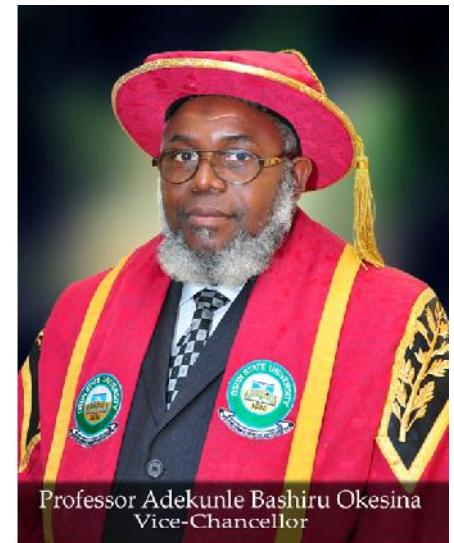


# CHALLENGES OF MEDICAL PRACTICE IN A DEVELOPING COUNTRY SUCH AS NIGERIA

*BY*

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# INTRODUCTION

- Problems facing health care delivery in the developing countries like Nigeria is multifaceted in origin. Factors which often occur in combination include: economic, socio-cultural and political. These factors are interwoven with poor planning and with poor implementation of health care policies and programs resulting in weak referral system; when it exists at all. Also, of importance is the problem of non-availability, poor accessibility and lack of sustainability of services.



I will discuss these issues by looking at problem of disease burden (both communicable and non-communicable), problem of inadequate number of health personnel, lack of health facilities and social amenities. As a pathologist, I will mention briefly how lack of laboratory support is affecting health care delivery. I will leave solution to these problems I have raised to all of us to thinking for solutions.



# PROBLEM OF DISEASE BURDEN

- Traditionally, Africans residing mainly the tropical zone, are affected in large numbers with so called tropical diseases which is another way of describing infectious diseases. Infectious disease can be chronic or acute. However, in recent times, it has become obvious that chronic non-communicable diseases (CNCDs) have also become a serious burden in this environment.



CNCDs can be defined as diseases or conditions that occur in, or are known to affect, individuals over an extensive period of time and for which there are no known causative agents that are transmitted from one affected individual to another.



The major CNCs are: Cardiovascular Diseases (CVDs represented mainly by: Coronary Heart Disease, Hypertension and Stroke), Diabetes Mellitus, Cancers, Osteoporosis, Chronic obstructive Respiratory Diseases, Mental Health and Blindness. These diseases have assumed very important position as the cause of mortality and morbidity in developing world (1). Cases of sudden death even among doctors have reached an epidemic proportion.

We all have numerous examples of friends, relations co-workers who died without any serious illness other than sudden collapse. The lesson from these is that preventive strategy must follow a holistic approach. Regular clinical, radiological and laboratory check up to detect presence of risk factors is very important in addition to diet and exercise.



Recent observations show that the prevalence of CNCDs such as hypertension, diabetes is increasing rapidly in sub-Saharan Africa. About a decade ago, we carried out a survey in the rural Nigerian population and observed low prevalence of some risk factors of coronary heart disease, such as obesity, elevated total cholesterol and hypertension (2). However, there was a higher prevalence of diabetes (2%) when compared with the result (1.6%) of earlier similar survey from the south western part of the country (3)



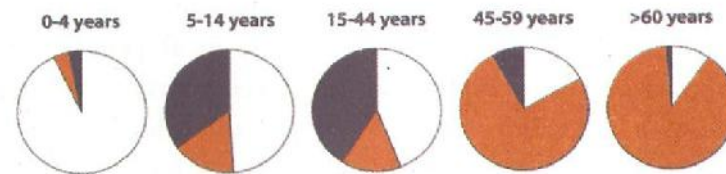
In Africa, particularly in the urban areas, significant demands are being made on health services by patients with CNCDs (4). The projections from the Global Burden of Diseases suggest that by the year 2020 the proportion of the overall burden in the sub-Saharan Africa due to CNCDs will increase to somewhere between 24% and 34% and among adults aged 15 – 59 years to between 37% and 42% (5).



Due to this increase in burden, patients with these conditions will be making significant demands on the health care resources (6). In 2001 we carried out a survey among factory workers in South Africa and found a prevalence rate of 4.5% for diabetes and 5.1% for impaired glucose tolerance. The prevalence of diabetes was similar in male and female workers, with the highest incidence observed in the age group from 40 – 49 years. No subject below 40 years was found to be diabetic and incidence increases with age (7).

Furthermore, it has been stated that unless preventive measures are taken, 380 million people worldwide will have diabetes by 2025, with the largest increase occurring in developing countries (8).





Communicable diseases, maternal and perinatal conditions and nutritional deficiencies.



