



La-Net

MDH 202

MULTIDISCIPLINARY HEALTHCARE I



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Course title: Multidisciplinary Healthcare I

Course credit load: 2 Units

Series 1: Foundations of Moral Philosophy

- **Part 1.1: What is Moral Philosophy?**

- Sub Part 1.1.1: Definition, scope, and importance of ethics
- Sub Part 1.1.2: Metaethics: the nature of moral claims
- Sub Part 1.1.3: Normative ethics versus descriptive ethics

- **Part 1.2: Major Ethical Theories**

- Sub Part 1.2.1: Consequentialism and utilitarianism
- Sub Part 1.2.2: Deontological ethics
- Sub Part 1.2.3: Virtue ethics and care ethics

- **Part 1.3: Moral Reasoning in Practice**

- Sub Part 1.3.1: Applying ethical theories to real situations
- Sub Part 1.3.2: Moral conflict, dilemmas, and their resolution
- Sub Part 1.3.3: The role of moral intuition alongside theory

- **Part 1.4: Ethics in African and Nigerian Philosophical Tradition**

- Sub Part 1.4.1: African communitarian ethics and Ubuntu
- Sub Part 1.4.2: Moral philosophy in Nigerian cultural context
- Sub Part 1.4.3: Integrating African and Western ethical frameworks in medicine

Introduction

Every decision a clinician makes carries an ethical dimension, from the most routine to the most consequential. Deciding how much time to spend with a patient, what to say about a difficult prognosis, whether to continue or withdraw treatment, and how to allocate a scarce resource among competing needs are all ethical acts, whether or not the clinician recognises them as such. The clinician who has studied moral philosophy approaches these decisions with a richer set of tools and a greater capacity to reason through them clearly and defensibly. The clinician who has not is not avoiding ethics; they are practising it unreflectively.

This Series introduces the intellectual foundations of moral philosophy and their relevance to medicine. It begins with the nature of ethics as a discipline, examines the major theoretical frameworks that philosophers have developed for thinking about right and wrong, explores how these frameworks are applied to practical moral problems, and concludes with an examination of African and specifically Nigerian philosophical traditions that offer perspectives on morality and community that are essential for any clinician working in the Nigerian context.

Series Learning Outcomes

Upon completing this Series, you should be able to:

- **SLO 1.1** define moral philosophy, distinguish between metaethics and normative ethics, and explain why ethical reasoning matters for clinical practice,
- **SLO 1.2** describe the major ethical theories including consequentialism, deontology, virtue ethics, and care ethics, and apply each to a clinical example,
- **SLO 1.3** explain how to apply ethical theories to practical dilemmas, describe strategies for resolving moral conflict, and explain the role of moral intuition alongside theoretical reasoning, and
- **SLO 1.4** explain African communitarian ethics and Ubuntu, describe the moral dimensions of Nigerian cultural context, and discuss how African and Western ethical frameworks can be integrated in medical practice.

1.1 What is Moral Philosophy?

1.1.1 Definition, scope, and importance of ethics

Ethics, or moral philosophy, is the branch of philosophy concerned with questions about what is right and wrong, what we ought to do, and what kind of persons and communities we should strive to be. These questions are not abstract puzzles confined to university seminar rooms; they arise in clinical medicine with urgent regularity. Should a patient be told a diagnosis that may cause them severe distress? Should a limited supply of blood be allocated to the patient who arrived first or to the one most likely to survive? Should a clinician follow institutional policy when they believe it will harm a specific patient? Each of these questions requires ethical reasoning, and the quality of that reasoning matters for the patient who will be affected by the decision.

The scope of ethics is broader than the scope of any single professional code of conduct. A code of conduct tells a clinician what the profession has decided they must or must not do; ethics asks why those rules exist, whether they are justified, what should be done when they conflict, and how to handle situations the code does not cover. This means that studying ethics is not redundant for a clinician who already knows their professional obligations; it provides the deeper understanding of why those obligations exist and the reasoning capacity to navigate the inevitable situations where professional guidance runs out. It also builds the habit of transparent justification, which protects both the patient and the clinician when difficult decisions are made.

Fill in the blank: Ethics is the branch of philosophy concerned with questions about what is right and wrong and what we ought to do; it provides the _____ capacity to navigate clinical situations where professional codes and guidelines do not give clear answers.

1.1.2 Metaethics: the nature of moral claims

Metaethics does not ask what is right or wrong; it asks what we mean when we say something is right or wrong, and whether moral claims can be true or false in the way that factual claims can. Moral realists hold that moral facts exist independently of human belief: the claim that causing unnecessary suffering is wrong is true in the same objective sense as the claim that the earth

orbits the sun. Anti-realists disagree; some hold that moral claims express emotional attitudes rather than facts (emotivism), others that they vary across cultures without any universal standard (moral relativism), and others that they are neither true nor false but are expressions of practical commitments.

These metaethical positions have practical implications for medicine. If moral relativism is correct, then there is no basis on which a biomedical clinician can say that female genital mutilation, child marriage, or the denial of healthcare to women on cultural grounds is wrong; it is simply different. Most medical ethicists reject this conclusion, arguing that there are at least some moral claims, particularly those concerning serious harm to persons, that hold across cultures even if their application requires sensitivity to cultural context. Understanding the metaethical debate helps a clinician recognise why ethical disagreements sometimes seem irresolvable: the disputants may be disagreeing not only about what is right but about the nature of rightness itself.

Fill in the blank: Moral _____ is the metaethical view that moral claims vary across cultures without any universal standard, implying that practices causing serious harm cannot be objectively condemned across cultural boundaries.

1.1.3 Normative ethics versus descriptive ethics

Normative ethics is the branch of ethics concerned with establishing standards or norms for how people ought to behave. It produces theories and principles that guide moral decision-making, such as the claim that we ought to maximise wellbeing, or that we ought to respect persons as ends in themselves. Descriptive ethics, by contrast, is an empirical study of how people actually do behave morally and what moral beliefs different individuals and cultures actually hold; it is a branch of social science rather than of philosophy. The distinction matters because the fact that people in a particular community believe something is right does not make it normatively right; the is does not automatically become an ought.

Applied ethics is the application of normative ethical theory to specific domains of human practice such as medicine, business, law, and environmental policy. Bioethics is the most relevant applied ethics for medical students; it applies normative ethical reasoning to the specific

situations arising in healthcare, including the permissibility of different kinds of treatment, the rights and obligations of patients and clinicians, and the ethical governance of research. Understanding the distinction between normative and descriptive ethics protects the clinician from a common error: assuming that because a practice is widespread or culturally accepted it must therefore be ethically acceptable, when in fact its ethical status requires independent evaluation.

Fill in the blank: _____ ethics is the empirical study of how people actually behave morally and what beliefs they hold; it describes moral behaviour without establishing whether those behaviours are right or wrong.

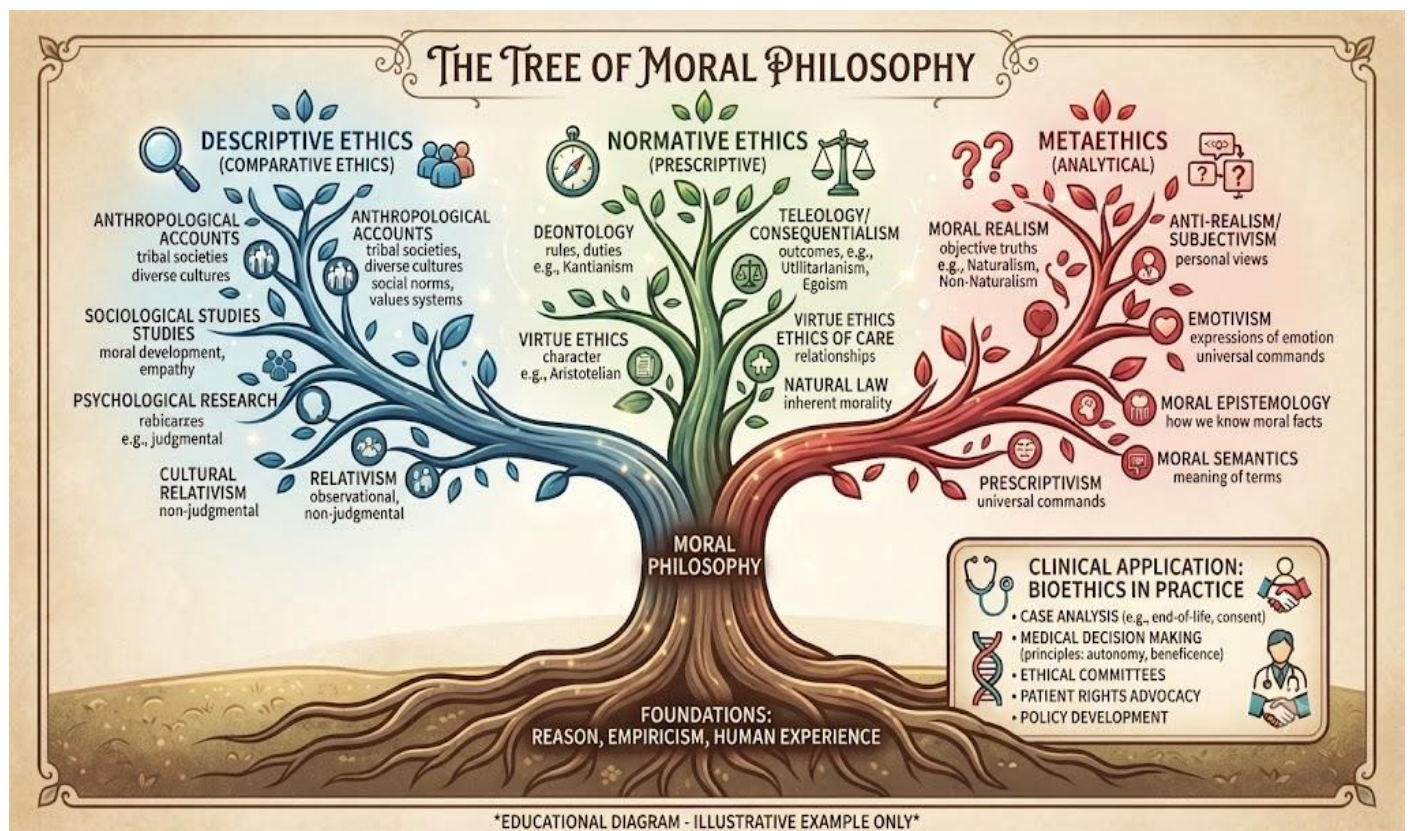


Figure 1.1: The structure of moral philosophy

Pilot questions 1.1

1. Define ethics and explain why a clinician who knows their professional code still needs to study moral philosophy.

2. Explain the difference between moral realism and moral relativism and describe the practical implication of each for medical practice.
3. Distinguish between normative and descriptive ethics and explain why the distinction matters in clinical practice.
4. What is applied ethics and what does bioethics add to general moral philosophy?

1.2 Major Ethical Theories

1.2.1 Consequentialism and utilitarianism

Consequentialism is the family of ethical theories that hold that the moral rightness of an action is determined entirely by its consequences. An action is right if and only if it produces better consequences than any available alternative. The most influential consequentialist theory is utilitarianism, developed by Jeremy Bentham in the eighteenth century and refined by John Stuart Mill in the nineteenth. Classical utilitarianism holds that we ought always to act so as to produce the greatest happiness for the greatest number, where happiness is understood as pleasure and the absence of pain. Modern versions have refined this to speak of welfare, preference satisfaction, or wellbeing rather than pleasure, but the core structure remains: consequences for wellbeing are what determine moral rightness.

Consequentialism has significant appeal in public health and health policy contexts, where decisions affect large numbers of people and where the aim is to maximise population health outcomes from limited resources. Choosing which vaccines to include in a national immunisation schedule, deciding how to allocate ICU beds during a pandemic, or evaluating whether a treatment that benefits many patients is worth its cost are all naturally analysed using consequentialist reasoning. The main objection to consequentialism is that it can justify serious violations of individual rights in the name of overall benefit: a utilitarian calculation might justify harvesting organs from one healthy person to save five who need transplants, which most people find deeply wrong. This suggests that consequences are not the only morally relevant consideration.

Fill in the blank: _____ utilitarianism holds that we ought to act so as to produce the greatest happiness for the greatest number; it is particularly influential in public health reasoning where population-level outcomes are the primary concern.

1.2.2 Deontological ethics

Deontological ethics holds that some actions are morally right or wrong in themselves, regardless of their consequences. The term deontology comes from the Greek word for duty, and deontological theories are therefore also called duty-based ethics. The most influential deontological theory was developed by Immanuel Kant in the eighteenth century. Kant argued that morality is grounded in reason, not in sentiment or consequences, and that the fundamental moral principle, which he called the categorical imperative, requires us to act only according to principles that we could consistently will to be universal laws. One formulation of the categorical imperative requires us always to treat persons as ends in themselves, never merely as means to our own or society ends.

In clinical medicine, deontological reasoning underlies the requirements for informed consent, truth-telling, and confidentiality. These obligations hold even when violating them might produce better consequences in a specific case. A clinician who lies to a patient because they believe the truth will cause more harm than good is treating the patient as a means to the clinician objective of minimising distress, rather than as an autonomous person entitled to the truth about their own situation. The deontological intuition that persons have rights that cannot be overridden by calculations of overall welfare is fundamental to the legal and ethical frameworks that govern patient care. Its main limitation is that it can lead to rigid adherence to rules even when the consequences are clearly harmful, and it provides less guidance when duties conflict with each other.

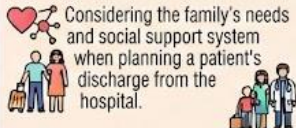
Fill in the blank: Kant categorical imperative requires that we act only according to principles we could _____ as universal laws, and that we always treat persons as ends in themselves and never merely as means.

1.2.3 Virtue ethics and care ethics

Virtue ethics, which has its roots in the philosophy of Aristotle in ancient Greece, shifts the central question of ethics from what should I do to what kind of person should I be. Instead of deriving right action from rules or consequences, it identifies a set of character traits, called virtues, that enable a person to live well and to act well toward others. The virtues relevant to medicine include honesty, compassion, practical wisdom, courage, integrity, and justice. A virtuous clinician is not one who follows rules mechanically but one whose character reliably produces good clinical behaviour across the full range of situations they encounter, including those where rules provide no clear guidance.

Care ethics, developed by Carol Gilligan and Nel Noddings in the 1980s as a response to what they saw as the overly abstract and impartial character of mainstream ethical theory, emphasises the moral importance of relationships, care, and responsiveness to particular others in their specific circumstances. Rather than applying general principles impartially to all persons, care ethics attends to the particular needs, vulnerabilities, and relationships of the individuals involved. In the clinical context, care ethics draws attention to the relational dimension of the clinician-patient encounter: the patient is not merely a rights-bearer to whom principles are applied but a person in a relationship with a clinician who has taken on a specific caring responsibility toward them. Care ethics complements virtue ethics and supplements the principle-based frameworks by insisting that the quality of the clinical relationship is itself morally significant.

Fill in the blank: _____ ethics, developed by Gilligan and Noddings, emphasises the moral importance of relationships, care, and responsiveness to the particular needs of individuals rather than the impartial application of general principles.

COMPARISON OF KEY ETHICAL THEORIES IN HEALTHCARE				
Suggested OER search string: "ethical theories consequentialism utilitarianism deontology virtue ethics care ethics clinical applications comparison OER"				
ETHICAL THEORY	BASIS (SOURCE OF MORAL WORTH)	KEY PRINCIPLE	CLINICAL APPLICATION EXAMPLE	STRENGTHS & LIMITATIONS
CONSEQUENTIALISM	 Outcomes, Results, Consequences of Actions.	 "UTILITARIANISM: The Greatest Good for the Greatest Number."	 Allocating scarce resources (e.g., a ventilator) during a pandemic to the patient with the highest chance of recovery.	STRENGTH: Maximizes overall well-being.  LIMITATION: Can neglect individual rights or justice for minorities. 
DEONTOLOGY	 Duties, Rules, Rights, Obligations.	"CATEGORICAL IMPERATIVE: Act only according to rules you would want to be universal laws; treat people as ends, never as a mere means."	 Strictly adhering to informed consent, even if a patient's decision might lead to a poor outcome.	STRENGTH: Upholds individual autonomy and justice.  LIMITATION: Can be inflexible and lead to conflicting duties. 
VIRTUE ETHICS	 Character of the Moral Agent.	"PHRONESIS (Practical Wisdom): Developing moral virtues (e.g., compassion, integrity, courage) to guide action."	 A nurse demonstrating exceptional compassion and empathy while comforting a dying patient and their family.	STRENGTH: Focuses on moral development and human flourishing.  LIMITATION: Can be subjective and lack clear rules for specific actions. 
CARE ETHICS	 Relationships, Interdependence, Context, Empathy.	"ETHIC OF CARE: Emphasizes responsiveness to needs, maintaining relationships, and avoiding harm in specific situations."	 Considering the family's needs and social support system when planning a patient's discharge from the hospital.	STRENGTH: Values the patient as a whole person and prioritizes relationships.  LIMITATION: May be viewed as too subjective and less applicable to large-scale policy decisions.

EDUCATIONAL DIAGRAM - ILLUSTRATIVE EXAMPLES ONLY.

Figure 1.2: Major ethical theories and their clinical applications

Pilot questions 1.2

1. Explain utilitarianism and describe one clinical situation where consequentialist reasoning is appropriate and one where its limitations are apparent.
2. Explain Kant categorical imperative in your own words and describe how it underpins the requirement for informed consent.
3. Describe the virtues most relevant to clinical medicine and explain what a virtue ethics approach adds that principle-based ethics does not.
4. Explain care ethics and describe a clinical situation in which it provides particularly important moral guidance.

1.3 Moral Reasoning in Practice

1.3.1 Applying ethical theories to real situations

Applying ethical theory to a real clinical situation requires moving between the general principles of the theory and the specific features of the case. No ethical theory, however well developed, provides an algorithm that produces the correct answer to a clinical dilemma automatically. What theories provide is a structured way of identifying what is morally at stake, which considerations matter and why, and what kinds of reasons are relevant to the decision. The clinician who can articulate their reasoning in terms of ethical theory is better placed to explain it to patients, colleagues, and review bodies, and to revise it if the reasoning turns out to be flawed.

A practical approach to applying ethical theory begins with getting the facts right. Ethical reasoning that proceeds from inaccurate or incomplete clinical facts is likely to produce poor conclusions. Once the facts are established, the next step is identifying the ethical question: is this a question about what would produce the best outcome, about what the patient has a right to, about what a virtuous clinician would do, or about the quality of the caring relationship? Different questions call for different theoretical frameworks. Often, more than one framework is relevant, and the skill lies in integrating their perspectives into a reasoned conclusion rather than simply picking one and ignoring the others. The final step is making a decision, documenting the reasoning, and being willing to revisit it if new information emerges or if the reasoning is shown to be deficient.

Fill in the blank: A practical approach to applying ethical theory begins with establishing accurate _____, because ethical reasoning that proceeds from incomplete or inaccurate information is likely to produce poor moral conclusions.

1.3.2 Moral conflict, dilemmas, and their resolution

A moral dilemma is a situation in which two or more moral obligations or principles conflict, so that satisfying one requires violating another. Genuine dilemmas are not merely difficult decisions; they are situations where, whatever you do, something of genuine moral value is lost. A patient exercises their right to refuse a treatment that the clinician is convinced will save their

life; respecting autonomy means accepting an outcome that beneficence condemns. A patient discloses information suggesting that a third party is at serious risk; maintaining confidentiality conflicts with the duty to prevent harm to others. These dilemmas cannot be dissolved by clever reasoning; they can only be resolved, which means making the best decision available given the specific circumstances, acknowledging what is lost in making it.

Strategies for resolving moral dilemmas include specification, which involves narrowing and refining the competing principles to determine exactly what each requires in the specific case; balancing, which involves weighing the competing moral considerations against each other and determining which is weightier in this context; and seeking convergence, which involves checking whether multiple ethical frameworks all point toward the same conclusion, which provides greater confidence than if only one framework supports a decision. When convergence cannot be achieved, the clinician must make a judgment call, document their reasoning, consult colleagues or ethics committees where available, and accept that living with moral uncertainty is an unavoidable feature of clinical practice.

Fill in the blank: _____ is a strategy for resolving moral dilemmas that involves narrowing and refining competing principles to determine exactly what each requires in the specific circumstances of the case at hand.

1.3.3 The role of moral intuition alongside theory

Moral intuitions are the immediate, pre-theoretical responses we have to ethical situations: the sense that something is deeply wrong before we can articulate exactly why, or the conviction that a course of action is clearly right even though we struggle to justify it in theoretical terms. Moral intuitions are not infallible; history shows that widely shared intuitions have been wrong, most notoriously about the moral status of certain groups of human beings whose full humanity was denied by popular consensus. But intuitions are not worthless either; they represent the accumulated moral experience of human communities and often track genuine moral features of situations that theories, being generalised, may miss.

The relationship between moral theory and moral intuition is best understood as one of mutual correction. Theories can challenge and revise intuitions: the intuition that helping one person is

more important than helping five people with equal need is challenged and perhaps overridden by consequentialist reasoning. But intuitions can also challenge theories: when a theoretical argument leads to a conclusion that strikes virtually everyone as monstrous, the appropriate response may be to reject a premise of the argument rather than to accept the monstrous conclusion. This is sometimes called tollensing the ponens in philosophy. In clinical practice, a strong intuition that a particular course of action is wrong even though you cannot fully articulate why is worth taking seriously, not as a final answer but as a signal to examine your reasoning more carefully.

Fill in the blank: The philosophical principle of _____ the ponens refers to rejecting a premise of a valid argument when its conclusion seems clearly morally unacceptable, rather than accepting the monstrous conclusion on the grounds that the argument is logically valid.

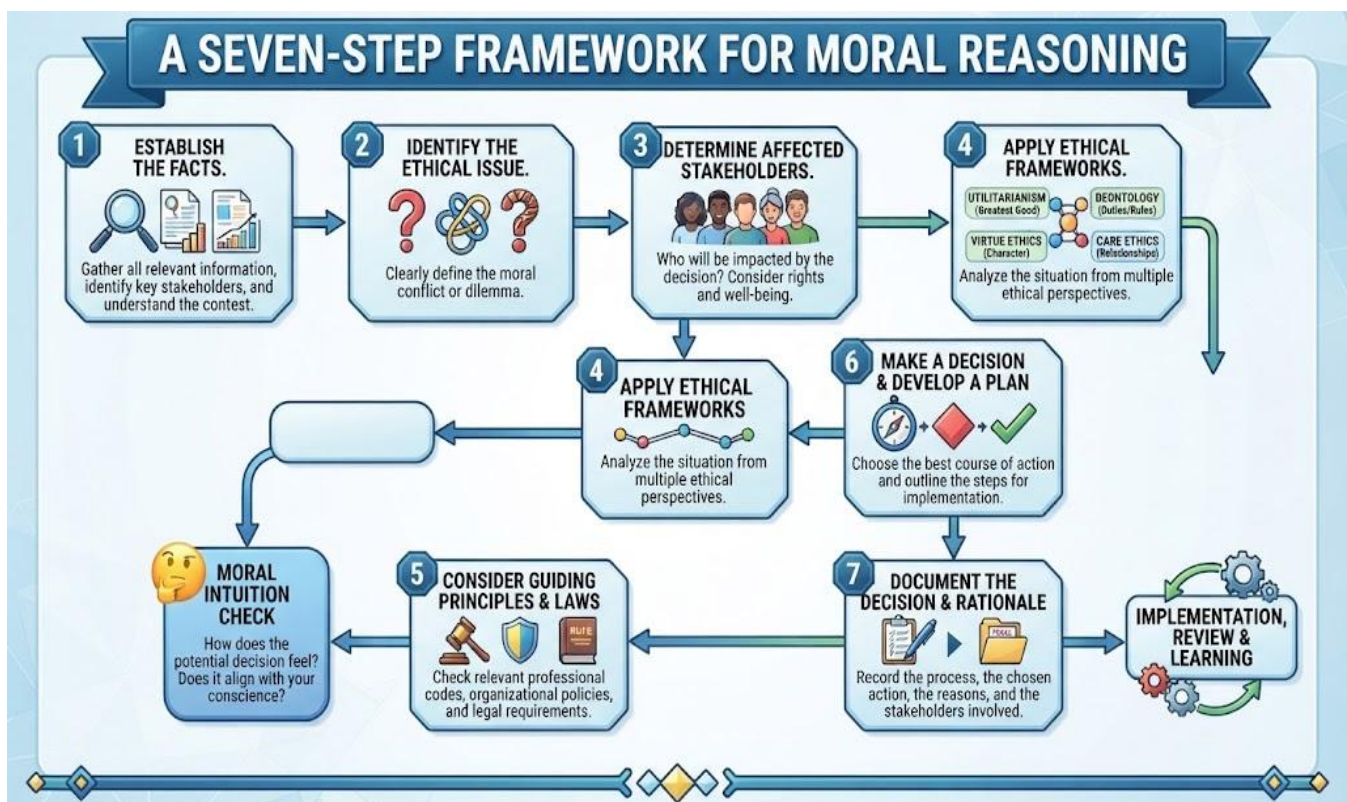


Figure 1.3: Moral reasoning in practice: from dilemma to decision

Pilot questions 1.3

1. Explain the steps in applying ethical theory to a clinical situation.

2. What is a moral dilemma? Describe a clinical example and explain why it cannot simply be dissolved by better reasoning.
3. Explain the strategies of specification and balancing for resolving moral dilemmas.
4. Explain the role of moral intuition in ethical reasoning and describe the concept of tollensing the ponens.

1.4 Ethics in African and Nigerian Philosophical Tradition

1.4.1 African communitarian ethics and Ubuntu

African moral philosophy has developed rich and sophisticated ethical traditions that differ in significant ways from the dominant Western frameworks. The most widely discussed of these is the communitarian ethics associated with the concept of Ubuntu, a Nguni Bantu term meaning roughly I am because we are or a person is a person through other persons. Ubuntu expresses the idea that personhood and moral identity are constituted through relationships and community rather than through the individual rationality and autonomy that Western liberal ethics emphasises. In Ubuntu ethics, the fundamental moral question is not what maximises my welfare or what my rights are but what kind of community do we want to be and how do I contribute to the wellbeing of those around me.

Ubuntu has significant implications for healthcare ethics. It suggests that the emphasis on individual autonomy that dominates Western bioethics may be culturally specific rather than universal, and that healthcare ethics in African contexts must also attend to communal values, family obligations, and the collective dimensions of health decisions. A patient making a decision about a major surgical procedure may understand themselves as making a decision on behalf of their family and community rather than purely as an individual; the consent process that ignores this dimension is missing something important about how the patient actually understands their situation. Ubuntu also suggests that the wellbeing of the community is a legitimate and even primary moral concern, which has implications for how public health obligations and resource allocation decisions are understood.

Fill in the blank: Ubuntu is the African philosophical concept that personhood and moral identity are constituted through relationships and community, expressed in the phrase a person is a _____ through other persons.

1.4.2 Moral philosophy in Nigerian cultural context

Nigeria is home to many distinct ethnic and cultural traditions, each with its own moral philosophy. In Yoruba thought, the concept of *iwa*, roughly translated as character or moral being, holds that good character is the foundation of a good life and that the cultivation of *iwa rere*, good character, is the primary moral task of every person. This places virtue at the centre of Yoruba ethics in a way that resonates strongly with Aristotelian virtue ethics while expressing it in specifically Yoruba terms and with a specifically Yoruba content. In Igbo thought, the concept of *odinala*, the way of the land, provides the moral framework through which right action is defined in relation to tradition, community, and spiritual order; the Igbo community ideal of harmonious living, *udo*, is a central moral value.

Hausa-Fulani moral philosophy is deeply shaped by Islamic ethics, which provides a comprehensive framework for personal conduct, social relations, and the obligations of the believer to God, to family, and to community. Islamic ethics has its own sophisticated engagement with questions of virtue, duty, and welfare that parallels and sometimes converges with Western philosophical ethics and that informs the moral reasoning of millions of Nigerian clinicians and patients. Understanding these cultural moral frameworks is not merely an exercise in academic anthropology; it is a clinical necessity, because the patient a Nigerian clinician sees is likely to be making sense of their illness and their healthcare decisions through one of these frameworks, and the clinician who cannot recognise and engage with that framework will be practising at cross purposes with the person they are trying to help.

Fill in the blank: In Yoruba moral philosophy, the concept of _____ refers to good character, which is held to be the foundation of a good life and the primary moral task of every person, resonating with Aristotelian virtue ethics.

1.4.3 Integrating African and Western ethical frameworks in medicine

The integration of African and Western ethical frameworks in Nigerian medicine is not merely a theoretical exercise; it is a practical necessity for clinicians who daily encounter patients whose moral world is shaped by African communitarian values, religious obligations, and traditional healing systems, but who are trained in a biomedical tradition largely developed in Western cultural contexts. The challenge is not to choose one framework over the other but to recognise what each contributes and what each may obscure. Western bioethics has developed powerful tools for protecting individual rights, regulating research, and ensuring accountability; African communitarian ethics has developed powerful tools for understanding moral obligations within relationships and communities, for attending to collective wellbeing, and for situating health decisions within webs of social meaning.

In practice, integration means several things. It means that the consent process should acknowledge and engage with family and community decision-making structures rather than treating individual autonomous choice as the only legitimate form of consent. It means that the patient understanding of their illness, which may involve spiritual causation, ancestral influence, or communal consequence, should be explored and respected rather than dismissed. It means that health promotion should engage with community leaders and community values rather than directing messages exclusively to individuals. And it means that Nigerian bioethics should develop its own voice in the global conversation about healthcare ethics, drawing on the richness of African moral philosophy to address questions that the Western tradition has not adequately answered.

Fill in the blank: Integrating African and Western ethics in Nigerian medicine means that the consent process should acknowledge _____ decision-making structures and that the patient understanding of illness should be explored and respected rather than dismissed.

