BP404T · B.PHARM THEORY

Social Pharmacy and Public Health

Unit I — Introduction to Social Pharmacy & Public Health

Pills & Python Notes

From-zero teaching standard: every technical term is defined before use.

Syllabus coverage: Unit I (6 hours).

PILLS & PYTHON

Pharmacy • Data • AI • Healthcare

Instagram @pillsandpython · pillsandpython.com · YouTube @PillsAndPython

CHAPTER 1 — UNIT I: Introduction to Social Pharmacy and Public Health (6 Hours)

1.1 Learning Objectives

After studying this chapter, you will be able to:

1. Define social pharmacy and explain its scope, history, and importance.
2. Define public health, describe its core functions, history, and ethical considerations.
3. Explain the interplay between social pharmacy and public health.
4. Describe the evolving role of the pharmacist in the public health arena.
5. State the WHO definition of health and explain the five dimensions of health.
6. List and explain the determinants of health and their impact on population health.
7. List the common health indicators used to measure population health.

1.2 Definitions

- **Social pharmacy:** The field that studies how people, society, and behaviour affect the use of medicines and the delivery of pharmaceutical care. Simple meaning: it is the study of the "human and social side" of pharmacy — how patients think, feel, and act about their medicines.
- **Public health:** The science and art of preventing disease, prolonging life, and promoting health through the organized efforts of society. Simple meaning: keeping the *whole community* healthy, not just treating one patient.
- **Health (WHO definition, 1948):** "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."
- **Health indicator:** A number or fact that tells us how healthy a population is (for example, the death rate of babies or the life expectancy of people).

1.3 Terminology

Term	Simple Meaning
Multidisciplinary	Involving many subjects working together (e.g., medicine + sociology + psychology)
Determinants of health	The factors that decide whether people stay healthy or fall ill
Population health	The health of the whole community or country, not of one patient
Morbidity	Illness (how many people are sick)
Mortality	Death (how many people die)
Health equity	Fairness — everyone getting a fair chance to be healthy
Prevention	Stopping disease before it starts

1.4 Explanation

1.4.1 Social pharmacy: definition, scope, historical development, importance

> **Technical concept:** Social pharmacy is the branch of pharmacy that studies the social, behavioural, cultural, economic, and organizational factors that influence the use of medicines. It connects pharmacy with sociology, psychology, anthropology, and public health.

> **Simple explanation:** In your other subjects you study drugs — what they are and what they do to the body. Social pharmacy asks a different question: "Why do people take medicines the way they do?" For example, why does a patient stop taking his TB medicine after one month when he must take it for six months? That is not a chemistry problem — it is a *human* problem. Social pharmacy studies such human problems so pharmacists can solve them.

Scope of social pharmacy (what it covers):

1. Patient behaviour — why patients take, miss, or refuse medicines
2. Medication adherence and compliance
3. Patient counselling and health education
4. Pharmacoepidemiology — studying drug use and effects in populations
5. Pharmacoeconomics — value for money in medicines
6. Drug policy, access to medicines, and rational drug use
7. Communication between pharmacist, patient, and doctor

Historical development: Pharmacy started as simply making and selling medicines. Slowly the field understood that *giving the right drug is not enough* — the patient must also take it correctly. In the 1960s–70s, the idea of "clinical pharmacy" put the pharmacist near the patient. Later, "social pharmacy" grew from the realization that society, culture, and poverty shape how medicines are used. Today it is a core part of pharmacy education in many countries.

Importance: Medicines fail when people do not take them. Social pharmacy helps pharmacists understand patients, improve adherence, reduce irrational drug use, and serve the community — not just sell products.

1.4.2 Social pharmacy as a multidisciplinary field

> **Technical concept:** Social pharmacy borrows ideas and methods from many disciplines: sociology (society), psychology (human mind and behaviour), anthropology (culture), economics (cost and access), epidemiology (disease patterns), and public health.

> **Simple explanation:** Think of a *thali* — one plate with many dishes. Social pharmacy is one plate, but it takes dishes from many subjects. You need psychology to understand why a patient fears insulin, economics to understand why he cannot afford it, and communication skills to counsel him. No single subject alone can solve real patient problems.

