CHAPTER 1

Introduction to Social Pharmacy

1.1 Introduction

The pharmaceutical sector in India is one of the major pillars of the country's healthcare system and has made significant contributions to the population's health and well-being by providing access to low-cost, high-quality medications. The main components are:

➢ Pharmaceutical industry (Manufacturers of medicines)

➢ Supply and distribution (Wholesaler and retailers of medicines and other medical products)

➢ Facilities (All institutions where healthcare is provided through the healthcare workforce i.e. hospitals, nursing homes, clinics)

➢ Healthcare workforce (All people who deliver or assist in the delivery of healthcare services mainly doctors, nurses, medical lab technicians, and to some extent pharmacists)

The pharmacy practice in India has remained focused largely on the products (drugs) oriented roles such as manufacturing, selling, dispensing medications, record keeping, etc. The sector is promoted by various Government initiatives at different levels

At the Industry level, it is done by promoting pharmaceutical manufacturing industries in different states to increase access to medicines. It is done by incentivizing through:

• Competitive land rates

• Low resource costs like water, electricity, and civil infrastructure

LEARNING OBJECTIVES

This chapter aims to provide students with an understanding of the following topics:

♦ Definition and Scope. Social Pharmacy as a discipline and its scope in improving public health. Role of Pharmacists in Public Health.

♦ Concept of Health -WHO Definition, various dimensions, determinants, and health indicators.

♦ National Health Policy – Indian perspective

♦ Public and Private Health System in India, National Health Mission

♦ Introduction to Millennium Development Goals, Sustainable Development Goals, FIP Development Goals

- Lower cost of production machinery
- Tax exemption

At the Policy level, the National Pharmaceutical Pricing Authority regulates and monitors the price and distribution of essential medicines.

At the Hospital level, access to free medicines is provided by

- Direct procurement from manufacturers and supplying to Government hospitals.
- Health insurance coverage through schemes (Ayushman Bharat).
- Government-approved Jan Aushidhi stores to sell affordable medicines.

As a result of these government programs and systems, the Indian Pharmaceutical industry has shown robust growth and caters to the medicine demand of millions of people through its extensive distribution system.

1.2   Social Pharmacy as a Discipline

To date, the scope of pharmacists/pharmacy professionals is limited to drug manufacturing, sales, and research but underutilized in public or social health discourse.

What is Public Health: According to World Health Organization (WHO), public health refers to organized measures to **prevent disease, promote health and prolong life** among the population as a whole.

Social pharmacy is introduced to bring public health education to the pharmacy profession.

Social pharmacy is an effort to maintain the relevance of pharmacy concerning societal and population needs. *It is defined as the discipline dealing with the role of medicines from social, scientific, and humanistic perspectives i.e. all social aspects that impact or influence the use of medication.*

Social pharmacy as a concept aims to highlight that the practice of pharmacy should be seen beyond academia, research, industry, and distribution, and requires social interaction between the general public and pharmacists. The focus of social pharmacy is on improving the health of the population through the use of medicines and healthcare services. It could be accomplished by providing the students with proper knowledge and resources in the following areas:

- Public health and national health programs
- Preventive healthcare
- Food and nutrition-related health issues

- Health education and health promotion
- Roles and responsibilities of pharmacists in public health

Scope of Social Pharmacy

This scope of social pharmacy is to impart basic knowledge on the concepts of:

➢ **Preventive care**: It is the prevention of disease and health promotion rather than the diagnosis and treatment of diseases through national public health initiatives e.g. vaccination, family planning, mother and child care, breastfeeding promotion, environmental pollution due to pharmaceuticals, the social impact of drug abuse.

➢ **Epidemiology**: Epidemiology is the scientific study of the spread and control of disease in the human population e.g. communicable diseases (chickenpox, whooping cough, covid 19, etc) The aim is to use knowledge of cause and effect to break links between disease and its causes and to improve health.

➢ **Nutrition and health**: Nutrition, healthy diets, and food quality have a strong relationship with the prevention of illness and disease**.** Studying the impact of nutrition on public health can improve the health of the population.

➢ **Public health Programmes:** These are the measures taken by the government to control and eradicate diseases that cause mortality and improve the health of people e.g. national programs related to mother and child care, immunization, control of nutritional deficiency disorders, etc. Pharmacists must have knowledge about various health programs as he plays a major role in their execution to strengthen the health system.

➢ **Pharmacoeconomics:** It is a branch of health economics related to the cost evaluation of medicines. The knowledge helps to design strategies for cost-effective treatments.

Role of Pharmacist in Public Health

➢ The health and health outcomes of a community depend on the availability, accessibility, and quality of health workers.

➢ Pharmacists are considered important members of this health workforce involved in the overall well-being of the general population**.**

➢ They operate in a variety of contexts, including clinical/hospital, community, industrial, policy, program management, education, and research.

Pharmacists can be part of the public health outreach programs through:

1. **Medication therapy management (MTM):** Mismanagement of medications and medication-related problems are serious issues for public health. It can be addressed through medication therapy management. Pharmacists can be an integral part of the healthcare team by participating in the following activities:

➢ Conducting a comprehensive review of patients' medications including over-the-counter and herbal products and identifying the mismanagement of medications such as the misuse, duplication, and/or unnecessary use of medications.

➢ Detecting the need of medication for an untreated or inappropriately managed medical condition.

➢ Providing medication-related education, consultation, and advice to patients, their families, and caregivers to help ensure appropriate medication utilization.

2. **Cost management:** The cost of healthcare has increased due to the growing burden of disease. Pharmacists with pharmacoeconomics knowledge may identify, evaluate, and compare the price of various pharmacotherapies or services and significantly lower the treatment cost.

3. **Participating in National health programs:** Pharmacists' involvement in HIV/AIDS prevention and control; and tuberculosis control programs have recently rolled out. With detailed knowledge about National health missions and programs, pharmacists can "actively participate in all the national health programs", through involvement in health awareness campaigns run by the government of India and "communicate and cooperate effectively with the other members of the health care team". e.g. leprosy and vector-borne disease control, mental health, deafness and blindness control, pulse polio, universal immunization, health care of the elderly, and tobacco control programs

4. **Preventive care:** From a public health perspective, Pharmacists can provide **preventative care** via immunizations (vaccines) or by informing individuals on how best to self-manage certain habits the cessation of smoking. These initiatives will help to minimize health costs and save people from infectious diseases.

5. **Participation in policy-making decisions:** Pharmacists that are educated in epidemiology can study medication use, safety, and efficacy in various population groups, critically evaluate the benefits and risks of medications over time, and provide that information to regulatory agencies and healthcare professionals. The analysis of 'big data' by epidemiologists

generates new plans and strategies to improve clinical health and making policy decisions regarding medicine use.

6. **Nutritional counselor/educator:** Pharmacists can provide nutritional counselling. For example:

➢ Good dietary choices and lifestyle strategies for disease prevention e.g. type 2 diabetes can be controlled by a low carbohydrate diet.

➢ Assessing possible drug-nutrient interactions, drug-food interactions, and, drug-drug interactions that may be detrimental to nutritional support therapy.

➢ Selection and use of oral nutritional supplements.

7. **Disaster management:** Pharmacists are the most common health care professionals. Pharmacist's centralized position in the community makes them valuable during disasters to provide healthcare continuity. Apart from dispensing medicine, pharmacists have proven to be an accessible resource for health and medication information. There are many functions of public health that can benefit from pharmacists' unique expertise that may include pharmacotherapy, access to care and prevention services.

⮞ 1.3   Concept of Health

Health is viewed from various perspectives therefore different definitions of health are available in literature today. Some of the perceptions include:

➢ The oldest known definition of health is **that health is the absence of disease.**

➢ The ancient Indians and Greeks view health as harmony i.e. being at peace with oneself, with the community, with God, and with the cosmos (**Park, 2009**).

➢ Health is a state of vibrancy, physical strength, and the ability to perform the needed task.

➢ Health has also been conceived as the condition under which the individual can mobilize all his resources, intellectual, emotional, and physical, for an optimum living (**Pulga, 1983**).

➢ Health is the ability to function effectively within a given environment (**Schiffer, 1980**).

One common factor in these definitions and concepts of health is that health is portrayed as a positive phenomenon associated with longevity, peace,

soundness of mind, and happiness. In recent years new thinking about health emerged which can be summarized as follows:

➢ Health is a **fundamental human right** and should be available to all.

➢ Productive life is rooted in health and not based on medical expenditure.

➢ Health is inter-sectoral and cannot be achieved through a single sector effort.

➢ Health is a vital component of development and therefore a constituent of Sustainable Development Goals.

➢ Health is a multi-level responsibility carried out at the individual, state, and international levels.

➢ Health and the maintenance of health constitute a major social investment.

➢ Health is a global social goal.

WHO: The World Health Organization (WHO) is a specialized agency of the **United Nations** responsible for international public health. The main objective is the attainment of the highest possible level of health by all people.

> The concept of health developed by the World Health Organization (WHO) in1947 states that health is "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

This includes the following types of health:

1. **Physical health** can be defined as the proper functioning of all the external and internal parts and organs of the person's body which allows the person to perform the daily task normally without any limitation.

2. **Good mental health** means a person should be able to understand the potential, can manage general and normal life stresses and may be able to participate in society and to work effectively.

3. **Social health** can be defined as how the person can interact with people for example friends, family, and society. When a person is socially healthy, it helps him or her to develop relationships with other people in society. It also helps people in their careers and enables them to live independently in their life. Ensuring that all aspects of one's health are functioning well will develop a better sense of overall well-being.

