HISTORY OF MEDICINE

A STUDY GUIDE

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Overview

This study guide is based on lecture materials on History of Medicine and the lecture notes. All definitions, theories and Names from the material have been well arranged for easy reference. The practice questions are based on the area of concentration given by the lecturer. Study your lecture notes and materials thoroughly to ensure success in the examination.

Contents

HISTORY OF MEDICINE

History of Medicine contributes a review of accomplishments and errors, false theories and misinformation and mistaken interpretations. It is also a study of the evolution of man and of human knowledge down the ages; of the biographies of eminent individuals who developed medicine, of the discoveries and inventions in different historical periods; and of the ever-changing concepts, goals and objectives of medicine.

The goal of medicine is no longer merely treatment of sickness. They are more important goals which are the prevention of diseases, promotion of health and improvement of the quality of life of individuals and groups or communities. It is an important component of socio-economic development.

I. MEDICINE IN ANTIQUITY

In ancient times, health and illness were interpreted in Cosmological and Anthropological perspectives. Medicine was dominated by magical and religious beliefs which were an integral part of ancient cultures and civilization.

Primitive Medicine:

It has been said that medicine was conceived in sympathy and born out of necessity; and that the first doctor was the first man and the first woman, the first nurse. Since his knowledge was limited, the primitive man attributed disease and all human suffering to the wrath of gods, invasion of the body by evil spirit. Medicine in prehistoric times (about 5000 B.C.E) was integrated with superstition, religion, magic and witchcraft.

Indian Medicine:

The medical systems that are truly of Indian origin are the Ayurveda and Siddha systems. These systems differ slightly in both theories and practice. Ayurveda by definition implies the “knowledge of life”. Other systems of Medicine include: Unani-Tibb and Homeopathy.

Chinese Medicine:

It claims to be the world's first organized body of Medical knowledge dating back to 2700 B. C. E. It is based on two principles - the Yang and the yin. According to the Chinese, a great doctor is one who treats not someone who is already ill but someone not yet ill.

Egyptian Medicine:

Specialization prevailed in Egyptian times. There were eye doctors, head doctors and tooth doctors. Egyptian Medicine was far from primitive. They believed that the pulse was “the speech of the heart”.

Mesopotamian Medicine:

In ancient Mesopotamia, the basic concepts of medicine were religious and taught and practiced by herb, knife and spell doctors - a classification that roughly parallels modern day internists, surgeons, and psychiatrists. The oldest medical prescription comes to us from Mesopotamia, dating back to 2100 B.C.

Greek Medicine:

The Greeks gave a new direction to medical thought. They rejected the supernatural theory of disease and looked upon disease as a natural process.

Roman Medicine:

The Romans borrowed their medicine largely from the Greeks when they had conquered. While the politics of the world became Roman, Medicine remained Greek. The Romans had a keen sense of sanitation. Public Health was born in Rome with the development of baths, sewers, made fine roads, and established hospitals for the sick.

Middle ages:

The period between 500 and 1500 AD is generally known as ‘Middle Ages’. The practice of medicine reverted back to primitive medicine dominated by superstition and dogma. Consequently, there was no progress in medicine and this is therefore called ‘the Dark Ages of Medicine’.

II. DAWN OF SCIENTIFIC MEDICINE

The industrial revolution in the west brought great benefits leading to an improved standard of living among people. With advancing degrees of civilization, medicine also evolved.

Revival of Medicine:

For historians, the revival of Medicine encompasses the period from 1453 - 1600 A.D. It was an age of individual scientific endeavor.

Sanitary Awakening:

It took place in England in the mid 1920 and gradually spread to other countries. It had a great impact on the lifestyle of people. It had a tremendous impact in modifying the behavior of people and ushering an era of public health.

Rise of Public Health:

The public health concept came about in England around 1840. The Public Health Act of 1840 shows the State's responsibility for the health of it's people.

The Great Triumph of Public Health: The first on the list is vaccination, which has resulted in the eradication of smallpox in which the last known natural case was in Somalia in 1977. Also, the elimination of poliomyelitis in the Americas, control of measles, rubella, tetanus, diphtheria, chickenpox, mumps and other infectious diseases.

Germ Theory of disease:

The germ theory of disease came to the forefront supplanting the earlier theories of disease causation. This is discussed in detail under section 3 of this material: Theories of disease causation, principles and codes.