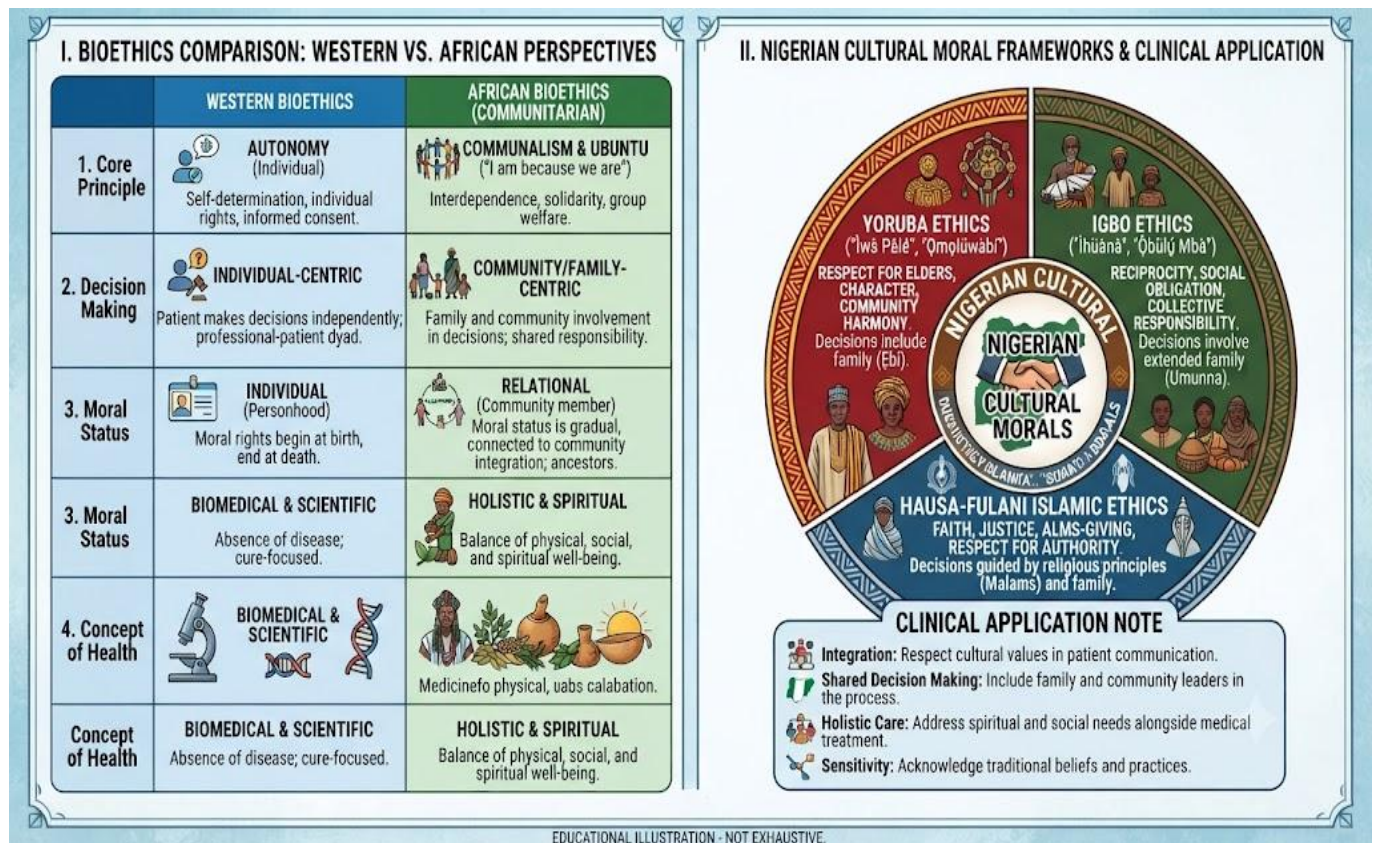


Figure 1.4: African and Nigerian moral philosophy in medical context

Pilot questions 1.4

1. Explain the concept of Ubuntu and describe two ways it changes how healthcare ethics should be practised in Nigeria.
2. Describe the moral philosophy of any two Nigerian ethnic traditions and explain how each is relevant to clinical practice.
3. Explain what integrating African and Western ethical frameworks means in the specific context of obtaining informed consent in Nigeria.
4. Why should Nigerian bioethics develop its own voice rather than simply adopting Western bioethical frameworks?

Series Summary

This Series laid the philosophical foundations that underpin all subsequent engagement with clinical ethics in this course. Ethics was defined as the discipline concerned with what is right and wrong and what we ought to do, and was distinguished from professional codes of conduct by its deeper concern with justification and reasoning. Metaethics examined what moral claims mean and whether they can be true, while normative ethics examined what those claims should be. The three most influential normative ethical theories were examined in depth: consequentialism, which evaluates actions by their outcomes and provides the natural framework for public health reasoning; deontology, which grounds morality in duties and rights and underpins the requirements for consent, truth-telling, and confidentiality; and virtue ethics, which asks what kind of person a clinician should be and provides a framework for professional formation. Care ethics was added as a fourth framework attending to the relational dimensions of clinical work.

Moral reasoning in practice was described as a structured process moving from accurate facts through ethical analysis to decision and documentation, with strategies for resolving genuine dilemmas through specification, balancing, and seeking convergence. The role of moral intuition as both a resource and a corrective to theoretical reasoning was examined. The Series concluded with African and Nigerian moral philosophy, examining Ubuntu communitarian ethics, Yoruba, Igbo, and Islamic moral traditions, and the practical integration of these frameworks with Western bioethics in the Nigerian clinical context. Together, these foundations prepare the student for the applied clinical ethics that follows throughout the course.

Glossary of Terms

- **Applied ethics:** the application of normative ethical theory to specific domains such as medicine, business, and law.
- **Bioethics:** the branch of applied ethics concerned with the ethical questions arising in healthcare and biological research.

- **Care ethics:** the ethical theory emphasising the moral importance of relationships, care, and responsiveness to the particular needs of those in our care.
- **Categorical imperative:** Kant foundational moral principle, requiring that we act only on principles we could universalise and that we always treat persons as ends in themselves.
- **Consequentialism:** the ethical theory that the moral rightness of an action is determined entirely by its consequences.
- **Deontology:** the ethical theory that some actions are right or wrong in themselves, independent of their consequences; based on duties and rights.
- **Metaethics:** the branch of philosophy examining the nature, foundations, and meaning of moral claims.
- **Moral dilemma:** a situation in which two or more moral obligations conflict, so that satisfying one requires violating another.
- **Ubuntu:** the African philosophical concept that personhood is constituted through community and relationships, expressed as a person is a person through other persons.
- **Virtue ethics:** the ethical theory that right action flows from good character; asks what kind of person we should be rather than what rules we should follow.

Concept Check Questions [Series 1]

Objective Questions

1. Ethics is the branch of philosophy concerned with what is right and wrong; it provides the _____ capacity to navigate situations where professional codes do not give clear answers. (Linked to SLO 1.1)
2. Moral _____ is the metaethical view that moral claims vary across cultures without any universal standard. (Linked to SLO 1.1)
3. Classical _____ holds that we ought to act so as to produce the greatest happiness for the greatest number. (Linked to SLO 1.2)
4. Kant _____ imperative requires that we act only on universalisable principles and treat persons always as ends in themselves. (Linked to SLO 1.2)
5. Ubuntu expresses the idea that personhood is constituted through relationships and community: a person is a person through other _____. (Linked to SLO 1.4)

Short-Answer Questions

6. Explain consequentialism and deontology and describe one situation in which they lead to different conclusions about the right course of action. (Linked to SLO 1.2)
7. Explain what a moral dilemma is and describe two strategies for resolving one. (Linked to SLO 1.3)
8. Explain the concept of Ubuntu and describe two implications for healthcare ethics in Nigeria. (Linked to SLO 1.4)

Long-Answer Question

9. Discuss the foundations of moral philosophy and their relevance to clinical practice in Nigeria, covering the major ethical theories, moral reasoning in practice, and the contribution of African philosophical tradition. (Linked to SLOs 1.1, 1.2, 1.3, 1.4)

Answers to Concept Check Questions [Series 1]

Objective Questions

1. Reasoning.
2. Relativism.
3. Utilitarianism.
4. Categorical.
5. Persons.

Short-Answer Questions

6. Consequentialism holds that the morally right action is the one that produces the best overall outcomes; it evaluates actions purely by their consequences for wellbeing. Deontology holds that some actions are right or wrong in themselves regardless of consequences; it grounds morality in duties and rights. A situation where they diverge: a terminally ill patient is suffering severely and requests that information about their prognosis be withheld from their family to protect them from distress. Consequentialism would evaluate the likely outcomes of disclosure versus non-disclosure and might support withholding if it produces less overall suffering. Deontology would insist on the family right to truthful information and the clinician duty of honesty, and would resist the concealment even if the consequences of disclosure are painful.
7. A moral dilemma is a situation where two or more genuine moral obligations conflict, so that satisfying one requires violating another; it cannot be dissolved by finding a solution that satisfies all obligations simultaneously, because no such solution exists. Two resolution strategies: specification involves narrowing the competing principles to determine exactly what each requires in the specific circumstances of the case; for example, the principle of respect for confidentiality can be specified to apply to information shared in the context of the clinical relationship for clinical purposes, which may not cover information that directly endangers a third party. Balancing involves weighing the competing moral considerations to determine which is stronger in this

context; a threat to the life of an identified third party may outweigh the obligation of confidentiality, while a minor risk to an unidentified future party may not.

8. Ubuntu is the African philosophical concept that personhood is constituted through relationships and community rather than through individual rationality and autonomy; it is expressed in the phrase a person is a person through other persons, conveying that we become fully human only in relation to others. Two implications for healthcare ethics in Nigeria: first, the consent process should not treat individual autonomous choice as the only legitimate decision-making framework; major health decisions are often understood by Nigerian patients as family or community decisions, and the consent process should engage respectfully with this by involving family members with the patient consent and exploring who the patient wishes to include in the discussion. Second, the wellbeing of the community is a legitimate moral concern alongside individual welfare, which means that health decisions with implications for others in the patient network deserve attention beyond the individual patient.

Long-Answer Question

9. Moral philosophy defined as discipline of right and wrong and what we ought to do; distinguishes from professional codes by providing deeper justification and reasoning capacity for novel situations. Metaethics: moral realism (moral facts exist independently), emotivism (moral claims express attitudes), moral relativism (moral claims vary across cultures; implication: cannot objectively condemn culturally embedded harmful practices); distinction matters for whether cross-cultural ethical standards are possible. Normative versus descriptive ethics: normative (how ought we to act; produces principles and theories), descriptive (how people actually behave; empirical social science; is does not yield ought). Consequentialism: right action produces best outcomes; utilitarianism (greatest happiness greatest number); clinical application: vaccine scheduling, ICU allocation, cost-effectiveness; limitation: can violate individual rights for collective benefit. Deontology: duties and rights independent of consequences; Kant categorical imperative (universalisability and treating persons as ends); clinical application: informed

consent, truth-telling, confidentiality; limitation: rigid when duties conflict. Virtue ethics: right action flows from good character; relevant virtues: honesty, compassion, practical wisdom, courage, integrity, justice; clinical application: professional formation, ambiguous situations; adds what rule-following cannot. Care ethics: relationships and responsiveness; particular persons rather than abstract principles; clinical application: therapeutic relationship, palliative care, paediatric and elderly care. Moral reasoning in practice: establish facts, identify ethical question, apply frameworks, seek convergence or identify dilemma, apply specification or balancing, check moral intuition, decide and document. Moral intuition: pre-theoretical response; fallible but valuable; corrects theories when conclusions are monstrous (tollensing the ponens). African and Nigerian ethics: Ubuntu (relational personhood; community constitutes self; consent must engage family structures; communal wellbeing as legitimate concern); Yoruba (iwa rere: good character as primary moral task; resonates with virtue ethics); Igbo (odinla: tradition as moral guide; udo: harmony); Islamic ethics (tawhid, fard, virtues of justice and compassion); integration: acknowledge family decision-making in consent, explore spiritual explanatory models, develop Nigerian bioethics voice.

Answers to Pilot Questions [Series 1]

Part 1.1

1. Ethics is the branch of philosophy concerned with what is right and wrong, what we ought to do, and what kind of persons and communities we should be. A clinician who already knows their professional code still needs to study moral philosophy for three reasons. First, professional codes tell you what the profession has decided you must do but do not fully explain why; understanding the ethical reasoning behind the rules helps a clinician apply them more intelligently and to recognise when a rule should yield to a stronger moral consideration. Second, codes cannot anticipate every situation; clinical practice regularly presents novel dilemmas that no code has addressed, and ethical

reasoning is the only tool available for working through them. Third, codes can be wrong; medicine has historically endorsed practices that were later recognised as unethical, and the clinician with a genuinely ethical orientation can recognise this and resist it, while one who merely follows rules cannot.

2. Moral realism holds that moral facts exist independently of human belief or cultural convention, in the same way that physical facts exist; the claim that causing unnecessary suffering is wrong is objectively true, not merely an expression of cultural preference or personal feeling. The practical implication for medical practice is that some moral standards hold across all cultural contexts, enabling cross-cultural ethical evaluation: a clinician from any cultural background can justifiably say that subjecting a patient to unnecessary pain or denying emergency care to someone who needs it is wrong, regardless of local custom. Moral relativism holds that moral claims are valid only within the cultural framework that produces them, with no universal standard allowing judgment across frameworks. The practical implication is that medical ethics becomes culturally relative: a practice causing serious harm to patients cannot be objectively condemned if it is culturally endorsed, which most medical ethicists find unacceptable because it would preclude the protection of patients from culturally embedded harmful practices.
3. Normative ethics establishes standards or norms for how people ought to behave; it produces the ethical theories and principles that guide moral decision-making, such as the claim that we should maximise wellbeing or respect persons as ends in themselves. Descriptive ethics is an empirical social science that studies how people actually do behave morally and what moral beliefs individuals and cultures actually hold; it describes moral behaviour without evaluating whether it is right. The distinction matters in clinical practice because it protects the clinician from the error of assuming that a widespread or culturally accepted practice is ethically acceptable. Female genital mutilation, for example, is widely practised in some communities (a descriptive fact), but this does not make it normatively right; its ethical status requires independent evaluation against normative ethical standards, and the fact of cultural practice does not automatically become an ought.
4. Applied ethics is the application of normative ethical theory to specific domains of human practice, asking how general moral principles bear on the particular situations and

decisions that arise in medicine, law, business, or environmental policy. Bioethics is the form of applied ethics specific to healthcare and biological research; it takes the theories and principles developed in normative ethics and applies them to questions such as when is it permissible to withhold treatment, what constitutes valid informed consent, how should organs be allocated, and what ethical constraints should govern clinical research involving human subjects. What bioethics adds to general moral philosophy is domain-specific knowledge: the clinician background knowledge about how medicine works, what patients experience, what the power dynamics of clinical relationships are, and what the institutional and legal context of healthcare is. Without this domain knowledge, the application of general moral principles to clinical situations would be poorly calibrated.

Part 1.2

1. Utilitarianism holds that the right action is the one that produces the greatest happiness or wellbeing for the greatest number. A situation where consequentialist reasoning is appropriate: a national health ministry must decide which of several vaccines to include in the expanded programme on immunisation given a fixed budget; the appropriate reasoning is explicitly consequentialist, comparing the number of lives saved, disability-averted, and economic costs prevented by each vaccine option and prioritising those with the greatest population health return on the investment. A situation where the limitations are apparent: a hospital with one available ventilator has two patients who need it; utilitarian reasoning would allocate it to the patient with the better prognosis; but if one patient arrived first and was promised the ventilator, withdrawing that promise to give the ventilator to a slightly higher-prognosis patient may violate a promise and a relationship of trust in ways that consequentialism does not adequately account for.
2. Kant categorical imperative can be expressed as: act only according to principles that you could consistently will to be universal laws binding on everyone, and always treat persons as ends in themselves rather than merely as tools for your own or others purposes. The first formulation can be understood as a test of moral consistency: if you could not accept everyone acting on the same principle you are acting on, that is a sign

that the principle is morally wrong. The second formulation captures the Kantian insistence on human dignity: persons have an inherent worth that cannot be overridden by calculations of utility. The categorical imperative underpins informed consent because performing a medical procedure on a patient without their knowledge and agreement treats the patient as a passive object of clinical activity, a means to the clinician therapeutic ends, rather than as an autonomous person who has the right to decide what happens to their own body. The consent requirement expresses the Kantian demand that we respect the patient as an end in themselves.

3. The virtues most relevant to clinical medicine include: honesty (the disposition to tell the truth even when it is difficult or when deception would be more comfortable); compassion (the disposition to recognise and respond to the suffering of others); practical wisdom or phronesis (the capacity to perceive what is morally relevant in a specific situation and to make the right judgment about how to respond); courage (the willingness to act on one moral convictions even when doing so is costly or risky); integrity (consistency between values and action, doing the right thing even when no one is watching); and justice (the disposition to treat people fairly and to give each person their due). What virtue ethics adds that principle-based ethics does not is a focus on character as the foundation of reliable ethical behaviour: a person of good character will act well across the full range of situations they encounter, including novel situations that no principle has specifically addressed, whereas a person who knows the principles but has not cultivated the corresponding character traits may follow the principles mechanically in familiar situations but fail to recognise their application in unfamiliar ones.
4. Care ethics holds that morality is fundamentally relational, grounded in the specific care relationships we stand in with particular others, rather than in the impartial application of general principles to all persons equally. It emphasises responsiveness to the particular needs, vulnerabilities, and circumstances of those in our care rather than abstract rule-following. A clinical situation where care ethics provides particularly important guidance: a palliative care physician caring for a dying patient over an extended period develops a relationship of genuine care and mutual trust with the patient and family. The patient, whose cognitive capacity is diminishing, has expressed wishes that are somewhat ambiguous and that different family members interpret differently. Care ethics guides the

clinician to attend closely to the history of the relationship, to the patient expressed values throughout their illness, and to the dynamics and needs of the family as a whole, rather than simply applying a decision-making algorithm. The quality of the caring relationship and the clinician responsiveness to its specific texture is morally central in a way that principle-based frameworks do not capture.

Part 1.3

1. The steps in applying ethical theory to a clinical situation are: Step 1: Establish the facts accurately. Ethical reasoning that proceeds from inaccurate or incomplete information will produce poor conclusions; the clinical facts, the patient diagnosis, prognosis, treatment options, and the patient expressed preferences and values, must be established before ethical analysis begins. Step 2: Identify the ethical question. Is this a question about outcomes and welfare (calling for consequentialist analysis), about rights and duties (calling for deontological analysis), about what a good clinician would do (calling for virtue ethics), or about the quality of the caring relationship (calling for care ethics)? Step 3: Apply the relevant ethical frameworks, allowing each to illuminate different aspects of the situation. Step 4: Identify where the frameworks converge or conflict. Step 5: If they conflict, apply dilemma resolution strategies: specification, balancing, or seeking convergence. Step 6: Check moral intuition, and if a conclusion feels deeply wrong, re-examine the reasoning. Step 7: Make a decision, document the reasoning, communicate it to relevant parties, and remain open to revision if new information emerges.
2. A moral dilemma is a situation in which two or more genuine moral obligations conflict, making it impossible to satisfy both simultaneously; whatever choice is made, something of real moral value is lost. A clinical example: a competent adult patient with severe but treatable depression refuses a blood transfusion on religious grounds; their condition is immediately life-threatening without it. Respecting their autonomy means accepting an outcome that may result in preventable death; acting to preserve their life (beneficence) requires overriding their explicit refusal. This cannot be dissolved by finding a clever

solution that satisfies both: either the patient is transfused against their will, which violates autonomy, or they are not transfused, which may result in preventable death. The dilemma is genuine because both obligations are genuine. The reason it cannot be dissolved by better reasoning is that better reasoning does not create more blood or make the patient change their religious beliefs; it can only help to clarify which obligation is weightier in these specific circumstances and ensure that whatever decision is made has been reached through the most careful moral reasoning available.

3. Specification is a strategy for resolving moral dilemmas that involves narrowing and refining the competing principles so that their precise requirements in the specific case become clearer. The general principle of confidentiality, for example, can be specified in relation to the particular nature of the information, the specific relationship through which it was shared, and the specific harm that disclosure might prevent; this specification may reveal that the general principle, understood precisely, does not actually require maintaining confidentiality in this case. Balancing is a strategy that involves weighing the competing moral considerations against each other to determine which is stronger in this context; it requires identifying the relevant features of the situation that make one consideration weightier than the other, such as the severity of the harm threatened, the probability of its occurrence, the nature of the relationship, and whether there are less restrictive alternatives available. Together, specification and balancing provide structured tools for moving from a genuine dilemma to a reasoned decision.
4. Moral intuitions are the immediate, pre-theoretical responses we have to ethical situations: the sense that something is wrong before we can articulate why, or the conviction that something is right even though we struggle to justify it theoretically. They play two roles in ethical reasoning. First, they serve as data: widely shared moral intuitions are evidence of genuine moral features of situations that theories, being generalised, may miss; when a theoretical argument leads to a conclusion that virtually everyone finds abhorrent, this convergent intuition is evidence that something in the argument is wrong. Second, they serve as correctives to theoretical excess: a valid argument from apparently reasonable premises to a clearly monstrous conclusion should prompt us to reject a premise rather than accept the conclusion. Tollensing the ponens

refers to this: in a valid argument of the form (if P1 and P2 then C), instead of accepting C because the premises seem plausible, we run the argument backward and conclude not-P1 or not-P2 because C is clearly unacceptable. In clinical practice, a strong moral intuition that a course of action is wrong is a signal to re-examine the reasoning rather than a final verdict, but it is a signal that deserves serious attention.

Part 1.4

1. Ubuntu is the African philosophical concept that personhood is constituted through relationships and community rather than through individual rationality and autonomous choice; the Nguni phrase I am because we are expresses the idea that a person becomes fully human only through their connections with others. Two implications for healthcare ethics in Nigeria: first, the Western bioethical model of informed consent, which assumes that the individual patient is the sole legitimate decision-maker about their own healthcare, does not adequately fit the Ubuntu framework in which major decisions are understood as family or communal matters; in practice this means that the consent process should engage with the patient network of significant others, with the patient explicit consent for this involvement, rather than treating any involvement of family as a violation of autonomy. Second, Ubuntu ethics places communal wellbeing alongside individual welfare as a primary moral concern; this has implications for how public health obligations are framed (the community has legitimate interests in the health behaviours of its members) and for how scarce healthcare resources are allocated (collective welfare is a morally relevant consideration, not merely an aggregate of individual welfares).
2. Yoruba moral philosophy: the central concept is iwa, meaning character or moral being; iwa rere, good character, is the foundation of a good life and the primary moral task of every person; the cultivation of good character through discipline, social practice, and spiritual development is the route to moral excellence; this resonates strongly with Aristotelian virtue ethics while placing it in a specifically Yoruba spiritual and social context; clinical relevance: a Yoruba patient may evaluate the clinician not primarily by

their technical skill but by the quality of their character, their honesty, their respect, their genuine concern, and their moral conduct, making virtue ethics directly applicable to how the clinician should present themselves. Igbo moral philosophy: the concept of *odinala*, the way of the land, provides the moral framework through which right action is understood in relation to tradition, ancestral wisdom, and spiritual order; the goal of *udo*, harmonious and peaceful community life, is a central moral value; clinical relevance: an Igbo patient facing a serious illness may understand their situation partly in terms of its implications for family harmony and ancestral relations, and the clinician who engages with these dimensions of the patient experience will provide more effective and more respectful care.

3. Integrating African and Western ethical frameworks in the specific context of obtaining informed consent in Nigeria means recognising that the Western model of individual informed consent, while protecting important values of autonomy and dignity, does not fully capture how many Nigerian patients understand major health decisions. In the Ubuntu and Yoruba and Igbo traditions, major decisions are often understood as family or community decisions that reflect on the whole network, not only on the individual. Integration means: first, asking the patient at the outset of the consent discussion who they would like to involve, rather than assuming the patient will make the decision alone; second, creating space for a family meeting where the patient wishes this, while ensuring that the patient own voice is heard and not overridden by family pressure; third, exploring the patient explanatory model for their illness, which may involve spiritual or ancestral dimensions that affect how they understand the proposed treatment; and fourth, documenting not only that consent was given but that the patient genuine understanding and voluntary agreement was established, even where family involvement occurred.
4. Nigerian bioethics should develop its own voice rather than simply adopting Western frameworks for several reasons. First, Western bioethics was developed in cultural contexts that differ significantly from Nigerian contexts in their assumptions about the individual, the community, the body, and the meaning of illness; applying these frameworks without adaptation will produce guidance that is poorly fitted to Nigerian patients and clinicians. Second, African philosophical traditions including Ubuntu, Yoruba *iwa* ethics, Igbo *odinala*, and Islamic ethics contain sophisticated moral resources

that have been developed over centuries in response to the actual moral challenges of communal life in African contexts; ignoring these resources impoverishes bioethical reasoning in Nigeria. Third, the global bioethics conversation has been dominated by Western voices and has tended to treat Western frameworks as universal while treating non-Western frameworks as local and culturally specific; a Nigerian bioethics that articulates its own perspective challenges this asymmetry and contributes to a genuinely global dialogue. Fourth, Nigerian patients are more likely to engage with ethical frameworks and health communications that resonate with their own moral traditions, making culturally situated bioethics more effective in practice.

References and Attributions

Textual References (Books and External Sources)

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Figures, Plates, Tables, and Boxes

- Figure 1.1: The structure of moral philosophy Attribution: AI generated. Suggested OER search string: "moral philosophy metaethics normative ethics descriptive ethics bioethics clinical ethics structure OER".
- Figure 1.2: Major ethical theories and their clinical applications Attribution: AI generated. Suggested OER search string: "ethical theories consequentialism utilitarianism deontology virtue ethics care ethics clinical applications comparison OER".
- Figure 1.3: Moral reasoning in practice: from dilemma to decision Attribution: AI generated. Suggested OER search string: "moral reasoning ethical dilemma resolution clinical ethics flowchart consequentialism deontology virtue ethics OER".
- Figure 1.4: African and Nigerian moral philosophy in medical context Attribution: AI generated. Suggested OER search string: "Ubuntu African ethics Yoruba iwa Igbo odinala Islamic ethics Nigeria bioethics integration medical practice OER".

Series 2: Clinical Ethics and Professionalism

- **Part 2.1: Principles of Clinical Ethics**

- Sub Part 2.1.1: The four-principle framework
- Sub Part 2.1.2: Applying the principles in clinical situations
- Sub Part 2.1.3: Informed consent

- **Part 2.2: Confidentiality and Truth-Telling**

- Sub Part 2.2.1: Medical confidentiality
- Sub Part 2.2.2: Limits of confidentiality
- Sub Part 2.2.3: Truth-telling and disclosure

- **Part 2.3: Medical Professionalism**

- Sub Part 2.3.1: Defining and sustaining professionalism
- Sub Part 2.3.2: Accountability, integrity, and professional culture
- Sub Part 2.3.3: Professionalism in the Nigerian healthcare context

- **Part 2.4: Ethical Challenges at the Boundaries of Practice**

- Sub Part 2.4.1: End-of-life ethics
- Sub Part 2.4.2: Research ethics and human subjects
- Sub Part 2.4.3: Resource allocation and justice

Introduction

Clinical ethics is moral philosophy applied to the specific situations of medical practice. It asks questions that arise in every ward, clinic, and consultation room: what information must a patient be given before agreeing to treatment, when can a clinician break a confidence to protect others, and how should scarce resources be distributed fairly? These are not theoretical puzzles; they are daily realities for every clinician, and the quality of the answers affects real patients.

This Series builds on the philosophical foundations of Series 1 by applying them directly to clinical practice. It examines the four-principle framework that structures most contemporary bioethical reasoning, works through the specific obligations of confidentiality and truth-telling, examines what professionalism means in the Nigerian context, and addresses the ethical challenges at the boundaries of practice: end-of-life decisions, research ethics, and resource allocation.

Series Learning Outcomes

Upon completing this Series, you should be able to:

- **SLO 2.1** explain the four principles of biomedical ethics, apply them to clinical situations, and describe the requirements for valid informed consent,
- **SLO 2.2** explain the obligation of medical confidentiality, describe its limits, and discuss the ethics of truth-telling and disclosure,
- **SLO 2.3** define medical professionalism, explain accountability and integrity, and describe the specific challenges of professionalism in Nigerian healthcare, and
- **SLO 2.4** discuss ethical issues at end of life, describe the principles governing research ethics, and explain justice in healthcare resource allocation.

2.1 Principles of Clinical Ethics

2.1.1 The four-principle framework

The four-principle framework, developed by Tom Beauchamp and James Childress, organises biomedical ethics around four core principles: autonomy, beneficence, non-maleficence, and justice. Autonomy is the right of patients to make informed decisions about their own healthcare, including the right to refuse treatment. Beneficence is the obligation to act in the patient best interest. Non-maleficence is the obligation to avoid causing harm, summarised as first, do no harm. Justice is the requirement to distribute the benefits and burdens of healthcare fairly. These four principles are *prima facie*: each carries moral weight, but none is absolute, and they must be balanced against one another when they conflict.

The framework is widely used because it provides a common language that clinicians from different philosophical traditions can work with, without committing them to any single underlying ethical theory. A consequentialist, a deontologist, and a virtue ethicist can all accept that these four considerations matter, even if they ground them differently. In practice, most clinical ethical problems can be framed as a conflict between two or more of the principles, and the task of clinical ethics is to determine which consideration carries more weight in the specific circumstances.

Fill in the blank: The four principles of biomedical ethics are autonomy, beneficence, non-_____, and justice; they are *prima facie* obligations, meaning each carries moral weight but none is absolute.

2.1.2 Applying the principles in clinical situations

When a clinical situation presents an ethical question, the first step is identifying which principles are engaged. A patient who refuses a recommended treatment engages autonomy directly. A decision to continue aggressive treatment in a patient who is unlikely to benefit engages beneficence and non-maleficence. A triage decision about who receives a limited resource engages justice. Once the relevant principles are identified, the clinician must assess

whether they conflict and, if so, which is weightier in this particular case given the clinical facts, the patient circumstances, and the values at stake.

The principles do not resolve dilemmas mechanically; they structure the reasoning. Two tools that help are specification and balancing. Specification involves refining a principle to determine precisely what it requires in a specific context; the principle of non-maleficence, for example, needs to be specified against the clinical reality that many effective treatments carry significant side effects, and harm avoidance must be weighed against benefit. Balancing involves comparing the weight of competing principles given the specific features of the case. These tools produce reasoned decisions rather than algorithmic answers, and the reasoning should be documented and communicable.

Fill in the blank: _____ involves refining a principle to determine precisely what it requires in a specific clinical context, while balancing involves weighing competing principles against each other given the specific features of the case.

2.1.3 Informed consent

Informed consent is the process through which a patient who has decision-making capacity voluntarily agrees to a proposed treatment or procedure after receiving adequate information. Three conditions must be met: the patient must have the capacity to understand the information and make a decision; the consent must be given freely, without coercion; and the patient must receive sufficient information about the nature, benefits, risks, and alternatives of the proposed intervention, including the option of no treatment. When any of these conditions is absent, consent is not valid.

In the Nigerian clinical context, obtaining genuine informed consent faces specific challenges. Limited health literacy can mean patients do not fully understand the information given. Time pressure in busy clinics reduces the quality of the consent discussion. Social deference to authority may prevent patients from asking questions or expressing genuine reservations. And family decision-making norms may mean that a patient feels unable to decide independently. The clinician must actively work against these dynamics through plain language, open questioning,

and the teach-back method, in which the patient is asked to explain back in their own words what they have understood.

Fill in the blank: The teach-_____ method asks patients to explain in their own words what they have understood, verifying genuine comprehension rather than simple agreement with what the clinician has said.