Well-being is explained as a positive feeling that a person experiences in the absence of ill health. It is connected with the accomplishment of an individual's own goals and by achieving these goals, the person feels well and good.

Evolution of the WHO concept of Health

Over time the definition of health has changed to reflect the inter-sectoral nature of health. Health is multi-dimensional, spanning beyond the three dimensions contained in the World Health Organization's definition of health (physical, mental and social) to encompass dimensions such as spiritual, emotional, vocational, and political dimensions, etc.

Dimensions of Health

All eight dimensions of health are proposed that interact and influence each other. Each dimension contributes in its own way to our wellness or quality of life. These are divided into internal and external factors.

Internal Factors: Physical, emotional, mental, and spiritual. They relate to the internal state of one's body, mind, and spirit.

External factors: Environmental, social, financial, and occupational factors relate to the way you interact with the external world and how it influences you.
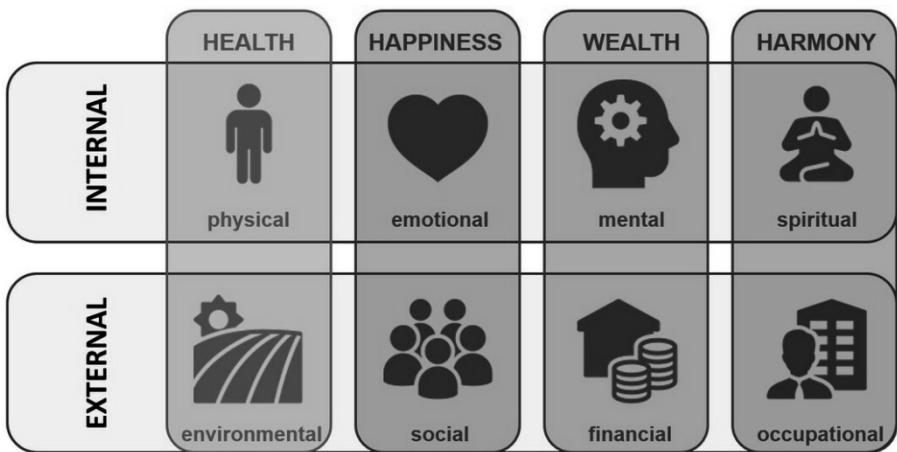
1. Physical Dimension (the state of your body):

➢ This is based on the biological concept of health and implies a situation where the body's cells, organs, and systems are **functioning at optimum capacity and are in harmony with the rest of the body**.

➢ Signs of physical health include; good appetite, bright eyes, good complexion, lustrous hair, and regular bladder and bowel movement among others.

➢ Physical health can be measured in modern medicine using self-assessment of overall health, investigation of symptoms of illness and associated risk factors, medication and use of medical services, etc.

2. Mental Dimension (the state of your mind and brain):

➢ The mental dimension of health denotes the ability to respond appropriately to experiences of life and not the mere absence of mental illness.

➢ A person with mental health will exhibit sense of purpose and will relate with others harmoniously.

➢ Mental health refers to maintaining a state of equilibrium between the individual and the world around him.

➢ Psychological factors can generate other types of illnesses other than mental illness, such as hypertension and peptic ulcer among others.

3. **Social Dimension (the state of your support system and satisfaction with the roles you play):**

➢ The social dimension of health originated from the concept of the human being as a part of a family and also part of the larger society where a person lives and relates with others.

➢ Social health emerges from a positive environment (focusing on financial and residential matters) and a positive human environment (social network of the individual).

➢ It portrays maintaining healthy relationships, enjoying being with others, developing friendships and intimate relations, caring about others, and contributing to your community (social networks) and favorable economic conditions.

	HEALTH	HAPPINESS	WEALTH	HARMONY
INTERNAL	physical	emotional	mental	spiritual
EXTERNAL	environmental	social	financial	occupational

Figure 1.1 Eight dimensions of wellness

4. **Spiritual dimension (the state of living with meaning and purpose)**:

➢ The spiritual dimension of health focuses on that part of the individual which strives for finding purpose, value, and meaning in his/her life.

➢ The elements of the spiritual dimension of health comprise of integrity, principles, ethics, purpose in life and commitment to a higher being.

➢ The holistic concept of health gives serious consideration to the spiritual dimension for its role in health and disease. Anyone who experiences spiritual uneasiness or who is not spiritually at peace is not likely to put up appropriate behavior that reflects wholeness.

5. **Emotional dimension (the state of feeling):**

➢ This dimension considers the influence of the emotional aspect of a human being on his health.

➢ Though closely related to mental health, it differentiates as the emotional dimension aligns with feelings and the mental to cognition

➢ Emotional disturbances will affect the individual's response and adaptation to his environment and the way he relates to other persons around him.

6. **Occupational or Vocational Dimension (Your job and career satisfaction):**

➢ It is a new dimension ascribed to health and it focuses on the vocational aspect of life.

➢ Work is part of human existence and plays a role in promoting physical and mental health.

➢ Preparing for and participating in work and the achievement of goals brings about self-realization, satisfaction, and self-esteem.

➢ This dimension is appreciated when there is a life event that reverses this process such as losing a job which can result in a crisis for the person concerned.

7. **Environmental dimension**

➢ The environmental dimension encompasses a healthy relationship with the earth and its resources and a healthy relationship with your surroundings.

➢ It means being intentional about Protecting oneself from environmental hazards, such as noise, chemicals, pollution, and ultraviolet radiation.

8. **Non-medical dimensions of health (Financial wellbeing)** :

They contribute to a level of health that allows for socio-economic productivity among persons. These dimensions include:

➢ Financial status affects health to a large extent as people of lower socio-economic dimensions (occupation, economic level) lack proper nutrition, live in unhygienic conditions, and are not able to afford the expense of health services.

➢ Cultural dimension (family and cultural belief, religious belief).

➢ Educational dimension (access to education).

➢ Nutritional dimension (access to healthy food).

➢ Curative dimension (therapy to cure the patient).

➢ Preventive dimension (measures to prevent healthy people from becoming ill).

**Outcomes of the Wellness (Health) Dimensions**

The eight factors influencing one's wellness can further be divided into four pairs. When each pair is seen in its totality and is optimized, it leads to the fulfilment of the desired outcome. The conceptualization is:

- When the **physical** and **environmental** pair are optimized, they lead to **HEALTH**
- When the **emotional** and **social** pair are optimized, they lead to **HAPPINESS.**
- When the **mental** and **financial** pair are optimized, they lead to **WEALTH**
- When the **spiritual** and **occupation** pair are optimized, they lead to **HARMONY**

Determinants of Health: Health includes more than just health care. At every stage of life, health is determined by complex interactions between social and economic factors, the physical environment, and individual behaviour. They do not exist in isolation from each other.

To a large extent, factors such as where we live, the state of our environment, genetics, our income, education level, our relationships with friends and family, and access to healthcare services all have considerable impacts on health. Research shows there are 4 broad factors (other than genetics) that influence our health.

The Drivers of Health
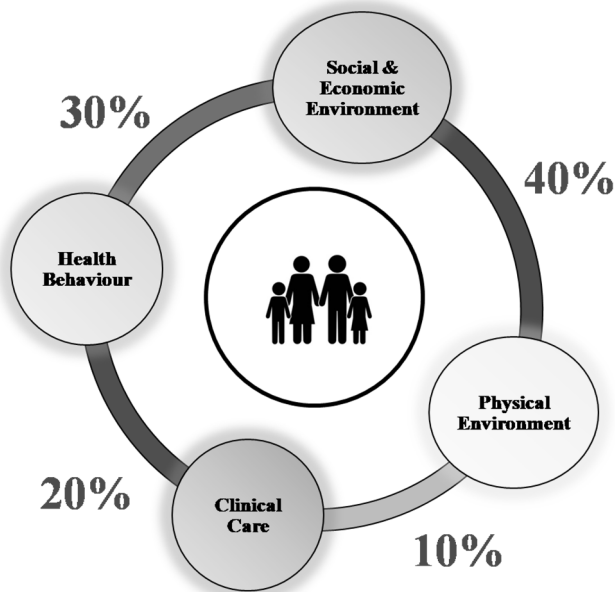
Figure 1.2 Drivers of health

The determinants of health and their relative contribution

➢ Social and economic environment (40%)

➢ Physical environment (10%)

➢ Person's characteristics and behaviors (30%)

➢ Clinical care (20%)

1. **The Social & Economic Environment:** Our social and economic environments influence health. The social and economic environment includes access to quality education, job opportunities, safe neighborhoods, social support, and healthy foods

   Education: A person's education and income are the greatest predictors of their health.

   - Individuals with higher levels of education and income tend to live longer, healthier lives. This relationship exists at both the individual and community levels.
   - Illiteracy coincides with poverty, malnutrition, and ill-health

   Occupation: Suitable and productive employment promotes health as

   - Proper employment generates income and raises economic status which in turn promotes health and education of family
   - Job satisfaction contributes to mental health and well being

   Economic Status: It is measured as GNP (Gross National Product) i.e. average income of the citizen of a country) and tells the economic status of a country It includes purchasing power, the standard of living family size, and attention towards health care.

   - Economic progress is a major factor in reducing morbidity, increasing life expectancy, and improving quality of life.
   - On the contrary, affluence can lead to a high incidence of diabetes, obesity, and coronary heart disease in upper socio-economic groups.