1.4.3 Public health: definition, concepts, history, core functions, ethical considerations

> **Technical concept:** Public health is the organised effort of society to prevent disease, promote health, and prolong life among populations. Its focus is the *community*, not the individual.

> **Simple explanation:** A doctor treats one patient at a time. Public health asks: "How do we keep one lakh people from falling sick in the first place?" It works through clean drinking water, vaccination campaigns, mosquito control, tobacco control, and health education.

Core concepts: prevention before cure; population focus; health equity; multi-sector action (health + water + education + housing).

Brief history:

- Ancient times: basic ideas of clean water and quarantine appeared in many civilizations, including India (Ayurveda emphasized daily hygiene and sanitation).
- 19th century: the modern public health movement began — sanitation, safe water, and vaccination against smallpox and other diseases.
- 20th century: WHO was founded in 1948; the Alma-Ata Declaration (1978) promoted "Health for All" through primary health care.
- 21st century: focus on NCDs (diabetes, heart disease), mental health, pandemics (COVID-19), and digital health.

Core functions of public health (the three pillars):

1. **Assessment** — studying the health of the population (collecting data, finding health problems)
2. **Policy development** — making plans and policies to solve those problems
3. **Assurance** — making sure the services actually reach people (vaccines, health workers, clinics)

Ethical considerations: public health sometimes limits one person's freedom for the good of many (for example, quarantining a patient during an outbreak). Ethics in public health means balancing community benefit with individual rights, fairness in who gets resources first, truthful communication, and respect for cultural values.

1.4.4 Interplay between social pharmacy and public health

Technical concept: Social pharmacy and public health share the same goals — healthy populations and rational medicine use. The pharmacist is the bridge: pharmacists dispense medicines (social pharmacy skills), run immunization and screening camps, counsel on lifestyles, and support national health programs (public health work).

Simple explanation: Imagine two friends pulling one rope. Social pharmacy studies how *people use medicines*; public health plans how to *keep populations healthy*. They pull the same rope — the pharmacist holds it in the middle, counselling patients daily and joining public health programs.

1.4.5 The evolving role of the pharmacist in the public health arena

Technical concept: The pharmacist's role has grown from dispenser to health-care provider: dispensing → counselling → clinical services → public health services (immunization, screening, health promotion, pharmacovigilance, rational drug use, disaster response).

Simple explanation: Earlier, a pharmacist was the person who *gave you medicines from the shop*. Now the pharmacist also *teaches you how to take them, checks your blood pressure, gives vaccines, runs diabetes screening camps, reports drug side effects, and helps during floods and epidemics*. The pharmacist is becoming a community health guardian.

Diagram (describe for drawing): A timeline arrow: "1960s — Dispenser of medicines" → "1980s — Counsellor of patients" → "2000s — Clinical care provider" → "Today — Public health partner (vaccination, screening, health promotion, disaster response)."

1.4.6 Concept of health and disease: WHO definition; dimensions of health

Technical concept: The WHO definition (1948) says health is "complete physical, mental and social well-being, not merely the absence of disease." This means a person can be free of disease yet unhealthy (for example, lonely, anxious, or sleeping badly).

Simple explanation: Health is not just "no fever, no diabetes." A healthy person sleeps well, feels happy and calm, has good relationships, and lives in a clean environment. Disease is only one piece of the picture.

Dimensions of health (five):

Dimension	Meaning	Example
Physical	Body works properly	Strong heart, normal sugar levels
Mental	Mind is calm and positive	No depression or severe stress
Social	Good relationships	Friends, family support
Spiritual	Sense of purpose and values	Inner peace, faith, meaning in life
Environmental	Healthy surroundings	Clean air, safe water, clean home

Flowchart (describe): Centre box "Health" with five arrows to five boxes (physical, mental, social, spiritual, environmental) — each arrow labelled "all five must be cared for."

1.4.7 Determinants of health and their impact on population health

Technical concept: Determinants of health are the conditions in which people are born, grow, live, work, and age — and these decide how healthy populations are.