Birth of Preventive Medicine:

Preventive Medicine is a branch of medicine that is different from Public Health. It is a sub- specialty of Medicine mainly practiced by Doctors. Preventive Medicine dates back to the 18th century.

III. MODERN MEDICINE

After 1900, medicine moved faster toward specialization, and a rational, scientific approach to disease. The pattern of disease began to change. Modern diseases include: cancer, diabetes, cardiovascular disease, and mental illness. These became the leading causes of death in industrialized countries.

Curative Medicine:

It's primary objective is the removal of disease from the patient rather than from the mass. It employs various modalities to accomplish this objective e.g diagnostic techniques, treatment etc.

Preventive Medicine:

Preventive Medicine by definition is applied to healthy people, customarily by actions affecting a large population. It's main objective is the prevention of diseases

and promotion of health. Three levels of prevention are now recognized. These includes:

a. **Primary prevention**: Intended to prevent diseases among healthy people.
b. **Secondary prevention**: Directed towards those in whom the disease has already developed.
c. **Tertiary prevention**: Aimed at reducing the prevalence of chronic disability due to the disease.

Social Medicine:

Social Medicine by derivation is the study of man as a social being in his total environment. It's focus is on the health of the community as a whole. Social Medicine stands on two pillars: Medicine and Sociology.

Changing Concepts in Public Health:

There are four phases which includes:

a. **Disease Control Phase (1880 - 1920):** In the 19th Century, we had sanitary legislation and sanitary reforms which aimed at the control of man's physical environment e.g: water supply, sewage disposal, refuse disposal etc. This measures were not aimed at the control of any specific disease but they vastly improved the health of the people.
b. **Health Promotional Phase (1920 - 1960):** At the beginning of the 20th Century, a new concept called the concept of health promotion began to take shape. During this phase, the state assumed responsibility of citizens.
c. **Social Engineering Phase (1960 - 1980)**: Because of the changing patterns of diseases, this phase was made to address this. Public Health entered a new phase in the 1960 described as the social engineering phase.
d. **Health for All Phase (1981 - 2000A.D):** Members of the WHO pledged themselves to an ambitious target to provide 'Health for All' by the year 2000, an attainment of a level of health that will permit all people to lead a socially and economically productive life.

IV. MEDICAL REVOLUTION

State of the Art:

Medicine has moved from the organism to the organ and from the organ to the cell, and from the cell to molecular properties. The discovery of the biological role of nucleic acids, the uncovering of the genetic code and its role in regulating life processes are marvelous discoveries in recent years. Medicine has acquired a vast body of knowledge and has become highly technical.

Failure of Medicine:

Despite spectacular biomedical advances and massive expenditures, death rates in the developed countries have remained unchanged; and in life expectancy. The following are reasons for the proposed failure of Medicine:

a. With increased medical cost, there is no increased benefit for health.
b. Despite spectacular advances in medicine, the threat to life posed by certain major diseases like malaria, leprosy, schistosomiasis etc. have not lessened nor increased.
c. The expectations of life remained low and infant and child mortality rate still remains high especially in developing countries despite the advances in medicine.
d. Studies have shown that significant improvements in lifespan has been achieved through improved food supplies and sanitation before the advent of modern drugs and technology.
e. There is no equity in the distribution of health services resulting in limited access to healthcare for a large segment of the world's population.
f. Modern Medicine is also attacked for it's elitist orientation even in health systems adapted to overcome social disparities.

Social Control of Medicine:

Socialized Medicine envisages provision of medical service and professional education by the state but the programme is operated and regulated by professional groups rather than by the government.

Family and Community Medicine:

Family medicine is defined as a field of specialization in medicine which is neither disease nor organ oriented. It is family oriented medicine or health care centered on the family as a unit.

Community Medicine is the successor of what was previously known as public health, community health, preventive and social Medicine. The faculty of Community Medicine of Royal College of Physicians has defined Community Medicine as “that specialty which deals with populations and comprises those doctors who try to measure the needs of the population, both sick and well, who plan and administer services to meet those needs and those who are engaged in research and teaching field.

V. HEALTH CARE REVOLUTION:

Background:

A very high proportion of the population in many developing countries and especially in rural areas do not have ready access to health services. Healthcare services favored only the privileged and urban dwellers. The cost of healthcare is rising without much improvement in their quality. Clearly, there has been a growing dissatisfaction with the existing health services and a clear demand for better healthcare.