   Political System: Political system can shape the health of the people in the country through:

   - Creating affordable and available healthcare facilities for different segments of society.
   - Resource allocation for the health sector.
   - Environment protection.
   - Choice of technology.

2. **Clinical or Healthcare Services**: Clinical care refers to any interaction with the health care system, ranging from preventive activities like vaccines for prospective mothers, infants, and children and general screening programs for the treatment of particular diseases and conditions, blindness and cancer due to preventive causes, etc. It can occur in a variety

of settings, including outpatient clinics, hospitals, public health departments, long-term care facilities, and in some cases our own homes. Effective health care should be accessible, affordable, timely, and of high quality.

3. **Life Style or health behavior:** These are the choices we make that affect the length and quality of our lives.

   - Some of the significant health behaviours are smoking, physical activity, and diet. All 3 affect a person's risk for developing diabetes, cardiovascular disease, cancer, obesity, and other chronic illnesses.
   - Behavioral change in these 3 areas can seriously affect our health outcomes and quality of life. Health behaviours are a personal choice and certain health behaviour promote health e.g. eating a nutritional diet, enough physical activity, and enough sleep.

4. **Physical Environment:** It encompasses the natural and built environments including transportation systems, buildings, and public resources.

   People's school, work, and home environments have a direct effect on their health and also influence their health behaviours. For example, access to sidewalks, parks, and playgrounds offers opportunities for physical activity, while exposure to pollution or unsafe drinking water contributes to health conditions like asthma and waterborne illness.

5. **Genetics:** Inheritance or Genetics plays a part in determining lifespan, healthiness, and the likelihood of developing certain illnesses. Several diseases are known to be of genetic origin e.g. epilepsy, cancer, diabetes, mental retardation, and metabolic problems.
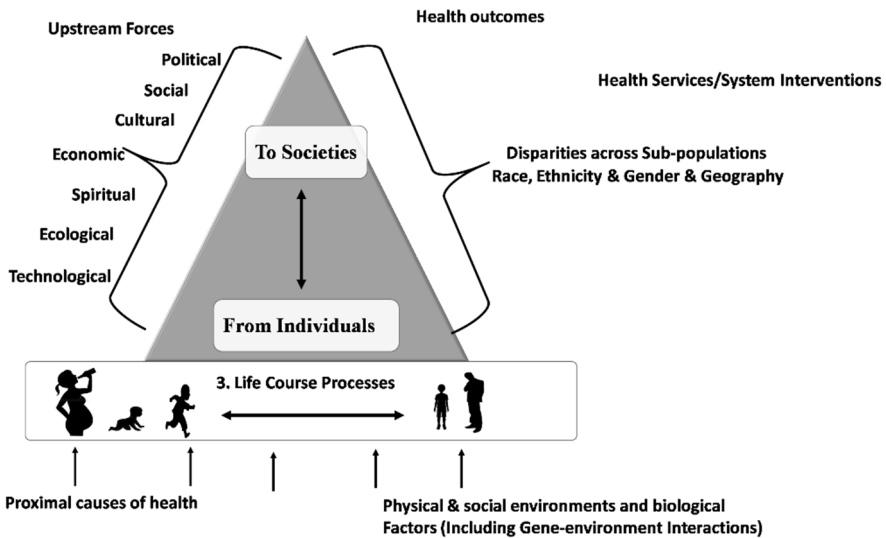

Figure 1.3 Determinants of health in the society

Health Indicators

A health indicator is an estimated measurement of a given health dimension in a target population. The collected data after analysis become a synonym for "indicator of the population's health," rather than "indicator of individual health." and address the following concerns

➢ How healthy is the community?

➢ Is our community in balance?

➢ What factors affect the health of the population?

➢ Are programs or services working?

➢ Are we moving towards or away from the vision of health?

Significance of health indicators: The health indicators are useful in

➢ Measuring the health status of a community and also comparing the health status of one country with another.

➢ Estimating healthcare needs and allocation of resources.

➢ Monitoring and evaluation of health services activities and programs and measuring the extent to which the objectives and targets of a healthcare program have been achieved.

Classification of Health Indicators: Health indicators are subdivided into the following:

A. Health Status Indicators:

1. **Mortality indicators:** Mortality data may provide a crude but simple way to assess health conditions. The source of information can be a death certificate where the cause of death is written. The specific indicators are:

   ➢ *Crude Death Rate: it* is defined as the number of death per thousand populations per year in a given community. It is a good tool for assessing overall health improvement in a population.

   Number of deaths during the year × 1000/ Mid-year population

   ➢ **Life expectancy***:* Life expectancy at birth is the average number of years a person is likely to live. Currently, in India, it is 69.66 years.

   ➢ **Age-specific death rates:** The total number of deaths occurring in a specific age group of the population for example 15 to 20 years in a defined area during a specific period per 1000 estimated total population of the same group.

   ➢ **Infant mortality rate***:* It is the ratio of deaths under 1 year of age in a given year to the total number of live births in the same year it is expressed as the rate per thousand life birth. It is one of the most universally accepted indicators.

Number of deaths under 1 year of age in the given year   × 1000/ Total number of live births in the same year

➢ **Child mortality rate:** It is related to the overall health status in the early childhood mortality rate 1 to 4 years

*Number of deaths at 1- 4 years of age in the given year × 1000/ Children in that age group at the midpoint of the yea*r

➢ **Under 5 proportionate mortality rate**: It is the proportion of deaths occurring in the under 5 age group.

Number of deaths under 5 years of age in the given year   × 1000/ Total number of deaths during the same period

➢ **Maternal Mortality rate (MMR)**: It is the annual number of female deaths per 1,00,000 live births from any cause related to pregnancy, childbirth, or its management.

Table 1.1 Health indicators

Health status indicators (Disease specific)	Determinants of health (Biological risk factors and health behavior	Health system indicators
• Mortality indicators • Morbidity indicators • Disability rates	• Nutritional status indicator • Social & mental health indicators • Environmental indicators • Socio-economic indicators • Indicators of quality of life	• Health care delivery indicators • Utilization rates • Healthypolicy indicators

2. **Morbidity Indicators:** These indicators are used to supplement mortality data. The following morbidity rates are used for assessing ill health in the community:

➢ **Incidence and prevalence:** The number of new cases occurring in a defined population during a specified period.

Incidence = Number of new cases of a specific disease during a given period × 1000/ the population at risk during that period

➢ **Prevalence:** The total number of all individuals who have the disease at a particular time divided by the population having that disease during that period.

➢ **Notification rates:** Reporting to public authorities of diseases e.g. Polio, TB

➢ The attendance rate at OPDs

➢ Admission, readmission, and discharge rates Spells of sickness

3. **Disability Rates**: The following indicators have been used:

   ➤ **DALY (Disability-Adjusted Life Years):** It measures the disease burden in the population and takes into account premature death along with years lost due to disability caused by disease or injury.

   ➤ **PYL (Potential years of life lost):** It measures the impact of premature death on the population. It is the sum of the years that people would have lived, had they experienced normal life expectancy.

B. Indicators based upon Determinants of Health

1. **Nutritional Status Indicators:** It includes:

   ➤ Anthropometric measurement of pre-school children e,g. weight and height.

   ➤ Height of children at school entry.

   ➤ Prevalence of low birth weight (less than 2.5 Kg).

2. **Social & Mental Health Indicators:**

   ➤ Suicide, homicide, other acts of violence, road traffic accidents e.g. alcohol and drug abuse are examples.

   ➤ These indicators provide a guide to social action for improving the health.

3. **Environmental Indicators:**

   ➤ These reflect the quality of the physical and biological environment.

   ➤ The proportion of the population having access to safe water.

   ➤ The proportion of the population having access to sanitation facilities.

   ➤ Indicators relating to pollution of air and water, radiation, solid wastes, noise.

4. **Socio-Economic Indicators:**

   These indicators do not directly measure health but they are of great importance in the interpretation of the indicators of health care e.g.

   ➤ Rate of population decrease

   ➤ Per capita income

   ➤ Level of unemployment

   ➤ Dependency ratio

   ➤ Literacy rate

   ➤ Family size

   ➤ Housing

5. **Quality of Life Indicators**: These indicators are difficult to measure so expressed as the index value

    ➤ **PQLI** (Physical quality of life): It is calculated by the average of three indicators infant mortality, life expectancy at age 1, and literacy.

    ➤ **Human Development Index**: It combines longevity, education, and gross national income.

C. **Health System Indicators**

 1. **Health care delivery indicators:** These indicators reflect the distribution of health resources.

    ➤ Doctor: Population ratio, Doctor: Nurse ratio

    ➤ Population: Bed ratio

    ➤ Population per health sub-center

2. **Utilization indicators**: express the proportion of the population in need of healthcare services e.g.

    ➤ The proportion of infants who are fully immunized

    ➤ Percentage of the population using various methods of family planning

    ➤ Average daily inpatient cases

3. **Health Policy Indicators:** Important indicator of political commitment is the "Allocation of adequate resources"

    ➤ The proportion of GNP spent on health services

    ➤ The proportion of GNP spent on health-related activities

    ➤ The proportion of total health resources devoted to primary health care

Uses of Health Indicators:

1. **Addressing unmet needs**: Health indicators can be used to describe health care needs in a population, and the disease burden in specific population groups. The description of a population's health needs can guide decisions about the extent and nature of unmet needs, the inputs needed to address the problem, and the groups that should receive the greatest attention, among other functions.

