFE

Physical Quality of Life Index (PQLI): It takes three factors into consideration i.e. infant mortality rate, life expectancy at the age of one year, and literacy rate. It is measured against a scale of 0 to 100.

HEALTH POLICY INDICATORS

- **Resource allocation**
- **Community Involvement**
- **Degree of Equity of distribution of health services**
- **Political Commitment**

SOCIO- ECONOMIC INDICATORS

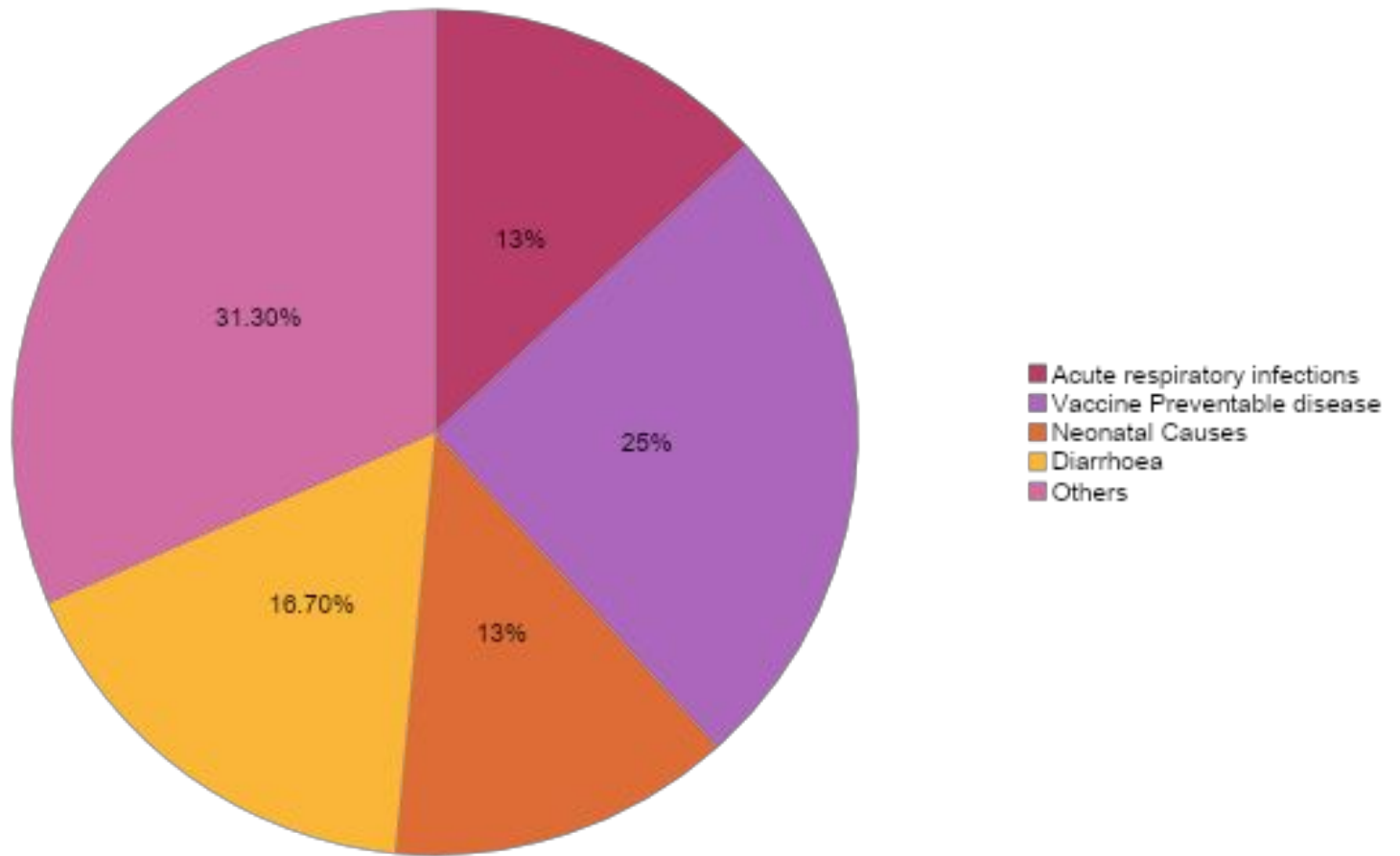
- **Food availability, Housing**
 - **Socio-economic status of the family, per capita income**
 - **Adult literacy, Family literacy**
 - **Rate of population increase**
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HEALTH SITUATION IN INDIA

▣ DEMOGRAPHIC PROFILE:

- **Total population, Crude birth rate, Crude death rate, Annual growth rate, rural population, literacy rate, population density/sq.km., population below 15 years, population above 60 years, average family size, female age at marriage, sex ratio, annual per capita GNP.**