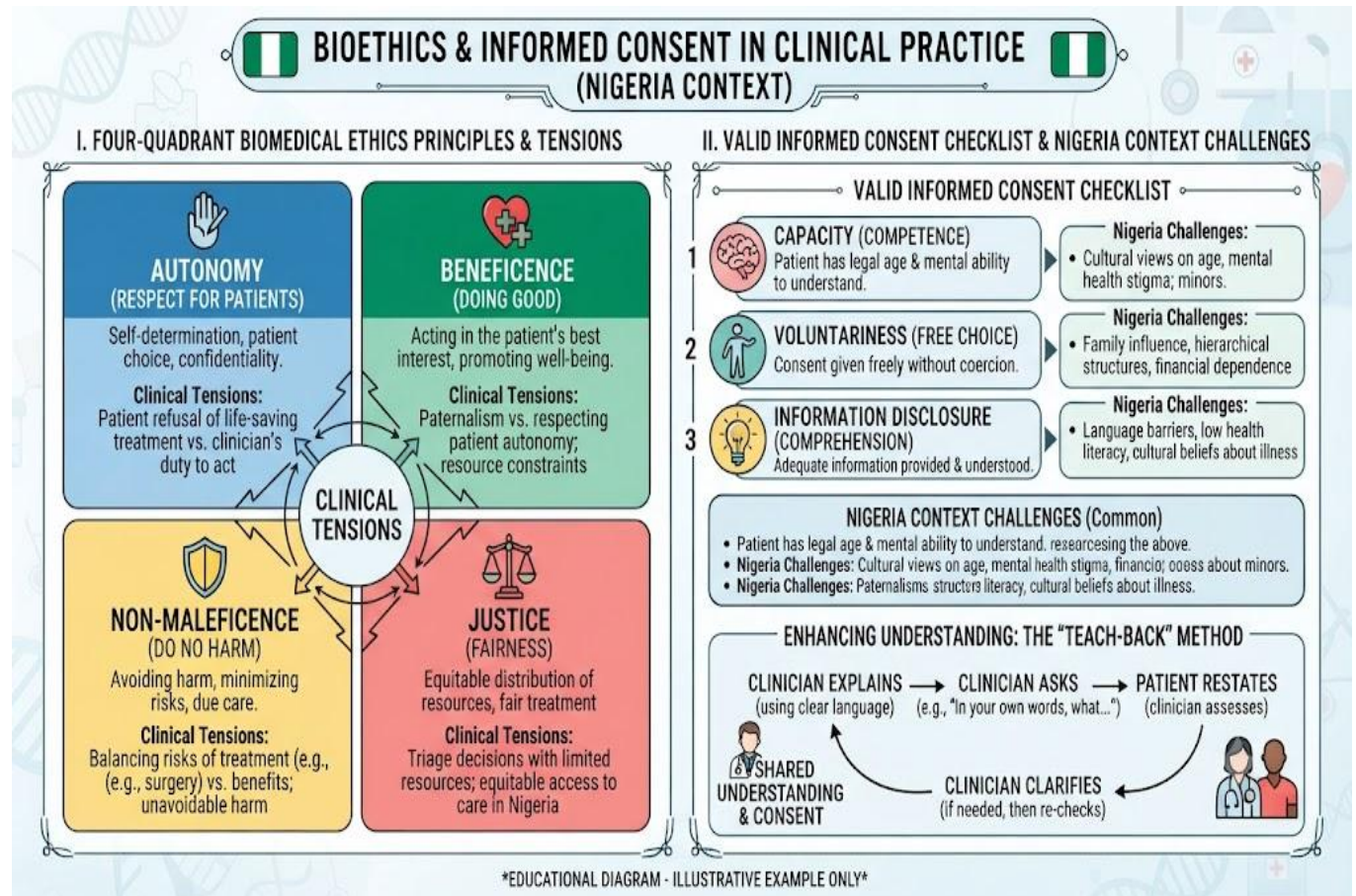


Figure 2.1: The four principles and the informed consent process

Pilot questions 2.1

1. Name and define the four principles of biomedical ethics.
2. Explain what it means to say the principles are prima facie obligations.
3. Describe the three conditions required for valid informed consent.
4. Explain the teach-back method and describe why it matters in the Nigerian clinical context.

5. Describe a clinical situation where autonomy and beneficence conflict and explain how you would approach it.

2.2 Confidentiality and Truth-Telling

2.2.1 Medical confidentiality

Medical confidentiality is the obligation to keep information shared by a patient in the clinical relationship private from third parties. It exists because patients will only share the honest, complete information that clinicians need for accurate diagnosis and effective treatment if they trust that this information will not be disclosed without their consent. A breach of confidentiality does not only harm the individual patient whose information is shared; it damages trust in the healthcare system more broadly, with consequences for every patient who subsequently withholds important information from a clinician out of fear.

The obligation of confidentiality is not confined to the clinician who receives the information; it extends to all members of the clinical team, to administrative staff who handle records, and to students and trainees present during clinical encounters. Patient information should be shared within the clinical team only on a need-to-know basis, meaning that it is shared with colleagues whose involvement in the patient care makes access to the information necessary. Sharing patient information as casual conversation, or in ways that allow identification of the patient by those not involved in their care, constitutes a breach of confidentiality even if no harm results from it.

Fill in the blank: Medical _____ is the obligation to keep patient information private; it extends beyond the treating clinician to the whole clinical team, administrative staff, and trainees present during clinical encounters.

2.2.2 Limits of confidentiality

Confidentiality is not absolute. There are circumstances in which it can legitimately be overridden. When the patient gives consent to disclosure, the obligation is not breached but

waived. When disclosure is required by law, as in the mandatory notification of notifiable communicable diseases or compliance with a court order, the clinician has a legal obligation that takes precedence. And when there is a serious, credible, and otherwise unpreventable threat to the life of the patient or an identifiable third party, most ethical frameworks support disclosure to the minimum extent necessary to prevent the harm.

In the Nigerian context, the tension between confidentiality and third-party protection arises frequently in relation to HIV status. A patient who is HIV positive and refuses to inform a sexual partner creates a genuine conflict between the patient right to confidentiality and the partner right to protection from a life-threatening infection. The appropriate approach in this situation is not immediate disclosure but a structured process: counselling the patient on the importance of disclosure, exploring the reasons for their reluctance, supporting partner notification through available services, and escalating to disclosure without consent only when counselling has failed and the threat remains serious and imminent.

Fill in the blank: Confidentiality can be overridden when the patient gives _____, when required by law, or when there is a serious and otherwise unpreventable threat to the life of the patient or an identifiable third party.

2.2.3 Truth-telling and disclosure

Truth-telling is a fundamental professional obligation. Patients have a right to accurate information about their health, their diagnosis, and the available options because they need this information to make meaningful decisions about their own lives. A clinician who lies to a patient, even with benevolent intent, treats the patient as someone who cannot handle the truth rather than as an autonomous person entitled to it. The tradition of therapeutic privilege, the idea that a clinician may withhold distressing information to protect the patient from harm, is ethically problematic because it substitutes the clinician judgment for the patient right to know.

In Nigerian clinical practice, truth-telling is complicated by family expectations that serious diagnoses should be disclosed to the family before or instead of the patient, the belief in some communities that naming a fatal illness makes it more likely to occur, and the real possibility that a patient lacks the health literacy to understand a clinical disclosure without careful explanation

and support. These factors call for cultural sensitivity in how information is disclosed rather than for non-disclosure; the answer to the challenge of disclosure in the Nigerian context is better communication, not deception. The clinician should explore how much the patient wants to know, involve family members with the patient consent, and provide information at a pace and level the patient can absorb.

Fill in the blank: The tradition of therapeutic _____, the idea that a clinician may withhold distressing information to protect the patient, is ethically problematic because it substitutes the clinician judgment for the patient right to accurate information.

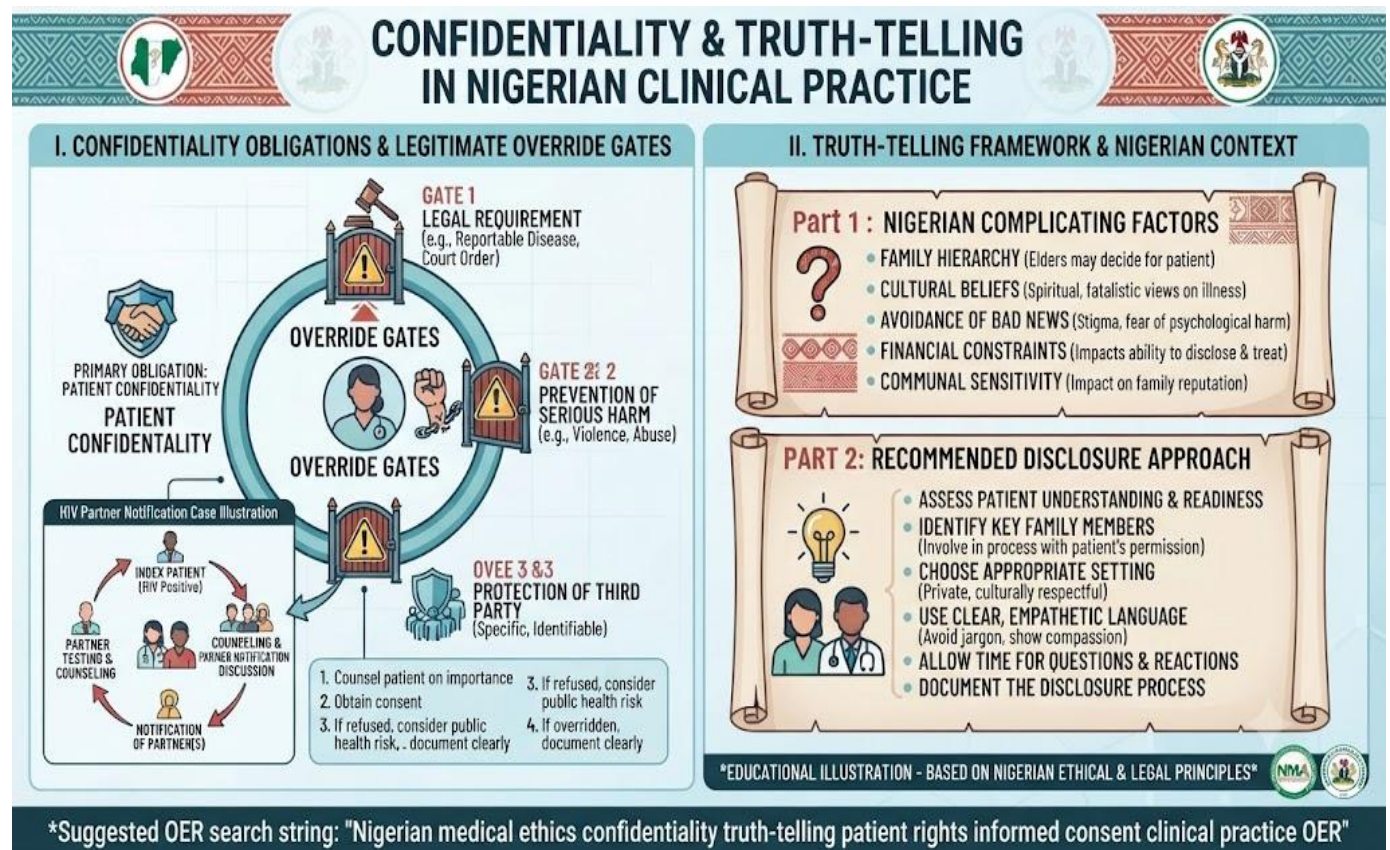


Figure 2.2: Confidentiality and truth-telling in Nigerian clinical practice

Pilot questions 2.2

1. Explain why medical confidentiality matters for the clinical relationship.
2. Describe three circumstances in which confidentiality can be legitimately overridden.

3. Explain how a clinician should handle an HIV-positive patient who refuses to disclose their status to a sexual partner.
4. Explain why therapeutic privilege is ethically problematic.
5. Describe how a clinician should approach disclosing a terminal diagnosis to a patient in the Nigerian context.

2.3 Medical Professionalism

2.3.1 Defining and sustaining professionalism

Medical professionalism refers to the set of values, behaviours, and commitments that justify the trust patients and society place in physicians. It includes clinical competence, the knowledge and skill to practise safely and effectively; honesty and integrity, the commitment to truthfulness in all professional interactions; compassion, genuine concern for the wellbeing of patients; accountability, answerability for the quality and consequences of one actions; and the subordination of self-interest to patient welfare. These are not merely aspirational qualities; they are the practical requirements of a vocation in which people trust clinicians with their health, their secrets, and sometimes their lives.

Professionalism is sustained not only by individual character but by the institutional environment in which clinicians work. A medical school or hospital that models high standards, responds seriously to complaints, and rewards professional behaviour creates conditions in which professionalism is easier to maintain. One that tolerates poor timekeeping, dismissive treatment of patients, and corrupt practices gradually erodes the professional values of those who work within it. This is why individual professional formation and institutional culture are both necessary; neither is sufficient alone.

Fill in the blank: Medical professionalism includes clinical competence, honesty, compassion, _____, and the subordination of self-interest to patient welfare; it is sustained by both individual character and institutional culture.

2.3.2 Accountability, integrity, and professional culture

Accountability in medicine means being answerable for the quality of care one provides. It operates at three levels: individual accountability to patients and to the professional regulatory body; institutional accountability of hospitals and health facilities to regulators, communities, and the state; and system-level accountability of the health system as a whole to the population it serves. At each level, accountability requires mechanisms for monitoring performance, identifying failures, and responding to them constructively. Without accountability, professionalism becomes an aspiration rather than a reality.

Integrity is the quality of acting consistently with one stated values, doing the right thing even when no one is watching and even when the surrounding culture permits otherwise. In the context of Nigerian healthcare, where systemic pressures toward informal payments, absenteeism, and corner-cutting are real, integrity is both more important and more demanding than in well-resourced settings. A clinician who maintains integrity under these pressures is not only serving their patients better; they are contributing to the slow work of changing a professional culture that has been shaped by decades of under-resourcing and institutional dysfunction.

Fill in the blank: _____ is the quality of acting consistently with stated values and doing the right thing even when no one is watching, which is especially demanding in healthcare settings where systemic pressures toward lower standards are present.

2.3.3 Professionalism in the Nigerian healthcare context

Nigerian clinicians exercise professionalism under conditions that are often more challenging than those assumed by Western professional frameworks. Patient loads that would be considered unmanageable in high-income settings are routine in Nigerian public hospitals. Essential supplies, functional equipment, and reliable power may not be available. Salaries are sometimes irregular and inadequate. These structural conditions do not excuse unprofessional behaviour, but they provide the context in which professional values must be lived out, and ignoring them in discussions of professionalism sets unrealistic expectations that alienate rather than motivate.

The specific professional challenges in Nigerian healthcare include the normalisation of informal payments, the expectation that social connections will influence the quality of care a patient receives, the tolerance of clinical negligence by colleagues out of misplaced loyalty, and the absenteeism that occurs when clinicians maintain government positions while conducting private practice elsewhere. Each of these represents a real and documented threat to the professional standards that patient welfare requires. Recognising them honestly is the first step toward resisting them individually and advocating against them systemically.

Fill in the blank: Specific professionalism challenges in Nigerian healthcare include the normalisation of informal _____, favouritism toward well-connected patients, tolerance of colleague negligence, and absenteeism driven by concurrent private practice.

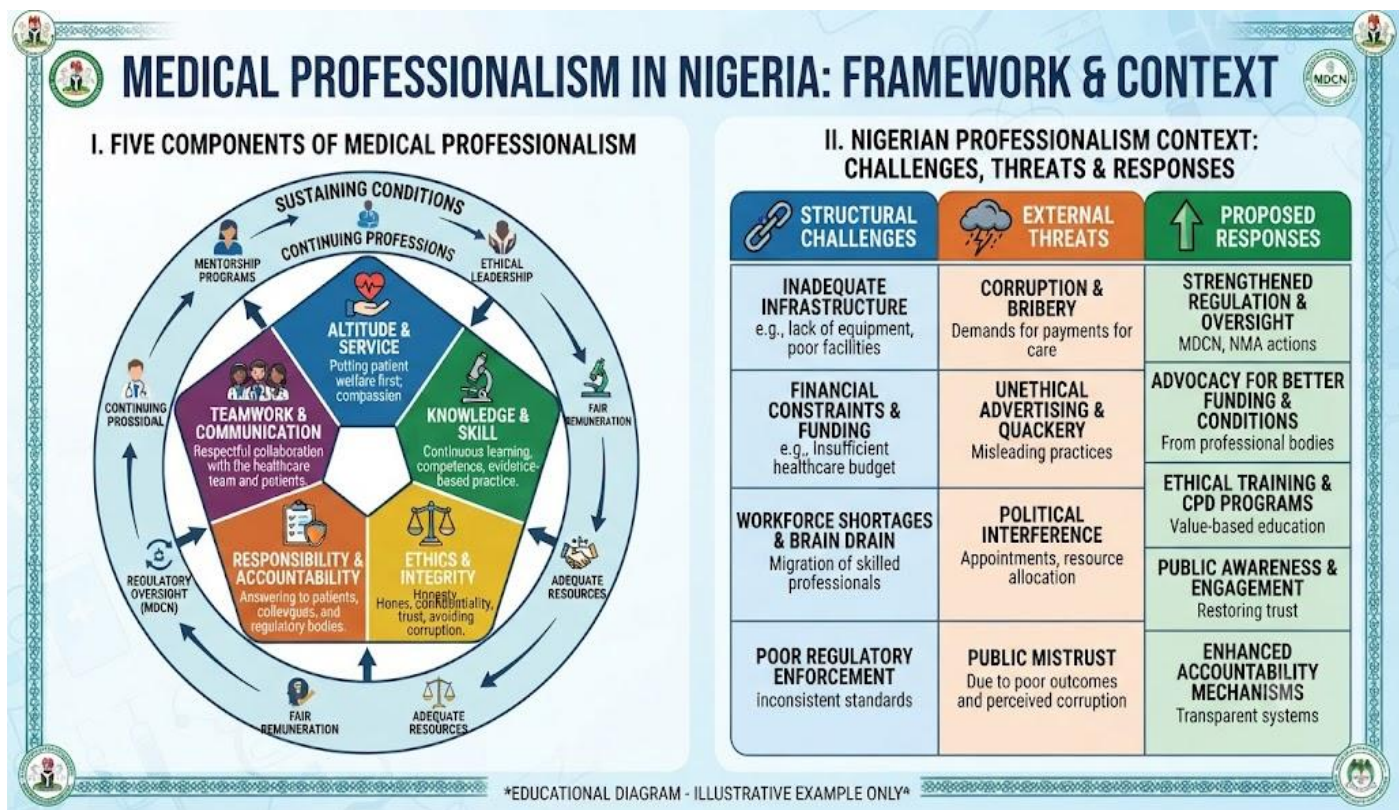


Figure 2.3: Professionalism: components, culture, and Nigerian context

Pilot questions 2.3

1. Define medical professionalism and name its core components.

2. Explain the three levels of accountability in medical practice.
3. Explain what integrity means and why it is particularly demanding in Nigerian healthcare.
4. Describe two specific threats to professionalism that are common in Nigerian healthcare settings.
5. What can an individual clinician do to maintain professional standards within a dysfunctional healthcare system?

2.4 Ethical Challenges at the Boundaries of Practice

2.4.1 End-of-life ethics

Ethical challenges at the end of life are among the most difficult in clinical practice. They include decisions about withholding or withdrawing life-sustaining treatment, the management of pain and symptom relief in terminal illness, and the appropriate limits of resuscitation. A key distinction in this area is between killing and allowing to die: most ethical frameworks and legal systems distinguish between actively causing a patient death, which is prohibited, and withdrawing or withholding treatment that is no longer benefiting the patient, which is permissible when it reflects the patient wishes and a genuine clinical judgment that further treatment would cause harm without benefit.

The principle of double effect is relevant here: it holds that an action with both a good and a harmful effect may be permissible if the good effect is intended, the harm is foreseen but not intended, and the good effect is proportionate to the harm. This principle is invoked in the context of administering opioids for severe pain in terminal illness, where the dose required for adequate symptom control may also have the foreseen but unintended effect of hastening death. In Nigeria, end-of-life discussions are often complicated by religious and cultural beliefs about the sanctity of life, by the expectation that everything possible should be done, and by the limited availability of palliative care, which makes symptom management without aggressive intervention harder to achieve in practice.

Fill in the blank: The principle of double _____ holds that an action with both a good and a harmful effect may be permissible if the good effect is intended, the harm is foreseen but not intended, and the good effect is proportionate to the harm.

2.4.2 Research ethics and human subjects

Medical research involving human subjects is governed by ethical principles designed to protect participants from exploitation and harm while enabling the generation of knowledge that benefits future patients. The foundational document is the Nuremberg Code of 1947, developed in response to Nazi medical experiments, which established that voluntary informed consent is an absolute requirement before any experiment on a human being. The Declaration of Helsinki, first adopted in 1964 and subsequently revised, extended and elaborated these principles for all clinical research. In Nigeria, institutional ethics review boards are required to evaluate all research proposals involving human subjects before the research begins.

The core principles governing research ethics are respect for persons (requiring informed consent and protection of vulnerable populations), beneficence (maximising benefits and minimising risks), and justice (ensuring that the burdens of research are not borne by vulnerable populations while the benefits accrue to others). In the Nigerian context, justice in research ethics raises particular concerns about the conduct of clinical trials sponsored by pharmaceutical companies from high-income countries in Nigerian communities, where participants may be poorly informed, where regulatory oversight has historically been weak, and where the treatments being tested may not be accessible to the communities after the research is completed.

Fill in the blank: The Nuremberg _____ of 1947 established that voluntary informed consent is an absolute requirement before any medical experiment may be conducted on a human being.

2.4.3 Resource allocation and justice

Healthcare resource allocation is the process of distributing limited resources among competing needs. Because no health system has unlimited resources, allocation decisions are unavoidable at every level, from the national health budget to the individual clinical encounter. Different principles of allocation produce different outcomes: utilitarian allocation maximises total benefit

by directing resources to those most likely to benefit; egalitarian allocation treats all persons as equal claimants regardless of prognosis; needs-based allocation prioritises those with the greatest clinical need; and fair innings allocation prioritises younger patients on the grounds that older patients have already had more of life.

In Nigeria, where resource constraints are severe and informal allocation by social status and financial capacity is widespread, developing explicit and justifiable allocation criteria is both an ethical and a governance priority. When allocation is left to implicit and unacknowledged processes, those with social connections or financial resources receive better care than those without, which is a systematic injustice that the principle of justice directly condemns. Individual clinicians cannot design health system financing alone, but they can refuse to allow wealth and connections to determine the priority they give to patients in their own practice, and they can advocate through professional channels for more equitable allocation at the system level.

Fill in the blank: _____ allocation prioritises patients with the greatest clinical need, while utilitarian allocation maximises total benefit by directing resources to those most likely to benefit from them.

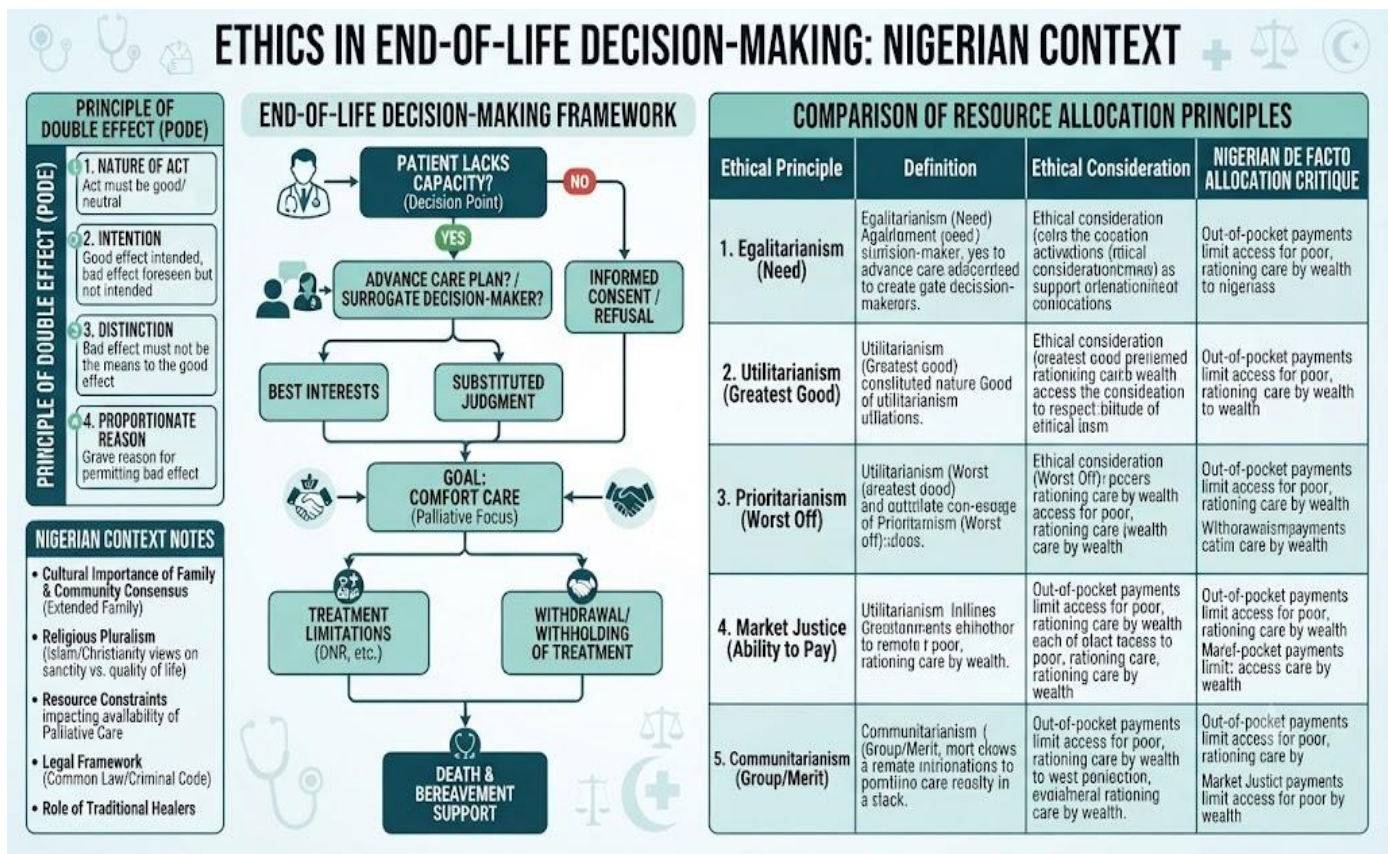


Figure 2.4: Ethical challenges at the boundaries of practice

Pilot questions 2.4

1. Explain the ethical distinction between killing and allowing to die in clinical practice.
2. Explain the principle of double effect and give a clinical example of its application.
3. Describe the ethical principles governing research involving human subjects.
4. Explain four principles of resource allocation and describe the ethical concerns with the current approach in Nigeria.
5. What can an individual clinician do to promote justice in resource allocation within their own practice?

Series Summary

This Series applied moral philosophy to the concrete situations of clinical practice. The four-principle framework provided a structured language for identifying and reasoning through ethical problems, and informed consent was examined as the practical expression of patient autonomy in the clinical encounter. Confidentiality was shown to be fundamental to the clinical relationship but not absolute, with specific limits arising from consent, legal obligation, and serious threat to life. Truth-telling was defended as a professional obligation, with therapeutic privilege identified as ethically problematic even when well-intentioned.

Medical professionalism was examined as a combination of individual character and institutional culture, with specific attention to the challenges Nigerian clinicians face and the specific threats to professional standards that characterise under-resourced systems. The Series concluded at the boundaries of clinical practice: end-of-life ethics, where the distinction between killing and allowing to die and the principle of double effect provide essential guidance; research ethics, where the Nuremberg Code and Declaration of Helsinki protect human subjects; and resource allocation, where justice demands explicit criteria and equal treatment regardless of social status.

Glossary of Terms

- **Accountability:** being answerable for the quality and consequences of one actions at individual, institutional, and system levels.
- **Autonomy:** the right of patients to make informed decisions about their own healthcare.
- **Beneficence:** the obligation to act in the patient best interest.
- **Confidentiality:** the obligation to keep patient information private from third parties.
- **Double effect:** the principle that an action with both good and harmful effects may be permissible when the good is intended, the harm is foreseen but unintended, and the effects are proportionate.

- **Informed consent:** voluntary agreement to treatment by a patient with capacity who has received adequate information.
- **Integrity:** acting consistently with stated values even when no one is watching and even when the surrounding culture permits otherwise.
- **Justice:** the fair distribution of the benefits and burdens of healthcare.
- **Non-maleficence:** the obligation to avoid causing harm.
- **Therapeutic privilege:** the discredited practice of withholding information from a patient on the grounds that disclosure would cause them harm.

Concept Check Questions [Series 2]

Objective Questions

1. The four principles of biomedical ethics are autonomy, beneficence, non-_____, and justice. (Linked to SLO 2.1)
2. The teach-_____ method asks patients to explain in their own words what they have understood, verifying genuine comprehension. (Linked to SLO 2.1)
3. Medical _____ is the obligation to keep patient information private; it extends to the whole clinical team and administrative staff. (Linked to SLO 2.2)
4. The principle of double _____ holds that an action with both good and harmful effects may be permissible when the good is intended and the harm is unintended. (Linked to SLO 2.4)
5. _____ allocation prioritises those with the greatest clinical need, while utilitarian allocation directs resources to those most likely to benefit. (Linked to SLO 2.4)

Short-Answer Questions

6. Explain the three conditions for valid informed consent and describe two challenges to obtaining genuine consent in Nigeria. (Linked to SLO 2.1)
7. Explain when confidentiality can be legitimately overridden and describe how a clinician should handle an HIV-positive patient who refuses to disclose to a partner. (Linked to SLO 2.2)
8. Describe the core ethical principles governing research with human subjects and explain the justice concerns raised by pharmaceutical industry trials in Nigeria. (Linked to SLO 2.4)

Long-Answer Question

9. Discuss clinical ethics and professionalism in Nigerian medical practice, covering the four principles, informed consent, confidentiality, truth-telling, and end-of-life ethics. (Linked to SLOs 2.1, 2.2, 2.3, 2.4)

Answers to Concept Check Questions [Series 2]

Objective Questions

1. Maleficence.
2. Back.
3. Confidentiality.
4. Effect.
5. Needs-based.

Short-Answer Questions

6. Three conditions: capacity (patient can understand, weigh, and communicate a decision), voluntariness (free from coercion), and adequate information (nature, benefits, risks, alternatives). Two Nigerian challenges: limited health literacy means patients may agree without genuine understanding; social deference to authority means patients hesitate to ask questions or express reservations, producing apparent agreement that does not reflect genuine autonomous consent.
7. Confidentiality can be overridden with patient consent, by legal requirement (notifiable disease notification, court orders), or when there is a serious and otherwise unpreventable threat to an identifiable life. For an HIV-positive patient refusing partner disclosure: counsel the patient on the importance and means of disclosure; explore the reasons for refusal; offer partner notification support services; only escalate to disclosure without consent when counselling has failed and the threat remains serious and imminent, disclosing the minimum necessary information.

8. Research ethics is governed by respect for persons (informed consent, protection of vulnerable populations), beneficence (maximising benefit, minimising risk), and justice (equitable distribution of burdens and benefits). Justice concerns in Nigeria: pharmaceutical trials may recruit poorly informed participants in communities with limited regulatory oversight, and the treatments tested may remain inaccessible to those communities after the research ends, meaning the community bears the burden of research while the benefit accrues elsewhere.