2. **Forecast or prognosis:** Health indicators can be used to anticipate results about the state of health of a population or a group of patients (prognosis). These indicators are used to forecast disease burdens in populations, and disease outbreaks, thereby helping to prevent epidemics.

3. **Explanation:** Health indicators can facilitate an understanding of why some individuals in a population are healthy and others are not by

indicators about social determinants of health, such as gender roles and norms, ethnicity, income, and social support

4. **System management and quality improvement**: The production and regular monitoring of health indicators can also provide feedback to improve decision-making in various systems and sectors.

5. **Evaluation**: Health indicators can show the results of health interventions. The monitoring of such indicators can detect the impact of health policies, programs, services, and actions.

6. **Advocacy**: Indicators can serve as tools to support or oppose particular ideas and ideologies in different historical and cultural contexts.

7. **Accountability**. Health indicators can provide needed information on risks, disease and mortality patterns, and health-related trends over time for governments, health professionals, international organizations, and civil society which is necessary to monitor a population's health situation and trends.

8. **Research:** Observation of the distribution of health indicators can generate a hypothesis to explain observed trends and discrepancies.

9. **Measure gender gaps**: Gender-sensitive indicators measure gaps between men and women resulting from differences or inequalities in gender roles, norms, and relations.

The indicators used in public health are **to drive decision-making for health**. The ultimate objective is to improve the health of the population and reduce unjust and preventable inequalities.

1.4   National Health Policy-Indian Perspective

A healthy population is the goal of every country. No country can afford to neglect the issue of health, as the health status of an individual plays an important role in human capital generation. Policies serve the purpose of providing specific guidelines which help in guiding the intervention in the area of public health.

Policy: Policy is a system, which provides the logical framework and rationality of decision-making for the achievement of defined goals.

Health Policy

➢ The health policy of a nation is its strategy for controlling and optimizing the social uses of its health knowledge and health resources.

➢ It refers to decisions, plans, and actions that are undertaken to achieve specific health care goals within society.

Background

➢ Initial systematic efforts to provide health care in India were in accordance with five-year plans as well as recommendations of high-level committees such as the Bhore Committee, Sokhey committee, Mudailar committee, etc.

➢ The joint WHO – UNICEF international conference in 1978 at Alma Ata (USSR) commented that "The existing gross inequalities in the status of health of people particularly between developed and developing countries as well as within the country is politically, socially and economically unacceptable."

➢ So, the Alma Ata Declaration called on all governments to formulate National Health Policies according to their circumstances and to launch and sustain primary health care as a part of the national health system.

National Health Policy-1983: After 30 years of independence, the Ministry of Health & Family Welfare, Government of India, introduced its first national health policy (NHP) in 1983. NHP-1983 proposed 'State as a service provider' and 'public provisioning as a model of service delivery.

The aim of the NHP- 1983 with its main focus on the provision of primary health care to all was to achieve **'Health for all by 2000 AD'.** Policy focused on primary health care and equitable access to health services.

The policy stressed the need of establishing comprehensive (that includes everything) primary health care services to reach the population in the remote areas of the country.

India failed to achieve the goal of 'Health for all by 2000 AD' due to slow socio-economic development, insufficient political commitment to the implementation of health for all, and the continuing low status of women. Pollution, poor food safety, and lack of water supply and sanitation also added to the failure of the policy.

National Health Policy 2002: In light of the change in the epidemiological profile of the country, a revised health policy with a major focus to tackle health inequalities and achieve better health care and unmet goals had been brought out by the Government of India- National Health Policy 2002.

Objectives of National Health Policy 2002 were:

➢ To achieve an acceptable standard of good health for the Indian Population.

➢ To decentralize the public health system by upgrading infrastructure in existing institutions.

➢ To ensure more equitable access to health services across the social and geographical regions of India.

➤ To enhance the contribution of the private sector in providing health services for people who can afford to pay.

➤ To give primacy to prevention and first-line curative initiatives.

➤ To emphasize on rational use of drugs.

➤ To increase access to tried systems of Traditional Medicine.

Policy directions of NHP, 2002 resulted in interventions like National Rural Health Mission (NRHM, 2005) and National Urban Health Mission (NUHM, 2013). Both the programs were merged under **National Health Mission** in 2013. Though National health policy 2002 succeeded in eliminating polio but failed to eradicate persisting challenges such as inadequate health services, and low public spending on the healthcare system forces people into poverty to access healthcare.

Table 1.2 Goals of National Health Policy 2002, to be achieved by 2015

Goals of National Health Policy 2022

S. No.	Goal	Year
1)	Eradicate Polio and Yaws	2005
2)	Eliminate leprosy	2005
3)	Established and integrated system of surveillance, National health accounts and health statistics	2005
4)	Increase state sector health spending from 5.5 % to 7 % of the budget.	2005
5)	Achieve zero level growth of HIV/AIDS	2007
6)	Eliminate Kala-Azar	2010
7)	Reduce mortality by 50 %on account of TB, Malaria and other vector& water borne diseases.	2010
8)	Reduce prevalence of blindness to 0.5%	2010
9)	Reduce IMR to 30/1000 and MMR to 100/Lakh	2010
10)	Increase utilization of public health facilities from current level of 20% to 75 %.	2010
11)	Increase health Expenditure by government as a % of GDP from the existing 0.9 % to 2%.	
12)	Increase share of central grants to constitute at least 25 %of total health spending.	2010
13)	Further increase to 8% of the total budget	2010
	Eliminate lymphatic Filariasis.	2015

National Health Policy 2017

The Union Cabinet approved National Health Policy 2017, proposing to provide *"Assured Health services to all".* For the first time, the Government set a time-bound target with a limited deadline to strengthen the healthcare system in India. The previous policies were **cure -centric** and a new one is preventive and **patient-centric** with quality-driven. Earlier policy focused on communicable diseases but over the last 10-15 years the focus has been shifted

towards non-communicable diseases which caused the majority of deaths.NHP, 2017 promises **'assured health care for all at affordable cost'** and changes the discourse of **Health for all** to **'Health in all'.**

Goals of the Policy: The policy aims:

➢ To attain the **highest possible level of health and wellbeing for all** ages, through a preventive and promotive health care orientation.

➢ To provide **universal access to good quality health care** services without anyone having to face financial burden. This would be achieved through increasing access, lowering the cost, and improving the quality of health care delivery.

Objective: The primary objective of the National Health Policy, 2017 is:

➢ **To strengthen the common man's interest in the public health care system** by making it patient-centric, efficient, effective, and affordable, with a comprehensive (that includes everything) package of services and products that meet the immediate health care needs of most people.

➢ To inform, clarify, strengthen and prioritize the role of the Government in shaping the health system in all its dimensions.

Key features of NHP 2017:

➢ **Assurance-Based Approach**: Policy advocates progressively incremental Assurance based Approach with a focus on preventive and promotive healthcare.

➢ The Indian government has declared to increase **expenditure on healthcare to 2.5**% of GDP which is currently 1.5 %. The rise in expenditure will be achieved phase-wise by 2025.

➢ The government will provide **free medication & diagnosis tests** in all public hospitals to make sure every citizen of the country accesses all health facilities irrespective of financial status.

➢ **Health Card linked to health facilities**– Government will provide health cards to each patient to maintain the patient's history digitally.

➢ Previously the role of the primary health centers was immunization & check-ups. The new policy includes the screening of non-communicable diseases also.

➢ **Up-gradation of district hospitals** with new framework implementation.

➢ Good health &Yoga would be introduced widely in workplaces and schools.

➢ **Patient-Centric Approach**: The policy recommends setting up a separate, empowered medical tribunal for a speedy resolution to address disputes

/complaints regarding standards of care, services price, negligence, and unfair practices.

➢ **Micronutrient Deficiency:** Focus on reducing micronutrient malnourishment.

➢ **Quality of Care**: Public hospitals and facilities would undergo periodic measurements and certification of the level of quality.

➢ **Make in India Initiative:** Policy advocates the need to enhance local manufacturing of customized medicines and infrastructure.

➢ **Application of Digital Health:** Policy emphasizes the use of digital tools for improving the efficiency and outcome of the healthcare system.

➢ **Private Sector engagement for strategic purchase** for critical gap filling and the achievement of health goals.

➢ To get services situations, the policy has provision to provide emergency services free of cost in all care levels in public hospitals for that it aims to ensure the availability of two beds per 1,000 population to enable access within a golden hour [the first hour after traumatic injury, when the victim is most likely to benefit from emergency treatment].

Specific Quantifiable Goals: NHP 2017 also sets **specific measurable, time-bound goals in three core areas** to track the attainment of policy objectives:

a) Health Status and Program impact,

b) Health Systems Performance,

c) Health Systems Strengthening.