Simple explanation: Two children can get the same fever, but one recovers quickly and the other becomes serious. Why? Because of *where* they live, *what* they eat, *whether* their parents can afford treatment. These are the determinants of health.

The five groups of determinants:

1. **Social** — education, family, community support, social status. An educated mother seeks treatment earlier.
2. **Economic** — income, job, poverty. Poor families delay treatment and buy half doses.
3. **Environmental** — clean water, air, sanitation, housing. Dirty water spreads typhoid and diarrhoea.
4. **Lifestyle** — diet, exercise, smoking, alcohol. Smoking causes cancer; daily walking protects the heart.
5. **Healthcare services** — availability and quality of hospitals, doctors, pharmacists. Remote villages with no clinic have worse health.

Impact on population health: Poorer communities with dirty water and no clinics have higher deaths from preventable diseases. That is why public health works on *determinants*, not only on medicines.

1.4.8 Health indicators

Technical concept: Health indicators are measurable facts that show the health status of a population and whether health programs are working.

> **Simple explanation:** How does the government know if a health program is working? It watches *numbers* — like how many babies die per 1,000 births, or how long people live on average. These numbers are health indicators.

Common health indicators (with simple meanings):

Indicator	Meaning
Infant Mortality Rate (IMR)	Deaths of babies below 1 year per 1,000 live births
Maternal Mortality Ratio (MMR)	Deaths of mothers due to pregnancy/childbirth per 1,00,000 live births
Life expectancy at birth	Average number of years a newborn is expected to live
Crude Death Rate (CDR)	Deaths per 1,000 population per year
Crude Birth Rate (CBR)	Births per 1,000 population per year
Disease-specific mortality	Deaths from one disease (e.g., TB) per lakh population
Immunization coverage	Percentage of children fully vaccinated

Key takeaway: Health is more than "no disease." It has five dimensions, is shaped by five groups of determinants, and is measured with health indicators. The pharmacist serves both the individual patient and the whole community.

1.5 Infographic Concept Box — Chapter 1

Title: "Health in One Picture" — Draw a five-pointed star labelled HEALTH. Each point is one dimension (physical, mental, social, spiritual, environmental). Around the star, draw five arrows (social, economic, environmental, lifestyle, healthcare services) labelled "determinants — they decide health." Below, a meter showing "health indicators" (IMR, MMR, life expectancy) as the "report card" of population health. Corner panel: the pharmacist standing between the patient and the community, labelled "the bridge — social pharmacy + public health."

1.6 Analogies

- Health is like a *table with five legs* (physical, mental, social, spiritual, environmental) — if one leg is weak, the table wobbles.
- Determinants of health are like the *soil in which a plant grows* — good soil gives a healthy plant; the medicine is only the fertilizer.

1.7 Pharmacy Relevance

Pharmacists see hundreds of patients daily. Understanding behaviour (social pharmacy) helps them counsel better; understanding population health (public health) helps them join vaccination drives, screening camps, and national programs.

1.8 India Context

India faces a double burden: communicable diseases (TB, dengue) plus rising NCDs (diabetes, hypertension). Pharmacists, as the most accessible health workers in villages and towns, are key to health promotion and rational medicine use.

1.9 Key Points

1. Social pharmacy studies the human/social side of medicine use; it is multidisciplinary.
2. Public health keeps whole populations healthy through organized efforts; its core functions are assessment, policy development, assurance.
3. WHO defines health as complete physical, mental, and social well-being — not merely absence of disease.
4. Health has five dimensions: physical, mental, social, spiritual, environmental.
5. Determinants of health: social, economic, environmental, lifestyle, healthcare services.
6. Health indicators (IMR, MMR, life expectancy, CDR, CBR) measure population health.

1.10 Common Confusions

- **Social pharmacy vs clinical pharmacy:** clinical pharmacy focuses on one patient's drug therapy; social pharmacy focuses on how people and society use medicines.
- **Public health vs community medicine:** public health is the broad science of population health; community medicine is one medical discipline within it.
- **Health vs absence of disease:** absence of disease is only one small part of health.

