

Indicators of Health

Facilitator:

Dr. NAVPREET

Assistant Professor, Department of Community Medicine
Govt. Medical College & Hospital, Chandigarh.

Specific Learning Objectives

- At the end of session, the learner shall be able to:
 - Describe Indicators of health
 - Compare health in Developed and Developing countries
 - Understand Health service philosophies

Indicators of Health

- To measure the health status of a community
- To compare the health status of country with that of another.
- Characteristics of indicators:
 - Should be valid
 - Should be reliable & objective
 - Should be sensitive
 - Should be specific
 - Should be feasible
 - Should be relevant.

Indicators of Health

1. Mortality indicators
2. Morbidity indicators
3. Disability rates
4. Nutritional status indicators
5. Healthy care delivery indicators
6. Utilization rates
7. Indicators of social & mental health
8. Environmental indicators
9. Socio-economic indicators
10. Healthy policy indicators
11. Indicators of quality of life.
12. Other indicators.

Mortality Indicators

These includes :-

- Crude Death Rate
- Expectation of Life
- Maternal Mortality Rate
- Infant Mortality Rate
- Child Mortality Rate
- Under 5 proportionate mortality rate
- Disease Specific Mortality
- Proportional Mortality Rate

Morbidity Indicators

- Used to supplement mortality data.
- Morbidity rates used for assessing ill health in community are:
 - Incidence
 - Prevalence
 - Notification rate
 - Attendance rate at OPDs, health centres etc.
 - Admission, readmission and discharge rates
 - Spells of sickness.

Disability Rates

- Based on premises or portion that health implies a full range of daily activities.
- Two groups:
 - **Event type indicators:**
 - Number of days of restricted activity
 - Bed disability days
 - Work-loss days within a specified period
 - **Person-type indicators:**
 - Limitation of mobility
 - Limitation of activity (ADL)

- **Sullivan's Index**
 - Expectation of life free of disability
- **HALE (Health Adjusted Life Expectancy)**
 - The equivalent number of years in full health that a newborn can expect to live based on current rates of ill-health and mortality.
- **DALY (Disability Adjusted Life Year)**
 - Number of years lost due to ill-health, disability or ill-health.
- **QALY (Quality adjusted life year)**
 - Number of years of life that would be added by a medical intervention.

Nutritional Status Indicators

It includes :-

- Anthropometric measurement of pre- school children.
- Height of children at school entry.
- Prevalence of low birth weight.

Health Care Delivery Indicators

It includes :-

- Doctor : population ratio
- Doctor : nurse ratio
- Population : bed ratio

Utilization Rate

- Expressed as proportion of people in need of health care services who actually receive it in a given period.
 - Proportion of infants who are fully immunized against the Seven EPI diseases.
 - Percentage of population using the various methods of family planning.

Indicators of Social & Mental Health

- Indirect measures
- It includes indicators of *social pathology*:
 - Suicide
 - Homicide
 - Other acts of violence
 - Other crime etc.
 - Alcohol and drug abuse, etc.

Environmental Indicators

- Reflects quality of physical & biological environment.
 - Proportion of population having access to safe water
 - Proportion of population having access to sanitation facilities
 - Indicators relating to pollution of air and water, radiation, solid wastes, noise

Socio Economic Indicators

It Includes :-

- Rate of population decrease
- Per capita GNP
- Level of unemployment
- Dependency ratio etc.

Health Policy Indicators

- Important Indicator of political commitment
- “Allocation of adequate resources”
 - Proportion of GNP spent upon health services
 - Proportion of GNP spent upon health-related activities
 - Proportion of total health resources devoted to primary health care.

Other Indicators

It Includes :-

- Social Indicators
- Basic Need Indicators
- Health For All Indicators
- Millennium Development Goal Indicators

- There is no single comprehensive indicator of nation's health.
- Each of the available indicators reflects an aspect of health.

Developed and Developing Regions

- Social and economic characteristics
- Demographic characteristics
- Contrast in health (Health Gap)