Table 1.3 List of key quantitative indicators

Health Status and Programme Impact		
1	**Life Expectancy and healthy life**	Increase Life Expectancy at birth from 67.5 to 70 by 2025.
		Establish regular tracking of the Disability Adjusted Life Years (DALY) Index as a measure of the burden of disease and its trends by major categories by 2022.
		Reduction of Total Fertility Rate (TFR) to 2.1 at national and sub-national levels by 2025. In FY 2016, India had a TFR of 2.3 birth per woman.
2	**Mortality by Age and/ or cause**	Reduce Under Five Mortality to 23 by 2025 and Maternal Mortality Ratio MMR from current levels 167 to 100 by 2020
		Reduce infant mortality rate to 28 by 2019, the IMR was 34 per 1000 live births in 2015.
		Reduce neonatal mortality to 16 and stillbirth rate to "single digit" by 2025

Table 1.3 *contd…*

3	Reduction of disease prevalence/ incidence	Achieve the global target of 2020 which is also termed as a target of 90:90:90, for HIV/AIDS i.e.90% of all people living with HIV know their HIV status, –90% of all people diagnosed with HIV infection receive sustained antiretroviral therapy and 90% of all people receiving antiretroviral therapy will have viral suppression.
		Achieve and maintain elimination status of Leprosy by 2018, Kala-Azar by 2017, and Lymphatic Filariasis in endemic pockets by 2017.
		To achieve and maintain a cure rate of >85% in new sputum-positive patients for TB and reduce the incidence of new cases, to reach elimination status by 2025.
		To reduce the prevalence of blindness to 0.25/1000 by 2025 and the disease burden by one-third from current levels.
		To reduce premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases by 25% by 2025.
Health Systems Performance		
1	Coverage of Health Services	Increase utilization of public health facilities by 50% from current levels by **2025.**
		Antenatal care coverage to be sustained above 90% and skilled attendance at birth above 90% by **2025.**
		More than 90% of newborns are fully immunized by one year of age by **2025.**
		Meet the need for family planning above 90% at the national and sub-national levels by **2025.**
		80% of known hypertensive and diabetic individuals at the household level maintained, controlled disease status" by **2025**
2	Cross-Sectoral goals related to health	The relative reduction in the prevalence of current tobacco use by 15% by 2020 and 30% by 2025.
		Reduction of 40% in the prevalence of stunting of under-five children by 2025.
		Access to safe water and sanitation to all by 2020 (Swachh Bharat Mission)
		Reduction of occupational injury by half from current levels of 334 per lakh agricultural workers by 2020.
		National/ State level tracking of selected health behavior.
Health Systems strengthening		
1	Health finance	Increase health expenditure by Government as a percentage of GDP from the existing 1.15% to 2.5 % by 2025.
		Increase State sector health spending to > 8% of their budget by 2020.

Table 1.3 *contd…*

		Decrease in the proportion of households facing catastrophic health expenditure from the current levels by 25%, by 2025.
2	**Health Infrastructure and Human Resource**	Ensure availability of paramedics and doctors as per the Indian Public Health Standard (IPHS) norm in high-priority districts by 2020.
		Increase community health volunteers to population ratio as per IPHS norm, in high-priority districts by **2025.**
		Establish primary and secondary care facilities as per norms in high-priority districts (population as well as time to reach norms) by **2025.**
3	**Health Management Information**	Ensure district-level electronic database of information on health system components by 2020.
		Strengthen the health surveillance system and establish registries for diseases of public health importance by 2020.
		Establish federated integrated health information architecture, Health Information Exchanges, and National Health Information Network by 2025.
Health Status and Programme Impact		
1	**Life Expectancy and healthy life**	Increase Life Expectancy at birth from 67.5 to 70 by 2025.
		Establish regular tracking of the disability Adjusted Life Years (DALY) Index as a measure of the burden of disease and its trends by major categories by 2022.
		Reduction of Total Fertility Rate (TFR) to 2.1 at national and sub-national levels by 2025. In FY 2016, India had TFR of 2.3 birth per woman.
2	**Mortality by Age and/ or cause**	Reduce Under Five Mortality to 23 by 2025 and Maternal Mortality Ratio MMR from current levels 167 to 100 by 2020
		Reduce infant mortality rate to 28 by 2019, the IMR was 34 per 1000 live births in 2015.
		Reduce neonatal mortality to 16 and stillbirth rate to "single-digit" by 2025
3	**Reduction of disease prevalence/ incidence**	Achieve the global target of 2020 which is also termed as the target of 90:90:90, for HIV/AIDS i.e,90% of all people living with HIV know their HIV status, –90% of all people diagnosed with HIV infection receive sustained antiretroviral therapy and 90% of all people receiving antiretroviral therapy will have viral suppression.
		Achieve and maintain elimination status of Leprosy by 2018, Kala-Azar by 2017, and Lymphatic Filariasis in endemic pockets by 2017.
		To achieve and maintain a cure rate of >85% in new sputum-positive patients for TB and reduce the incidence of new cases, to reach elimination status by 2025.

Table 1.3 *contd…*

		To reduce the prevalence of blindness to 0.25/1000 by 2025 and the disease burden by one-third from current levels.
		To reduce premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases by 25% by 2025.
Health Systems Performance		
1	**Coverage of Health Services**	Increase utilization of public health facilities by 50% from current levels by **2025.**
		Antenatal care coverage to be sustained above 90% and skilled attendance at birth above 90% by **2025.**
		More than 90% of newborns are fully immunized by one year of age by **2025.**
		Meet the need for family planning above 90% at the national sub-national level by **2025.**
		80% of known hypertensive and diabetic individuals at the household level maintained, controlled disease status" by **2025**
2	**Cross-Sectoral goals related to health**	The relative reduction in the prevalence of current tobacco useby 15% by 2020 and 30% by 2025.
		Reduction of 40% in the prevalence of stunting of under-five children by 2025.
		Access to safe water and sanitation to all by 2020 (Swachh Bharat Mission)
		Reduction of occupational injury by half from current levels of 334 per lakh agricultural workers by 2020.
		National/ State level tracking of selected health behaviour.
Health Systems strengthening		
1	**Health finance**	Increase health expenditure by Government as a percentage of GDP from the existing 1.15% to 2.5 % by 2025.
		Increase state sector health spending to > 8% of their budget by 2020.
		Decrease in the proportion of households facing catastrophic health expenditure from the current levels by 25%, by 2025.
2	**Health Infrastructure and Human Resource**	Ensure availability of paramedics and doctors as per the Indian Public Health Standard (IPHS) norm in high-priority districts by 2020.
		Increase community health volunteers to population ratio as per IPHS norm, in high-priority districts by **2025.**

Table 1.3 *contd…*

		Establish primary and secondary care facilities as per norms in high-priority districts (population as well as time to reach norms) by **2025.**
3	**Health Management Information**	Ensure district-level electronic database of information on health system components by 2020.
		Strengthen the health surveillance system and establish registries for diseases of public health importance by 2020.
		Establish federated integrated health information architecture, Health Information Exchanges, and National Health Information Network by 2025.

National Health Policy
Specific Quantitative Goals & Objectives

2020-22

- Reduce MMR from current levels to 100 by 2020.
- Achieve global target of 2020 which is also termed as target 90:90:90 for HIV/AIDS.
- Relative reduction in prevalence of current tobacco use by 15% by 2020.
- Access to safe water and sanitation to all by 2020 (Swachh Bharat Mission)
- Reduction of occupational injury by half from current levels of 334 per lakh agricultural workers by 2020.
- Increase state sector health spending to >8% of their budget by 2020.
- Ensure availability of parameters and doctors as per Indian Public Health Standard (IPHS) norm in high priority districts by 2020.
- Establish regular tracking of Disability Adjusted Life Years (DALY)index as a measure of burden of disease and its trends by major categories by 2022.
- Reduce to tobacco use 15% by 2020.
- Ensure district-level electronic database of information on health system components by 2020.
- Strengthen the health surveillance system and establish registries for diseases of public health importance by 2020.

2017-2019

- Achieve and maintain elimination status of kala-azar
- And Lymphatic Filariasis.
- Leprosy by 2018.
- Reduce infant mortality rate to 28 by 2019.

2025

- Increase health expenditure by Government 1.15% to 2.5 % of GDP by 2025.
- Increase Life Expectancy at birth from 67.5 to 70 by 2025.
- Reduce >5 mortality to 23 to 2025.
- Reduce neo-natal mortality to 16 and still rate to single digit by 2025.
- To achieve and maintain a cure rate of >85% in new sputum
- Positive patients for TB and reach elimination status by 2025.
- Increase utilization of public health facilities by 50% by 2025.
- Antenatal care coverage to be sustained above 90 % by 2025.
- More than 90 % of the new-born are fully immunized by one year of age by 2025.
- Meet need of family planning above 90% at national and sub-national level by 2025.
- Increase community health volunteers to population ratio as per IPHS norm, in high priority districts by 2025.
- Establish primary and secondary care facilities per norms in
- High Priority districts (Population as well as time to reach norms) by 2025.
- Establish federated integrated health information architecture, health Information exchanges and national heath information network by 2025.

Figure 1.4 Various National Health Policies

New reform policy has risen in expenditure limits with schemes like free medication & emergency services. Following are the few challenges India is facing in achieving the goals of NHP 2017:

- 100 percent utilization of allocated amount in targeted care service not achieved.
- Lack of resources in regulatory authority (FDA/NAPPA/CDSCO) & in all levels of care services.
- Lack of infrastructure available in the rural area.

- Lack of right intention & willingness to provide service, not the product.
- Due to the bad quality of services people are shifting towards private services which leads to a financial burden on them.
- Unavailability of highly integrated systems/devices in public hospitals.
- With loose control of the government over the whole healthcare system except (DCO),drug manufacturers are free to set drug prices.
- Lack of strict guidelines pharma industry to maintain the high-quality of medicines (violation of GMP guidelines).

Other than the NHPs, many other policies were announced from time to time that are closely linked with improving the health status of people. Some of such National Policies are listed in the table.

