

IMPROVING MATERNAL HEALTH IN
DEVELOPING COUNTRIES:
THE NIGERIAN EXPERIENCE

BY

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INTRODUCTION

It is with a deep sense of gratitude to my Almighty Father that I stand before you all today to give my inaugural lecture. It is a particularly significant event, because from the records available, this is the first time a serving Provost of the College of Medicine is giving an inaugural lecture. The uniqueness of this occasion is further underlined by the fact that I am giving this lecture in the last month of my tenure as the Provost of the College of Medicine. On the 31st of July, I will be concluding a ten year stretch of administrative service to the College, which started as Clinical Dean for the 1998 – 2000 sessions, Dean of Faculty of Medicine and Dentistry from 2002 – 2004 and finally Provost of the College from 2004 to 2008. It can then be said that the College of Medicine has provided me with a ladder which I have used to climb to a great height.

An inaugural lecture, being what it is, should come at the commencement or inauguration of one's Professorship. However, events in life of the individual or the university could chart another course. It is proper and correct for me to explain why I am giving my inaugural lecture about fifteen years after

my appointment as Professor of Obstetrics and Gynaecology. I applied for the position of Professor in 1993 after four years and nine months of joining the university as a senior lecturer. This was after a lot of difficulty, having being advised by the elders in the department not to submit my papers, because it was not yet my turn. The other consultants in my department were my seniors and teachers and had not yet applied. My papers eventually escaped from the department, and at the faculty level, my fate was not different. The appraisal had to deal with the pyramid issue, and only one case out of the two from my department, had to be submitted to the university. The university representative who was alert to the prevailing intrigue countered that both submissions should be allowed to proceed to the university. The same issue of supercession of my seniors was peddled to the university and I soon discovered that only two of my sets of publications were sent out, instead of the usual three, on the grounds that the university did not have sufficient funds to pay the external assessors. Further enquiries revealed that both assessors, one at University of Ibadan and the other at Makerere University Uganda had died. It took a new university administration to send out another set of publications and my promotion to the post of Professor was eventually announced in the year 2001 and backdated to 1993. I scored the distinction of being a candidate whose papers went to the dead, and came back alive.

I wish to thank the Vice Chancellor University of Nigeria, Professor Chinedu Nebo who has reinvigorated the deliverance of inaugural lectures in the University, and given me the opportunity to deliver my inaugural lecture today.

MY ODYSSEY IN MEDICINE

My life's journey as a medical practitioner, started with my admission into the University of Lagos in September 1973, where I started in "Prelim Medicine", which is the one year programme, preparatory to the main medical course. Here we studied the disciplines of physics, chemistry and biology, usually sharing classes with students who would eventually read engineering, physical sciences and biological courses. At the end of the session, I was one of the successful students who proceeded to the College of Medicine of the University of Lagos, Idi-Araba to read Medicine. College of Medicine of the University of Lagos is the first College of Medicine in Nigeria, and I was exposed to a lot of intellectual stimulation. At the College of Medicine of Lagos University, I came under the tutelage of highly accomplished and world acclaimed academics such as Professor Olikoye Ransome-Kuti in paediatrics who as the Federal Minister of health, eventually went on to propound and establish primary health care in Nigeria. Other icons in clinical practice included Dr. Sonny Kuku, Consultant Physician and Endocrinologist, Professor Femi Elegbeleye, Consultant Respiratory Physician, Professor Elebute,

the then Provost of the medical School and a consultant surgeon, Professor Abua Nwaefuna, consultant psychiatrist and Professor Akingba, consultant obstetrician and gynaecologist, who later proceeded to become the president of the Society of Obstetricians and Gynaecologists of Nigeria.(SOGON).

I dare say that the experience I gathered during my medical school days laid the foundation, and served also as a template for my future academic life and clinical practice. On graduating from the Medical School in March 1979, I proceeded to do a one year rotating internship in the specialties of internal medicine, surgery, obstetrics and gynecology as well as paediatrics. My national youth service corps year was spent in Minna, Niger State. This was my first year in Northern Nigeria, and it was very educative. My primary assignment was to set up a medical clinic at the advanced teacher's training college Minna, Niger State. I did that creditably to the admiration of the students and staff of the College, who wanted to retain my services. The call of further studies and advancement of my career was too strong for a continued stay at the college of education Minna, and I proceeded to Enugu to embark on a residency training programme.