Health for All:

Against the above background, the 30th World Health Assembly resolved in May 1977, that "the main social target of Government and WHO in the coming decades should be the attainment by all citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life". Viewed in long-term context, Health for All simply means the realization of the WHO's objective of attainment by all people of the highest possible level of health.

Primary Health Care:

Primary health care is a new approach to health care, which integrates at the community level all the factors required for improving the health status of the population. It is available to all people at the first level of health care and is based on principles of equity, wider coverage, individual and community involvement and intersectional coordination.

Deprofessionalization of Medicine:

The practice of primary health care involves a good deal of deprofessionalization of Medicine. While the physician still holds his unique position in the field of health care in general, the participation of a new cadre of health workers e.g. community health workers, multipurpose workers, practice of indigenous medicine, social workers etc. with relatively little training have been considered to provide health. The medical man can no longer restrict himself to his traditional role as diagnoser of ailments, prescription of pills and potions. He has acquired new roles - being an educator, case finder, preventer, counselor and an agent of social change.

The Millennium Development Goals:

The Millennium Development Goals place health at the heart of development and represent commitments by governments throughout the world to do more to

reduce poverty and hunger and to tackle ill-health, gender inequality, lack of education, access to clean water, and environmental degradation.

In the end... Medicine will continue to evolve so long as man's quest for better health continues.

MEDICAL TERMS AND CONCEPTS

- **Rhinoplasty:** Rhinoplasty is a type of plastic surgery that changes your nose's shape and size. Some people have cosmetic rhinoplasty to improve how their nose and face look. Others undergo functional rhinoplasty, which improves breathing and nasal function.
- **Disease Etiology:** Etiology, in the fields of biology and medicine, refers to the cause of a disease. Etiologies of disease may be intrinsic, or of internal origin, extrinsic, or of external origin, or idiopathic, which means of unknown origin.
- **Epidemic:** The Centers for Disease Control and Prevention (CDC) describes an epidemic as an unexpected increase in the number of disease cases in a specific geographical area. Yellow fever, smallpox, measles, and polio are prime examples of epidemics.
- **Endemic:** A disease outbreak is endemic when it is consistently present but limited to a particular region. This makes the disease spread and rates predictable. Malaria, for example, is considered endemic in certain countries and regions.
- **Pandemic:** The World Health Organization (WHO) declares a pandemic when a disease's growth is exponential. This means the growth rate skyrockets, and each day cases grow more than the day prior.
- **Quarantine:** Quarantine refers to the restriction of movement or separation of well persons who have been exposed to a contagious disease, before it is known whether they will become ill.
- **Isolation:** Isolation refers to the separation and restricted movement of ill persons who have a contagious disease in order to prevent its transmission to others. It typically occurs in a hospital setting, but can be done at home or in a special facility. Usually individuals are isolated, but the practice may be applied in larger groups.
- **Public Health:** Public Health according to C.E.A Winslow is defined as the science and art of preventing disease and prolonging life and promoting health and efficiency through organized community efforts.
- **Epidemiology:** Epidemiology is the branch of medical science that investigates all the factors that determine the presence or absence of diseases and disorders.
- **Morbidity:** Morbidity is the state of being unhealthy for a particular disease or situation, whereas mortality is the number of deaths that occur in a population.

- **Mortality:** Mortality is another term for death. A mortality rate is the number of deaths due to a disease divided by the total population.
- **Incubation Period:** The incubation period is the time it takes for an infection to develop after a person has been exposed to a disease-causing organism. The incubation period ends when the first signs or symptoms of the disease appear.
- **Allopathic Medicine:** Allopathic Medicine is defined as the treatment of diseases by the use of a drug which produces a reaction that itself neutralizes the disease by the introduction of antibacterial and antibiotic agents.
- **Homeopathy:** It is a system of Pharmaco - dynamics based on the treatment of disease by the use of small amounts of a drug that in healthy persons, produces symptoms similar to those of the disease being treated.
- **Speciality:** Some Specialities have emerged based on clearly defined skills such as Surgery, radiology, and anesthesia; some based on parts of the body such as ENT, Ophthalmology, Cardiology, Gynaecology; and some based on particular age or sex groups such as Paediatrics, Geriatrics and Obstetrics.
- **Subspecialty:** Again, within each speciality, there has been a growth of Sub-specialities. For example, the sub- speciality in Paediatrics includes: Neonatogy, Primatology, Paediatric Cardiology, Paediatric Neurology and Paediatric Surgery.
- **Concept of Risk Factors**: A risk factor is a characteristic, condition, or behavior that increases the likelihood of getting a disease. It is simply something that increases the chance of developing a disease.
- **Concept of Disease Eradication:** Disease Eradication refers to the permanent reduction to zero of the worldwide incidence of infection caused by a specific agent as a result of deliberate efforts; intervention measures are no longer needed. Example: smallpox.
- **Concept of Disease Elimination**: Disease elimination refers to the reduction to zero of the incidence of a specified disease in a defined geographical area (Country) as a result of deliberate efforts; continued intervention measures are required. Examples of eliminated diseases vary from Country to Country.