Table 1.4   National health policies/other related policies for the promotion of health

YEAR	NAME OF POLICY
1983	**National Health Policy**
1992	National AIDS Control and Prevention Policy
1993	National Nutrition Policy
1999	National Policy on Older Persons
2000	National Population Policy
2001	National Policy for Empowerment of Women
2002	National Blood Policy
2002	National Policy on Indian System of Medicine and Homeopathy
2002	**National Health Policy**
2003	National Policy for Access to Plasma-derived Medicinal Products from Human Plasma for Clinical/Therapeutic use
2003	National charter for children
2005	National Rural Health Mission
2006	National Environment Policy
2009	Right of children to Free and Compulsory Education Bill (education to children aged between 6 and 14 years)
2012	National Pharmaceutical Pricing Policy
2012	National Water Policy
2013	National Policy for Children
2015	National Youth Policy
2017	**National Health Policy**

1.5   Public and Private Healthcare Systems in India

The terms health system and healthcare system are often used interchangeably but there is quite a big difference between these.

➢ Health care systems are limited to personal healthcare services, such as curative services.

➢ Health systems encompass wider dimensions of health, such as social and economic determinants of health.
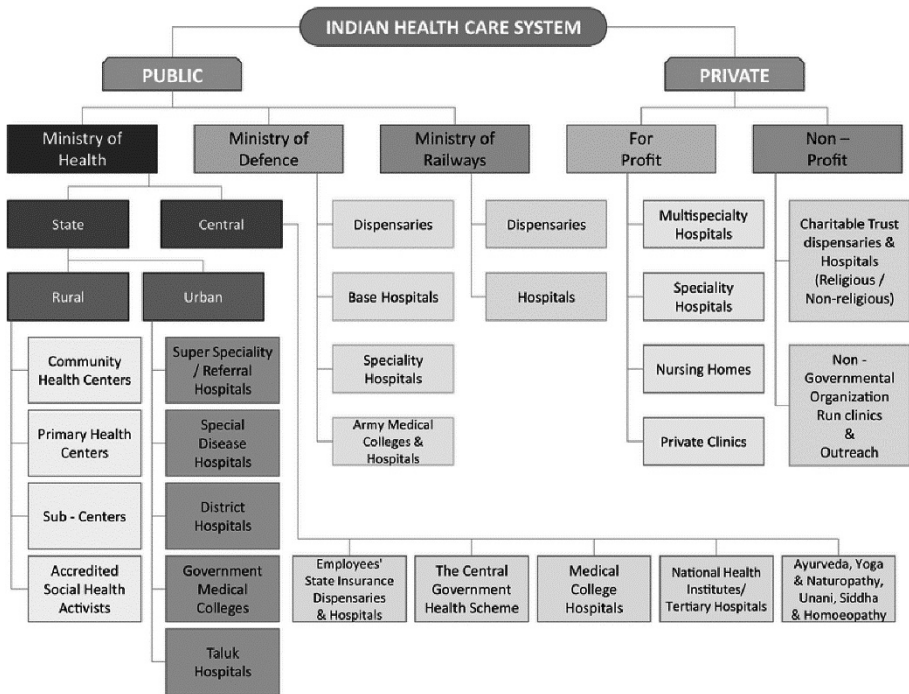
INDIAN HEALTH CARE SYSTEM

PUBLIC

- Ministry of Health
  - State
    - Rural
      - Community Health Centers
      - Primary Health Centers
      - Sub - Centers
      - Accredited Social Health Activists
    - Urban
      - Super Speciality / Referral Hospitals
      - Special Disease Hospitals
      - District Hospitals
      - Government Medical Colleges
      - Taluk Hospitals
  - Central
- Ministry of Defence
  - Dispensaries
  - Base Hospitals
  - Speciality Hospitals
  - Army Medical Colleges & Hospitals
- Ministry of Railways
  - Dispensaries
  - Hospitals

PRIVATE

- For Profit
  - Multispecialty Hospitals
  - Speciality Hospitals
  - Nursing Homes
  - Private Clinics
- Non – Profit
  - Charitable Trust dispensaries & Hospitals (Religious / Non-religious)
  - Non - Governmental Organization Run clinics & Outreach

Employees' State Insurance Dispensaries & Hospitals | The Central Government Health Scheme | Medical College Hospitals | National Health Institutes/ Tertiary Hospitals | Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy

Figure 1.5 Indian healthcare system

Indian Health care Systems: Indian healthcare system is divided into two sectors: Public and private.

Public Sector Healthcare: The public healthcare industry (operated by the Indian government) is responsible for providing health services and treatments to all people. This sector includes super-specialty hospitals equipped with medicines and instruments, which are majorly located in tier I and tier-II cities. Additionally, district- and taluka-level hospitals provide healthcare services to the people. Primary healthcare centers and village hospitals with low costs are available, which provide affordable services to the people.

Private Sector Healthcare: This has a similar structure and provides amenities and services to the middle-class and upper-class people in India.

The overall cost of healthcare services included in the private sector is higher than that in the public sector. Technological interventions are also more diverse in the private sector than in the public sector. The figure illustrates the detailed structure of the Indian healthcare system.

Non-profit hospitals: Non-profit hospitals are community hospitals and their main goal is to provide free–of–cost services to the community. The funds to run such hospitals are raised from the donations and offerings given by the people.

1.6   National Health Mission

The National Health Mission was launched by the Indian government in 2013 and is being implemented by the Ministry of Family and Health Welfare. The project merged two previous missions, National Rural Health, and National Urban Health, both of which were started in 2005 with the goal of addressing India's malnutrition crisis.

National Rural Health Mission (NRHM) was launched on April 12, 2005, to address the health needs of the underserved rural population especially women, children, and vulnerable sections of the society, and to provide affordable, accessible, and quality healthcare.

National Urban Health Mission (NUUM): NUHM aims to satisfy the health care needs of the urban population, with a particular focus on the urban poor, by making critical primary health care services available to them and lowering their out-of-pocket treatment costs.

The main programmatic components include the strengthening of healthcare in rural and urban areas, Reproductive-Maternal-Neonatal-Child and Adolescent health (RMNCH+A)

In March 2018, it was extended again with a wider focus on establishing a fully functional, community-owned, decentralized health delivery system with inter-sectoral convergence at all levels, to ensure simultaneous action on a wide range of determinants of health such as education, clean water, sanitation, nutrition, and gender equality

Objective: The overall objective of the National Health Mission is to ensure that everyone gets easy access to high- quality affordable health care services, accountable and responsive to people's needs

Goals of the National Health Mission

National Health Mission is basically a conglomerate of all existing health schemes of the country. The broad measurable objectives of this mission in totality are as follows:

➢ Reducing MMR to 1/1000 live births

➢ Reducing IMR to 25/1000 live births

➢ Reducing TFR (Total Fertility Rate) to 2.1

➢ Prevention of anaemia in women aged 15-49 years

➢ Prevent and reduce mortality & morbidity from communicable, non-communicable

➢ Injuries and emerging diseases

➢ Reduce household out-of-pocket expenditure on total health care expenditure

➢ Reduce annual incidence and mortality from Tuberculosis by half

➢ Reduce the prevalence of Leprosy to <1/10000 population and incidence to zero in all districts

➢ Annual Malaria Incidence to be <1/1000

➢ Less than 1 percent microfilaria prevalence in all districts

➢ Kala-azar elimination by 2015, <1 case per 10000 population in all blocks

Components of NHM

1. National Rural Health Mission (now called NRHM-RCH Flexipool)
2. National Urban Health Mission Flexipool for populations above 50000
3. Flexible pool for Communicable disease
4. Flexible pool for Non-communicablediseases including Injury and Trauma
5. Infrastructure Maintenance
6. Family Welfare Central Sector component.

1.7   Millennium Development Goals (MDG's)

The WHO's Vision of Health for All by 2000 AD failed due to a lack of defined targets and indicators, poor planning, lack of expert help, insufficient budgets, and poor commitment towards its implementation.

The UN General Assembly (UNGA) convened the Millennium Summit in September 2000, where all 189 Member States adopted the Millennium Declaration, a statement of values, principles, and objectives for the twenty-first century. The member nations pledged to free people from extreme poverty and hunger, disease, illiteracy, environmental degradation, and discrimination against women. This pledge became the eight Millennium Development Goals to be achieved by 2015. In September 2010, the world recommitted itself to accelerate progress towards these goals.

The **Eight Millennium Development Goals** are:

1 **Eradicate Extreme Hunger and Poverty**	5 **Improve Maternal Health**
2 **Achieve Universal Primary Education**	6 **Combat HIV/AIDS, Malaria and other diseases**
3 **Promote Gender Equality and Empower Women**	7 **Ensure Environmental Sustainability**
4 **Reduce Child Mortality**	8 **Develop a global partnership for Development**
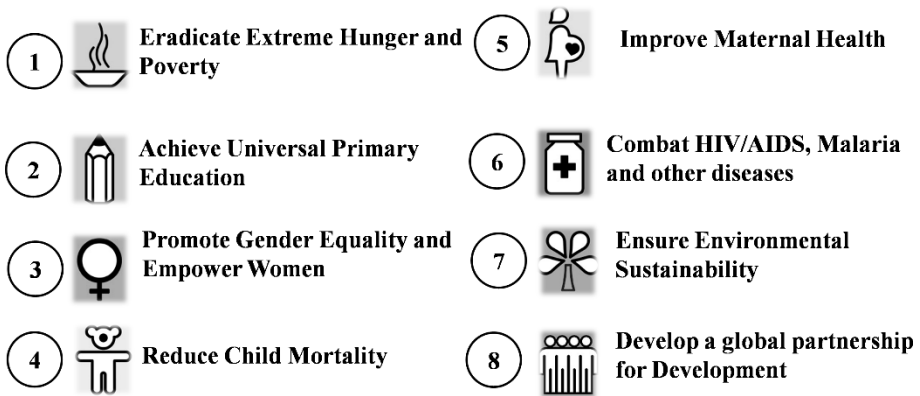
Figure 1.6 Millenium Development Goals

Eighteen (18) targets were set as quantitative markers for attaining the goals. The United Nations Development Group (UNDG) in 2003 provided a framework of 53 indicators which were categorized according to targets, for measuring the progress towards individual targets India's MDG framework was based on the 2003 framework and included **8 goals, 12 targets relevant to India, and 35 indicators.**

In brief, globally, the MDGs helped lift **more than 1 billion people out of extreme poverty**, made plans against hunger, **improved school enrollment rates,** and **protected the planet.** The MDG process **created new partnerships, improved public opinion about such global development processes**, and demonstrated the value of setting ambitious goals.