MORTALITY PROFILE:

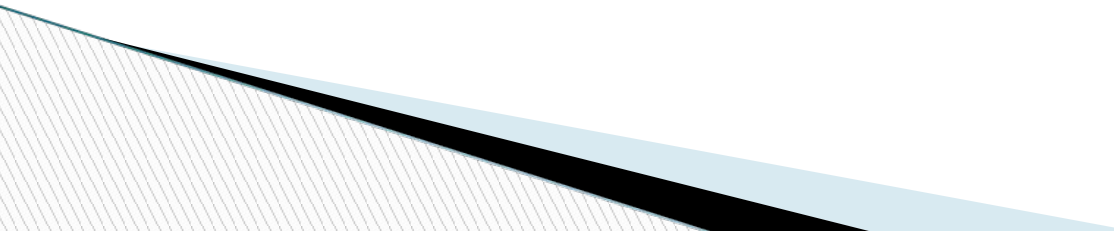


HEALTH CARE SERVICES-BASIC CONCEPTS

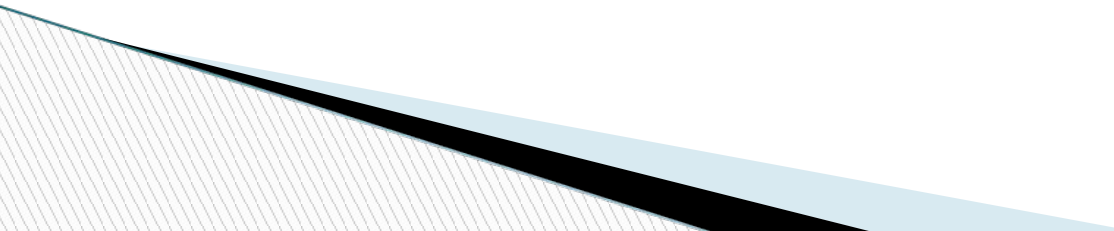
▣ LEVELS OF HEALTH CARE:

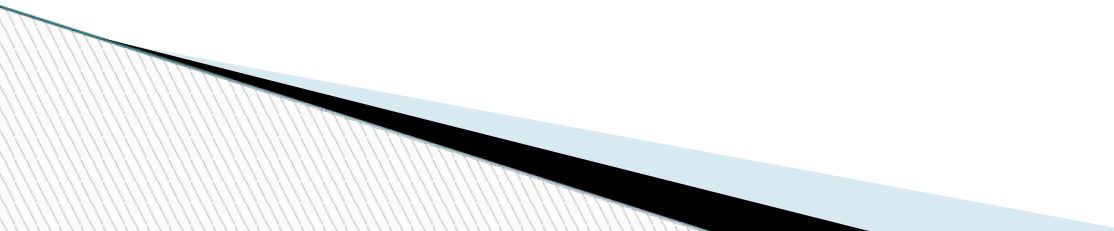
- **Primary Health Care:** It is the first level of contact between the individual and the health system where essential services are provided. In India it is represented by the sub-centre and the primary health centre.
- **Secondary Health Care:** Community health centres (CHC) and district hospitals are included in this category.
- **Tertiary Health Care:** This level offers super-specialised health services, provided by regional/central level institutions. These centres also provide planning and managerial skills and teaching to the specialized staff. Medical colleges and institutions fall in this category.

HEALTH TEAM CONCEPT

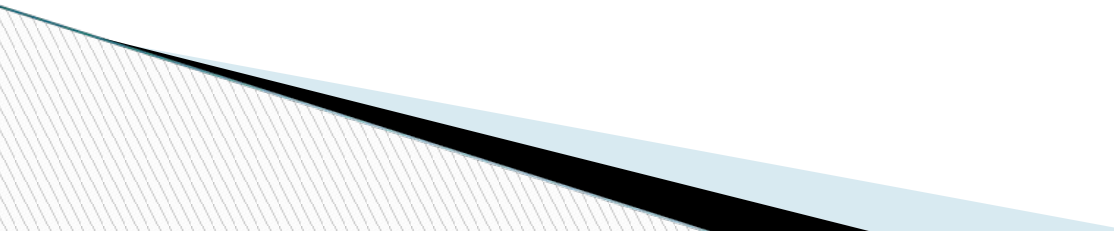
- ❑ **The practice of modern medicine has become a joint effort of many groups of workers, both medical and non-medical, i.e. physicians, nurses, social workers, health assistants, village health guides, trained mid wives etc. They all work as a team to achieve common goals.**
 - ❑ **WHO in 1977 gave “Health For All by 2000 AD” goal i.e. “attainment by all the people of the world by the year 2000AD of a level of health that will permit them to lead a socially and economically productive life”.**
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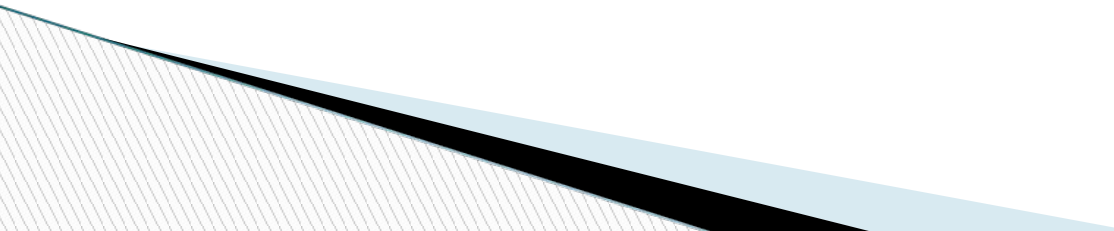
PRIMARY HEALTH CARE