THEORIES OF DISEASE CAUSATION, PRINCIPLES AND CODES

I. THEORIES OF DISEASE CAUSATION

1. The Supernatural Theory of Disease: It states that diseases are interpreted as being punishment for one's past sins in some cultures.

2. Tridosha Theory of Disease: The four doshas are vata (wind), Pitta (gall) and Kapha (mucus). Disease was explained as a disturbance in the equilibrium of the

three doshas. When these are in perfect balance and harmony, a person is said to be healthy.

3. The Theory of the Four Humors: This theory originated from Greek Medicine and it stated that health prevailed when the four humors were in equilibrium and when balance was disturbed, disease was the result. The four humors were - phlegm, yellow bile, blood and black bile.

4. Theory of Contagion: Contagion Theory holds that a disease can be spread from person to person through direct contact (physical contact) or by indirect contact (through a cloth or any object containing an infectious microorganism or through the air carrying an infectious microorganism.

5. Miasmatic Theory: The miasma theory stated that diseases are caused due to unhealthy or polluted vapors rising from the ground, or from decomposed material.

6. Theory of Spontaneous Generation: Spontaneous generation is an obsolete body of thought on the ordinary formation of living organisms without descent from similar organisms. Typically, the idea was that certain forms such as fleas could arise from inanimate matter such as dust or that maggots could arise from dead flesh.

7. Theory of Multifactorial Causation: In diseases of multifactorial causality, genetic and environmental factors contribute to the disease process whereby a disease can be considered the result of "phenotypic development occurring within an environmental context.

8. Germ Theory of Disease: Germ theory, in medicine, states that certain diseases are caused by the invasion of the body by microorganisms.

II. PRINCIPLES

The Yang and Yin Chinese Principle of Medicine:

The Yang is believed to be an active masculine principle and the yin, a negative feminine principle. The balance of these two opposing forces meant good health. Yin and Yang are the underlying principles of Chinese philosophy and medicine. Good health is believed to come from a balance of Yin (negative, dark, and feminine) and Yang (positive, bright, and masculine). See picture: Yang (left bright side), yin(right dark side)..

John Snow's Experiment:

In 1854 Snow did not know what was in the water from the street pump, or if the water was indeed the source of cholera. Vibrio cholerae bacteria were not identified until almost 30 years later in India in 1883, by the pioneering German physician and

scientist Dr Robert Koch. Snow's approach to identifying and eliminating the source of the 1854 outbreak elegantly illustrates the main features of the scientific method. He made an accurate map of the households in his district and recorded the number and location of every death from cholera. John Snow mapped the area showing where all the pumps were located and where all the people who got sick lived. When Snow looked at his completed map, He observed that most of the affected households took their water from the same pump and he formed the hypothesis that something in the water had caused them to develop cholera. He was able to show them that all the people who got sick took water from a particular pump. He presented his data to the local authorities and he convinced them of his theory. They removed the handle to the pump in the center of the neighborhood and the outbreak ceased.

III. CODES

The Code of Hammurabi:

The code of Hammurabi is the very first codification of medical practice. The code governed the conduct of physicians and provided for health practices. Doctors whose proposed therapy proved wrong, ran the risk of being killed.

The Hippocratic Oath:

The Hippocratic Oath is the keystone of Medical ethics. It sets a high moral standard for the medical profession and demands absolute integrity of Doctors.