India's Progress towards achieving the Millenium Development Goals

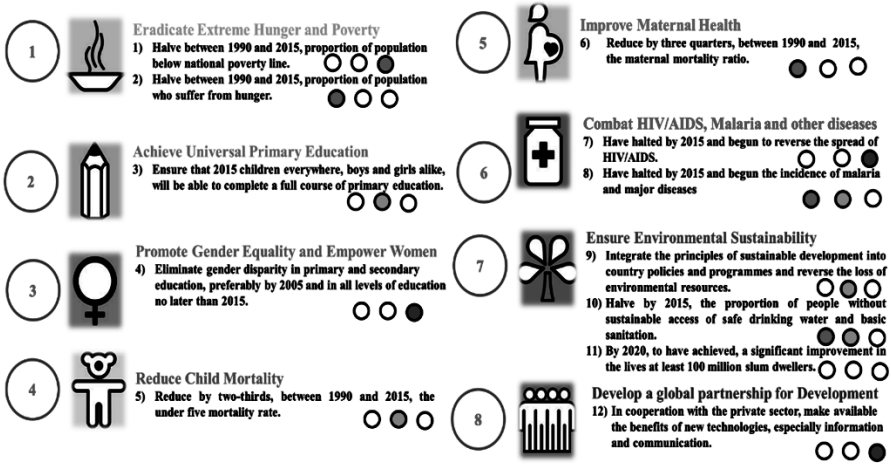**India's progress towards achieving the Millennium Development Goals**

Eradicate Extreme Hunger and Poverty
1) Halve between 1990 and 2015, proportion of population below national poverty line.
2) Halve between 1990 and 2015, proportion of population who suffer from hunger.

Achieve Universal Primary Education
3) Ensure that 2015 children everywhere, boys and girls alike, will be able to complete a full course of primary education.

Promote Gender Equality and Empower Women
4) Eliminate gender disparity in primary and secondary education, preferably by 2005 and in all levels of education no later than 2015.

Reduce Child Mortality
5) Reduce by two-thirds, between 1990 and 2015, the under five mortality rate.

Improve Maternal Health
6) Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.

Combat HIV/AIDS, Malaria and other diseases
7) Have halted by 2015 and begun to reverse the spread of HIV/AIDS.
8) Have halted by 2015 and begun the incidence of malaria and major diseases

Ensure Environmental Sustainability
9) Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.
10) Halve by 2015, the proportion of people without sustainable access of safe drinking water and basic sanitation.
11) By 2020, to have achieved, a significant improvement in the lives at least 100 million slum dwellers.

Develop a global partnership for Development
12) In cooperation with the private sector, make available the benefits of new technologies, especially information and communication.

Figure 1.7 India's Progress in achieving MDG

1.8   Sustainable Development Goals

It is our responsibility to build a bright and sustainable future for our children and our planet.

Sustainable development is the development that meets the needs of the present without disturbing future generations to meet their own needs. It is based on the three pillars of sustainability economic, environmental and social sustainability.

End of MDGs: During 15 years of MDGs, progress was observed in several important areas. The achievements of MDGs provided us with valuable lessons and experience to begin work on new goals. The term of MDGs was to end on December 31, 2015, but the world was still plagued with global issues such as poverty, inequality, environmental degradation, human violence, and abuse.

United Nations Sustainable Development Summit: In September 2015, The UN Sustainable Development Summit (meeting) was convened, and approximately 193 Member States participated. The United Nations General Assembly (UNGA) set up a collection of **17 goals** known as the **sustainable development goals or** simply **'Global Goals'.** All the participating member states agreed to adopt *"Transforming our World: The 2030 Agenda for Sustainable Development."*

Figure 1.8 Sustainable Development Goals

Start of SDGs: It was termed as **2030 Agenda for Sustainable Development** and later its name was shortened to **2030 AGENDA.** This Agenda proposed a roadmap for ending global poverty, building a life of dignity, and pledging *to leave no one behind.* It came into force on **1st January 2016 and will work until 2030.**

Execution of SDGs: The member countries are expected to form their own sustainable development policies plans and programs. They would be responsible for implementing these policies in order to achieve the defined goals and targets. These **17 international** Sustainable Development Goals are a 'to-do list for the planet that will transform the world' achieving these goals involves making very big fundamental changes in how we live on Earth this is called transformation Through these goals we need to transform the way we stay on this earth.

The main focus of MDGs was on developing countries but the Sustainable Development Goals are universal, **integrated and interconnected.**

➢ **Universality** means that these goals apply to every nation, every sector, every city, every business school, and organization.
➢ All the goals are **integrated and interconnected** as we cannot aim to achieve just one goal we must achieve them all this is called integration.

The SDGs cover a broad range of sustainability issues that encompass economic, social, and environmental dimensions. These include poverty, hunger, health, education, climate change, gender equality, water supply, sanitation, energy, urbanization, environment, and social justice.
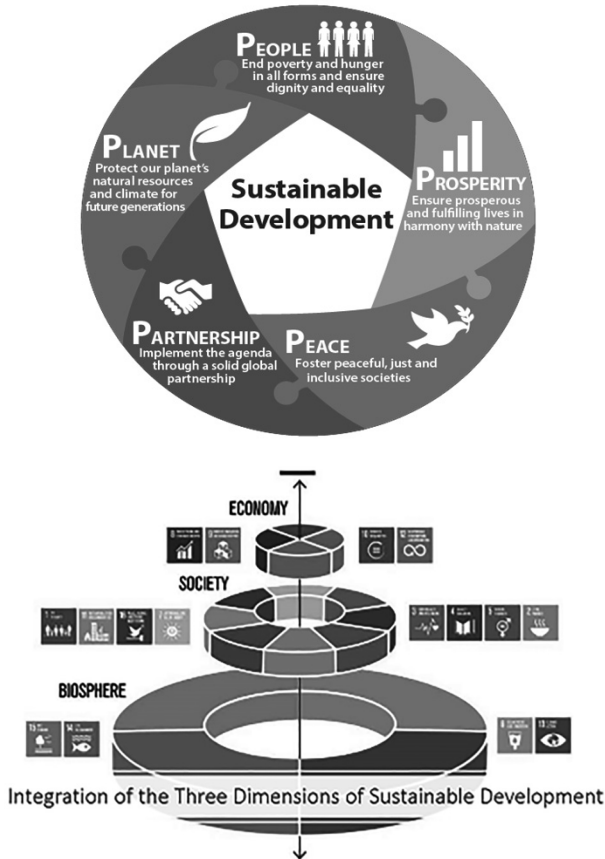
Figure 1.9 Five dimensions to achieve Sustainable Development

The 2030 Agenda is based on **five dimensions,** also known as the 5Ps:

➢ **People**: To **end poverty and hunger**, in all their forms and dimensions, and to ensure that all human beings can fulfill their potential in dignity and equality and a healthy environment.

➢ **Planet:** To protect the planet from degradation through **sustainable consumption and production, sustainably managing its natural resources**, and taking urgent action on climate change.

➢ P**rosperity:** To ensure that all human beings can enjoy prosperous and fulfilling lives and that **economic, social, and technological progress** occurs in harmony with nature.

➢ **Peace:** To foster **peaceful, just, and inclusive societies** which are free from fear and violence.

➢ **Partnership:** To mobilize the means required to implement the 2030 Agenda through **apartnershipbased on a spirit of solidarity** and focused, in particular, on the needs of the most vulnerable.

SDGS AND INDIA

To achieve the SDGs, the Indian Government is working on the proposed framework to **leave no one behind.** The motto of **Sabka Saath Sabka Vikas** and the flagship programs like **Swachh Bharat Mission**, **Beti Bachao Beti Padhao**, **Pradhan mantra Aawas Yojana, Pradhan Mantri Jan Dhan Yojana, etc** highlight the Government's commitment to the development that it reaches to all its citizens. The focus is also on connecting villages with roads, health programs, expansion of digital connectivity, Universal health coverage, sanitation, and housing for all.

The **SDG Index** is an assessment of each country's overall performance on the 17 SDGs, giving equal weight to each Goal. The score signifies a country's position between the worst possible outcome (0) and the best, or target outcome (100). **The report on sustainable development goals in 2021** reported India in a very comfortable position.

India is at 120ᵗʰ rank with an SDG index of 60.1 as compared to Finland which ranks first with an SDG index of 85.9.