Long-Answer Question

9. Four principles: autonomy (patient right to decide), beneficence (act in patient interest), non-maleficence (avoid harm), justice (fair distribution); prima facie obligations balanced case by case. Informed consent: capacity, voluntariness, adequate information; Nigerian challenges: health literacy, social deference, family norms; teach-back as verification. Confidentiality: protects clinical relationship trust; overridden by consent, legal duty, or imminent threat to life; HIV partner notification as structured process. Truth-telling: patient right to accurate information; therapeutic privilege rejected; disclosure adapted to patient pace and comprehension, not withheld. Professionalism: competence, honesty, compassion, accountability, patient welfare above self-interest; threatened in Nigeria by informal payments, favouritism, dual practice, inadequate resources; individual integrity and institutional culture both needed. End-of-life: killing versus allowing to die distinction; double effect permits symptom management even when death is hastened as unintended consequence; palliative care limited in Nigeria. Resource allocation: utilitarian, egalitarian, needs-based, fair innings principles; current Nigerian de facto allocation by social status is unjust; explicit criteria needed.

Answers to Pilot Questions [Series 2]

Part 2.1

1. Autonomy: the right of patients to make informed decisions about their own healthcare, including refusal. Beneficence: the obligation to act in the patient best interest. Non-maleficence: the obligation to avoid causing harm. Justice: the requirement to distribute the benefits and burdens of healthcare fairly.
2. Prima facie means that each principle carries genuine moral weight and creates a real obligation, but none is absolute; when principles conflict, each must be considered and a judgment made about which carries greater weight in the specific circumstances. For example, respecting patient autonomy is a genuine obligation, but it does not automatically override beneficence in every case.
3. Capacity: the patient must be able to understand the information, weigh the options, and communicate a decision. Voluntariness: consent must be free from coercion or undue pressure. Adequate information: the patient must receive enough information about the procedure, its benefits, its risks, and its alternatives to make a meaningful decision.
4. The teach-back method asks the patient to explain in their own words what they have understood about their diagnosis or treatment plan, rather than simply asking whether they understood. It matters in the Nigerian context because patients with limited health literacy may nod agreement without comprehension, and social deference may prevent them from saying they did not understand; teach-back detects this by requiring active demonstration of understanding.
5. Example: a patient refuses a blood transfusion that the clinician believes is life-saving. Autonomy supports the patient right to refuse; beneficence supports providing the transfusion. The approach is to ensure the consent is fully informed and that the patient has decision-making capacity; explore and address any misconceptions; respect the final decision of a competent adult even if you disagree; document the discussion thoroughly.

Part 2.2

1. Confidentiality is the foundation of patient trust in the clinical relationship. Patients disclose sensitive information about their bodies, behaviours, and personal lives because they trust it will not be shared without their consent. If that trust is broken, patients withhold information in future consultations, diagnostic accuracy suffers, and effective treatment becomes harder to deliver.
2. Confidentiality can be legitimately overridden when: (1) the patient gives consent to disclosure to specified others; (2) disclosure is required by law, such as notification of a notifiable communicable disease or compliance with a court order; (3) there is a serious, credible, and otherwise unpreventable threat to the life of the patient or an identifiable third party, in which case the minimum necessary information should be disclosed.
3. First, counsel the patient thoroughly on the medical, ethical, and personal reasons for disclosure and the availability of partner notification services. Second, explore the specific barriers to disclosure, whether fear, stigma, relationship concerns, or other factors, and address them where possible. Third, if counselling fails over a reasonable period and the risk to the partner remains serious, explain to the patient that you may be obliged to disclose the minimum necessary information to protect the partner life. Only proceed with disclosure without consent as a last resort after exhausting all other options, and document the process carefully.
4. Therapeutic privilege is the practice of withholding distressing information from a patient on the grounds that disclosure would cause more harm than good. It is ethically problematic because it substitutes the clinician assessment for the patient right to make decisions about their own life and healthcare, treating the patient as incapable of handling truth about their own situation. In practice it often deprives patients of information they need to make meaningful choices about how to spend their remaining time.
5. The approach should be guided by the patient preferences, not by a uniform method. First, explore how much information the patient wants to receive; some patients want to know everything, others prefer to have family receive the information first. Second, involve family members with the patient explicit consent. Third, deliver difficult information in plain language at a pace the patient can absorb, with frequent pauses. Fourth, acknowledge the emotional response before moving to management. Fifth, avoid abandoning the patient after disclosure; discuss next steps and ensure support is in place.

Part 2.3

1. Medical professionalism is the set of values, behaviours, and commitments that justify the trust patients place in physicians. Core components are: clinical competence, honesty and integrity, compassion, accountability, and the subordination of self-interest to patient welfare.
2. Individual level: each clinician is accountable to their patients for the quality of care delivered and to the Medical and Dental Council of Nigeria for meeting professional standards. Institutional level: hospitals are accountable to regulators, communities, and the state for safe and effective care and responsible use of resources. System level: the health system as a whole is accountable to the Nigerian population for equitable and effective delivery of health services.
3. Integrity means acting consistently with stated values and doing the right thing regardless of whether anyone is watching. In Nigerian healthcare it is particularly demanding because systemic pressures toward informal payments, absenteeism, and corner-cutting are real and pervasive; the clinician who maintains integrity resists pressures that colleagues may have normalised, and often does so without institutional support or reward.
4. Two specific threats: informal payments, where patients are expected to pay beyond official fees for expedited or attentive care, creating inequitable access and corroding the principle that care should be based on need rather than ability to pay; and dual practice absenteeism, where clinicians maintain salaried government positions while conducting private practice elsewhere during contracted hours, leaving government facilities underserved.
5. An individual clinician can: refuse to accept or demand informal payments; attend their contracted clinical hours fully; treat all patients with the same standard of care regardless of their social status or connections; report unsafe practice through appropriate channels rather than tolerating it out of loyalty; and advocate through the Nigerian Medical Association and civil society for the systemic changes that would make professionalism easier to sustain.

Part 2.4

1. Killing means actively taking a step that causes the patient death, such as administering a lethal injection. Allowing to die means withdrawing or withholding treatment that is no longer benefiting the patient and allowing the underlying disease to progress to death. Most ethical frameworks and legal systems, including Nigerian law, permit allowing to die when further treatment offers no realistic benefit and the patient or their representative has agreed, but prohibit active killing. The distinction rests on the moral and legal significance of the clinician as the direct cause of death versus the disease as the cause.
2. The principle of double effect holds that an action with both a good and a harmful effect may be permissible if the good effect is the one intended, the harm is foreseen but not intended, and the good effect is proportionate to the harm. Clinical example: a patient with terminal cancer has severe pain that requires high-dose opioid analgesia. The intended effect is relief of pain; the foreseen but unintended risk is that respiratory depression from the opioid may hasten death. The principle permits this because adequate symptom control is the goal, death is a possible side effect rather than the means to relief, and the patient quality of life in their remaining time is served by adequate pain control.
3. Research ethics governing human subjects is based on three core principles: respect for persons, requiring that participants give genuinely voluntary and informed consent and that vulnerable populations receive additional protection; beneficence, requiring that the research design maximises benefit and minimises risk to participants; and justice, requiring that the burdens of research are not systematically borne by disadvantaged populations while the benefits accrue to others. These principles are operationalised through institutional ethics review, the requirement for informed consent documents in accessible language, independent monitoring of ongoing trials, and the obligation to report adverse events.
4. Utilitarian allocation maximises total benefit by prioritising patients most likely to survive and benefit. Egalitarian allocation treats all persons as equal claimants using first-come-first-served or lottery principles. Needs-based allocation prioritises those

with the greatest clinical need. Fair innings allocation gives priority to younger patients who have had less life. The ethical concern in Nigeria is that allocation is currently determined not by any of these explicit principles but by social status and ability to pay, which is a direct violation of justice; patients with money and connections receive better care than those without, regardless of clinical need.

5. Within their own practice, a clinician can: triage patients by clinical urgency rather than by social status or financial capacity; give equivalent time and clinical thoroughness to all patients regardless of who they are; decline to accelerate care for patients who offer informal payment while others with equal or greater need wait; and document allocation decisions transparently so they are subject to review. These individual acts do not fix systemic inequity but they reduce its impact on the patients the clinician directly serves.

References and Attribution

Textual References (Books and External Sources)

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Figures, Plates, Tables, and Boxes

- Figure 2.1: The four principles and the informed consent process Attribution: AI generated. Suggested OER search string: "four principles biomedical ethics autonomy beneficence non-maleficence justice informed consent Nigeria clinical ethics OER".
- Figure 2.2: Confidentiality and truth-telling in Nigerian clinical practice Attribution: AI generated. Suggested OER search string: "medical confidentiality limits truth-telling disclosure HIV Nigeria clinical ethics informed consent OER".
- Figure 2.3: Professionalism: components, culture, and Nigerian context Attribution: AI generated. Suggested OER search string: "medical professionalism accountability integrity Nigeria healthcare challenges informal payments clinical ethics OER".
- Figure 2.4: Ethical challenges at the boundaries of practice Attribution: AI generated. Suggested OER search string: "end of life ethics withholding treatment double effect research ethics Nuremberg resource allocation justice Nigeria OER".

Series 3: Communication and Interdisciplinary Healthcare

- **Part 3.1: Clinical Communication Skills**

- Sub Part 3.1.1: Communication as a clinical skill
- Sub Part 3.1.2: Verbal and non-verbal communication
- Sub Part 3.1.3: The medical interview

- **Part 3.2: Difficult Communications**

- Sub Part 3.2.1: Breaking bad news
- Sub Part 3.2.2: Communication with special populations
- Sub Part 3.2.3: Language and cultural barriers in Nigerian practice

- **Part 3.3: Interdisciplinary Healthcare Delivery**

- Sub Part 3.3.1: The nature of interdisciplinary care
- Sub Part 3.3.2: Roles of healthcare specialists
- Sub Part 3.3.3: Human resources for health in Nigeria

- **Part 3.4: Clinical Teamwork and Leadership**

- Sub Part 3.4.1: Effective teamwork and psychological safety
- Sub Part 3.4.2: Leadership in healthcare
- Sub Part 3.4.3: Healthcare delivery challenges in Nigeria

Introduction

Communication is the most frequently performed clinical act. Before a clinician examines, prescribes, or refers, they must first understand — and that understanding comes almost entirely from conversation. Research consistently shows that most diagnostic information comes from a well-conducted history, not from examination or investigation. Yet communication is routinely treated as secondary to the technical aspects of medicine, when in practice it is the instrument through which technical knowledge is delivered to patients.

This Series examines clinical communication across its full range, from the everyday medical interview through the most demanding conversations about serious diagnoses and cultural differences, to the interdisciplinary team structures through which modern healthcare is actually delivered. It addresses the roles of different healthcare professionals, the human resource realities of Nigerian healthcare, and the teamwork and leadership qualities that allow diverse professionals to work together in the service of a common patient.

Series Learning Outcomes

Upon completing this Series, you should be able to:

- **SLO 3.1** explain why communication is a core clinical skill, describe the verbal and non-verbal elements of clinical communication, and describe the structure of a complete medical interview,
- **SLO 3.2** explain how to break bad news using a structured protocol, describe communication strategies for special populations, and explain approaches to language and cultural barriers in Nigerian practice,
- **SLO 3.3** explain the interdisciplinary nature of modern healthcare, describe the roles of major healthcare specialist groups, and describe the human resource challenges facing Nigerian healthcare, and

- **SLO 3.4** explain the principles of effective clinical teamwork including psychological safety, describe key leadership qualities in healthcare, and identify the main challenges to healthcare delivery in Nigeria.

3.1 Clinical Communication Skills

3.1.1 Communication as a clinical skill

Communication is the most important clinical skill a practitioner possesses because it is the mechanism through which all other skills are applied. Studies show that the majority of diagnostic information comes from the patient history rather than from examination or investigation, and that when patients are allowed to complete their opening statement without interruption, most finish within two minutes. Yet clinicians interrupt patients on average within twenty seconds, often losing the most diagnostically relevant information. Poor communication is also the most common cause of patient complaints, medication errors, and medico-legal action. Conversely, patients who feel genuinely heard are more likely to disclose sensitive information, understand and remember what they are told, adhere to treatment, and report better outcomes.

Good communication has **direct therapeutic effects** that operate independently of the specific treatment provided. The quality of the clinical relationship, the patient experience of being understood and respected, reduces anxiety, improves adherence, and promotes recovery through mechanisms that are biologically measurable. This means that investing time in communication is not a nicety to be sacrificed when clinics are busy; it is a clinical intervention whose omission has real costs for patient outcomes.

Fill in the blank: Research shows that clinicians interrupt patients on average within _____ seconds, often losing important diagnostic information that patients would have volunteered had they been allowed to speak without interruption.

3.1.2 Verbal and non-verbal communication

Verbal communication in clinical encounters involves far more than the words chosen. **Tone of voice, pace, and vocabulary** all shape how a patient experiences being spoken to. Using **plain language** rather than medical jargon is one of the most important verbal adjustments a clinician can make; a patient who understands their diagnosis is far more likely to engage meaningfully with the decisions that follow. **Open questions** ("What has brought you in today?") invite patients to describe their experience in their own terms and yield rich, unpredictable clinical information. **Closed questions** ("Is the pain sharp or dull?") clarify specific details once the broad picture has emerged. The skilled interviewer moves between both types as the consultation develops.

Non-verbal communication often conveys more than words. **Eye contact** signals engagement and respect. Sitting rather than standing signals that the clinician has time. An **open posture** — leaning slightly forward, arms uncrossed, nodding — communicates attentiveness. In the Nigerian clinical context, where waiting rooms are crowded and consultation time short, these non-verbal signals carry particular weight because they communicate care in moments when extended verbal explanation is impossible. Clinicians should also recognise that non-verbal norms vary across Nigerian cultural groups: appropriate levels of eye contact, physical distance, and the meaning of silence differ and must be read with cultural awareness.

Fill in the blank: _____ questions invite patients to describe their experience in their own words and yield rich clinical information, while closed questions clarify specific details once the broad picture is established.

3.1.3 The medical interview

The **medical interview** is a structured conversation designed to gather the information needed for diagnosis and management. It begins with an **open question** that allows the patient to frame the problem in their own words. The clinician then listens carefully — noting what is said and what is not — before moving to systematic **history-taking**. A complete history includes the **presenting complaint** and its history; the **past medical history**; current **medications and allergies**; **family history** of relevant conditions; and the **social history**, covering occupation,

living situation, substance use, and recent travel. Each component contributes clinical information that shapes the differential diagnosis and management plan.

The interview ends with **summarising** and **checking understanding** — the clinician recaps what they have heard, invites correction, and confirms that the patient knows what happens next. This closing step is frequently omitted under time pressure, yet it is where errors of misunderstanding are most likely to surface. In the Nigerian context, specific adaptations are needed: plain language and frequent comprehension checks for patients with limited health literacy; deliberate openness and explicit invitation to ask questions for patients who are deferential to authority; and culturally sensitive enquiry for information that may carry social stigma, such as sexual history, substance use, and traditional remedy use.

Fill in the blank: A complete medical history includes the presenting complaint, past medical history, medications and allergies, family history, and _____ history, which covers occupation, living situation, substance use, and recent travel.

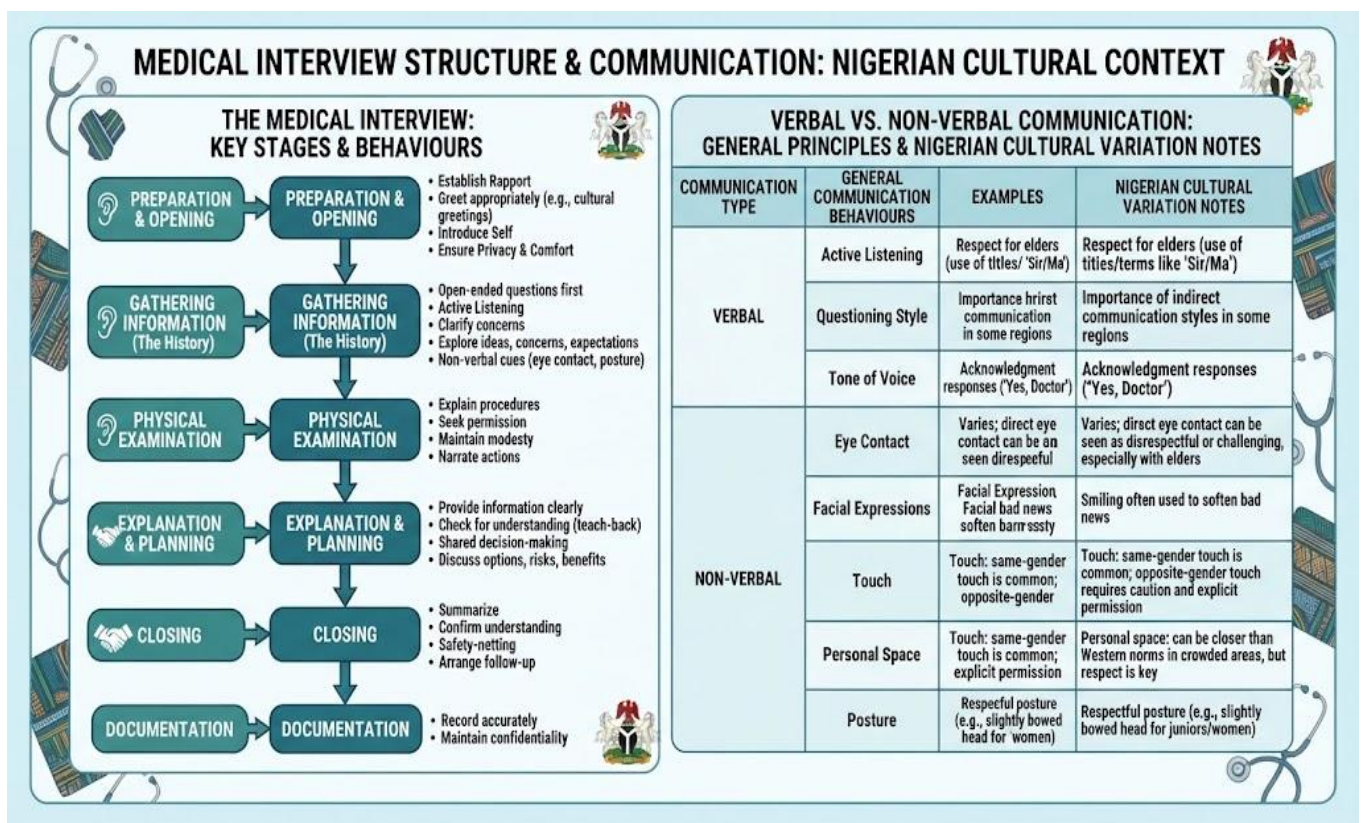


Figure 3.1: The medical interview and communication model

Pilot questions 3.1

1. Explain why communication should be regarded as a core clinical skill.
2. Distinguish between open and closed questions and explain when each is used in a clinical interview.
3. Describe four non-verbal behaviours that communicate attentiveness and respect.
4. List the components of a complete medical history.
5. Explain how the social history contributes to clinical diagnosis and give a Nigerian example.

3.2 Difficult Communications

3.2.1 Breaking bad news

Delivering bad news is one of the most demanding communication tasks in medicine. How a serious diagnosis is disclosed shapes how patients respond to their illness for months or years.

The **SPIKES protocol** provides a structured framework: **S**etting (arrange a private, comfortable space), **P**erception (ask what the patient already knows), **I**nvitation (check how much detail the patient wants), **K**nowledge (deliver information in plain language with pauses), **E**motions (acknowledge and respond to the emotional reaction before moving on), and **S**trategy (agree on next steps). Each step matters: skipping directly from news delivery to management without the Emotions step leaves patients unable to process what follows.

In the Nigerian clinical context, **family presence** during bad news delivery is often expected and appropriate; the clinician should ask at the outset who the patient wishes to have present.

Cultural beliefs in some communities hold that naming a fatal diagnosis brings it closer to realisation, which may make patients or families reluctant to hear explicit information. The response to this is not to withhold information but to **explore preferences** carefully and to adapt the pace and framing of disclosure to what the patient is able and willing to receive at each stage of the encounter.

Fill in the blank: The SPIKES protocol stands for Setting, Perception, Invitation, Knowledge, _____, and Strategy; the Emotions step is critical because it allows the patient to absorb distressing news before clinical management is discussed.

3.2.2 Communication with special populations

Different patient groups require specific adaptations to standard communication approaches.

Children should be communicated with at a level appropriate to their developmental stage; a toddler requires simple concrete language and parental reassurance, a school-age child can handle causal explanations, and an adolescent should be engaged as a developing autonomous person with their own privacy entitlements. **Elderly patients** with early cognitive decline need shorter sentences, slower speech, frequent comprehension checks, and written summaries to reinforce what is discussed verbally. **Patients with hearing impairment** benefit from clear facial visibility, written information, and interpreters where available.

Patients with mental illness presenting with physical complaints deserve the same rigour of clinical assessment as any other patient; the tendency to attribute all symptoms to a psychiatric diagnosis without adequate investigation represents a failure of clinical duty. **Patients with intellectual disability** require adapted consultation formats and involvement of a trusted carer, with continued effort to elicit the patient own views and preferences. In all these cases the fundamental principle is the same: the clinician adapts their communication to the patient, not the other way around.

Fill in the blank: The fundamental principle of communicating with special populations is that the _____ must adapt their communication approach to the patient, rather than expecting the patient to conform to a standard consultation format.

3.2.3 Language and cultural barriers in Nigerian practice

With over 500 languages across Nigeria, **language barriers** are a routine feature of clinical practice rather than an occasional exception. Even when both clinician and patient share a common language such as English or Hausa, vocabulary and idiom for describing bodily symptoms and illness experience may diverge significantly between the healthcare system and

the patient cultural world. A patient describing a sensation of "something moving under the skin" may be reporting a genuine somatic symptom, a culturally specific illness idiom, or a delusion; accurate clinical interpretation requires linguistic and cultural competence, not just translation.

When a professional interpreter is unavailable, clinicians should use **plain everyday vocabulary, diagrams**, body pointing, and pictorial aids. Family members serving as informal interpreters may filter or soften information, particularly around sensitive diagnoses, which means important clinical information should be confirmed through independent means where possible. The broader skill required here is **cultural competence**: the ability to understand, respect, and work effectively with patients whose cultural explanatory models and healing practices differ from those of biomedical medicine. In Nigeria this is not optional; it is a fundamental requirement of clinical practice given the country enormous diversity.

Fill in the blank: **Cultural competence** is the ability to understand, respect, and work effectively with patients whose cultural explanatory models and healing practices differ from those of _____ medicine.

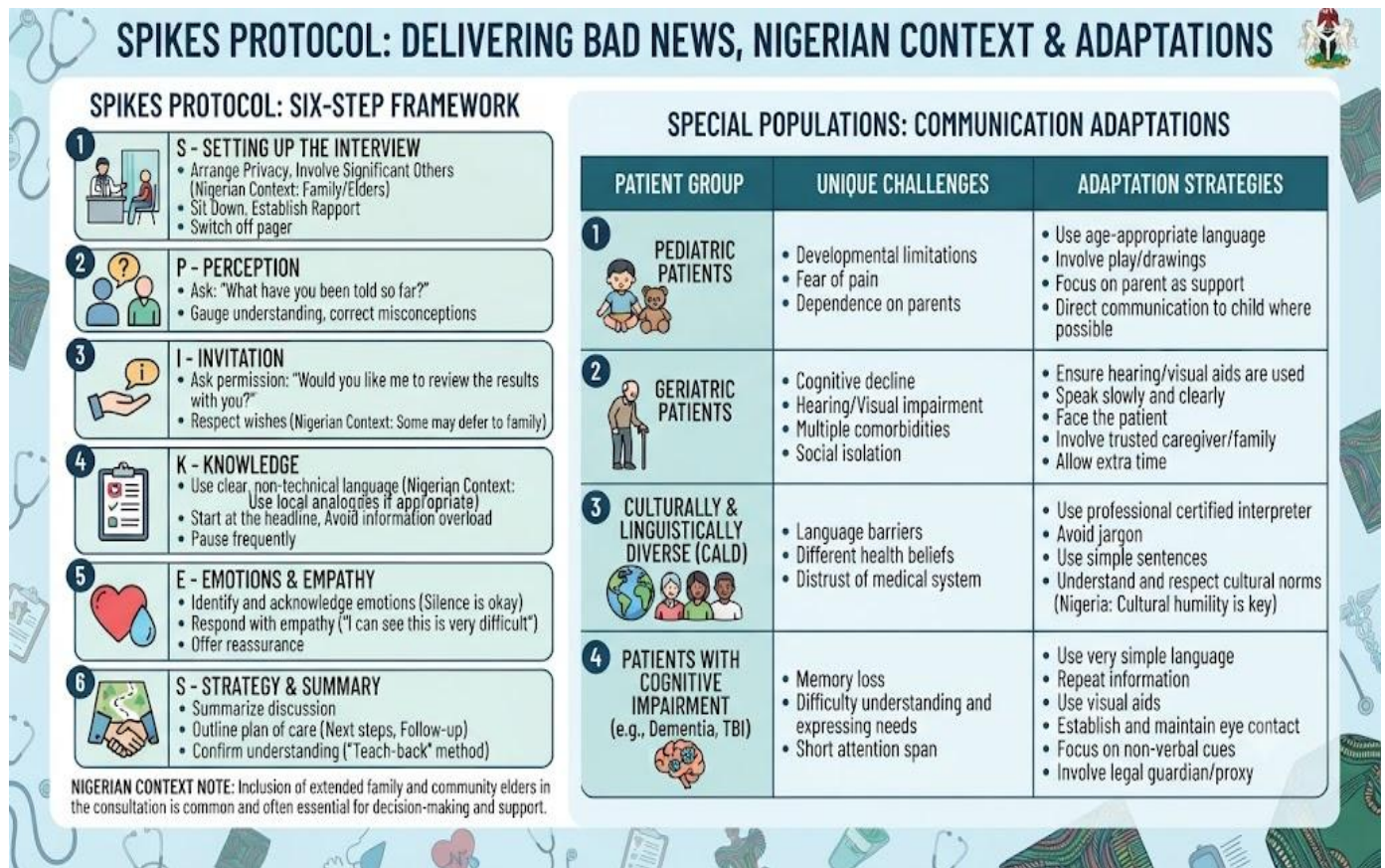


Figure 3.2: Difficult communications and cultural competence

Pilot questions 3.2

1. Describe the six steps of the SPIKES protocol and explain why the Emotions step is particularly important.
2. Explain how you would adapt your communication when consulting an elderly patient with early dementia.
3. What is cultural competence and why is it essential for clinical practice in Nigeria?
4. Describe two strategies a clinician can use when a professional interpreter is not available.
5. Explain the risk of using a family member as an informal interpreter for a sensitive disclosure.

3.3 Interdisciplinary Healthcare Delivery

3.3.1 The nature of interdisciplinary care

Modern healthcare cannot be delivered by any single clinician working in isolation. A patient admitted with a stroke requires a physician for diagnosis and medical management, a nurse for continuous monitoring and basic care, a physiotherapist for rehabilitation, a speech therapist for swallowing and communication assessment, a pharmacist for medication reconciliation, and a social worker for discharge planning. The quality of the patient outcome depends as much on how these professionals coordinate as on the technical skill each brings individually.

Interdisciplinary care is the model that achieves this integration; it differs from **multidisciplinary care** in that team members actively share a common care plan and adjust their individual contributions in response to what others are doing, rather than each managing their own domain in parallel without active coordination.

The evidence consistently shows that **interdisciplinary teams** produce better outcomes for complex patients than either solo practitioners or parallel multidisciplinary working: reduced errors, shorter hospital stays, improved patient experience, and better adherence to evidence-based practice. Achieving genuine interdisciplinary care requires shared goals, clear role definition, reliable communication between professionals, mutual respect across professional hierarchies, and a culture in which every team member feels safe to contribute their perspective. These conditions require deliberate effort to create and maintain.

Fill in the blank: _____ care differs from multidisciplinary care in that team members actively share a common care plan and adjust their contributions in response to each other, rather than each managing their domain in parallel without active coordination.

3.3.2 Roles of healthcare specialists

Understanding the roles of different healthcare professionals is the foundation of effective interdisciplinary collaboration. The **physician** is responsible for diagnosis, prescribing, and overall medical management. The **nurse** provides continuous patient care, monitors for deterioration, administers medications, and maintains the safety of the clinical environment. The

pharmacist reviews prescriptions for accuracy and interactions, counsels patients on medication use, and manages the pharmacy supply chain. The **medical laboratory scientist** performs diagnostic tests on clinical specimens and communicates results that guide clinical decisions.

The **physiotherapist** manages mobility, strength, respiratory function, and rehabilitation after illness or injury. The **radiographer** performs and assists in interpreting diagnostic imaging. The **community health extension worker (CHEW)** is the frontline primary care provider in communities beyond the reach of hospital-based services, delivering immunisation, health education, antenatal care, and first-line treatment. The **social worker** addresses the social determinants affecting patient health and coordinates discharge and community support. The **nutritionist or dietitian** provides nutritional assessment and therapy. No single professional can provide all these forms of expertise; recognising this is the foundation of effective interdisciplinary working.

Fill in the blank: The _____ (CHEW) is the frontline primary care provider in communities beyond the reach of hospital services, delivering immunisation, health education, and first-line treatment.

3.3.3 Human resources for health in Nigeria

Nigeria faces a severe **healthcare workforce crisis**. The WHO recommends a minimum density of 23 skilled health workers per 10,000 population for adequate essential service coverage; Nigeria falls significantly below this benchmark in most states, particularly in the north. The crisis has three interacting dimensions: insufficient production of health professionals relative to population need; **brain drain** — the emigration of trained professionals to higher-income countries — which disproportionately affects specialist cadres; and **maldistribution**, in which available workers are concentrated in urban centres and in the south, leaving rural communities severely underserved.

The consequences are felt in every aspect of care: long waiting times, inadequate supervision of junior staff, impossible nurse-to-patient ratios, and absence of specialist expertise in settings where it is urgently needed. Addressing the crisis requires simultaneous action on production (expanding training capacity), retention (competitive salaries, better working conditions, career

development), and distribution (deployment incentives for underserved areas). The **CHEW cadre** represents a partial but important response at the community level, providing trained health workers in settings where higher-cadre professionals are unavailable and unlikely to be recruited in the near future.

Fill in the blank: The WHO recommends a minimum density of _____ skilled health workers per 10,000 population for adequate essential service coverage; Nigeria falls significantly below this benchmark in most states.