Noncommunicable conditions



Injuries

**Figure 1.** Leading causes of death in low and middle income countries by age.

*Adapted from World Health Report, 1999.*

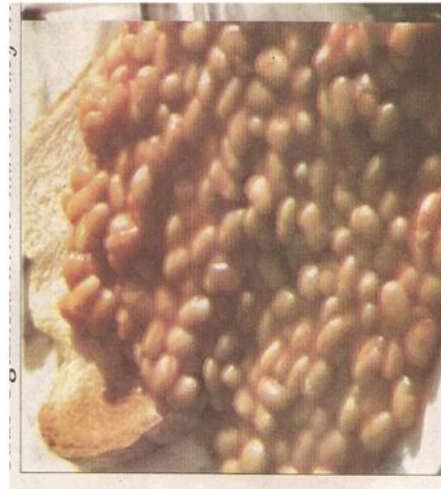
Incidence of Chronic diseases as cause of mortality increases with age





**Figure 2.**

Smoking play a very important role in CNCDS- Lung cancer and a Potent risk factor of arteriosclerosis



**Figure 3.**

Over feeding, will lead to overweight and obesity which will in turn reduce physical activity.



Several factors are implicated in the increasing burden of CNCDs, such as: longer average lifespan, tobacco use, decreasing physical activity, and increasing consumption of unhealthy foods. Fortunately, risk factors of CNCDs are largely preventable through modification of lifestyles including eating habit . Up to 80% of premature deaths from heart disease, stroke and diabetes can be averted with known behavioural and pharmaceutical interventions.



# PERSONNEL PROBLEMS

TABLE 1

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## PERSONNEL PROBLEMS

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- Limited number of skilled personnel
- Lack of training programme
- Lack or very inadequate training facilities
- Trainees who go abroad do not return
- Trainees who return lack facilities to apply what they learnt

Poor pay means no job satisfaction

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Most developing nations have extreme shortages of doctors and other medical personnel. This shortage affects both the doctors without specialist training and those who are specialised. As a pathologist, I will seek your indulgence to use pathologist distribution as an example of severe shortage of specialist in this environment.





Although pathologist staffing in North America and Europe varies from a low of 14 to 40 per million populations, many developing countries are served by a small fraction of this, varying from 0 to low single digits. For example, Uganda has 18 practicing pathologists for a population of 28 million, and Tanzania has 15 pathologists serving 38 million people. Serra Leone has 3 pathologists to 5 million people and Ghana has 20 to 22 million. Kenya also has a low ratio figure.

The distribution in Nigeria varies widely from state to state. They are concentrated mainly in the Teaching Hospitals and few in Federal Medical Centers. In Osun State of Nigeria with the presence of Obafemi Awolowo University Teaching Hospital (OAUTH) and Ladoke Akintola University of Technology Teaching Hospital (LAUTECHTH) there are 28 Pathologists to a population of 3.4 million. The distribution are OAUTH (a Federal Teaching Hospital) 16; LAUTECHTH (a State Owned Teaching Hospital) 11 and State Health Management Board 1. In Kwara State there are about 15 Pathologists (all are in University of Ilorin Teaching Hospital) for a population of 2.4 million.

In Oyo State there are about 30 Pathologists (24 are in University College Hospital) to a population of 5.6 million. Kaduna state has 15 pathologists to a population of 6 million. There are 36 states in Nigeria and these examples are highly privileged because they have one or two Teaching Hospitals attached to Universities. In many states there are no Pathologists at all. This lack of adequate number of personnel will have effect not only on training but also provision of services to the population.

Trainees who are fortunate enough to go abroad and attend programme in Western institutes of learning usually encounter difficulties in applying their new skills on their return home. Such exposure which was meant to contribute to man power needs of the developing countries sometimes become an avenue for brain drain because a good number of such trainees refuse to come back after the training. Western countries have long relied heavily on foreign-trained physicians for the provision of their own manpower needs (9,10).

In addition to the direct emigration there is an indirect effect, when countries with a relatively high level of training, such as South Africa, lose their qualified staff to the West and then in turn attract medical personnel from other African countries. Compounding this problem are recruiting efforts by Western Non-Governmental Organizations (NGOs) and programs, such as those supported by the Organization for Economic Cooperation and Development,

which tend to divert health professionals from frontline practice into their own projects by offering them higher salaries and benefits. In Nigeria, examples of such NGOs which drain heavily on our work force into their projects include: (a) AIDS Prevention Initiative in Nigeria (APIN) (b) President's Emergency Plan for AIDS Relief (PEPFAR) and (c) Global AIDS Initiative in Nigeria (GAIN) etc.



## TABLE

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### **INFRASTRUCTURAL AND EQUIPMENT PROBLEMS**

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- Inadequate space
  - Lack of basic equipment
    - ☐ Donated equipment not useful
    - ☐ Many are non-functional and outmoded
    - ☐ No expert to fix problem
    - ☐ No spare parts
  - Lack of consumables
    - ☐ May be expensive
    - ☐ Manufactured abroad and delay in procurement
    - ☐ Storage problem because of lack of power or refrigerator
  - Lack or erratic supply of pipe borne water
  - Lack or erratic supply of electric power
- 



# INFRASTRUCTURAL AND EQUIPMENT PROBLEMS

- Lack of infrastructural facilities is one of the problems confronting the provision of health care services and training in developing countries. Spaces for clinics, wards, offices and diagnostic facilities such as (laboratories and radiological facilities) are often inadequate. Basic equipment are usually not available.