My residency training at the University of Nigeria Teaching Hospital, Enugu, was an important landmark in my career. I enlisted in the department of obstetrics and gynaecology of the hospital in July 1981 as a senior house officer, and my first posting was under an

accomplished obstetrician and gynaecologist, Professor Uchenna Megafu, who devoted his time and energy to impart the intricacies of the specialty to me. In under one year of commencing the programme, I passed the primary examination of the National Postgraduate Medical College of Nigeria in obstetrics and gynaecology, at first attempt. The training programme was challenging, as there were many new things to learn, however it was also fulfilling as the ultimate goal in obstetrics is safe delivery of the mother and her newborn, which is usually a very happy event. I continued with my clinical training under the supervision of my consultants, acquiring the art and science of the specialty. My elective posting was in urologic surgery, and I worked under the supervision of another experienced surgeon, Professor Charles Attah from whom I inculcated the tenets of urology. In November 1983, I sat and passed rather prematurely the Part I examination of the postgraduate examination. I was the only pass out of ten candidates who sat for the examination from the University of Nigeria Teaching Hospital, Enugu, and naturally there was an uproar. Some of the candidates had done the examination up to ten times previously without success. The external examiner at the examination, a professor who came from Ireland remarked that he had never seen a candidate of my caliber and also that I should be given maximum marks. It became a matter of controversy how I managed to pass the examination. However, when the controversy died down, I was

promoted to senior registrar, two years after enrolling for the residency training as a senior house officer. In May 1987 I passed the Part II examination of the post graduate programme, and subsequently applied for appointment to the university as lecturer. Suffice it to say that the application met the usual opposition, on the grounds that my seniors were not appointed and had left the service, all of whom had specialist qualifications from the United Kingdom. The secret to my success was that I had done what the others neglected to do. I was publishing papers during my residency training and rejected private practice. The great African-American Nationalist, Malcom X had stated in his biography, that if you are out hunting fox with somebody, and you notice that your partner is succeeding more than yourself, watch it, he is doing something you are not doing. I invoked his counsel in this case and was eventually appointed senior lecturer/consultant in December 1988, skipping the position of lecturer one.

I will say that the period 1988 to 1996 was a highly productive one for me. As senior lecturer/consultant, I was teaching, doing research and also actively treating patients. In all these my output was prodigious, and resulted in my being voted by the medical students as the most popular teacher in 1988.

In order to internationalize my experience and also to improve my skills as an obstetrician and gynaecologist,

I applied for and obtained the scholarship for the overseas doctors' training fellowship, offered by the Royal College of Obstetricians and Gynaecologists of England. In February 1992, I started work as a clinical fellow at Crawley General Hospital England. In this position, I worked under an English Consultant, Dr. Peter Jackson who had previously worked in Jos Nigeria. This helped to make my assimilation into the British practice easier. In that hospital, I was exposed to the latest in my specialty. Equipments and practices which I had encountered only in textbooks previously, became routine. I was fascinated by the concept of prenatal diagnosis whereby disease conditions and malformations in the fetus were detected while still in the womb and dealt with before delivery. This practice saved the parents the agony of giving birth to malformed babies. It is hoped that this aspect of practice will be introduced into medical practice someday in Nigeria. When this is done, genetic conditions such as sickle cell anaemia would be more effectively treated before child birth. I also observed that it was possible to diagnose precancerous disease conditions early, before they become life threatening. One aspect that intrigued me most was colposcopy, which was an instrument used to visualize and diagnose precancerous conditions of the cervix. Such services are freely available in the developed countries, where they have used it to good effect to reduce the incidence of cervical cancer to minimal levels. We

have managed to acquire one at the teaching hospital in Enugu, and hope to use it to good effect.

In March 1993 after one year stay in the United Kingdom, I sat for and passed the Part II and Final Part of the Membership Examination of the Royal College of Obstetricians and Gynaecologists of England. Passing the examination in just one year of stay in the United Kingdom, and again at first shot was most unusual as one of my consultants remarked. I left for home soon after to continue my career with the university. On getting home, I was able to share my experience with colleagues, impart new skills to resident doctors and medical students. My patients also benefited from my newly acquired skill.