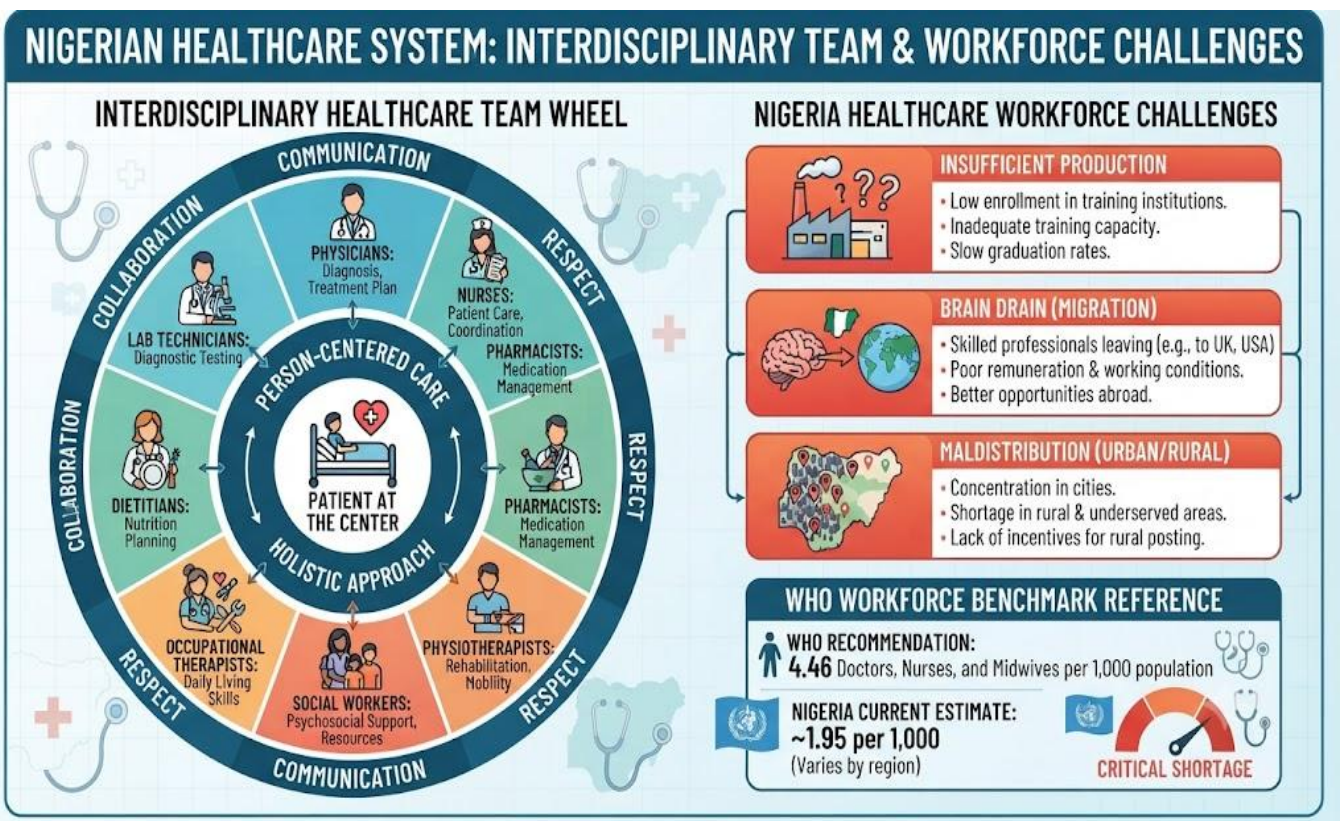


Figure 3.3: Interdisciplinary care and Nigeria workforce landscape

Pilot questions 3.3

1. Explain the difference between multidisciplinary and interdisciplinary care and state why the distinction matters for patient outcomes.
2. Describe the roles of the nurse, pharmacist, and CHEW in the healthcare team.
3. Explain the three dimensions of Nigeria healthcare workforce crisis.

4. Why does brain drain disproportionately affect specialist cadres?
5. Describe the role of the CHEW in addressing healthcare access in underserved Nigerian communities.

3.4 Clinical Teamwork and Leadership

3.4.1 Effective teamwork and psychological safety

Effective clinical teamwork requires more than simply assigning a group of professionals to the same patient. The conditions for effective teamwork are **shared goals, clear role definition, reliable communication, mutual respect** across professional hierarchies, and **psychological safety**. Psychological safety is the shared belief that team members can speak up, raise concerns, ask questions, or admit mistakes without fear of punishment or humiliation. It is one of the strongest predictors of team performance and patient safety, and it is frequently absent in the lower-ranked members of hierarchical healthcare teams.

In Nigerian hospital settings, hierarchical structures can suppress junior staff from raising legitimate safety concerns. A student who notices something alarming may feel unable to tell the consultant; a nurse who suspects a prescription error may not feel empowered to question it. These silences are not discourteous; they are dangerous. Building **psychological safety** requires deliberate action from senior team members: explicitly inviting contributions from junior staff, responding non-defensively to concerns raised, and treating the reporting of errors as a learning opportunity rather than a disciplinary event. The absence of psychological safety is not a personal failing of junior staff; it is a systemic feature that senior clinicians have the power and the responsibility to change.

Fill in the blank: **Psychological safety** is the shared belief that team members can speak up, raise concerns, or admit mistakes without fear of _____ or humiliation; it is one of the strongest predictors of team performance and patient safety.

3.4.2 Leadership in healthcare

Healthcare leadership is not synonymous with seniority. **Distributed leadership** recognises that leadership is exercised by whoever is best placed to move a situation forward at a given moment, regardless of formal rank. The ward nurse who coordinates a deteriorating patient before the doctor arrives, the house officer who ensures results are followed up, and the CHEW who mobilises a community during a disease outbreak are all exercising leadership in ways that directly affect patient outcomes. What they share is initiative, responsibility, and the willingness to act on the knowledge they have rather than waiting for someone senior to act first.

Good healthcare leaders share several qualities: they communicate clearly and listen genuinely; they take responsibility without deflecting blame onto others; they create environments where team members feel valued and supported; they make decisions under uncertainty without paralysis while remaining open to revision; and they **develop the people around them** through mentoring and constructive feedback. These qualities are learned through practice, reflection, and deliberate self-development. Medical education should make leadership formation as explicit a goal as clinical skill development, because the clinician who cannot lead a team effectively will not be able to deliver the coordinated care that complex patients require.

Fill in the blank: _____ leadership recognises that leadership in healthcare is exercised by whoever is best placed to move a situation forward at a given moment, regardless of formal rank or positional seniority.

3.4.3 Healthcare delivery challenges in Nigeria

Healthcare delivery in Nigeria faces a cluster of overlapping structural challenges.

Infrastructure is inadequate across most of the system: unreliable electricity, poor water supply, non-functional diagnostic equipment, and intermittent medication availability reduce clinical effectiveness even when skilled personnel are present. **Out-of-pocket financing** remains the dominant mode of payment, meaning that access to care is determined primarily by ability to pay rather than clinical need, producing systematic inequity. The **National Health Insurance Scheme** covers only a small fraction of the population, leaving the majority unprotected against catastrophic health expenditure.

Governance failures compound these structural problems. **Absenteeism** — particularly when clinicians maintain government positions while conducting private practice during contracted hours — leaves facilities nominally staffed but effectively understaffed. **Corruption in procurement** diverts medicines and supplies away from the patients they were intended for. And the fragmentation of health authority between federal, state, and local government creates accountability gaps that allow poor performance to persist without consequence. Individual clinicians cannot solve these systemic problems alone, but they can refuse to be part of them and can use the channels available to them — professional associations, community engagement, and public advocacy — to press for the changes that patient welfare requires.

Fill in the blank: _____ financing remains the dominant payment mode in Nigeria, meaning access to healthcare is determined primarily by ability to pay rather than clinical need, producing systematic inequity in health outcomes.

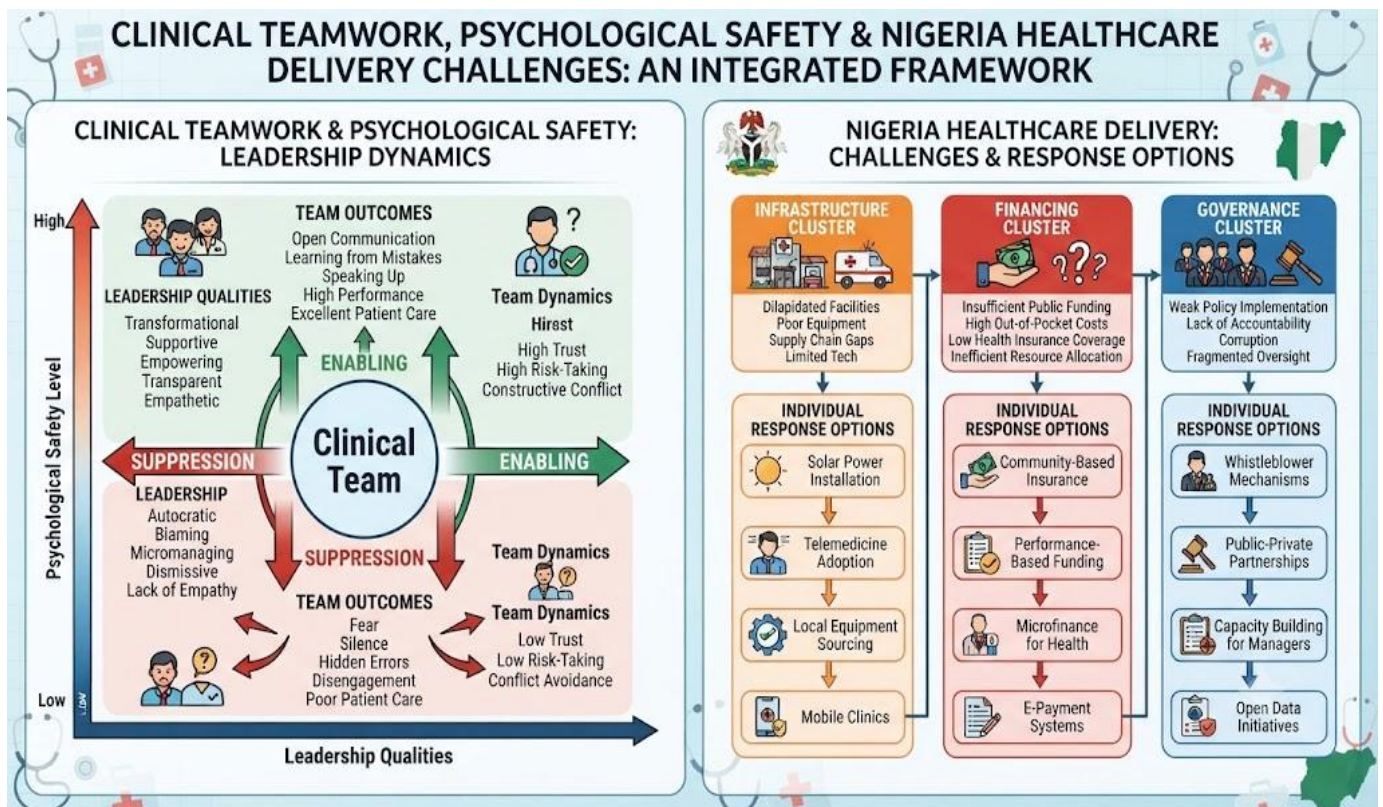


Figure 3.4: Clinical teamwork, leadership, and healthcare delivery challenges in Nigeria

Pilot questions 3.4

1. Define psychological safety and explain why it matters for patient safety in hierarchical clinical settings.
2. Explain distributed leadership and give two examples from the Nigerian healthcare context.
3. Describe three qualities of effective healthcare leaders.
4. Describe three structural challenges to healthcare delivery in Nigeria.
5. What practical steps can an individual clinician take within a dysfunctional healthcare system to maintain standards and advocate for improvement?

Series Summary

This Series examined communication and interdisciplinary healthcare as two sides of the same clinical competence. Effective communication was established as a core clinical skill whose omission carries measurable costs for diagnosis, adherence, and outcomes. The medical interview was described as a structured process from open question through systematic history to summary and comprehension check. The most demanding communication tasks — breaking bad news, consulting special populations, and navigating language and cultural barriers — were addressed with practical frameworks, particularly SPIKES for bad news delivery and cultural competence as a fundamental clinical orientation in the Nigerian context.

Interdisciplinary healthcare delivery was shown to require active integration of professional contributions around a shared care plan, not merely the parallel presence of multiple specialists. The roles of different healthcare professionals were surveyed, and the severe human resource challenges facing Nigeria — insufficient production, brain drain, and maldistribution — were described alongside the CHEW cadre as a community-level response. The Series concluded with clinical teamwork and leadership: psychological safety as the enabling condition for safe teams; distributed leadership as the model that fits healthcare realities; and the specific infrastructure, financing, and governance challenges that frame every clinical encounter in Nigeria.

Glossary of Terms

- **Brain drain:** the emigration of trained health professionals to higher-income countries, disproportionately depleting specialist cadres.
- **CHEW (Community Health Extension Worker):** the frontline primary care provider in communities beyond hospital reach, delivering immunisation, health education, and first-line treatment.
- **Cultural competence:** the ability to understand, respect, and work effectively with patients whose cultural explanatory models and healing practices differ from those of biomedical medicine.

- **Distributed leadership:** the principle that leadership in healthcare is exercised by whoever is best placed to move a situation forward, regardless of formal rank.
- **Interdisciplinary care:** coordinated team-based care in which members from different professions actively share a common care plan and adjust their contributions in response to each other.
- **Maldistribution:** the concentration of health workers in urban and southern areas while rural and northern communities remain severely underserved.
- **Multidisciplinary care:** a model where multiple professions contribute to patient care but manage their own domains in parallel without active integration around a shared plan.
- **Open question:** a question that invites the patient to respond in their own words without a predetermined framework, yielding rich clinical information.
- **Psychological safety:** the shared belief that team members can speak up, raise concerns, or admit mistakes without fear of punishment or humiliation.
- **SPIKES protocol:** a six-step framework for breaking bad news: Setting, Perception, Invitation, Knowledge, Emotions, Strategy.

Concept Check Questions [Series 3]

Objective Questions

1. Research shows that clinicians interrupt patients on average within _____ seconds, often losing important diagnostic information. (Linked to SLO 3.1)
2. _____ questions invite patients to describe their experience in their own words, while closed questions clarify specific details. (Linked to SLO 3.1)
3. The SPIKES protocol stands for Setting, Perception, Invitation, Knowledge, _____ , and Strategy. (Linked to SLO 3.2)
4. _____ competence is the ability to understand, respect, and work effectively with patients whose cultural models differ from those of biomedical medicine. (Linked to SLO 3.2)
5. _____ care actively integrates contributions around a shared care plan, while multidisciplinary care involves parallel working without integration. (Linked to SLO 3.3)
6. _____ safety is the shared belief that team members can speak up or admit mistakes without fear of punishment or humiliation. (Linked to SLO 3.4)
7. _____ leadership recognises that healthcare leadership is exercised by whoever is best placed to act, regardless of formal rank. (Linked to SLO 3.4)

Short-Answer Questions

8. Explain the structure of a complete medical history and describe two adaptations needed for the Nigerian clinical context. (Linked to SLO 3.1)
9. Describe the SPIKES protocol and explain why the Emotions step must precede discussion of the management Strategy. (Linked to SLO 3.2)
10. Explain the three dimensions of Nigeria healthcare workforce crisis and describe the role of the CHEW in addressing it. (Linked to SLO 3.3)

Long-Answer Questions

11. Discuss clinical communication as a core competency in Nigerian medical practice, covering the medical interview, difficult communications, and the management of language and cultural barriers. (Linked to SLOs 3.1, 3.2)
12. Discuss interdisciplinary healthcare delivery in Nigeria, covering team roles, human resource challenges, teamwork principles, and the structural barriers to effective care. (Linked to SLOs 3.3, 3.4)

Answers to Concept Check Questions [Series 3]

Objective Questions

1. Twenty.
2. Open.
3. Emotions.
4. Cultural.
5. Interdisciplinary.
6. Psychological.
7. Distributed.

Short-Answer Questions

8. A complete medical history includes: presenting complaint and its history (onset, character, severity, associated symptoms), past medical history, medications and allergies, family history, and social history (occupation, housing, substance use, recent travel). Two Nigerian adaptations: use plain language and frequent comprehension checks for patients with limited health literacy; explicitly invite questions and reassure that there are no wrong answers for patients who are deferential to authority and unlikely to volunteer information or express disagreement without encouragement.
9. SPIKES: Setting (private, comfortable space), Perception (ask what patient already knows), Invitation (check how much detail wanted), Knowledge (plain language, short sentences, pause), Emotions (acknowledge and respond to emotional reaction), Strategy (agree next steps). The Emotions step must precede Strategy because when a patient receives devastating news, their immediate response is emotional rather than cognitive; they are not in a state to process management options. Acknowledging and validating the emotional response first allows the patient to absorb the news before being asked to engage with what comes next.
10. Three dimensions: insufficient production (not enough training institutions relative to population need), brain drain (trained professionals emigrate, particularly specialists), maldistribution (workers concentrated in urban south; rural north severely underserved).

CHEW role: deployed to communities beyond hospital reach; delivers immunisation, health education, antenatal care, first-line treatment of common conditions, and referral of cases requiring higher-level care; represents the most practical mechanism for extending basic healthcare coverage to populations that cannot attract higher-cadre professionals.

Long-Answer Questions

11. Communication as clinical skill: most diagnostic information from history; interruption within 20 seconds loses critical information; poor communication drives complaints, errors, medico-legal action. Medical interview: open question, active listening, systematic history (presenting complaint, past medical, medications, allergies, family, social), summary and comprehension check; Nigerian adaptations: plain language, explicit invitation to question, culturally sensitive social history. Verbal: tone, pace, vocabulary, open versus closed questions, plain language. Non-verbal: eye contact, posture, sitting, nodding; cultural variation in norms. Breaking bad news: SPIKES (Setting, Perception, Invitation, Knowledge, Emotions, Strategy); Emotions step before Strategy; Nigerian family presence expectation; avoid withholding but adapt pace and framing to patient preferences. Language and cultural barriers: 500+ languages, illness idiom diverges from medical vocabulary; strategies when interpreter unavailable: plain language, diagrams, body pointing, pictorial aids, independent confirmation of critical information; cultural competence as fundamental clinical orientation.
12. Interdisciplinary versus multidisciplinary: active shared care plan versus parallel domain management; better outcomes for complex patients. Team roles: physician (diagnosis, prescribing), nurse (continuous care, monitoring), pharmacist (prescription review, counselling), medical laboratory scientist (diagnostic testing), physiotherapist (mobility, rehabilitation), radiographer (imaging), CHEW (frontline community care), social worker (discharge planning), nutritionist (nutritional assessment). Workforce crisis: insufficient production, brain drain (specialist cadres most affected), maldistribution (urban and southern concentration); WHO benchmark 23 per 10,000 not met in most states; CHEW

as community-level partial response. Effective teamwork: shared goals, clear roles, reliable communication, mutual respect, psychological safety; absence of safety suppresses junior staff and creates patient safety risk; senior clinicians must model safety-enabling behaviour. Distributed leadership: best placed person acts regardless of rank; qualities: clear communication, responsibility without blame, supportive environment, decisive under uncertainty, mentoring. Nigeria delivery challenges: infrastructure (electricity, water, equipment, medication), out-of-pocket financing (access by ability to pay, NHIS limited), governance (absenteeism, procurement corruption, accountability gaps); individual response: refuse corruption, maintain hours, report unsafe practice, advocate through professional and civic channels.

Answers to Pilot Questions [Series 3]

Part 3.1

1. Communication is a core clinical skill because the majority of diagnostic information comes from the patient history rather than from examination or investigation. Without effective communication, investigations are misdirected, diagnoses are missed, and patients receive treatment that does not address their actual problem. Poor communication is also the most common driver of patient complaints, medication errors, and medico-legal action, while effective communication improves adherence, satisfaction, and outcomes.
2. Open questions ("What brings you in today?") invite the patient to describe their experience in their own words, yielding rich and unpredictable clinical information; they are used at the start of the interview to allow the patient to frame the problem. Closed questions ("Is the pain constant or intermittent?") can be answered with a specific piece of information and are used later to clarify details once the broad picture has emerged.
3. Four non-verbal behaviours: (1) sitting rather than standing at the door, signalling time and engagement; (2) maintaining appropriate eye contact, communicating attention and respect; (3) an open posture with arms uncrossed and body slightly forward, conveying

attentiveness; (4) nodding at appropriate moments, acknowledging that the patient is being heard.

4. A complete medical history includes: presenting complaint (reason for attendance in the patient own words); history of presenting complaint (onset, character, severity, duration, associated symptoms, modifying factors); past medical history (previous diagnoses, hospitalisations, surgical procedures); medications and allergies; family history; and social history (occupation, housing, substance use, recent travel).
5. The social history provides the clinical context in which biological disease occurs.
Example: a patient presenting with recurrent respiratory infections in Nigeria; the social history reveals that they live in a one-room dwelling with seven others and cook on an open fire indoors — this immediately shifts the differential diagnosis and management plan beyond what the presenting symptoms alone would suggest, pointing toward indoor air pollution and overcrowding-related tuberculosis risk rather than simple community-acquired infection.

Part 3.2

1. Setting: arrange a private, comfortable space with no interruptions. Perception: ask what the patient already knows or suspects. Invitation: ask how much detail they want before you begin. Knowledge: deliver information in plain language with short sentences and pauses. Emotions: acknowledge and respond to the emotional reaction before moving to management — this step is critical because patients receiving devastating news are not cognitively available to process clinical options until their emotional response has been acknowledged and validated. Strategy: agree on next steps only after the emotional response has been engaged.
2. Speak more slowly and use shorter sentences than usual. Check comprehension frequently: ask "Can you tell me what you will do with this tablet?" rather than "Do you understand?" Provide written instructions or pictorial aids to reinforce verbal information. Involve a trusted family member or caregiver with the patient consent. Avoid changing routines unnecessarily, as familiar structures support patients with cognitive decline.

3. Cultural competence is the ability to understand, respect, and work effectively with patients whose cultural explanatory models, illness idioms, and healing practices differ from those of biomedical medicine. It is essential in Nigeria because patients come from over 250 ethnic groups, each with distinct illness frameworks; a clinician who cannot engage with these frameworks will misinterpret symptoms, miss barriers to adherence, and provide care that patients do not understand or trust.
4. Two strategies: use plain everyday vocabulary rather than medical terms, and supplement with diagrams, anatomical pointing, and pictorial aids to communicate visually when words fail. Second, use simple written instructions, pictorial medication schedules, or illustrated procedure explanations to allow the patient to review information independently after the consultation.
5. A family member serving as interpreter may filter or soften information — particularly around a sensitive or fatal diagnosis — to protect the patient from distress or to manage their own emotional response. This means the patient may not receive the full and accurate information they need to make genuine informed decisions. Critical information should therefore be confirmed through independent means wherever possible.

Part 3.3

1. Multidisciplinary care: multiple professions contribute to a patient care but each manages their own domain independently, without active integration; a physician recommends one course, a physiotherapist another, without coordination. Interdisciplinary care: professionals actively share a common care plan, communicate regularly, and adjust their individual contributions in response to what others are doing. The distinction matters because complex patients — stroke, cancer, multi-morbidity — require coordinated care that addresses all their needs simultaneously; parallel working without integration produces contradictory advice, missed problems, and avoidable harm.
2. Nurse: provides continuous care, monitors for deterioration, administers medications, and ensures environmental safety; often the first to detect clinical change because of their continuous presence at the bedside. Pharmacist: reviews prescriptions for accuracy and

drug interactions, counsels patients on medication use and side effects, and manages the pharmacy supply chain. CHEW: provides frontline primary healthcare in communities beyond hospital reach, including immunisation, health education, antenatal care, first-line treatment of common conditions, and referral of cases needing higher-level care.

3. Insufficient production: the number of medical and nursing schools and their combined annual output is inadequate relative to Nigeria population need. Brain drain: trained professionals, particularly specialists, emigrate to the UK, Canada, the USA, and Gulf states for better pay and working conditions, depleting the domestic workforce continuously. Maldistribution: health workers concentrate in urban and southern settings; rural communities, particularly in the north, have very limited access to skilled health workers even when total national numbers suggest adequacy.
4. Specialists are in the highest demand internationally and offer the strongest competitive position in foreign labour markets: a cardiologist, neurosurgeon, or intensivist trained in Nigeria can secure well-paid positions in high-income countries relatively easily. Additionally, specialist training is long and expensive; the clinician who has invested six or more years in subspecialty training has strong incentives to seek environments that reward that investment appropriately.
5. The CHEW is deployed to primary healthcare centres and community posts that cannot attract nurses or doctors because of their location, infrastructure, and remuneration. By providing immunisation, health education, antenatal and postnatal care, treatment of malaria, diarrhoea, and basic wounds, and referral of serious cases, the CHEW extends the functional reach of the health system into communities that would otherwise have no formal healthcare contact. The CHEW cadre is the most practical mechanism currently available for improving primary care coverage in underserved Nigerian communities.

Part 3.4

1. Psychological safety is the shared team belief that speaking up, raising concerns, asking questions, or admitting mistakes will not result in punishment, ridicule, or exclusion. In hierarchical clinical settings it matters for patient safety because junior staff — students,

house officers, nurses — hold information that seniors do not, and this information can prevent harm if it reaches the decision-maker. Without psychological safety, this information remains with the person who has it because the social risk of speaking up outweighs the clinical benefit as perceived by the junior staff member.

2. Distributed leadership: leadership is exercised by whoever is best placed to move a situation forward, not only by those with formal authority. Nigerian example 1: a ward nurse who recognises a patient deteriorating before the doctor is available, initiates monitoring escalation, calls for emergency review, and begins basic resuscitation steps is exercising distributed leadership that directly determines whether the patient survives. Example 2: a CHEW who identifies an outbreak of watery diarrhoea in a village, mobilises community members to boil water, and notifies the local government health authority before any doctor is involved is exercising distributed leadership at the community level.
3. Three qualities: first, clear communication and genuine listening — the leader who speaks clearly and hears what is actually being said rather than what they expect to hear makes better decisions and builds stronger teams. Second, taking responsibility without deflecting blame — when things go wrong, the effective leader asks what can be done and what can be learned rather than assigning fault. Third, developing others through mentoring and constructive feedback — a leader who invests in the growth of junior colleagues multiplies their impact beyond what they can achieve through direct clinical work alone.
4. Three structural challenges: infrastructure inadequacy — unreliable electricity interrupts monitoring and ventilation, poor water supply compromises infection control, and non-functional equipment forces clinical decisions without adequate diagnostic support. Out-of-pocket financing — because most Nigerians pay for care at the point of use, those who cannot pay either do not seek care or present late with advanced disease, producing preventable morbidity and mortality. Governance failure — absenteeism, procurement corruption, and the fragmentation of health authority across three tiers of government create accountability gaps that allow poor performance to persist without consequence.
5. An individual clinician can: attend contracted hours fully and refuse to use government time for private practice; treat all patients with equivalent thoroughness regardless of

their social status or ability to pay; refuse informal payment demands; report unsafe clinical practice through the MDCN and institutional channels rather than tolerating it; and use the Nigerian Medical Association and civil society platforms to advocate publicly for the infrastructure, financing, and governance changes that patient welfare requires.

References and Attributions

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Figures, Plates, Tables, and Boxes

- Figure 3.1: The medical interview and communication model Attribution: AI generated. Suggested OER search string: "medical interview history taking clinical communication verbal non-verbal open closed questions Nigeria OER".
- Figure 3.2: Difficult communications and cultural competence Attribution: AI generated. Suggested OER search string: "SPIKES bad news breaking difficult communication special populations cultural competence language barrier Nigeria OER".

- Figure 3.3: Interdisciplinary care and Nigeria workforce landscape Attribution: AI generated. Suggested OER search string: "interdisciplinary healthcare team wheel Nigeria workforce brain drain maldistribution CHEW OER".
- Figure 3.4: Clinical teamwork, leadership, and healthcare delivery challenges in Nigeria Attribution: AI generated. Suggested OER search string: "clinical teamwork psychological safety distributed leadership Nigeria healthcare challenges out-of-pocket financing governance OER".

Series 4: Complementary and Alternative Medicine

- **Part 4.1: Introduction to CAM**

- Sub Part 4.1.1: Defining CAM and its global use
- Sub Part 4.1.2: Herbal and traditional medicine
- Sub Part 4.1.3: Spiritual and energy medicine

- **Part 4.2: Biologically Based and Mind-Body Practices**

- Sub Part 4.2.1: Biologically based practices
- Sub Part 4.2.2: Mind-body medicine
- Sub Part 4.2.3: Manipulative and body-based practices

- **Part 4.3: CAM in Nigerian Clinical Practice**

- Sub Part 4.3.1: Public health aspects of CAM in Nigeria
- Sub Part 4.3.2: The clinician approach to patients using CAM
- Sub Part 4.3.3: Responsible integration of CAM and biomedical practice

- **Part 4.4: CAM, Safety, and Evidence**

- Sub Part 4.4.1: Evaluating the evidence for CAM
- Sub Part 4.4.2: Safety concerns: herb-drug interactions and toxicity
- Sub Part 4.4.3: Regulatory and ethical dimensions of CAM

Introduction

Imagine sitting in your consulting room when a patient mentions, almost as an afterthought, that they have been taking a herbal preparation alongside their prescribed antihypertensive for the past three months. This scenario is not unusual in Nigeria; it is the norm. The majority of your patients will use some form of complementary and alternative medicine at some point in their lives, and many will do so concurrently with biomedical treatment, often without telling you. A clinician who has not engaged seriously with this reality is not merely uninformed; they are clinically underprepared.

The aim of this Series is to equip you with a sound, evidence-informed understanding of complementary and alternative medicine and its implications for clinical practice in Nigeria.

We shall commence by defining CAM, exploring its global prevalence, and examining the major traditional and spiritual healing systems that underpin it in the Nigerian context. Next, we will turn to the biologically based, mind-body, and manipulative practices that form the broader CAM landscape. Moving on, we will address the public health dimensions of CAM use in Nigeria and the practical clinical approach to patients who use it. Finally, we will round off this Series by examining the evidence base, safety concerns, and regulatory and ethical dimensions that every clinician must understand when engaging with CAM.

Series Learning Outcomes

Upon completing this Series, you should be able to:

- **SLO 4.1** define complementary and alternative medicine and explain its global and Nigerian prevalence,
- **SLO 4.2** describe the major categories of CAM practice including herbal, spiritual, biologically based, mind-body, and manipulative approaches,
- **SLO 4.3** explain the public health implications of CAM use in Nigeria and describe the appropriate clinical approach to patients who use it,

- **SLO 4.4** evaluate the evidence base for selected CAM practices, and
- **SLO 4.5** identify safety concerns including herb-drug interactions and explain the regulatory and ethical dimensions of CAM in Nigerian practice.

4.1 Introduction to CAM

4.1.1 Defining CAM and its global use

Complementary and alternative medicine (CAM) refers to a diverse group of healthcare systems, practices, and products that fall outside the mainstream of conventional biomedical medicine. The term **complementary** is used when a practice is used alongside conventional treatment, while **alternative** describes a practice used instead of conventional treatment. The broader term **integrative medicine** refers to the deliberate, coordinated combination of both within a single clinical framework. These distinctions carry real clinical significance: a patient using herbal remedies alongside prescribed antihypertensives presents different considerations from one who has replaced those medications entirely with herbal treatment.