- ❑ **The Alma-Ata declaration visualised primary health care as the nucleus of a country's health system to make essential health care universally accessible.**
 - ❑ **It stands on four pillars i.e. community participation, intersectoral coordination, appropriate technology and equitable distribution.**
 - ❑ **It includes providing:**
 - **Education about prevailing health problems and methods of preventing and controlling them.**
 - **Promotion of food supply and proper nutrition.**
 - **Adequate supply of safe water and basic sanitation.**
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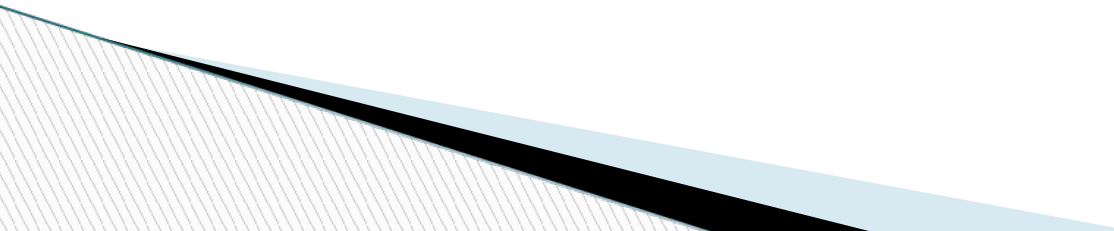
- ❑ **Maternal and child health care, and family planning.**
 - ❑ **Immunization against the major infectious diseases**
 - ❑ **Prevention and control of endemic diseases**
 - ❑ **Appropriate treatment of common diseases and injuries;
and**
 - ❑ **Provision of essential drugs.**
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NATIONAL HEALTH POLICY

- ❑ **Emphasis on preventive and promotive aspects of health care.**
 - ❑ **Emphasis on availability of health care at doorstep.**
 - ❑ **Development of a National Medical and Health Education Policy.**
 - ❑ **Formation of a Health Committee at every village to project health needs of the community.**
 - ❑ **Involvement of non-government organizations in health care delivery.**
 - ❑ **Integration of Indian system of medicine and homeopathy in the health system.**
 - ❑ **Starting health insurance schemes on state wise basis.**
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- ❑ **Indigenous manufacture of essential bio-medical equipment.**
 - ❑ **Organized services for school students.**
 - ❑ **Priority attention to be given to nutrition and distribution of food to rural and slum population.**
 - ❑ **Prevention of food adulteration.**
 - ❑ **Strengthening of MCH services which includes training of traditional birth attendants or dais and referral of all complicated cases to experts.**
 - ❑ **Phasing out of private practice by doctors by providing non-practicing allowance.**
 - ❑ **Formation of a separate national population policy.**
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HEALTH CARE DELIVERY SYSTEM IN OUR COUNTRY

- At the grassroots every village or a population of 1,000 has one community health volunteer (CHV) or Health Guide who acts as a link between the health services and the people. The CHV is expected to assist health personnel in preventive and promotive services and in providing simple curative care.**
 - There is also a trained birth attendant.**
 - On a population of 3,000-5,000, there is a sub-centre staffed by one male and one female multi-purpose worker (MPW). They form the backbone of the health services.**
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- ▣ **Supervision and support to the staff of 4 sub-centres is provided by one male and one female health assistant (HA). The HA provides a link between the sub-centre and the PHC.**
 - ▣ **The primary health centres provide composite health services to a population of 20,000 to 30,000. Its staff includes: 2-3 physicians, one male and one female health assistant, a block extension educator, a laboratory technician and a statistical assistant, MPWs and other auxiliary staff.**
 - ▣ **There is one community health centre for 4 primary health centres for a population of app. 1 lakh. There are 30 bedded hospitals with specialist services. The patients can be referred to district level hospitals/Medical colleges from these centres.**
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Thank You