1.11 Common Mistakes

1. Writing the WHO definition incompletely — include "not merely the absence of disease or infirmity."
2. Listing only three dimensions of health — the syllabus requires five (physical, mental, social, spiritual, environmental).
3. Mixing up determinants of health with dimensions of health — dimensions describe *what* health is; determinants describe *what shapes* it.

1.12 Mnemonics

- Five dimensions: "**P**lease **M**ake **S**ome **S**oup **E**veryday" — Physical, Mental, Social, Spiritual, Environmental.
- Five determinant groups: "**S**ome **E**lephants **E**at **L**eaves **H**appily" — Social, Economic, Environmental, Lifestyle, Healthcare services.
- Three core functions of public health: "**A**ssess, **P**lan (policy), **A**ssure" — APA.

1.13 Exam Summary

Social pharmacy = study of human/social factors in medicine use; multidisciplinary; scope includes adherence, counselling, pharmacoepidemiology, pharmacoeconomics. Public health = organized societal effort for population health; core functions assessment, policy development, assurance; ethics balances community benefit with individual rights. Pharmacist's role evolving: dispenser → counsellor → public health partner. WHO health definition; five dimensions (PM-SSE); five determinant groups (SEELH); health indicators (IMR, MMR, life expectancy, CDR, CBR).

1.14 One-Minute Revision

Social pharmacy = human side of pharmacy. Public health = health of the whole population (assess, policy, assure). Health = complete physical, mental, social well-being. 5 dimensions (P-M-S-S-E). 5 determinants (S-E-E-L-H). Health indicators: IMR, MMR, life expectancy, CDR, CBR.

1.15 Exam Questions

Long answer:

1. Define social pharmacy. Describe its scope, historical development, and importance.
2. Define public health. Explain its core functions with examples and discuss ethical considerations.
3. Explain the WHO definition of health and describe the five dimensions of health.
4. Describe the determinants of health and explain their impact on population health.
5. Explain the evolving role of the pharmacist in the public health arena.

Short answer:

1. Define health indicators. Name any four.
2. What is the interplay between social pharmacy and public health?
3. Why is social pharmacy called a multidisciplinary field?

MCQs:

1. The WHO definition of health was given in: (a) 1948 (b) 1978 (c) 2000 (d) 2015 — Ans: (a)
2. Which is NOT a dimension of health as per the syllabus? (a) Spiritual (b) Political (c) Environmental (d) Mental — Ans: (b)
3. The three core functions of public health are: (a) Assess, policy development, assurance (b) Diagnose, treat, discharge (c) Survey, vaccine, quarantine (d) Research, teach, publish — Ans: (a)
4. Infant Mortality Rate measures: (a) Deaths below 1 year per 1,000 live births (b) Deaths of mothers (c) Deaths per 1,000 population (d) Birth rate — Ans: (a)

Viva / application-based:

1. A patient stops TB medicine after one month because he "feels better." Which social pharmacy concept explains this? (Adherence/behaviour.)
2. Give one example each of how a pharmacist serves (a) an individual patient and (b) the community.

1.16 References

1. Anderson, S., Dedrick, R. and Tiffany, B. *Community Pharmacy Practice for Public Health.* McGraw-Hill.
2. Desselle, S. *Public Health and Pharmacy Practice.* McGraw-Hill.
3. Donyai, P. *Social and Cognitive Pharmacy.* Pharmaceutical Press.
4. Gillam, S., Yates, J. and Badrinath, P. *Essential Public Health.* Cambridge University Press.
5. Levin, B. L. and Hanson, A. *Essentials of Public Health Pharmacy.* Jones & Bartlett.
6. Park, K. *Park's Textbook of Preventive and Social Medicine.* Banarsidas Bhanot.
7. Schneider, M. J. *Introduction to Public Health.* Jones & Bartlett.
8. Taylor, K. and Harding, G. *Pharmacy Practice.* CRC Press.
9. Wertheimer, A. I., Ibrahim, M. I. M. and Babar, Z.-U.-D. *Social and Administrative Aspects of Pharmacy in Low- and Middle-Income Countries.* Elsevier.