Globally, the World Health Organisation estimates that between 65 and 80 per cent of the world population relies on traditional medicine as its primary source of healthcare. In Nigeria, the figure is higher still. Patients use CAM for many reasons: cultural familiarity and trust, local availability and affordability, dissatisfaction with or distrust of biomedical services, belief that CAM addresses spiritual dimensions of illness that biomedicine cannot, and the desire to use every available option when facing a serious or chronic condition. Understanding **why** patients use CAM is as clinically important as knowing **what** they use, because it shapes the entire nature of the clinical conversation.

Fill in the blank: The three terms used to describe the use of non-biomedical practices are:

_____ (used alongside), _____ (used instead of), and _____ (deliberate combination with conventional medicine).

4.1.2 Herbal and traditional medicine

Herbal medicine is the use of plant-derived materials for therapeutic purposes; it is the oldest and most widespread form of medicine in the world. In Nigeria, herbal medicine is embedded within distinct ethnic traditions: Yoruba traditional medicine, Hausa traditional medicine, Igbo traditional medicine, and the practices of many smaller groups each maintain their own pharmacopoeia and illness explanatory frameworks. Many plants used in these traditions have genuine pharmacological activity. **Artemisinin**, derived from the plant *Artemisia annua* and now a cornerstone of malaria treatment worldwide, is perhaps the most celebrated example of a traditional remedy validated by modern science.

However, the fact that a preparation is plant-derived does not make it inherently safe. Many herbal preparations contain compounds that are **hepatotoxic** (damaging to the liver) or **nephrotoxic** (damaging to the kidneys), particularly when taken in concentrated forms, combined with pharmaceutical drugs, or used over extended periods. Microbial and heavy metal contamination of unregulated preparations is also documented. The clinician must therefore approach herbal medicine with the same critical scrutiny applied to any pharmaceutical intervention: asking about composition, dose, duration, and potential interactions.

Fill in the blank: The term used for liver damage caused by plant compounds in herbal preparations is _____, while _____ refers to kidney damage from the same source.

4.1.3 Spiritual and energy medicine

Spiritual medicine encompasses healing practices that attribute illness to disruption in the patient relationship with God, ancestors, spirits, or the moral order, and that use prayer, ritual, and the intervention of spiritually empowered healers to restore this relationship and thereby heal the body. In Nigeria, spiritual healing is practised across Christian, Islamic, and traditional religious settings: Pentecostal faith healers, Islamic Mallams using Quranic recitation and blessed water, and traditional diviners and herbalist-healers who combine plant remedies with ritual. For a significant proportion of the Nigerian population, these are not supplementary practices; they are the primary framework within which illness is understood and addressed.

Energy medicine is based on the premise that the body is permeated by or surrounded by energy fields that can be manipulated to promote healing. Practices such as **Reiki**, therapeutic touch, and

traditional Chinese **qigong** fall within this category. The scientific evidence for the existence of the specific therapeutic energy fields postulated by these practices is weak. However, the therapeutic encounter itself, including the healer attention, intention, and compassionate presence, may produce real psychological and physiological benefits through well-recognised mechanisms such as relaxation response, reduced anxiety, and the placebo effect.

Fill in the blank: Practices such as Reiki, therapeutic touch, and qigong belong to the category of CAM known as _____ medicine, which is based on the premise that the body is permeated by therapeutic energy fields.

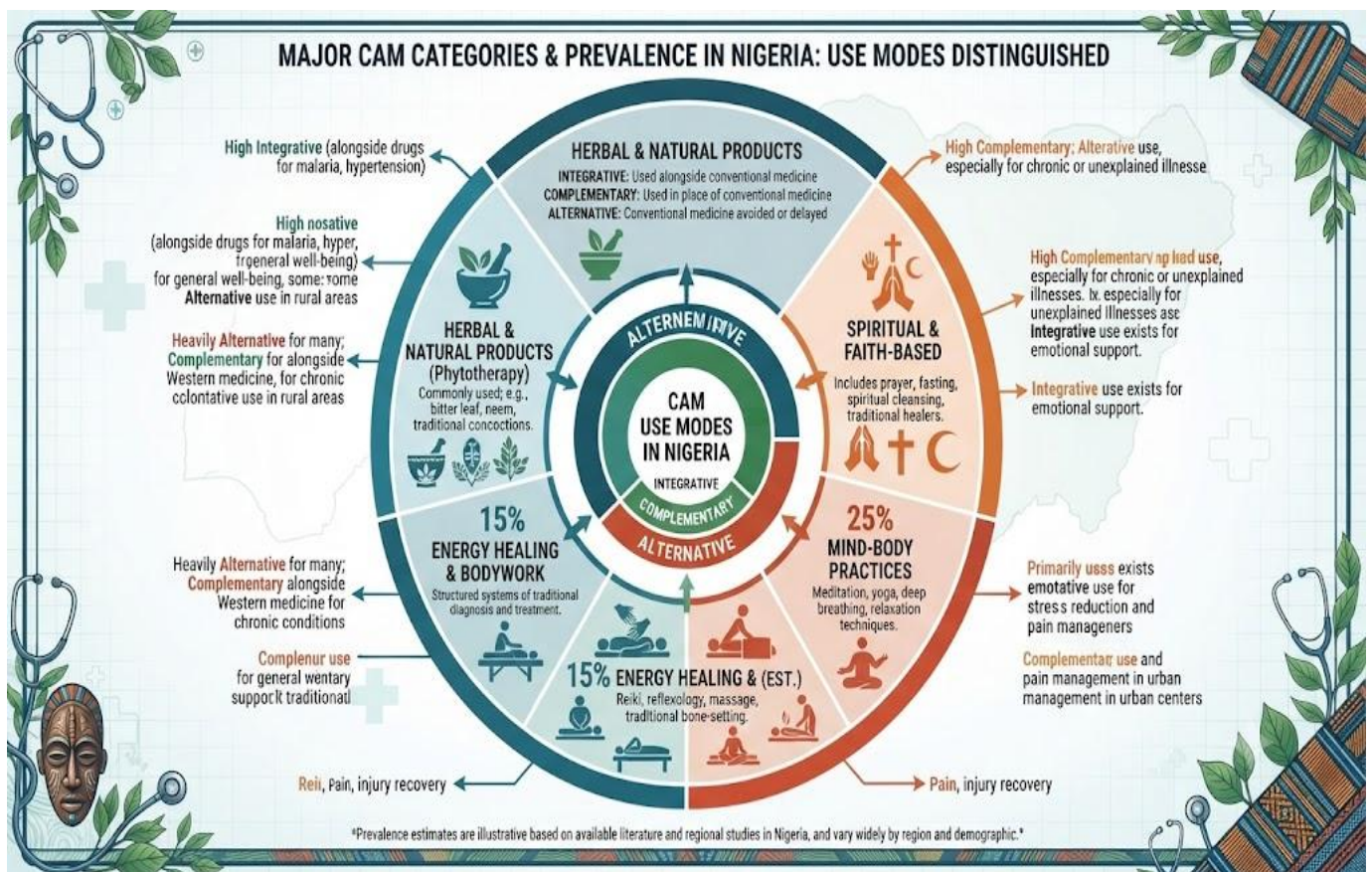


Figure 4.1: Major categories of CAM and their prevalence in Nigeria

Pilot questions 4.1

1. Define complementary medicine, alternative medicine, and integrative medicine.
2. State two reasons why patients in Nigeria commonly use CAM.

3. Name two ethnic herbal medicine traditions in Nigeria and give one example of a plant-derived compound validated by modern science.
4. Explain what hepatotoxicity means and describe why it is a concern with herbal medicine use.
5. Describe the role of spiritual healing in Nigerian healthcare and explain why a biomedical clinician needs to understand it.

4.2 Biologically Based and Mind-Body Practices

4.2.1 Biologically based practices

Biologically based CAM practices use naturally occurring substances, including vitamins, minerals, dietary supplements, and special diets, for therapeutic purposes. This category overlaps with areas of conventional medicine: vitamin supplementation for documented deficiencies is evidence-based. The distinction becomes relevant when supplements are used at doses far above established nutritional requirements on the basis of therapeutic claims that lack high-quality clinical evidence. High-dose vitamin C for cancer treatment and megadose vitamin supplements for infection prevention are widely promoted but are not supported by rigorous trial data.

A specific safety concern in this category is the risk of toxicity from **fat-soluble vitamins** (vitamins A, D, E, and K), which accumulate in body tissues when taken in excess rather than being excreted in the urine as water-soluble vitamins are. In Nigeria, the supplement industry is large and poorly regulated, with products making therapeutic claims that far exceed the evidence. The clinician role is to help patients distinguish supplements with genuine evidence of benefit from those marketed on the basis of hope rather than proof, while asking about all supplement use as a routine part of the medication history.

Fill in the blank: Vitamins A, D, E, and K are described as _____ -soluble vitamins because they accumulate in body tissues rather than being excreted in urine, creating a risk of toxic accumulation when taken in excess.

4.2.2 Mind-body medicine

Mind-body medicine encompasses practices based on the scientifically supported understanding that mental states and physical health interact continuously through neurological, endocrine, and immune pathways. The field of **psychoneuroimmunology** has established that psychological states such as chronic stress, depression, and social isolation have measurable effects on immune function, cardiovascular physiology, and inflammatory processes. Mind-body practices include **meditation**, **mindfulness-based stress reduction (MBSR)**, relaxation training, **biofeedback**, guided imagery, hypnosis, and yoga.

The evidence base for mind-body practices is stronger than for many other CAM modalities. MBSR has been shown in randomised trials to reduce anxiety and depression, improve quality of life in patients with chronic pain, and reduce inflammatory markers. Biofeedback has documented effects on hypertension, tension headaches, and irritable bowel syndrome. These practices have a low harm profile and can be offered alongside conventional treatment for appropriate conditions, making them among the most readily integrable CAM approaches in clinical settings.

Fill in the blank: The field of science that has established that psychological states such as stress and depression have measurable effects on immune function and cardiovascular physiology is called _____.

4.2.3 Manipulative and body-based practices

Traditional bone-setting is one of the most widely practised forms of manipulative medicine in Nigeria. Traditional bone-setters manage fractures, dislocations, and musculoskeletal injuries using splinting, manipulation, and herbal applications. In communities where hospital-based orthopaedic care is inaccessible or unaffordable, bone-setters fill a genuine healthcare gap, and many patients prefer to consult them first. However, complications of traditional bone-setting are a significant cause of preventable disability in Nigerian hospitals. These include **compartment syndrome** from excessively tight splints, **avascular necrosis**, **malunion** of fractures, and severe infections; many patients present to hospital only after these complications have advanced.

Massage therapy uses manual manipulation of soft tissue to relieve pain, reduce muscle tension, improve circulation, and promote relaxation. It has a reasonable evidence base for musculoskeletal pain and is low in risk when performed by a trained practitioner on an appropriate patient. **Chiropractic** and **osteopathy** use spinal manipulation to treat musculoskeletal and related conditions; there is moderate evidence for their effectiveness in low back pain. These practitioners are not widely available in Nigeria, but their underlying principle, that musculoskeletal health influences general wellbeing, is relevant to any clinician managing patients with chronic pain or physical disability.

Fill in the blank: The complication of traditional bone-setting in which the blood supply to bone is cut off, leading to bone death, is called _____ necrosis.

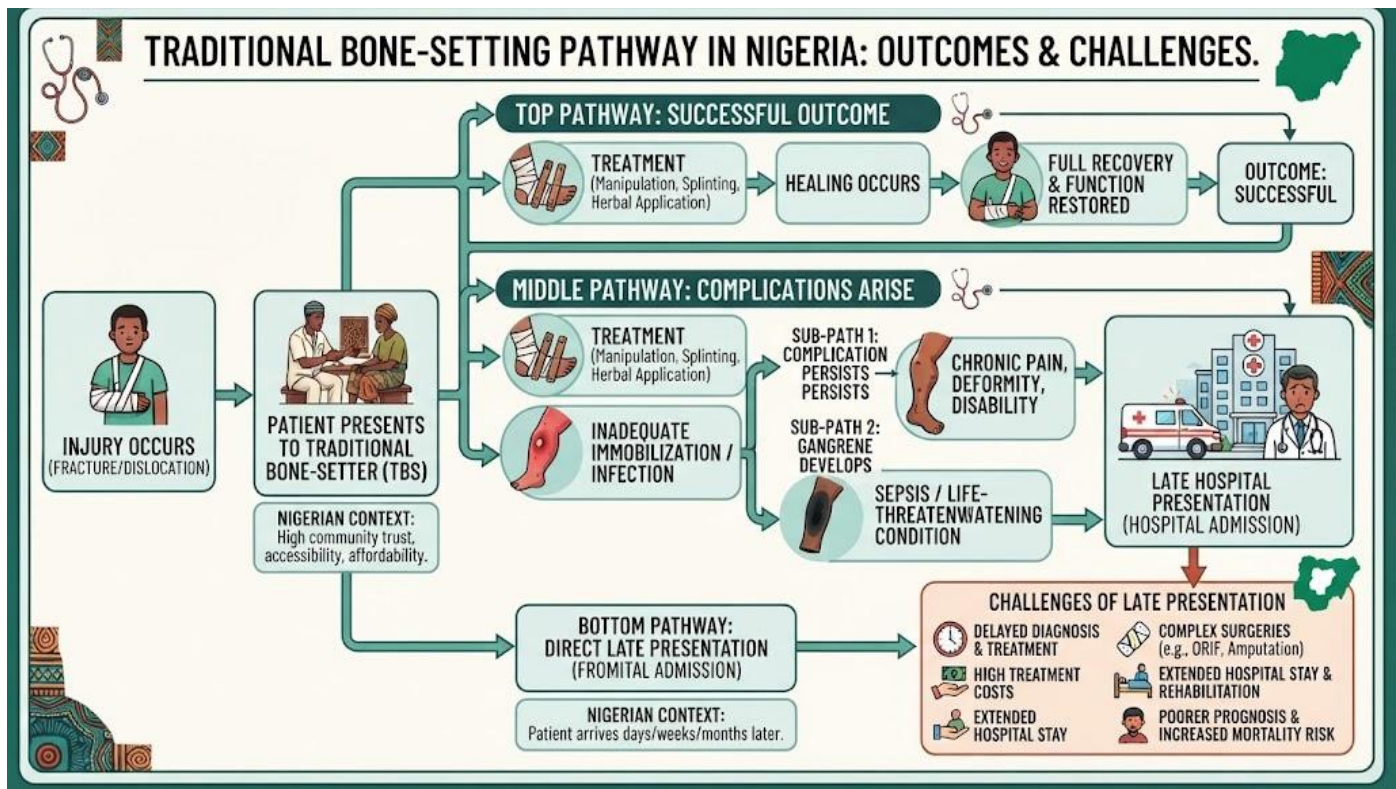


Figure 4.2: Traditional bone-setting: complications and clinical pathway

Pilot questions 4.2

1. Explain what biologically based CAM practices are and give two examples.
2. State the safety concern specific to fat-soluble vitamins when taken in high doses.

3. Describe what mind-body medicine is and name three practices within this category.
4. State two conditions for which mindfulness-based stress reduction has demonstrated effectiveness in randomised trials.
5. Describe two complications of traditional bone-setting that lead patients to present late at hospital.

4.3 CAM in Nigerian Clinical Practice

4.3.1 Public health aspects of CAM in Nigeria

The widespread use of CAM in Nigeria has both positive and negative public health dimensions. On the positive side, traditional medicine practitioners are present in communities where biomedical facilities are absent, providing a healthcare safety net for populations that would otherwise receive no formal care. Many traditional practices align with evidence-based approaches: forms of oral rehydration for diarrhoea existed in Nigerian traditional medicine before the practice was formalised by biomedical science. Community trust in traditional healers can also be leveraged for health promotion when healers are engaged as partners rather than adversaries.

The negative dimensions are equally significant. CAM can cause **direct harm** through toxic preparations, unrecognised drug-herb interactions, and the mechanical complications of manipulative practices. It can also cause **indirect harm** by delaying biomedical treatment for conditions where timely intervention is critical. A child with cerebral malaria taken first to a prayer house, or a woman in obstructed labour treated with herbal oxytocics at home, may die from a treatable condition because of the delay. Addressing these risks requires engaging traditional and faith healers as partners in referral and danger sign recognition, not simply condemning their practice.

Fill in the blank: _____ harm from CAM refers to damage caused directly by the preparation or practice (e.g., hepatotoxicity), while _____ harm refers to harm caused by delaying or replacing biomedical treatment that was urgently needed.

4.3.2 The clinician approach to patients using CAM

The single most important step in managing a patient who uses CAM is to **ask about it**. Studies consistently show that patients do not spontaneously disclose CAM use because they anticipate a dismissive or disapproving response. If the clinician does not ask, they will not know, and they cannot manage what they do not know. The question should be integrated into every medication and social history: not only "what medications are you taking?" but "are you using any herbal preparations, supplements, traditional remedies, or treatments from a healer or prayer house?"

Once a patient discloses, the clinician response should be **non-judgmental and practically focused**. If a preparation is known to be harmful or to interact with prescribed medication, this should be explained clearly and an alternative suggested. If a preparation is unknown, the clinician should say so honestly rather than guessing. If a practice appears harmless, there may be no clinical reason to discourage it; doing so unnecessarily may damage the therapeutic relationship and reduce the patient willingness to share information in future encounters. If a patient is using CAM instead of evidence-based treatment for a serious condition, the clinician must explain the evidence and consequences clearly, while ultimately respecting patient autonomy.

Fill in the blank: The clinical technique of asking patients to explain back in their own words what they have understood about their treatment is called the _____ -back method, and it is especially useful when assessing genuine comprehension of information about CAM risks.

4.3.3 Responsible integration of CAM and biomedical practice

Responsible integration means applying the same standards of evidence and safety to both biomedical and CAM interventions, without automatically privileging one system over the other on the basis of institutional origin. A CAM practice with good evidence and a reasonable safety profile can be offered alongside or instead of a biomedical treatment when the patient prefers it and the clinical circumstances allow. Conversely, a biomedical treatment with poor evidence and significant side effects is not automatically superior to a traditional remedy with reasonable evidence and a better safety profile.

In the Nigerian context, responsible integration also means treating traditional and faith healers with professional respect and seeking collaborative relationships that benefit patients. When a traditional healer recognises a patient with a condition that requires biomedical investigation and refers them to hospital, this is precisely the kind of collaboration that saves lives. Building **referral partnerships** between formal health facilities and community healers, based on mutual respect and clear communication about when referral is necessary, represents a practical and achievable public health intervention.

Fill in the blank: An agreement between a biomedical facility and a community healer in which the healer refers patients with danger signs to hospital is called a _____ partnership.

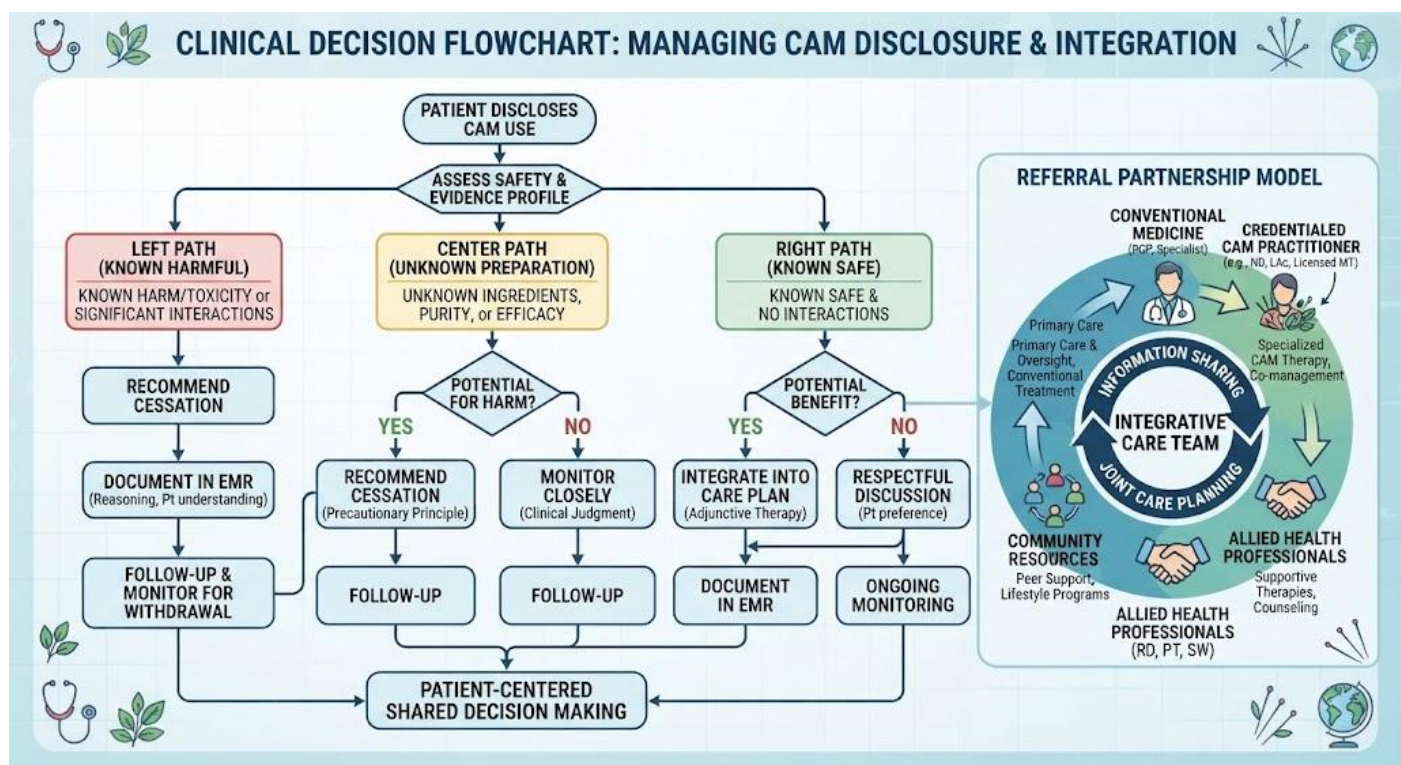


Figure 4.3: Clinician approach to CAM use: from disclosure to management

Pilot questions 4.3

1. State two positive public health contributions of traditional medicine in Nigeria.
2. Explain what is meant by indirect harm from CAM use and give a clinical example.

3. Why do patients not spontaneously disclose CAM use, and what question should a clinician ask?
4. Describe what a non-judgmental and practically focused response to CAM disclosure looks like.
5. Explain what a referral partnership between a biomedical facility and a community healer involves.

4.4 CAM, Safety, and Evidence

4.4.1 Evaluating the evidence for CAM

The evidence base for CAM practices varies enormously. Some practices have been subjected to rigorous **randomised controlled trials (RCTs)** and have demonstrated efficacy for specific conditions: MBSR for anxiety and depression, acupuncture for chronic pain, and certain herbal preparations such as **St John's Wort** for mild to moderate depression all have credible evidence. Others have been evaluated in lower-quality studies with significant methodological limitations, and others have no meaningful clinical trial evidence at all. The standard for evaluating CAM should be the same as for any biomedical intervention: what does the best available evidence show about efficacy, safety, and appropriate use?

A practical framework for evaluating CAM evidence considers three questions. First, what is the **quality of the evidence**: is the claim based on RCTs, observational studies, case reports, or tradition alone? Second, what is the **specificity of the claim**: does the evidence show benefit for the specific condition the patient has, or is it a general health claim? Third, what is the **risk-benefit ratio**: even if benefit is uncertain, is the practice low enough in risk to be acceptable alongside conventional treatment? Applying this framework consistently protects patients without dismissing all CAM reflexively.

Fill in the blank: When evaluating a CAM claim, asking whether the evidence applies to the specific condition the patient has is assessing the _____ of the claim.

4.4.2 Safety concerns: herb-drug interactions and toxicity

Herb-drug interactions are among the most clinically significant safety concerns associated with CAM use. They arise when plant compounds alter the absorption, distribution, metabolism, or excretion of pharmaceutical drugs, producing either subtherapeutic levels (reducing treatment effectiveness) or toxic levels (increasing risk of adverse effects). The most clinically important example is **St John's Wort** (*Hypericum perforatum*), which induces hepatic cytochrome P450 enzymes and reduces blood levels of antiretroviral drugs, oral contraceptives, anticoagulants, and several other medications. In Nigeria, where many patients are on antiretroviral therapy for HIV, St John's Wort use represents a potentially life-threatening interaction.

Other documented safety concerns include **hepatotoxicity** from preparations containing pyrrolizidine alkaloids, comfrey, or certain West African herbal compounds; **heavy metal contamination** of unregulated herbal products with lead, mercury, or arsenic; and **microbial contamination** of preparations produced under non-sterile conditions. The clinician response to these concerns is not to prohibit all herbal use but to ask systematically about all CAM use in every patient, to check for known interactions, and to monitor for unexplained clinical deterioration that may reflect an unrecognised herb-drug interaction.

Fill in the blank: A patient on antiretroviral therapy begins taking St John's Wort. The pharmacological mechanism by which this could reduce the effectiveness of their antiretroviral treatment is induction of hepatic _____ enzymes, which increases the rate of drug breakdown and reduces blood levels.

4.4.3 Regulatory and ethical dimensions of CAM

The regulation of CAM in Nigeria is fragmented and largely inadequate. The **National Agency for Food and Drug Administration and Control (NAFDAC)** has jurisdiction over herbal medicines and dietary supplements sold in the market, but enforcement is uneven, and a large volume of unregistered, counterfeit, or substandard products circulates freely. Traditional healers are not regulated under the Medical and Dental Council of Nigeria; instead, the **Traditional Medicine Board** at the state level provides some oversight, but coverage and enforcement vary widely across states.

The ethical dimensions of CAM in clinical practice centre on two core obligations. The first is **non-maleficence**: the clinician has a duty to protect patients from harmful CAM practices, which requires both knowledge of common local preparations and the communication skill to address concerns without alienating the patient. The second is **respect for autonomy**: patients have the right to make informed decisions about their own healthcare, including the use of CAM, provided they have been given accurate information about the evidence and the risks. The clinician role is to ensure that information is accurate and that consent is genuinely informed, not to make the decision on the patient behalf.

Fill in the blank: The ethical principle requiring a clinician to protect a patient from harmful CAM practices is _____, while the principle that requires respecting the patient right to make their own informed decision is respect for _____.

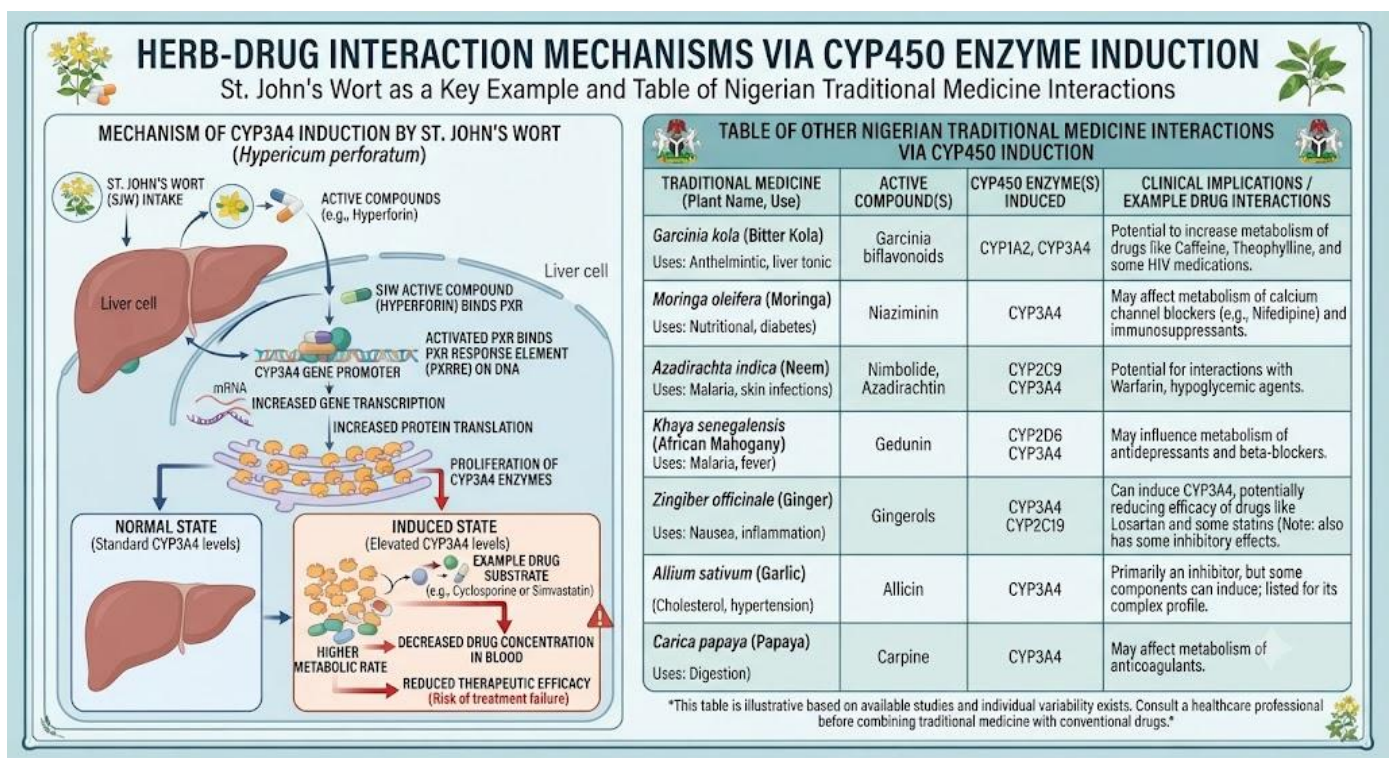


Figure 4.4: Herb-drug interactions: mechanisms and Nigerian clinical examples

Pilot questions 4.4

1. Describe the three questions in a practical framework for evaluating CAM evidence.

2. Explain what an herb-drug interaction is and give one clinically important example.
3. Name two toxicity risks associated with unregulated herbal preparations.
4. Describe the role of NAFDAC in the regulation of CAM products in Nigeria.
5. State the two core ethical obligations of a clinician when a patient uses CAM.

Series Summary

This Series examined complementary and alternative medicine as a major and unavoidable dimension of healthcare in Nigeria. We began by defining CAM and its three modes of use: complementary, alternative, and integrative; explored the herbal and traditional systems embedded in Nigerian ethnic traditions; and examined spiritual and energy medicine as expressions of the communal, relational understanding of illness that characterises much of Nigerian cultural life. We then surveyed the biologically based, mind-body, and manipulative CAM practices, noting that mind-body medicine has a growing evidence base and that traditional bone-setting, despite its widespread use, carries significant complication risks that produce late hospital presentations.

The public health and clinical dimensions of CAM were addressed together, establishing that the clinician first duty is to ask about CAM use and to respond in a non-judgmental, practically focused way. Responsible integration requires applying consistent evidence and safety standards to all practices regardless of their origin. The Series concluded by examining the evidence evaluation framework, the specific safety risks of herb-drug interactions and herbal toxicity, and the regulatory and ethical landscape governing CAM in Nigeria. Together, these elements equip you to engage with CAM not as an inconvenient complication of Nigerian clinical practice but as an essential dimension of it.