NAMES AND THEIR CONTRIBUTIONS IN MEDICINE

1. **Henry Siergerist:** a Medical historian, stated that every culture had developed a system of Medicine, and Medical history is but one aspect of the history of culture.
2. **Dubos:** Described ancient Medicine as the mother of sciences which played a large role in the integration of early cultures.
3. **King Ashoka** (226 B.C): Together with other Buddhist Kings, patronized Ayurveda as state Medicine and established schools of Medicine and public hospitals
4. **Charaka** (200A.D): The most popular name in Ayurvedic medicine. He compiled his famous treatise on Medicine, the "Charaka Samhita".
5. **Susruta**: He is regarded as the father of Indian Surgery. He compiled the Surgical Knowledge of his time in his classic, "Susruta Samhita". This work is mainly devoted to Surgery. It also includes Medicine, Pathology, Anatomy, Midwifery, Ophthalmology, hygiene and bedside manners.

6. **Samuel Hahnemann** (1755-1843): He propounded Homeopathy which gained foothold in India during 1810 and 1839.
7. **Hammurabi**: He was a great king of Babylon who lived around 2000 B.C. He formulated a set of drastic laws known as the code of Hammurabi that governed the conduct of physicians.
8. **Aesculapius** (1200 B.C) was an early leader in Greek Medicine. His staff entwined by a serpent continues to be the symbol of Medicine.
9. **Hippocrates** (460-370 B.C): He is referred to as the 'father of Medicine'. He studied and classified diseases based on observation and reasoning.He challenged the tradition of magic in Medicine and initiated a radically new approach in Medicine i.e. application of clinical methods in Medicine. He was the first true Epidemiologist.
10. **Douglas Guthrie:** He was a medical historian who talked about the legend that Hygiene was worshiped as the goddess of Health and Panacea as the goddess of Medicine, these were the two daughters of Aesculapius.
11. **Galen** (130-205A.D) was a medical teacher and physician. His important contributions were in the field of Comparative Anatomy and Experimental Physiology. He observed that diseases are due to three factors - predisposing, exciting and environmental factors.
12. **Rhazes:** He was the first to observe the pupillary reaction to light; to use mercurial purgative; and to publish the first known book on Children's diseases.
13. **Avicenna:** He compiled a 21 volume encyclopedia, the "canon of Medicine" which was to leave it's mark on Medical theory and practice.
14. **Paracelsus** (1493-1541): He revived Medicine. He publicly burnt the works of Galen and Avicenna and attacked superstition and dogma and helped turn Medicine towards rational research.
15. **Fracastorius** (1483 - 1553): He enunciated the 'theory of Contagion'. He recognized that syphilis was transmitted from person to person during sexual relations. He became the founder of Epidemiology.
16. **Andreas Vasalius** (1514 - 1564): He did lots of dissections on the human body and demonstrated some of Galen's errors. He raised the study of Anatomy to a science and has been called " the first man of modern science.
17. **Ambrose Pare** (1510 - 1590): He was a French army Surgeon and was regarded as "the father of Surgery". He advanced the art of Surgery.
18. **John Hunter** (1728 - 1793) taught the science of surgery.
19. **Thomas Sydenham** (1624 - 1689): He is also regarded as the first distinguished Epidemiologist. He made a differential diagnosis of scarlet fever, malaria, dysentery and cholera.
20. **Harvey:** He discovered the circulation of blood in 1628.
21. **Leeuwenhoek:** He discovered the microscope in 1670.
22. **Jenner:** He discovered the vaccination against smallpox in 1796.