Table 1.5 The 17 Sustainable Development Goals: Agenda 2030

SDG Goal	Key features
1 NO POVERTY **To end poverty in all its forms everywhere**	The objective of **SDG 1** is to ensure that the entire population especially the poorest and most vulnerable have equal rights to economic resources, access to basic services, property and land control, natural resources and new technologies.
2 ZERO HUNGER **To end global hunger and malnutrition**	**Goal 2** seeks sustainable solutions to end hunger in all its forms by 2030 and to achieve food security. The aim is to ensure that everyone everywhere has enough good-quality food to lead a healthy life. Achieving this Goal will require better access to food and the widespread promotion of sustainable agriculture.

Table 1.5 *contd…*

SDG Goal	Key features
3 GOOD HEALTH AND WELL-BEING **To ensure healthy lives and promote well-being for all at all ages**	Based on the interdependence of health and development, **SDG 3** aspires to ensure health and well-being for all, with a bold commitment to end the epidemics of AIDS, tuberculosis, malaria and other communicable diseases by 2030. It also aims to achieve universal health coverage, and provide access to safe and effective medicines and vaccines for all.
4 QUALITY EDUCATION **To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**	Education is one of the most powerful and proven vehicles for sustainable development. **SDG 4** ensures that all girls and boys complete free primary and secondary schooling by 2030. It also aims to provide equal access to affordable vocational training, and to eliminate gender and wealth disparities with the aim of achieving universal access to a quality higher education.
5 GENDER EQUALITY **To Achieve gender equality and empower all women and girls**	**The women and girls being half of the world's population and equality is their fundamental right.** Empowered women and girls contribute to the health and productivity of their families, communities, and countries, **Goal 5** aims to eliminate all forms of discrimination and violence against women in the public and private spheres and to undertake reforms to give women equal rights to economic resources and access to ownership of property.
6 CLEAN WATER AND SANITATION **To ensure availability and sustainable management of water and sanitation for all.**	Availability and access to water, sanitation and hygiene (WASH) services is fundamental for fighting against the diseases and preserving the health and well-being of millions. **SDG 6 focuses** on ensuring a clean and stable water supply and effective water sanitation for all people by the year 2030.

Table 1.5 *contd…*

SDG Goal	Key features
7 AFFORDABLE AND CLEAN ENERGY **To ensure universal access to affordable, reliable and modern energy services**	Expanding infrastructure and upgrading technology to provide clean and more efficient energy in all countries will encourage growth and help the environment. Investing in solar, wind and thermal power, improving energy productivity, and ensuring energy for all is vital if we are to achieve **SDG 7** by 2030.
8 DECENT WORK AND ECONOMIC GROWTH **To promote inclusive and sustainable economic growth, employment and decent work for all.**	Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards. **SDG 8 aims** to achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value by 2030.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE **To build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.**	**SDG 9** encompasses three important aspects of sustainabledevelopment: infrastructure,industrialization,andinnovation. To meet future challenges, our industries and infrastructure must be upgraded with an emphasis on greater adoption of clean and environmentally sound technologies and industrial processes and increased resource-use efficiency.
10 REDUCED INEQUALITIES **To reduce inequality within and among countries.**	This SDG calls for reducing inequalities in income as well as those based on age, sex, disability, race, ethnicity, origin, religion, or economic or other status within a country. Reducing inequality requires **transformative change**. Greater efforts are needed to eradicate extreme poverty and hunger, and invest more in health, education, social protection, and decent jobs especially for young people, migrants and refugees and other vulnerable communities.

Table 1.5 *contd…*

11 SUSTAINABLE CITIES AND COMMUNITIES **To Make cities inclusive, safe, resilient and sustainable**	**According To SDG 11 we need to renew and plan cities and other human settlements in a way that offers opportunities for all**, with access to basic services, energy, housing, transportation and green public spaces, while reducing resource use and environmental impact.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION **To ensure sustainable Consumption and production patterns;**	**SDG 12 is** meant to ensure good use of resources, improving energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and ensuring a better quality of life for all. Sustainable consumption and production aims at "doing more and better with less," **increasing net welfare gains from economic activities by reducing resource use, degradation, and pollution**, while increasing the quality of life.
13 CLIMATE ACTION **take urgent action to combat climate change and its effects**	**The Earth's weather patterns are changing** and human activity is largely responsible for this climate change has a negative impact on the environment, the economy, human well-being and communities and, if we do not act fast, the consequences will be devastating for life and for the development of our planet.
14 LIFE BELOW WATER **Conserve and sustainably use the oceans, seas and marine resources**	The world's oceans – their temperature, chemistry, currents and life – drive global systems that make the Earth habitable for humankind. The **SDG 14** aims to sustainably manage and protect marine and coastal ecosystems from land-based pollution, as well as address the impacts of ocean acidification. An emphasis on conservation and the sustainable use of ocean-based resources will also help in the prevention of related challenges.

Table 1.5 *contd…*

15 LIFE ON LAND **manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss".**	**SDG 15** aims to protect, restore and promote the sustainable use of terrestrial ecosystems by halting deforestation to protect natural habitats and threatened species. If SDG 15 is carried out, the world's forests, mountains, drylands, and wetlands will be conserved and restored by 2030.
16 PEACE, JUSTICE AND STRONG INSTITUTIONS **To promote just, peaceful and inclusive societies.**	SDG 16 aims to promote peaceful and inclusive societies for sustainable development and to provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
17 PARTNERSHIPS FOR THE GOALS **To revitalize the Global Partnership for Sustainable Development**	**SDG 17** is a vision for improved and more equitable trade, as well as coordinated investment initiatives to promote sustainable development across borders. Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief, and debt restructuring by 2030.

1.9   FIP Development Goals

International Pharmaceutical Federation (FIP):   The FIP is the global federation of national associations of pharmacists and pharmaceutical scientists, representing three million pharmacists and scientists through its 127 Member Organisations.

Its mission is "*to improve global health by advancing pharmacy practice and science to enable better discovery, development, access to and safe use of appropriate, cost-effective, quality medicines worldwide*."

Need for FIP Development Goals: The WHO Global Strategy for *Human Resources for Health: Workforce* **2030**focused on "No health without a workforce". Building on this statement, FIP framed its strategic plan to map

and meet national and global health challenges through workforce development and transformation. FIP believes that we can have no pharmaceutical care without a pharmaceutical workforce, and without a scientific foundation. The pharmaceutical workforce is a unique profession with diverse expertise covering science, practice and education.

In September 2020, the **FIP published a set of 21 Development Goals (DGs)** that bring together the workforce and education, practice, and science in a transformative framework, defining an improved and more advanced pharmacy profession for the next decade. The FIP DGs form a foundation for systematic action to meet national, regional, and global healthcare needs.

Figure 1.10 FIP Development Goals

Objectives of FIP DGs

➢ The FIP Development Goals are a major global initiative for pharmacy and are a key resource for **transforming the pharmacy profession over the next decade** globally, regionally, and nationally.

➢ Goals provide the global pharmacy with a logical next step **to link the pharmaceutical workforce with pharmaceutical healthcare provision and the pharmaceutical services we deliver.**

➢ Goals necessitate **bringing science, practice, workforce, and education together** through the 21 Development Goals to provide us with a roadmap and priorities for the next decade.
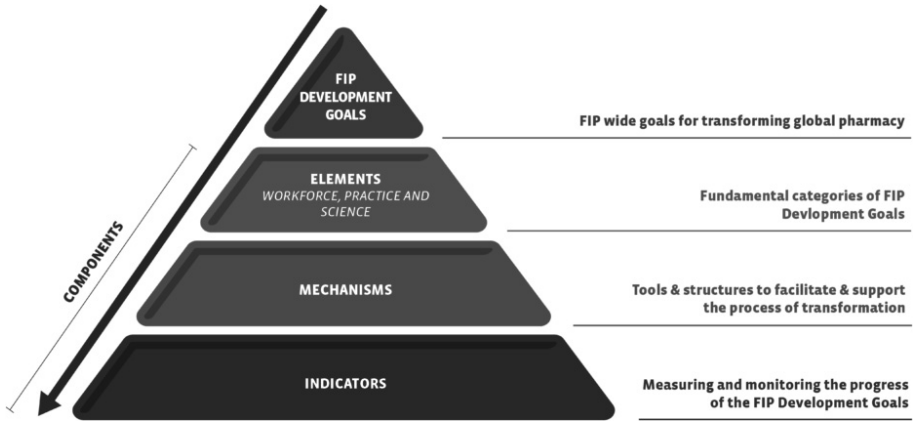
Figure 1.11 Key categories of FIP Development Goals

Execution of FIP DGs: It is believed that for all members there should be one common transformative framework to bring science, practice, and workforce & education together. The concept helped in setting the "One FIP" Development Goals (common goals) for the development of the pharmacy profession in the next decade.

Each of the FIP DGs is composed of 3 Elements for Practice, Science, and Workforce that all form fundamental categories of the Goals. Alongside each Element is a set of mechanisms that form tools and structures to facilitate and support the process of transformation.

Significance of FIP Goals: The 21 DGs are accompanied by a growing set of FIP global tools, structures, indicators, and programs to facilitate and support the process of transformation.

➢ The FIP DGs serve as a systematic framework for needs assessment and mapping priorities.

➢ FIP serves to facilitate monitoring, a dashboard, and a system of sharing best practice development, globally and regionally, with evidence generated and displayed through the FIP Global Pharmaceutical Observatory and the FIP Atlas.

➢ The FIP platform provides opportunities for members and partners to share and support developments nationally, regionally, and globally through partnerships.