Glossary of Terms

- **Alternative medicine:** a non-biomedical practice used instead of conventional treatment.
- **Artemisinin:** a plant-derived antimalarial compound obtained from *Artemisia annua*, now a cornerstone of global malaria treatment and a paradigm case of traditional remedy validation.
- **Biologically based CAM:** practices using naturally occurring substances such as vitamins, minerals, and dietary supplements for therapeutic purposes.

- **Complementary medicine:** a non-biomedical practice used alongside conventional treatment.
- **Energy medicine:** CAM practices based on the premise that the body is permeated by therapeutic energy fields that can be manipulated for healing.
- **Hepatotoxicity:** damage to the liver caused by a chemical substance, including compounds found in certain herbal preparations.
- **Herb-drug interaction:** a pharmacological interaction in which a plant compound alters the absorption, metabolism, or effect of a pharmaceutical drug.
- **Integrative medicine:** the deliberate, coordinated combination of conventional and non-conventional healthcare approaches within a single clinical framework.
- **Mind-body medicine:** CAM practices based on the scientifically supported interaction between mental states and physical health, including meditation, MBSR, and biofeedback.
- **Psychoneuroimmunology:** the scientific field studying interactions between psychological states, the nervous system, and immune function.
- **St John's Wort:** a herbal preparation (*Hypericum perforatum*) that induces hepatic CYP450 enzymes, reducing blood levels of antiretrovirals, contraceptives, and anticoagulants.
- **Traditional bone-setting:** a manipulative CAM practice widely used in Nigeria to manage fractures and musculoskeletal injuries, associated with significant complication risks.

Concept Check Questions 4

Objective questions

1. The term used when a non-biomedical practice is used alongside conventional treatment is _____. (Linked to SLO 4.1)
2. _____ is the plant-derived antimalarial compound derived from *Artemisia annua* that is now a cornerstone of global malaria treatment. (Linked to SLO 4.2)
3. The scientific field that studies interactions between psychological states, the nervous system, and immune function is called _____. (Linked to SLO 4.2)
4. Complications of traditional bone-setting that cause patients to present late at hospital include compartment syndrome, avascular necrosis, malunion, and _____. (Linked to SLO 4.2)
5. St John's Wort induces hepatic _____ enzymes, reducing blood levels of antiretrovirals, oral contraceptives, and anticoagulants. (Linked to SLO 4.5)

Short-answer questions

6. Explain why a clinician must ask about CAM use in every patient and describe the appropriate response when a patient discloses herbal medicine use. (Linked to SLO 4.3)
7. Describe the three questions in a framework for evaluating the evidence for a CAM practice. (Linked to SLO 4.4)
8. Explain the two core ethical obligations of a clinician when managing a patient who uses CAM. (Linked to SLO 4.5)

Long-answer questions

9. Discuss the public health dimensions of CAM use in Nigeria, covering both the positive contributions and the risks, and describe the appropriate clinical and public health response to these realities. (Linked to SLOs 4.3, 4.4)

10. Discuss the safety concerns associated with CAM use, with particular reference to herb-drug interactions, herbal toxicity, and the regulatory and ethical responsibilities of Nigerian clinicians. (Linked to SLOs 4.4, 4.5)

Answers to Concept Check Questions 4

Objective questions

1. Complementary.
2. Artemisinin.
3. Psychoneuroimmunology.
4. Severe infections.
5. Cytochrome P450 (CYP450).

Short-answer questions

6. Patients rarely volunteer CAM use because they expect disapproval; if the clinician does not ask, they cannot identify herb-drug interactions, toxicity risks, or treatment conflicts. The question must be explicit: "Are you using any herbal preparations, supplements, or treatments from a traditional healer?" When a patient discloses herbal use, the clinician should check for known interactions, explain any identified risks clearly and without condescension, and avoid discouraging harmless practices unnecessarily, as doing so damages trust and reduces future disclosure.
7. The three questions are: first, what is the quality of the evidence (is the claim based on randomised controlled trials, observational studies, or tradition alone?); second, what is the specificity of the claim (does the evidence apply to this patient specific condition?); third, what is the risk-benefit ratio (is the practice low enough in risk to be acceptable even if benefit is uncertain, particularly when used alongside conventional treatment)?

8. Non-maleficence: the clinician must protect the patient from harmful CAM practices by identifying risks, explaining them clearly, and guiding the patient away from preparations that are likely to cause harm or interfere with treatment. Respect for autonomy: after providing accurate information about evidence and risks, the clinician must respect the patient right to make their own decision about CAM use, including the decision to continue a practice the clinician does not endorse, provided the patient is genuinely informed.

Long-answer questions

9. Basic response

CAM use is near-universal in Nigeria, serving populations that lack access to biomedical facilities and meeting needs for affordable, culturally familiar, and spiritually resonant care. Positive contributions include healthcare coverage in underserved communities, alignment of some traditional practices with evidence-based approaches, and community trust that can be leveraged for health promotion. Negative public health dimensions include direct harm from toxic preparations, herb-drug interactions, and bone-setting complications, as well as indirect harm through delays in biomedical treatment for serious conditions. The appropriate response combines asking about CAM use routinely, engaging traditional and faith healers as referral partners, educating communities about danger signs requiring biomedical care, and advocating for regulatory oversight of herbal products without alienating the communities that depend on them.

Value-added response

The public health case for engaging with CAM rather than simply opposing it rests on the recognition that for millions of Nigerians, traditional medicine is not a supplement to biomedical care but its functional replacement. Dismissing or prohibiting CAM without providing accessible, affordable, culturally acceptable alternatives merely drives it underground, where it continues with less safety information rather than more. The evidence from community health

programmes in several African settings shows that collaboration between biomedical facilities and traditional healers on referral pathways, danger sign recognition, and basic safety education reduces harm more effectively than adversarial approaches. The goal of public health engagement with CAM in Nigeria is therefore not elimination but harm reduction and constructive integration.

10. Basic response

The principal safety concerns associated with CAM are herb-drug interactions, herbal toxicity, and contamination of unregulated products. St John's Wort is the paradigm case of a clinically significant herb-drug interaction: its induction of CYP450 enzymes reduces blood levels of antiretrovirals (risking HIV treatment failure), oral contraceptives (risking unintended pregnancy), and anticoagulants (risking thromboembolic events). Herbal hepatotoxicity and nephrotoxicity arise from pyrrolizidine alkaloids and other plant compounds in common preparations. Heavy metal and microbial contamination of unregulated products adds further risk. The clinician response is to ask about all CAM use, check for known interactions, monitor for unexplained clinical deterioration, and report suspected adverse effects through available pharmacovigilance channels. Regulatory responsibility lies with NAFDAC for product regulation and with state Traditional Medicine Boards for healer oversight, though both face significant enforcement limitations. The ethical obligations of non-maleficence (protecting from harm) and respect for autonomy (ensuring informed consent before patients decide) provide the moral framework for navigating these tensions.

Value-added response

The most serious gap in Nigerian CAM regulation is not the absence of legal frameworks but the absence of enforcement capacity and the absence of a systematic pharmacovigilance system capable of detecting herb-drug interactions and adverse events at the population level. Individual case reports of herbal hepatotoxicity and treatment failure from drug interactions exist but are rarely connected systematically to identify patterns. A robust CAM safety agenda in Nigeria would require: mandatory registration of all herbal products with NAFDAC and enforceable quality standards; integration of herb-drug interaction screening into pharmacy dispensing

systems; training of all healthcare professionals to ask about and document CAM use; establishment of a national adverse event reporting system for traditional medicine; and research investment in the pharmacology of commonly used Nigerian plants to identify active compounds, safe dosing ranges, and interaction profiles. Without this infrastructure, individual clinician vigilance, while necessary, is insufficient to protect the millions of Nigerians who use herbal medicine concurrently with pharmaceutical treatment.

Answers to Pilot Questions 4

Part 4.1

1. Complementary medicine is used alongside conventional treatment. Alternative medicine is used instead of conventional treatment. Integrative medicine deliberately combines both within a coordinated clinical framework.
2. Any two from: cultural familiarity and trust in traditional healing systems; affordability and local availability compared to biomedical care; dissatisfaction with or distrust of biomedical services; belief that CAM addresses spiritual dimensions of illness; desire to use every available option for serious or chronic conditions.
3. Any two from: Yoruba traditional medicine, Hausa traditional medicine, Igbo traditional medicine. Example of a validated compound: artemisinin, derived from *Artemisia annua*, now a cornerstone of malaria treatment worldwide.
4. Hepatotoxicity is damage to the liver caused by a chemical substance. It is a concern with herbal medicine because many plant compounds damage liver cells, particularly in concentrated preparations, when combined with other drugs, or when taken over extended periods; this can result in acute liver failure or chronic liver disease.
5. Spiritual healing addresses the belief, held by a large proportion of Nigerians, that illness has spiritual causes that biomedicine cannot resolve. A clinician who does not understand

this framework will fail to grasp why patients delay hospital care, discontinue treatment, or seek prayer and traditional healing concurrently with biomedical treatment. Understanding spiritual medicine is essential for effective communication, not endorsement of its metaphysical claims.

Part 4.2

6. Biologically based CAM practices use naturally occurring substances for therapeutic purposes. Examples: high-dose vitamin C supplementation for immune support; herbal dietary supplements marketed for weight loss or energy.
7. Fat-soluble vitamins (A, D, E, K) accumulate in body tissues rather than being excreted when taken in excess, creating a risk of toxic accumulation leading to organ damage, in contrast to water-soluble vitamins which are excreted in urine.
8. Mind-body medicine is based on the understanding that mental states and physical health interact continuously through neurological, endocrine, and immune pathways. Three practices: meditation, mindfulness-based stress reduction (MBSR), biofeedback (also acceptable: relaxation training, guided imagery, yoga).
9. Any two from: anxiety, depression, chronic pain, hypertension, inflammatory marker reduction in stressed populations.
10. Any two from: compartment syndrome from excessively tight splints; avascular necrosis; malunion of fractures; severe infections.

Part 4.3

1. Any two from: traditional practitioners are present in communities without biomedical facilities, providing basic healthcare coverage; some traditional practices align with evidence-based approaches; community trust in healers can be leveraged for health promotion and referral.

2. Indirect harm occurs when CAM use delays access to biomedical treatment that is urgently needed. Example: a child with cerebral malaria taken first to a prayer house for spiritual healing does not receive antimalarial treatment until hours or days later, by which point brain damage or death may have occurred.
3. Patients do not disclose because they anticipate dismissal or disapproval from the clinician. The question to ask is: "Are you using any herbal preparations, supplements, traditional remedies, or treatments from a healer or prayer house?"
4. The clinician acknowledges the disclosure without criticism, asks about the specific preparation and how it is being used, checks for known interactions or harms, explains any risks in plain language, avoids discouraging practices that are harmless, and continues monitoring for any unexplained changes in the patient clinical condition.
5. A referral partnership involves a formal or informal agreement between a biomedical facility and a community healer in which the healer agrees to refer patients with specified danger signs (such as difficulty breathing, altered consciousness, or prolonged labour) to the facility for assessment, and the facility agrees to treat such referrals respectfully and communicate findings back to the healer where appropriate.

Part 4.4

1. The three questions are: what is the quality of the evidence (RCT, observational, or tradition only?); what is the specificity of the claim (does it apply to this patient specific condition?); what is the risk-benefit ratio (is the practice safe enough to use alongside conventional treatment even if benefit is uncertain?)
2. A herb-drug interaction occurs when a plant compound alters the pharmacokinetics or pharmacodynamics of a pharmaceutical drug. Example: St John's Wort induces hepatic CYP450 enzymes, reducing blood levels of antiretroviral drugs and potentially causing HIV treatment failure.
3. Any two from: hepatotoxicity from pyrrolizidine alkaloids or other plant compounds; heavy metal contamination (lead, mercury, arsenic) in unregulated products; microbial contamination from non-sterile preparation conditions.

4. NAFDAC has jurisdiction over herbal medicines and dietary supplements sold in the Nigerian market; it sets registration requirements and quality standards for these products. However, enforcement is uneven and a large volume of unregistered products circulates freely, limiting the practical protective effect of NAFDAC regulation.
5. Non-maleficence: the clinician must identify and address CAM practices that are likely to harm the patient or interfere with their treatment, explaining risks clearly. Respect for autonomy: after providing accurate information, the clinician must respect the patient right to make their own informed decision about CAM use.

References and Attribution

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Figures and Illustrations

- Figure 4.1: Major categories of CAM and their prevalence in Nigeria. Attribution: AI generated.
- Figure 4.2: Traditional bone-setting: complications and clinical pathway. Attribution: AI generated.
- Figure 4.3: Clinician approach to CAM use: from disclosure to management. Attribution: AI generated.
- Figure 4.4: Herb-drug interactions: mechanisms and Nigerian clinical examples. Attribution: AI generated.

Series 5: Public Health and Medical Jurisprudence

- **Part 5.1: Foundations of Public Health**

- Sub Part 5.1.1: Defining public health and its scope
- Sub Part 5.1.2: Epidemiology and disease surveillance
- Sub Part 5.1.3: Health promotion and disease prevention

- **Part 5.2: Public Health in Nigeria**

- Sub Part 5.2.1: The burden of disease in Nigeria
- Sub Part 5.2.2: Primary healthcare and health systems strengthening
- Sub Part 5.2.3: The physician as a public health advocate

- **Part 5.3: Medical Jurisprudence**

- Sub Part 5.3.1: Definitions and scope of medical jurisprudence
- Sub Part 5.3.2: Medical negligence and professional liability
- Sub Part 5.3.3: Medico-legal obligations in clinical practice

- **Part 5.4: Patients Rights, Regulation, and the Future**

- Sub Part 5.4.1: Patients rights in Nigerian law
- Sub Part 5.4.2: Regulatory framework for medical practice
- Sub Part 5.4.3: The future of multidisciplinary healthcare in Nigeria

Introduction

In the preceding Series of this course, we examined the ethical, communicative, and clinical dimensions of healthcare delivery. This final Series steps back from the individual clinical encounter to consider medicine in its widest social and legal frame. Public health asks what is happening to the health of entire populations and what organised societal action can prevent disease and promote wellbeing on a scale that no individual clinician can achieve alone. Medical jurisprudence asks what legal obligations attend the practice of medicine, and what happens when those obligations are not fulfilled.

The aim of this Series is to equip you with a foundational understanding of public health principles and medico-legal knowledge as they apply to clinical practice in Nigeria.

We shall commence this Series by defining public health and exploring its core tools: epidemiology, disease surveillance, and the levels of prevention. Next, we will apply these principles to the Nigerian context, examining the country burden of disease, the architecture of its primary healthcare system, and the role of the physician as a public health advocate. Moving on, we will examine medical jurisprudence, covering the scope of medical law, the elements of medical negligence, and the specific medico-legal obligations that every Nigerian clinician must understand. Finally, we will close by examining patients rights as enshrined in Nigerian law, the regulatory framework governing practice, and the future directions of multidisciplinary healthcare in Nigeria.

Series Learning Outcomes

Upon completing this Series, you should be able to:

- **SLO 5.1** define public health and explain the principles of epidemiology and disease surveillance,
- **SLO 5.2** describe the three levels of prevention and give examples relevant to the Nigerian context,

- **SLO 5.3** explain the burden of disease in Nigeria and describe the primary healthcare system and the physician role in public health advocacy,
- **SLO 5.4** define medical jurisprudence and explain the three elements required to establish medical negligence,
- **SLO 5.5** describe the medico-legal obligations attached to clinical records, death certification, and controlled drug management, and
- **SLO 5.6** explain patients rights under the National Health Act 2014 and describe the regulatory framework governing medical practice in Nigeria.

5.1 Foundations of Public Health

5.1.1 Defining public health and its scope

Public health is the science and art of preventing disease, prolonging life, and promoting health through the organised efforts of society. The defining characteristic of public health is its focus on populations rather than individuals. While clinical medicine asks what is wrong with this patient and how can I treat it, public health asks why are people in this community falling ill and what can be done at the collective level to prevent it. This population focus allows public health to reach the upstream determinants of disease, including poverty, poor sanitation, malnutrition, and environmental hazards, that individual clinical encounters cannot address.

The scope of public health encompasses many disciplines: **epidemiology** (the study of disease distribution and determinants), **health promotion, disease prevention, environmental health, health policy**, and the organisation and financing of health services. The historical record shows that public health interventions have had a greater impact on population mortality than clinical medicine alone: the decline in deaths from infectious diseases in the nineteenth and twentieth centuries occurred largely through improvements in sanitation, housing, nutrition, and clean water before antibiotics and vaccines were available. Every Nigerian clinician is therefore not only a clinician but also a public health actor, whether or not they recognise it.

Fill in the blank: Public health focuses on _____ rather than individuals, addressing the upstream determinants of disease that individual clinical encounters cannot reach.

5.1.2 Epidemiology and disease surveillance

Epidemiology is the study of the distribution and determinants of health and disease in populations, and the application of this knowledge to the control of health problems. It answers three core questions: **who** is getting sick (person characteristics), **where** are they getting sick (place), and **when** are they getting sick (time). John Snow traced the 1854 Broad Street cholera outbreak in London by mapping case addresses and identifying the contaminated pump as the source, without knowing the causative organism; this is the paradigmatic demonstration of epidemiological reasoning applied to disease control.

Disease surveillance is the continuous, systematic collection, analysis, and interpretation of health data, used to guide timely public health action. In Nigeria, surveillance is coordinated by the **Nigeria Centre for Disease Control (NCDC)** through its Integrated Disease Surveillance and Response system. Certain conditions are **notifiable diseases**, meaning clinicians are legally required to report them to public health authorities promptly upon diagnosis. These include cholera, yellow fever, meningococcal meningitis, measles, Lassa fever, and Ebola virus disease. Timely, accurate reporting is not optional; it is both a professional obligation and a legal duty, and failure to report can allow outbreaks to spread that could have been contained.

Fill in the blank: The continuous, systematic collection and analysis of health data used to guide public health action is called disease _____, and in Nigeria it is coordinated by the NCDC.

5.1.3 Health promotion and disease prevention

Health promotion is the process of enabling people to increase control over and improve their health. It operates through education, community action, policy development, and the creation of environments that make healthy choices easier. **Disease prevention** is more specifically aimed at reducing the incidence, prevalence, or severity of specific diseases. Prevention is classically described at three levels. **Primary prevention** aims to prevent disease from occurring at all, through vaccination, sanitation, dietary change, and reduction of risk behaviours. **Secondary**

prevention aims to detect disease early through screening before symptoms appear. **Tertiary prevention** aims to reduce the impact and complications of established disease through effective treatment and rehabilitation.

In Nigeria, the priorities for each level of prevention reflect the double burden of communicable and non-communicable disease. At the primary level, immunisation through the **Expanded Programme on Immunisation (EPI)**, distribution of insecticide-treated bed nets for malaria prevention, and safe water and sanitation programmes address the infectious disease burden, while tobacco control and dietary guidance address the growing non-communicable disease risk. At the secondary level, blood pressure and blood glucose screening in primary care settings detects hypertension and diabetes before end-organ damage occurs. At the tertiary level, rehabilitation after stroke and structured management of chronic conditions such as asthma and heart failure reduce disability and improve quality of life.

Fill in the blank: _____ prevention detects disease early through screening before symptoms appear, while primary prevention aims to stop disease from occurring at all through vaccination, sanitation, and risk reduction.

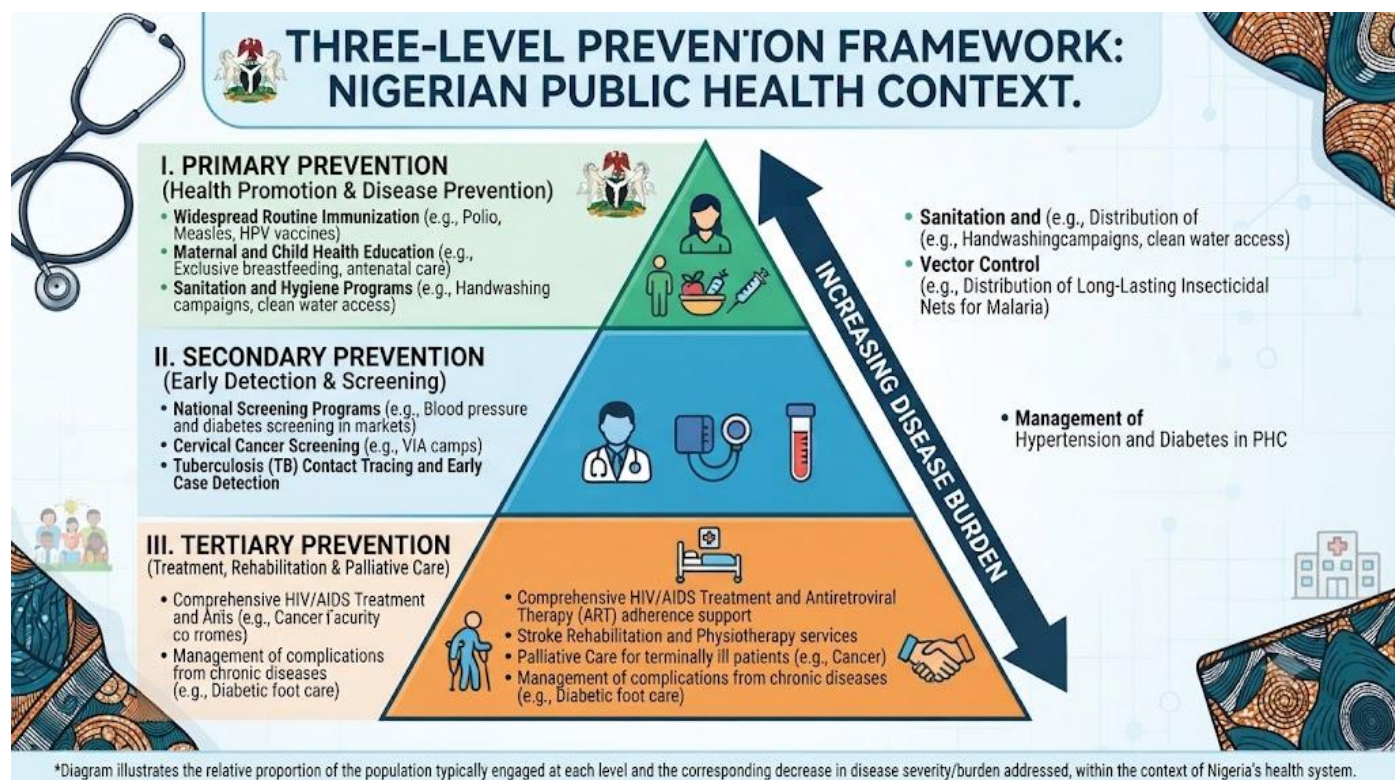


Figure 5.1: The three levels of prevention with Nigerian examples

Pilot questions 5.1

1. Define public health and explain why it focuses on populations rather than individuals.
2. Explain what epidemiology is and describe the three core questions it answers.
3. Name three notifiable diseases in Nigeria and explain the clinician obligation when one is diagnosed.
4. Describe the three levels of disease prevention and give one Nigerian example of each.
5. Explain what disease surveillance is and describe the role of the NCDC.

5.2 Public Health in Nigeria

5.2.1 The burden of disease in Nigeria

Nigeria carries a **double burden of disease**: a high load of communicable diseases alongside a growing epidemic of non-communicable diseases. Infectious diseases, including malaria, tuberculosis, HIV, lower respiratory infections, and the vaccine-preventable diseases of

childhood, remain the leading causes of morbidity and mortality. Nigeria has one of the highest burdens of malaria in the world, accounting for a quarter of global malaria cases, and tuberculosis incidence remains among the highest in Africa. These communicable diseases disproportionately affect the poor, the young, and those living in rural areas without access to clean water, adequate nutrition, or healthcare services.

At the same time, **non-communicable diseases (NCDs)** are rising rapidly, driven by urbanisation, changing dietary patterns, physical inactivity, tobacco use, and harmful alcohol consumption. Hypertension, type 2 diabetes, cardiovascular disease, and certain cancers are increasingly prevalent in Nigerian adults, yet detection and management rates remain low. Many patients with hypertension do not know they have it; of those who know, many are not on treatment; of those on treatment, many are not controlled. This **cascade of care** failure at each step represents a major opportunity for primary care intervention, and understanding the burden of disease is the starting point for designing effective responses.

Fill in the blank: Nigeria carries a _____ burden of disease, meaning it faces a high load of communicable diseases alongside a growing epidemic of non-communicable conditions such as hypertension, diabetes, and cardiovascular disease.

5.2.2 Primary healthcare and health systems strengthening

Primary healthcare (PHC) is the first level of contact between individuals and the health system, providing essential health services that are universally accessible, acceptable, and affordable. The **Alma-Ata Declaration of 1978** established PHC as the cornerstone of achieving health for all, emphasising community participation, appropriate technology, and intersectoral action. In Nigeria, PHC is delivered through a network of primary health centres, basic health facilities, and community health workers, supervised by Local Government Area health authorities. It is the level at which the majority of Nigerians, when they access formal healthcare at all, first encounter the system.

Health systems strengthening refers to improving the performance of the six WHO building blocks: health workforce, health financing, health information systems, essential medicines and technologies, service delivery, and governance. In Nigeria, all six face serious challenges. The

health workforce is depleted by brain drain and maldistribution. Financing is dominated by out-of-pocket payments that exclude the poor. Information systems are incomplete. Essential medicines are intermittently available. Service delivery is fragmented and uneven. And governance is weakened by corruption and accountability gaps. Addressing these requires simultaneous action at the national, facility, and individual clinician levels: better policy, better institutions, and better individual professional conduct.

Fill in the blank: The _____ Declaration of 1978 established primary healthcare as the cornerstone of achieving health for all, emphasising community participation, appropriate technology, and intersectoral action.

5.2.3 The physician as a public health advocate

The physician occupies a uniquely influential position in public health. Patients trust their doctors in ways they do not trust government agencies or media channels, and this trust creates a platform for health communication that no mass media campaign can fully replicate. Every clinical consultation is a potential public health intervention: advice given to a patient about smoking, diet, physical activity, or adherence to treatment has an immediate and personal relevance that population-level messaging cannot match. Multiplied across thousands of consultations, these individual acts aggregate into a significant public health contribution.

Beyond the individual consultation, physicians can contribute to public health through participation in **immunisation campaigns, disease outbreak investigations, screening programmes, and health policy advocacy**. They can serve on hospital and community health committees, engage with media as authoritative voices against health misinformation, contribute to research, and mentor the next generation of clinicians with a population perspective. The Nigerian Medical Association and professional bodies provide the collective channel through which physicians can advocate for systemic change. Individual professional excellence and collective advocacy are not alternatives; both are necessary.

Fill in the blank: Every clinical consultation is a potential _____ intervention, because advice given personally by a trusted physician has an immediate relevance that population-level messaging cannot replicate.

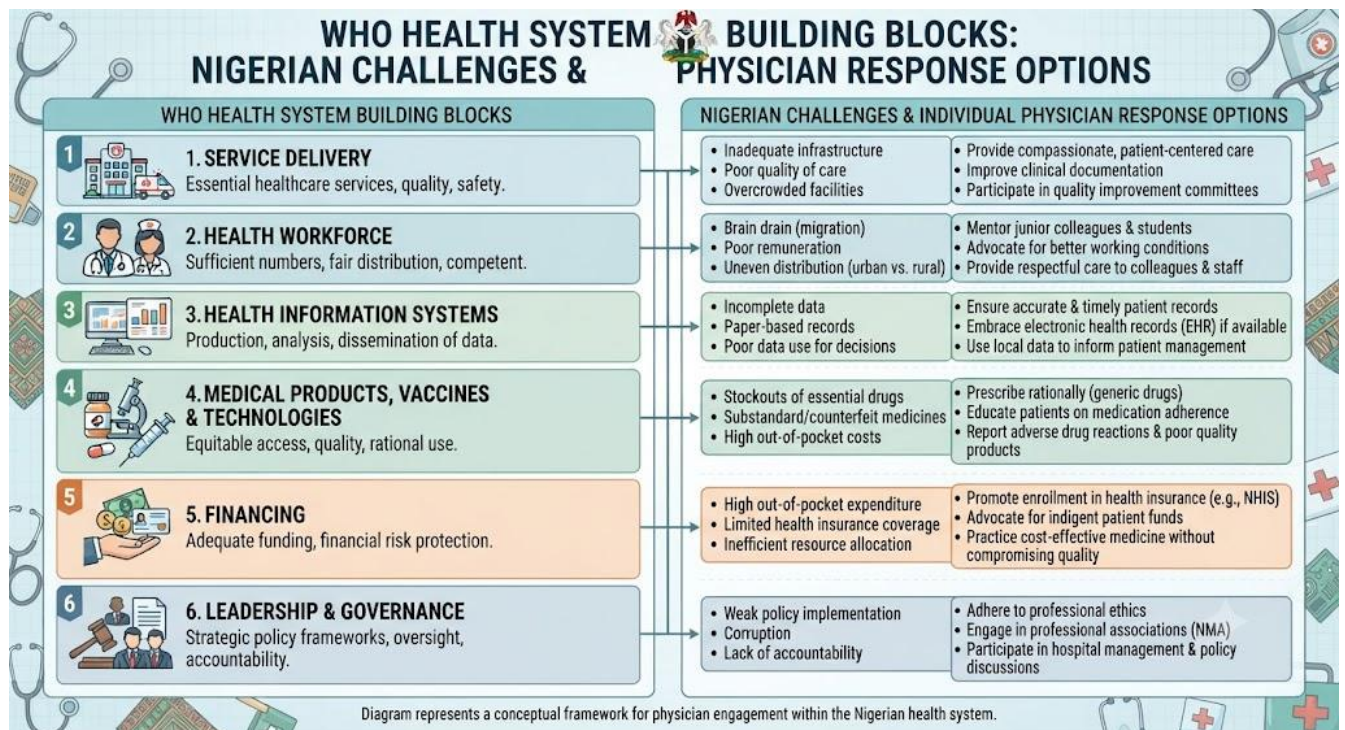


Figure 5.2: Nigeria health system challenges and the physician response

Pilot questions 5.2

1. Describe the double burden of disease in Nigeria and explain why it creates particular challenges for the health system.
2. Define primary healthcare and explain why the Alma-Ata Declaration remains significant today.
3. Name three of the six WHO health system building blocks and describe the main challenge each faces in Nigeria.
4. Explain two ways in which a physician can contribute to public health beyond their individual clinical consultations.
5. Explain what the cascade of care failure means in the context of hypertension management in Nigeria.

5.3 Medical Jurisprudence

5.3.1 Definitions and scope of medical jurisprudence

Medical jurisprudence, also called forensic medicine or medical law, is the branch of knowledge concerned with the application of medical science to the purposes of the law and with the legal rights and obligations of medical practitioners and their patients. Its scope in clinical practice is much wider than most students initially appreciate. Medical jurisprudence is not confined to dramatic forensic situations such as determining cause of death in a homicide investigation; it is relevant to every informed consent discussion, every clinical record that is written, every prescription that is issued, every death certificate that is signed, and every professional relationship that is entered into.