23. **Morgagni** (1682 - 1771): He found a new branch of Medical science, Pathologic Anatomy.
24. **Edwin Chadwick** (1800 - 1890): He investigated the health of the inhabitants of the large towns with a view to improve the conditions under which they lived.
25. **Johanna Peter Frank** (1745 - 1821): He was the health philosopher in his time, conceived public health as good laws enforced by the police and enunciated the principle that the state is responsible for the health of it's people.
26. **John Snow:** As an Epidemiologist, he studied the epidemiology of cholera in London from 1848 to 1854 and established the role of polluted drinking water in the spread of cholera.[1]
27. **William Bud:** In 1856, by careful observation of an outbreak of typhoid fever in rural north of England and concluded that the spread was by drinking water not by miasma and sewer gas.
28. **Sir John Simon** (1816 - 1904): He was the first Medical officer of health in London. He built up a system of public health in England which became the admiration of the rest of the world.
29. **Lemuel Shattuck** (1793 - 1859): He published his report on health conditions in Massachusetts.
30. **Louis Pasteur** (1822 - 1895): As a bacteriologist, he demonstrated the presence of bacteria in air. He disproved the theory of "spontaneous generation". In 1873, he advanced the Germ theory of Disease.
31. **Robert Koch** (1843 - 1910): He showed that Anthrax was caused by a bacteria.
32. **James Lind** (1716 - 1794): He was a naval Surgeon and he advocated the intake of fresh fruit and vegetables for the prevention of Scurvy in 1753.
33. **Edward Jenner** (1749 - 1823): He discovered vaccination against smallpox in 1796.
34. **Bruce:** A British Army Surgeon showed that the African sleeping sickness was transmitted by tse-tse fly.
35. **Ross:** In 1898, he demonstrated that malaria was transmitted by the Anopheles mosquito.
36. **Walter Reed:** Together with his colleagues in 1900, he showed that yellow fever was transmitted by the Aedes mosquito.
37. **Pettenkofer** (1819 - 1901): He was the first to moot the theory of Multifactorial Causation of Disease.
38. **Neuman** (1847) **and Virchow** (1848): They sow the seed of social Medicine.
39. **Alfred Grotjahn** (1869 - 1931): He revived the concept of Social Medicine in 1911. He stresses the importance of social factors in the Etiology of disease, which he called Social Pathology.
40. **Rene Sand:** Found the Belgian Social Medicine Association in 1912.

[1] See under John Snow's Experiment.

41. **John Ryle:** Together with his group, visualized Social Medicine as an evolution of medicine and they promoted the concept of social Medicine in England.
42. **Professor Crew:** He stated that Social Medicine stands on two pillars - Medicine and Sociology.
43. **McKeown:** He contributed to the definition of Social Medicine stating that in its contemporary usage, Social Medicine has two meanings: one broad and ill-defined, the other restricted and precise. He gave details to these two meanings.
44. **C.E.A Winslow:** He defined Public Health as the science and art of preventing disease, prolonging life and promoting health and efficiency through organized community effort. This definition summarizes the philosophy of Public Health which remains largely true even today.
45. **Lord Dawson:** The Concept of health center was first mooted by him in 1920 in England.
46. **John Bryant:** In the introduction to his book, "Health and the developing world presented a gloomy picture and a challenge of inequalities in health.
47. **Virchow:** In 1848, he wrote that "Medicine is a social science and politics is Medicine on a large scale.
48. **Dr. Francis Peabody:** He commented that specialization in Medicine had already reached it's Apex and that modern Medicine had fragmented the health care delivery system to too great a degree. He called for a rapid return of the general physician who would give comprehensive and personalized care.
49. **Dr.Isaac Ladipo Oluwole:** He was the first Medical Officer of Health in Nigeria.
50. **Dhanvantari:** Was known as the Hindu god of Medicine.
51. **Horus:** Was known as the god of Health in Egyptian Medicine.

PRACTICE QUESTIONS

1. List and explain the phases of Public Health.
2. State the theories of Disease Causation.
3. Explain the experiment carried out by John Snow to identify the source of Cholera.
4. Define the following:
    a. Public Health according to C.E.A Winslow
    b. Epidemic
    c. Endemic
    d. Isolation
    e. Quarantine
    f. Incubation Period

5. The last known case of smallpox was in which country and what year?
6. List names and their Contributions in Public Health.
7. List names and their discoveries.
    a. Who discovered the microscope
    b. Who discovered the circulation of blood
    c. Who discovered the vaccination against smallpox
8. Who was the first Medical Officer of Health in Nigeria?
9. Who was the first Medical Officer of Health in England?
10. List diseases that the germ theory can explain and cannot explain.
11. What is the only known disease to have been eradicated.
12. Outline the tools for Health for All.
13. Explain the Theory of Multifactorial Causation of Disease.
14. Explain the Contagion theory of disease causation.
15. Write on the triumphs (achievements) of Public Health..
16. Name the specialization of Medicine according to parts of the body.
17. Mention the Subspecialties of Paediatrics.[2]

[2] **COURTESY:**
Hon. Larry Bassey David
H.O.R. UUMSA Parliament.