Social and economic characteristics

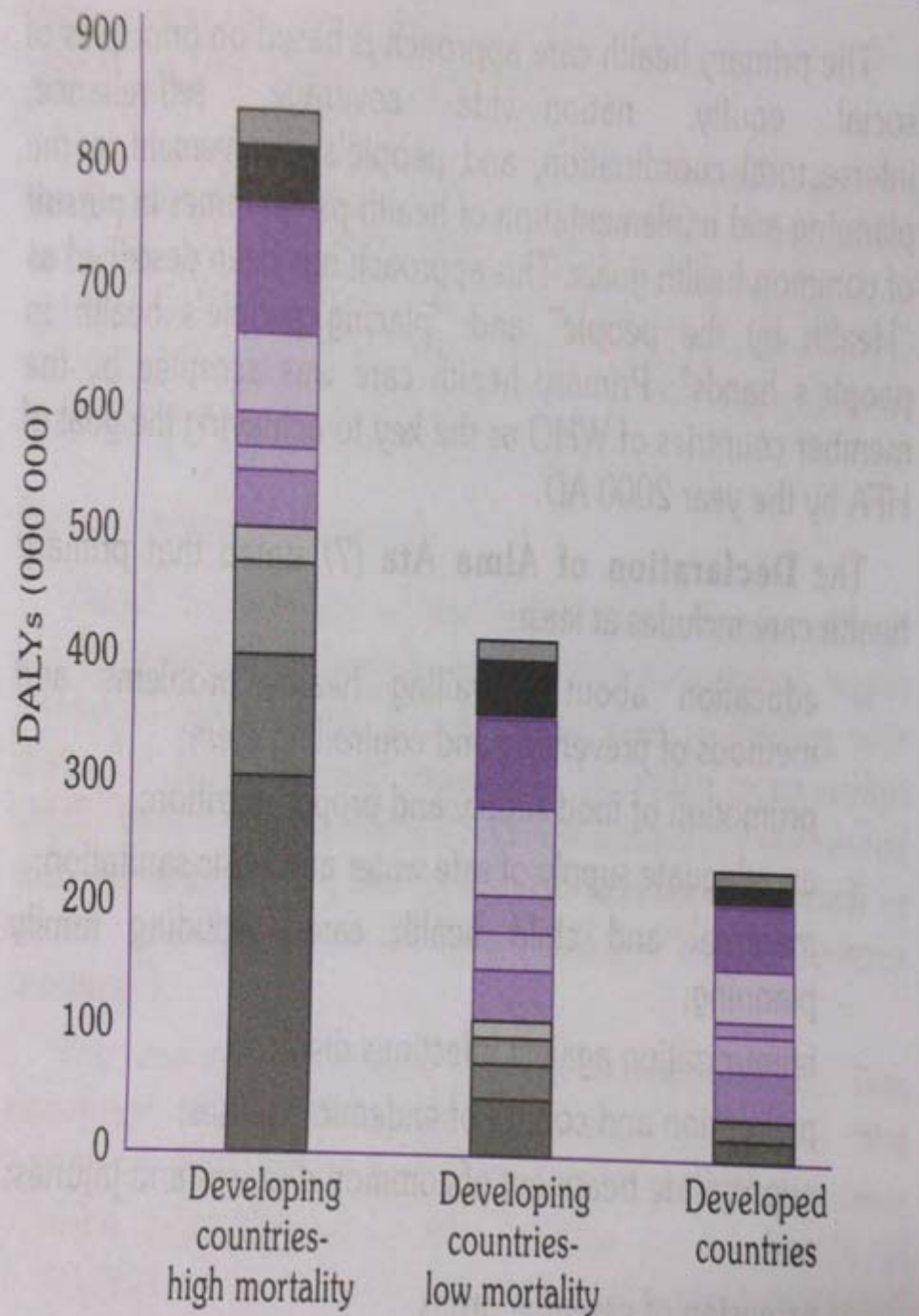
Variable	Developing Countries	Developed Countries
Place of residence	Mostly Rural	Mostly Urban
Major occupation	Agriculture	Industry
Standard of living	Low	High
GNP per capita	200 to 6,000 US \$	5,000 to 40,600 US \$
Adult literacy	Low	High
Women	Economically dependent	Economically independent

Demographic characteristics

Variable	Developing Countries	Developed Countries
Growth Rate	Above global GR (>1.3%)	Below global GR (<1.3%)
Young population	28% - 38%	18%
Elder population	6%	21%

Contrast in health (Health Gap)

Indicator	Least developed countries	Other developing countries	Developed countries
1. Life expectancy at birth (2007)	55	67	79
2. IMR (per 1000 live births) (2007)	84	51	5
3. Under 5 mortality per 1000 live births (2007)	130	74	6
4. Maternal mortality per 100,000 live births (2009)	650	180	9
5. Doctor–population ratio per 10,000 (2000–09)	4	24	28
6. Nurse–population ratio per 10,000 (2000–09)	10	40	81
7. GNI, per capita (US \$) (2007)	491	2405	38579
8. Per capita public expenditure on health, US \$ at average exchange rate (2007)	27	80	4405
9. Adult literacy rate (%) (2007)	57	79	97
10. Access to safe water (2006)% population	62	84	100
11. Access to adequate sanitation (2006) % population	33	53	100



Group I. Communicable diseases, maternal and perinatal conditions and nutritional deficiencies

Infectious and parasitic diseases

Maternal and perinatal conditions

Respiratory infections

Nutritional deficiencies

Group II. Non-communicable conditions

Cardiovascular diseases

Cancers

Chronic respiratory diseases

Neuropsychiatric disorders

Other non-communicable conditions

Group III. Injuries

Unintentional injuries

Intentional injuries

Health care

- Multitude of services
 - rendered to individuals, families or communities
 - by the agents of the health service or professions,
 - for the purpose of promoting, maintaining, monitoring or restoring health.

Characteristics of Health Care

- **Appropriateness (relevance)**
- **Comprehensiveness**
- **Adequacy**
- **Availability**
- **Accessibility**
- **Affordability**
- **Feasibility**

Levels of Health Care

- **Primary health care**
- **Secondary health care**
- **Tertiary health care**

Primary health care

- First level of contact between individual and health system
- Majority of prevailing health complaints and problems can be satisfactorily dealt with
- Primary health centres, Sub centres, Community participation

Secondary health care

- Essentially curative services
- First referral level
- Community health centres & District hospitals

Tertiary health care

- Super-specialist care,
- Planning and managerial skills,
- Teaching for specialized staff.
- Regional and central level institutions.

Health Team Concept

- Professionals
- Auxiliary worker
- Team comprising of physicians, nurses, social workers, health assistants, trained dais, village health guides etc.

THANKS.

- Health for All (HFA)
- Health Promotion
- Millennium Development Goals (MDGs)