In Nigeria, medical jurisprudence is governed by a combination of statute law, common law principles inherited from the colonial legal tradition, and the regulatory framework of the **Medical and Dental Council of Nigeria (MDCN)**. The **National Health Act 2014** is the most important single piece of legislation for the practising clinician; it codifies patients rights and establishes legal obligations on healthcare providers. The criminal law, the law of **tort** (civil wrongs), and contract law all intersect with medical practice in specific ways. A clinician who does not understand these intersections is operating in professional terrain they cannot see.

Fill in the blank: Medical jurisprudence is relevant not only to forensic medicine but to every _____ discussion, every clinical record, every prescription, and every death certificate in routine clinical practice.

5.3.2 Medical negligence and professional liability

Medical negligence arises when a clinician fails to meet the standard of care expected of a reasonably competent practitioner in their field, and that failure causes harm to a patient. For a claim of negligence to succeed in law, three elements must be established. First, the clinician must have owed the patient a **duty of care**, which is established simply by the existence of a clinical relationship. Second, the clinician must have **breached** that duty by falling below the

standard of a reasonably competent practitioner with equivalent training and experience in the same circumstances. Third, that breach must have **caused** recognisable harm to the patient.

The most common sources of negligence claims in Nigerian clinical practice include **failures of diagnosis** (missing a condition that should have been detected), **prescribing errors** (wrong drug, wrong dose, or failure to check for interactions), **inadequate informed consent** (performing a procedure without adequate explanation of risks), **failure to refer** when specialist care was indicated, and **failures of communication** that prevent patients from engaging meaningfully with their treatment. Understanding these risk areas is not merely a medico-legal exercise; it is a guide to the areas of clinical practice where extra care and documentation most directly protect both patient and clinician.

Fill in the blank: The three elements required to establish a claim of medical negligence are: duty of _____, breach of that duty, and causation of recognisable harm to the patient.

5.3.3 Medico-legal obligations in clinical practice

The **clinical record** is both a clinical tool and a legal document. An accurate, contemporaneous, and legible clinical record is the clinician primary defence in any medico-legal challenge, because it provides documented evidence of what was assessed, decided, and communicated at the time of the encounter. A record written hours or days after an event from memory, or one that contains alterations or omissions, has far less evidential value and may itself become evidence of poor practice. Every clinical note should record the date and time, the clinician name and designation, the clinical findings, the working diagnosis, the management plan, and any information given to the patient.

Death certification is a legal obligation that requires the certifying clinician to have attended the patient during the last illness. The cause of death must be stated accurately to the best of the clinician knowledge and belief; falsifying a death certificate is a criminal offence regardless of the reason. **Fitness certification** for purposes such as driving, employment, or insurance creates a legal relationship with any third party who relies on the certificate, and must therefore be based on genuine clinical assessment. The management of **controlled drugs**, including opioid

analgesics, carries specific legal requirements for prescription format, storage security, and accurate record-keeping that every prescriber must know and follow.

Fill in the blank: Falsifying a _____ certificate is a criminal offence in Nigeria, and the clinician who signs one must have attended the patient during their last illness.

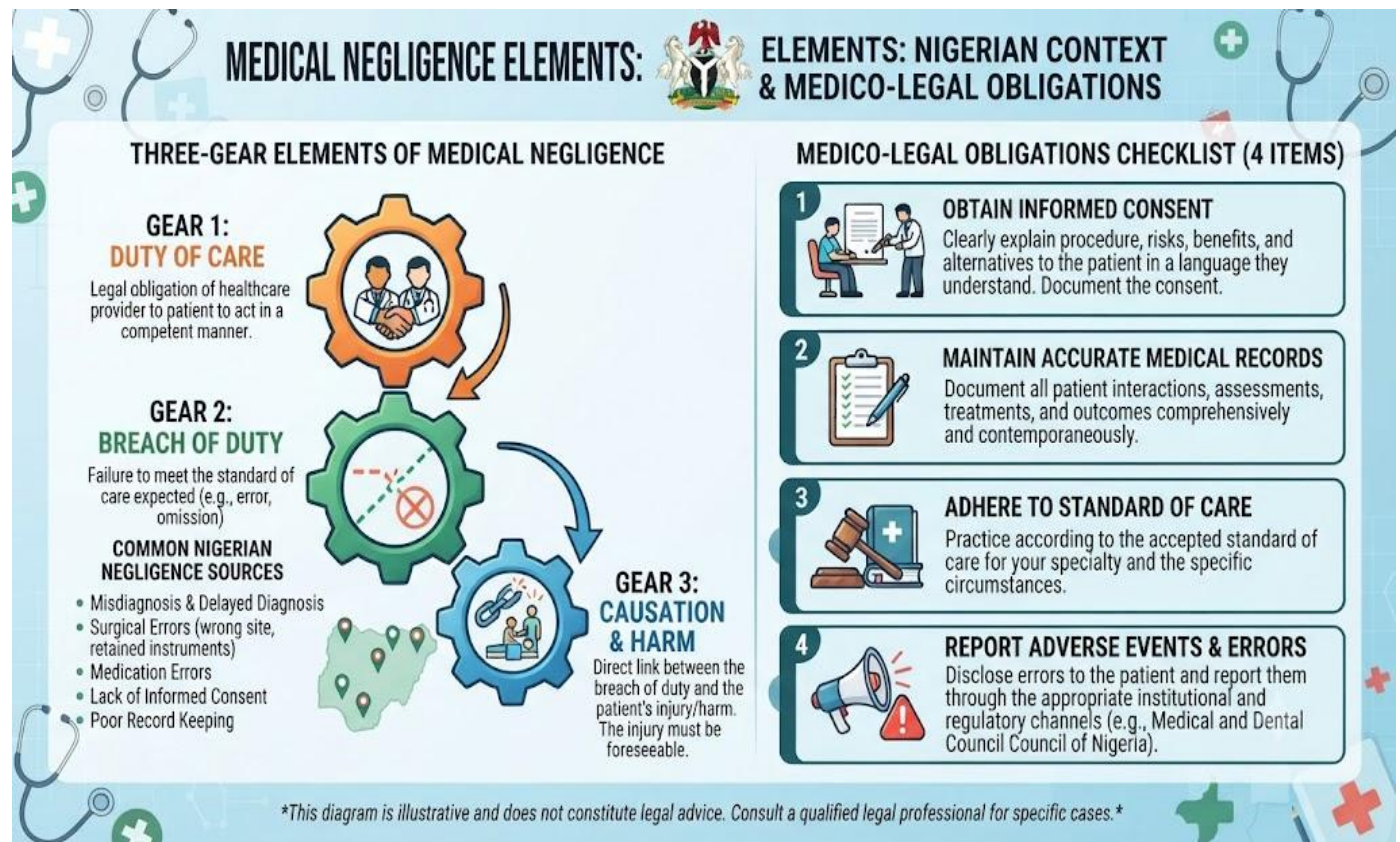


Figure 5.3: The three elements of medical negligence and medico-legal obligations

Pilot questions 5.3

1. Define medical jurisprudence and give two examples of how it applies to routine clinical practice.
2. Name the three elements required to establish a claim of medical negligence.
3. Describe four common sources of medical negligence claims in Nigerian clinical practice.
4. Explain why the clinical record is described as both a clinical tool and a legal document.
5. State two legal consequences of falsifying a death certificate.

5.4 Patients Rights, Regulation, and the Future

5.4.1 Patients rights in Nigerian law

The **National Health Act 2014** is the primary statute governing healthcare in Nigeria, and it contains an explicit statement of patients rights that every clinician must know. These include: the right to **informed consent** before any treatment or procedure; the right to **confidentiality** of personal health information; the right to receive **emergency healthcare** regardless of ability to pay; the right to be **treated with dignity** and without discrimination; and the right to refuse treatment. The Act also establishes a **Basic Minimum Package of Health Services** that every Nigerian is entitled to access at the primary healthcare level.

In practice, these rights are frequently not honoured. Patients are denied emergency care because they cannot pay. Confidential information is discussed carelessly in open wards. Consent is obtained as a signature rather than a genuine process of shared understanding. These failures are not merely ethical lapses; they are violations of statutory rights that expose healthcare providers and facilities to legal liability. The clinician who understands the legal dimensions of patients rights is better placed both to protect those rights and to protect themselves from the consequences of their violation.

Fill in the blank: Under the National Health Act 2014, patients in Nigeria have the right to receive _____ healthcare regardless of their ability to pay, and the right to refuse treatment even when clinicians believe it is in their best interest.

5.4.2 Regulatory framework for medical practice

Medical practice in Nigeria is regulated through a system of statutory bodies each with a specific mandate. The **Medical and Dental Council of Nigeria (MDCN)** is the primary regulator for physicians and dentists; it maintains the register of licensed practitioners, sets minimum standards for medical education, accredits training programmes, and investigates and disciplines practitioners who fall below professional standards. The **Nursing and Midwifery Council of Nigeria (NMCN)** performs equivalent functions for nurses and midwives; the **Pharmacists**

Council of Nigeria (PCN) for pharmacists; and equivalent bodies exist for other regulated health professions.

The **Nigerian Medical Association (NMA)** is distinct from the MDCN: it is a voluntary professional membership organisation that represents the collective interests of doctors, negotiating with government on pay and working conditions, engaging with health policy, and organising continuing medical education. **Continuing professional development (CPD)** is a regulatory requirement under the MDCN: all registered practitioners must accumulate a specified number of CPD points annually as a condition of licence renewal. This requirement reflects the moral as well as regulatory obligation to keep knowledge current, because patients trust that the advice they receive reflects the best available evidence, not the textbooks of twenty years ago.

Fill in the blank: The _____ is the statutory regulator for physicians and dentists in Nigeria, responsible for maintaining the practitioners register, setting educational standards, and investigating professional misconduct.

5.4.3 The future of multidisciplinary healthcare in Nigeria

The future of healthcare in Nigeria will be shaped by converging forces that require both systemic response and individual adaptation. The **epidemiological transition** towards non-communicable diseases will demand new models of chronic disease management centred on primary care, community health workers, and patient self-management support rather than hospital-based acute care. **Digital health technologies**, including telemedicine, electronic health records, mobile health applications, and artificial intelligence diagnostic tools, are already transforming what is clinically possible in Nigerian settings, particularly for rural communities previously excluded from specialist care.

The challenge of **universal health coverage** remains the defining goal of Nigerian health policy: ensuring that every Nigerian can access the health services they need without suffering financial hardship. Achieving this will require sustained political commitment, substantial increase in public health financing, expansion of the National Health Insurance Scheme, and a health workforce that is large enough, well-distributed enough, and sufficiently motivated to serve the entire population. The multidisciplinary, team-based model of care that this course has examined

throughout is not merely a preference; it is the only model capable of delivering comprehensive care to a population of over 220 million across a country as geographically and culturally diverse as Nigeria.

Fill in the blank: _____ health coverage is the goal of ensuring that every Nigerian can access needed health services without suffering financial hardship, and it requires expansion of public financing, insurance schemes, and the health workforce.

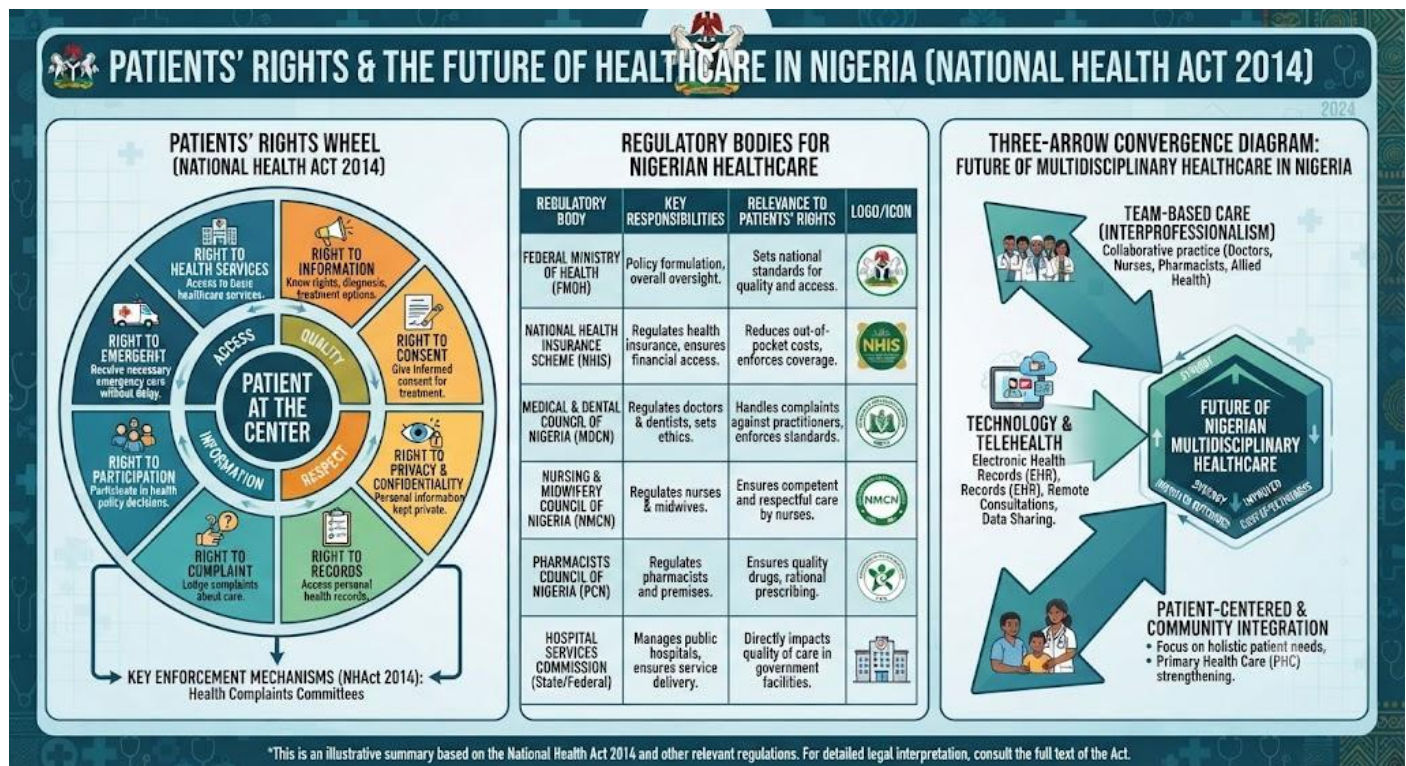


Figure 5.4: Patients rights, regulation, and the future of multidisciplinary healthcare in Nigeria

Pilot questions 5.4

1. Name four patients rights established by the National Health Act 2014.
2. Explain the difference between the MDCN and the NMA.
3. Explain what continuing professional development is and describe why it is both a regulatory and a moral obligation.
4. Describe two forces shaping the future of healthcare in Nigeria.

5. Explain what universal health coverage means and identify two requirements for achieving it in Nigeria.

Series Summary

This final Series examined public health and medical jurisprudence as the outermost dimensions of the clinician professional responsibility. We began by defining public health and exploring epidemiology, disease surveillance, and the three levels of prevention, establishing that public health action has historically had a greater impact on population mortality than clinical medicine alone. We then applied these principles to Nigeria, mapping the double burden of communicable and non-communicable disease, describing the primary healthcare system and its challenges, and establishing that the physician role as a public health advocate is a professional obligation as real as the duty to the individual patient.

Medical jurisprudence was examined through the scope of medical law, the three elements of negligence, and the specific medico-legal obligations of clinical records, death certification, fitness certification, and controlled drug management. The Series concluded by examining patients rights under the National Health Act 2014, the regulatory architecture of Nigerian medical practice, and the forces shaping the future of multidisciplinary healthcare in Nigeria. Together, the five Series of this course have equipped you with the ethical, communicative, clinical, and legal foundations for practising as a competent, principled, and effective member of the Nigerian healthcare system.

Glossary of Terms

- **Alma-Ata Declaration:** the 1978 WHO declaration establishing primary healthcare as the cornerstone of achieving health for all, emphasising community participation and intersectoral action.
- **Burden of disease:** the total harm caused by a disease to a population, measured in terms of mortality, morbidity, and disability.
- **Cascade of care:** the sequential steps from diagnosis through treatment to disease control; failure at any step reduces the proportion of patients who achieve good outcomes.

- **Continuing professional development (CPD):** the ongoing process of updating and expanding professional knowledge and skills, required by the MDCN as a condition of annual licence renewal.
- **Death certification:** the legal document certifying the cause and circumstances of death, signed by an attending clinician; falsification is a criminal offence.
- **Double burden of disease:** the simultaneous occurrence of high rates of communicable disease and rising rates of non-communicable disease in a single population.
- **Duty of care:** the legal obligation arising from the clinical relationship, requiring the clinician to meet the standard expected of a reasonably competent practitioner.
- **Medical negligence:** failure to meet the standard of care expected of a reasonably competent practitioner, causing harm to the patient; requires proof of duty, breach, and causation.
- **Notifiable disease:** a condition that clinicians are legally required to report to public health authorities promptly upon diagnosis, enabling timely outbreak response.
- **Primary healthcare (PHC):** the first level of contact between individuals and the health system, providing essential, universally accessible health services.
- **Public health:** the science and art of preventing disease, prolonging life, and promoting health through organised societal effort, focusing on populations rather than individuals.
- **Universal health coverage:** the goal of ensuring that all people can access the health services they need without suffering financial hardship.

Concept Check Questions 5

Objective questions

1. Public health focuses on _____ rather than individuals, addressing the upstream determinants of disease through organised societal effort. (Linked to SLO 5.1)
2. _____ prevention detects disease early through screening, while primary prevention aims to stop disease from occurring at all. (Linked to SLO 5.2)
3. Nigeria carries a _____ burden of disease, combining high rates of infectious disease with a growing epidemic of non-communicable conditions. (Linked to SLO 5.3)
4. The three elements required to establish medical negligence are duty of care, _____ of that duty, and causation of harm. (Linked to SLO 5.4)
5. Falsifying a death _____ is a criminal offence in Nigeria, regardless of the reason for doing so. (Linked to SLO 5.5)
6. Under the National Health Act 2014, patients have the right to receive _____ healthcare regardless of their ability to pay. (Linked to SLO 5.6)

Short-answer questions

7. Explain what epidemiology is and describe how John Snow used epidemiological reasoning to identify the cause of the 1854 Broad Street cholera outbreak. (Linked to SLO 5.1)
8. Describe the three elements required to establish medical negligence and give one clinical example of how each might arise in Nigerian practice. (Linked to SLO 5.4)
9. Explain three patients rights established by the National Health Act 2014 and describe what their violation means for clinical liability. (Linked to SLO 5.6)

Long-answer questions

10. Discuss public health in Nigeria, covering the epidemiological transition, the primary healthcare system, the physician role as a public health advocate, and the strategies needed for health systems strengthening. (Linked to SLOs 5.1, 5.2, 5.3)
11. Discuss medical jurisprudence and its implications for Nigerian clinical practice, covering medical negligence, medico-legal obligations, patients rights, and the regulatory framework. (Linked to SLOs 5.4, 5.5, 5.6)

Answers to Concept Check Questions 5

Objective questions

1. Populations.
2. Secondary.
3. Double.
4. Breach.
5. Certificate.
6. Emergency.

Short-answer questions

7. Epidemiology is the study of the distribution and determinants of health and disease in populations, and the application of this knowledge to the control of health problems. John Snow mapped the addresses of all cholera deaths in the 1854 Broad Street outbreak onto a street plan and observed that cases clustered around a single water pump. He tested the hypothesis by identifying two apparent exceptions that confirmed rather than refuted it: brewery workers nearby who did not get cholera drank beer not pump water, and a woman who died far away had pump water sent to her because she preferred its taste. He persuaded the local authority to remove the pump handle, and the outbreak subsided, long before *Vibrio cholerae* was identified as the causative organism.

8. Duty of care: established by the clinical relationship; in Nigeria, a clinician who agrees to assess or treat a patient assumes a duty; example: a house officer who declines to review a patient because they are off-duty still has a duty if they are the only available clinician. Breach of duty: falling below the standard of a reasonably competent practitioner; example: failing to examine a patient who presents with chest pain and discharging them without investigation, when a competent clinician would have performed an ECG and troponin. Causation of harm: the breach must have directly caused recognisable harm; example: the patient who was discharged without investigation suffers a myocardial infarction within hours that might have been identified and treated had the examination been performed.
9. Right to informed consent: patients must agree to treatment after receiving adequate information about benefits, risks, and alternatives; violation exposes the clinician to a claim of battery or negligence and can result in MDCN disciplinary action. Right to confidentiality: patient health information must not be shared without consent except in legally specified circumstances; violation may result in civil liability and loss of patient trust. Right to emergency care regardless of ability to pay: refusing emergency treatment because a patient cannot pay violates a statutory right and constitutes a breach of the duty of care; it may also result in criminal liability if the patient dies as a consequence.

Long-answer questions

10. Basic response

Public health defined as preventing disease and promoting health through organised societal action focused on populations; epidemiology as its scientific tool answering who, where, and when. Levels of prevention: primary (EPI, bed nets, sanitation, tobacco control), secondary (blood pressure and glucose screening, TB contact tracing), tertiary (stroke rehabilitation, chronic disease management). Nigeria double burden: malaria, TB, HIV, and vaccine-preventable diseases alongside rising hypertension, diabetes, cardiovascular disease; cascade of care failure at every step. Primary healthcare: first contact level; Alma-Ata 1978; LGA-

administered network in Nigeria; serious challenges of underfunding and understaffing. Health systems strengthening: six WHO building blocks (workforce, financing, information, medicines, service delivery, governance); all face serious challenges in Nigeria. Physician as public health advocate: clinical consultations as individual public health interventions; participation in immunisation, surveillance, screening, policy advocacy; collective advocacy through NMA.

Value-added response

The most important insight for a Nigerian physician engaging with public health is that systemic problems require both systemic and individual responses. The double burden of disease cannot be addressed by clinical excellence alone: a cardiologist who treats hypertensive end-stage renal disease is managing the consequence of a prevention failure that could have been averted years earlier at the primary care level. The cascade of care failure in hypertension management illustrates how the system loses patients at each step from detection through treatment to control, and each step requires a different kind of intervention: screening programmes for detection, health literacy for treatment-seeking, affordable medications for adherence, and self-management support for control. Universal health coverage is the structural goal that would align financing with need rather than ability to pay, but its achievement requires the political will that physicians, as trusted community leaders, have a particular responsibility to advocate for.

11. Basic response

Medical jurisprudence: application of medical science to the law; covers consent discussions, clinical records, prescriptions, death certificates, and professional relationships. Medical negligence: three elements: duty of care (established by clinical relationship), breach of duty (below standard of reasonably competent practitioner), causation of harm; common sources: diagnostic failure, prescribing error, inadequate consent, failure to refer, communication failure. Medico-legal obligations: clinical records (contemporaneous, accurate, legible, never altered; primary legal defence), death certification (must have attended patient, accurate cause, criminal to falsify), fitness certification (genuine clinical assessment required), controlled drugs (legal prescription format, secure storage, accurate records). Patients rights under National Health Act

2014: informed consent, confidentiality, emergency care regardless of ability to pay, dignity and non-discrimination, right to refuse. Regulatory framework: MDCN (register, education standards, discipline), NMCN, PCN for other professions; NMA as voluntary professional body; CPD as annual regulatory and moral obligation.

Value-added response

The deepest insight in medical jurisprudence for the Nigerian clinician is that law and ethics are aligned, not opposed. The legal requirements for informed consent, accurate records, and honest death certification do not impose external constraints on good clinical practice; they codify what good clinical practice already requires on ethical grounds. A clinician who obtains genuine informed consent, keeps accurate records, and certifies deaths honestly is simultaneously meeting their ethical obligation to the patient, their professional obligation to the MDCN, and their legal obligation under the National Health Act. Conversely, the clinician who falsifies a death certificate to protect a colleague, writes a retrospective note after an adverse event, or fails to disclose a prescribing error to a patient is not merely violating a rule; they are betraying the patient, the profession, and the public trust that makes medicine possible. Understanding medical jurisprudence as the legal expression of professional ethics, rather than as an external compliance burden, is the orientation that sustains good practice over a long career.

Answers to Pilot Questions 5

Part 5.1

1. Public health is the science and art of preventing disease, prolonging life, and promoting health through the organised efforts of society. It focuses on populations because many of the most powerful determinants of health, such as poverty, poor sanitation, malnutrition, and environmental hazards, operate at a collective level and cannot be addressed one patient at a time.
2. Epidemiology is the study of the distribution and determinants of health and disease in populations. Its three core questions are: who is getting sick (person), where are they

getting sick (place), and when are they getting sick (time). Together these three dimensions allow epidemiologists to generate hypotheses about causes and to design control interventions.

3. Any three from: cholera, yellow fever, meningococcal meningitis, measles, Lassa fever, Ebola virus disease. Clinician obligation: upon diagnosing or strongly suspecting a notifiable disease, the clinician must notify the nearest disease surveillance officer promptly, without waiting for laboratory confirmation, because early notification enables early investigation and response.
4. Primary prevention: prevents disease from occurring; Nigerian example: childhood immunisation through EPI against measles and polio. Secondary prevention: early detection through screening; Nigerian example: blood pressure measurement at every primary care contact to detect asymptomatic hypertension. Tertiary prevention: reduces impact of established disease; Nigerian example: physiotherapy and occupational therapy for stroke survivors to reduce long-term disability.
5. Disease surveillance is the continuous, systematic collection, analysis, and interpretation of health data used to guide timely public health action. The NCDC coordinates national surveillance in Nigeria through the Integrated Disease Surveillance and Response system, receiving weekly reports from health facilities across all states and coordinating outbreak investigation and response.

Part 5.2

1. Nigeria carries a double burden of disease: high rates of communicable diseases (malaria, TB, HIV, lower respiratory infections, vaccine-preventable childhood diseases) alongside rising rates of non-communicable diseases (hypertension, diabetes, cardiovascular disease). This creates particular challenges because the health system must simultaneously maintain infectious disease control programmes and develop chronic disease management capacity, with limited resources and a workforce stretched between competing demands.

2. Primary healthcare is the first level of contact between individuals and the health system, providing essential services that are universally accessible, acceptable, and affordable. The Alma-Ata Declaration of 1978 remains significant because it established the principle that achieving health for all requires addressing the social and economic determinants of health, not merely providing clinical services, and because the Sustainable Development Goals and universal health coverage frameworks continue to build on its core commitments.
3. Any three from: Health workforce: insufficient numbers, brain drain, maldistribution between urban and rural areas. Health financing: out-of-pocket payments dominate, excluding the poor and causing catastrophic expenditure. Health information systems: incomplete and unreliable data prevent evidence-based planning. Essential medicines: intermittent availability limits clinical effectiveness. Service delivery: fragmented and uneven quality. Governance: corruption, accountability gaps, fragmented authority across three tiers of government.
4. Any two from: participating in immunisation campaigns, extending vaccine coverage and contributing to herd immunity; engaging with media and community groups to counter health misinformation with authoritative, evidence-based communication; serving on hospital or community health committees to influence policy and resource allocation; contributing to surveillance by reporting notifiable diseases promptly and accurately.
5. The cascade of care describes the sequential steps from disease detection through treatment initiation to disease control. In hypertension management in Nigeria, the cascade fails at multiple stages: a large proportion of hypertensive adults are unaware of their diagnosis; of those who know, many are not on treatment; of those on treatment, many have uncontrolled blood pressure. Each gap represents a specific intervention opportunity: screening programmes for awareness, health education for treatment-seeking, affordable medications for adherence, and structured follow-up for control.

Part 5.3

1. Medical jurisprudence is the branch of knowledge concerned with the application of medical science to the law and with the legal rights and obligations of practitioners and patients. Two routine examples: the consent discussion before a surgical procedure is a medico-legal act that must satisfy the requirements of capacity, voluntariness, and adequate information; the clinical note written after a ward round is a legal document that may be submitted as evidence in professional conduct or negligence proceedings.
2. Duty of care, breach of duty, and causation of recognisable harm.
3. Any four from: failure of diagnosis (missing a condition that should have been detected given the clinical presentation); prescribing error (wrong drug, wrong dose, failure to check for drug interactions); inadequate informed consent (performing a procedure without explaining material risks, so the patient could not make a genuinely informed decision); failure to refer (not escalating care when the patient condition required specialist assessment); communication failure (not informing a patient of abnormal investigation results, preventing them from acting on the information).
4. The clinical record is a clinical tool because it provides the information needed for continuity of care, allowing any clinician who subsequently sees the patient to understand what has happened and what has been decided. It is a legal document because it constitutes the written record of the care provided and may be submitted as evidence in professional conduct proceedings, negligence litigation, or criminal investigations. A contemporaneous, accurate, and complete record protects both the patient and the clinician.
5. Falsifying a death certificate is: first, a criminal offence under Nigerian law that may result in prosecution, fine, or imprisonment; second, a serious breach of professional conduct that would be investigated by the MDCN and could result in suspension or removal from the medical register.

Part 5.4

6. Any four from: the right to informed consent before treatment or procedures; the right to confidentiality of personal health information; the right to receive emergency healthcare

regardless of ability to pay; the right to be treated with dignity and without discrimination; the right to refuse treatment.

7. The MDCN is the statutory regulatory body established by law with the authority to register practitioners, set educational standards, accredit training programmes, and investigate and discipline those who fall below professional standards. The NMA is a voluntary professional membership organisation representing the collective interests of doctors; it has no statutory regulatory authority but advocates for members on pay, working conditions, and health policy, and organises continuing medical education.
8. Continuing professional development is the ongoing process by which practising clinicians maintain and update their knowledge and skills throughout their career. It is a regulatory obligation because the MDCN requires practitioners to accumulate CPD points annually as a condition of licence renewal. It is a moral obligation because patients trust that their clinician knowledge reflects current evidence; a practitioner who has not updated their knowledge for many years may be giving advice based on superseded guidelines, causing harm through outdated practice.
9. Any two from: the epidemiological transition towards non-communicable diseases requires new chronic disease management models centred on primary care rather than hospital-based acute care; digital health technologies including telemedicine, electronic records, and AI diagnostic tools are expanding clinical capacity in underserved areas; the goal of universal health coverage requires sustained political commitment and substantial increases in public health financing and workforce capacity.
10. Universal health coverage means ensuring that all people can access the health services they need without suffering financial hardship. Two requirements for achieving it in Nigeria: expansion of public health financing as a proportion of the national budget, moving away from reliance on out-of-pocket payments that exclude the poor; and expansion and reform of the National Health Insurance Scheme to extend financial protection to the majority of the population rather than the current small minority of formal sector workers.

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Figures and Illustrations

- Figure 5.1: The three levels of prevention with Nigerian examples. Attribution: AI generated.
- Figure 5.2: Nigeria health system challenges and the physician response. Attribution: AI generated.
- Figure 5.3: The three elements of medical negligence and medico-legal obligations. Attribution: AI generated.
- Figure 5.4: Patients rights, regulation, and the future of multidisciplinary healthcare in Nigeria. Attribution: AI generated.