Donation of equipment from developed countries often compounds the problem they are meant to solve. Many times, such donations in form of used equipment or books are done without serious consideration as to how well these gifts fit the needs of the developing countries. Sometimes they donate non-functional and outmoded equipment.



The situation is made worse because such equipment are kept in the limited space that could have been used for active equipment. Equipment which have never been used, are often seen during accreditation visits in the passages and corridors of limited space several years after their donation or purchase.



Complex equipment designed for operation in temperate climate are sometimes donated to countries with a tropical climate, where things break down even more easily and where there may be no local expertise for fixing the problems that may arise. Occasionally when expert repairer is available we are faced from lack of spare parts.



In the Western World system of equipment lease are used, in which the hospital or Government will partner with the manufacturers so that equipment are supplied free and they only pay for the consumables. With such arrangements after a period of about four years or less the equipment will be replaced with a new model and the old one is withdrawn.



One will not be surprised if such equipment that are withdrawn are sold as new equipment to the developing countries. In developed countries equipment will never be installed without action plan for its maintenance, unfortunately this is not always so in developing countries.



Power supply is usually erratic from the main supplies and hospitals have to spend huge amount of money daily on diesel if services must be continuous to meet emergencies. Another reason why generator is often required is the provision of storage facilities for drugs,



samples for laboratory investigations and reagents, which is an essential part of laboratory service. Water supply is another major barrier to the smooth provision of services in developing countries.



With regard to the patients who are in need of services, there is the problem of availability, accessibility, affordability and sustainability. Health care structure in Nigeria stipulates that the Federal Government will be in charge of tertiary health institutions which include Teaching Hospitals and Federal Medical Centres. State Government will take care of General Hospitals and State Hospitals. Then the Local Government will be in charge of the Primary Health Centres.





In practice what one observes in most states in Nigeria, is a situation in which the co-ordinator of Primary Health Care has a big office in the state ministry of health and with little or no interaction with the Local Government authority. In an ideal situation, there should be a Primary Health Centre within a five kilometre radius. Also, a national policy should define organogram of operation of Primary Health Centres Nation wide. Lack of guideline for operation results in varied mode of operation.

In a national study on essential obstetric care facilities in Nigeria by the Federal Ministry of Health, only 13.9% of the estimated annual births take place in health facilities (11). Where the health facility is available, accessibility becomes the problem. This contributes to significant delays in accessing health care facilities. In most parts of Nigeria, roads are inaccessible and transportation to health care facility is extremely difficult.



Therefore, when a person desires to seek medical attention, it may take days to reach health care facility. Sometimes, pictures have been painted where patients are brought to the hospital on wheel barrows, bicycles, on donkeys or physically carried on stretchers (12).



## **PROBLEMS RELATED TO PROVISION OF LABORATORY SERVICES.**

### **TABLE**

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#### **PROBLEM OF SERVICES FROM THE LABORATORY**

- Non-availability of laboratory testing
  - Lack of Patients satisfaction
  - Turnaround time not usually defined
  - Absence of good quality assurance
  - Sample collection and transportation
  - Cost of laboratory testing
  - Circulation of result
  - Patients attitude to testing
  - Physicians attitude and behaviour
  - Lack of autopsy services
- 



In Nigeria there is usually no provision of laboratory services at the primary health care level. However, most secondary care level will have a laboratory which may just be a small room or cubicle housing a non functioning microscope with some staining facilities. It therefore means that only Teaching Hospitals, which serve as tertiary institutions provide reasonable amount of laboratory services. Even these services from tertiary institutions need to be improved upon.



Earlier in this lecture I sighted the distribution of the 16 pathologists who are at the moment working in Osun State of Nigeria out of which only one works in the state ministry of health. One of the simplest methods of performance assessment is patients' satisfaction. National quality control programme are not readily available in developing countries to ensure accuracy of results.



In recent times Association of Pathologist of Nigeria (ASSOPON) is in the process of putting one in place. Efforts are also in place by the Association of Laboratory Scientists. The obvious fact is that we are not yet there. Record showed that Ghana in recent times made attempt at National quality assurance programme and participation in external (international) as well (13)



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Supply of reagents and kits is another major problem affecting laboratory services in developing countries. The kits are usually manufactured abroad and are therefore sometimes not readily available. Erratic power supply also create problem of inadequate storage condition for the reagents.



Autopsies are not widely practiced in developing countries, for reasons; which include cost, cultural barriers, and lack of both facilities and trained personnel. Lack or inadequate number of autopsies will have serious effect in the training of doctors and medical practice. Also, reliable data that might impact significantly on health care policy and that can only be acquired through autopsies are not available



There is also a lack of forensic pathology expertise and practice in most developing countries. Therefore cause and manner of death may often not be as thoroughly investigated as expected.



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