I was still restless in my quest for professional improvement. I successfully applied to Harvard University USA for the Takemi Fellowship in Public Health and enrolled for the 1995-96 program. My base department was reproductive health and my supervisor was Professor Rachel Snow. She was a very seasoned medical scientist and guided me through my research work titled "Norplant as a Contraceptive Devise in Eastern Nigeria". In this fellowship I came into contact with very eminent Professors, many had excelled in several aspects of public life before claiming their chair at Harvard. I believe this scenario to be very laudable, since it militates against in breeding. This programme also introduced me to

Health Policy. It is pertinent to note that Health Policy is an instrument for discussion and formulation of ideas, which if implemented would lead to the achievement of 'better health' for individuals and the community as a whole. I was opportuned to audit courses in biostatistics, epidemiology, health economics, demography, law and research grant proposal writings. These courses are necessary for building the capacity of individuals who hope to make impact on health care delivery in future. I successfully completed, published my research findings and returned to my position in Nigeria in August 1996.

CHOICE OF TOPIC

My choice of the topic "Improving Maternal Health in Developing Countries, the Nigerian Experience" for my inaugural lecture has been for several reasons. Firstly the training I have received throughout my postgraduate years seem to have focused entirely on ways and means of improving the health of the girl-child (mother in making), mothers, before and after birth, and ensuring that even in old age their quality of life is improved.

The most conspicuous step in ensuring optimal maternal health in Nigeria is quality and safety of delivery(childbirth). This is the final point in a long and tortuous journey. It has been said that labour and eventual childbirth is the most dangerous journey for both the passenger, in this case the baby, who travels

blindfolded, and the passage, which is the mother's birth canal, which has little room for manoeuvre. The only other comparable journey is that of the Provost, College of Medicine. He has to navigate the often dusky route between the university administration and that of the college. No wonder in earlier times, the obstetrician or accoucheur who excelled in his art was dubbed a "master".

My practice of reproductive health which has involved clinical care, teaching and research has spanned the length and breadth of obstetrics and gynaecology, all geared towards the improvement of maternal health. I have chosen to organize my lecture into various subspecialties of the practice viz:

- (i) **Paediatric Gynaecology:** This essentially deals with problems peculiar to the girl child from birth up to adolescence, otherwise known as puberty.
- (ii) **Adolescent Gynaecology:** During this, period the secondary sexual characteristics first emerge in the young girl and extends to the time she attains full maturity and is ready for child bearing.
- (iii) **Pregnancy and childbirth:** In this subspecialty, all aspects of prenatal care, delivery and the puerperium (after birth care) are covered.
- (v) **Safe motherhood** and prospects of achievement of the millennium development goals are also

explored in this sub heading, discussing essentially maternal mortality and how to curtail it.

I have used my creative output and research findings to explore these areas and also discussed contributions from other workers. It is hoped that this discuss will throw some light into improving maternal health in Nigeria and other developing communities. In order to draw up my research agenda in my earlier years, I searched for areas that had not been explored, which were many and set to work.

PAEDIATRIC GYNAECOLOGY:

It is said that the obstetric career of a woman is written in the womb, and this stretches up to her menopause or final cessation of her periods. The growing child requires adequate nutrition, protection from infectious diseases and crippling ones such as poliomyelitis. This is to avoid stunted growth and contracted pelvis in the child.

Nutrition:

Because of the many problems associated with bottle-milk feeding, including transmission of infection, over-dilution and gastroenteritis, breast milk is recommended for our environment. Exclusive breast feeding which ensures that the infant receives only breast milk provides the necessary nutritional needs of the child within his/her first six months of existence. Breast milk in addition to its basic nutritional constituents is also rich in immunoglobulin, which

protects a newborn from intercurrent infections within the first six months of his/her existence. The University of Nigeria Teaching Hospital is among the over 1000 health facilities that have been designated as Baby Friendly. After infancy, adequate nutrition is also emphasized for the growing child. The paediatric department and Institute of Child Health of the teaching hospital have continued to provide services in this direction.

Immunization and Prevention of Febrile and Diarrhoeal Diseases

Certain diseases can be prevented by immunization including tuberculosis, diphtheria, pertusis or whooping cough. Tetanus, measles, yellow fever, hepatitis B and poliomyelitis. Their prevention as a means of decimating infant mortality and ensuring, healthy children are well recognized. Services for these are provided by the paediatrics department and the Institute of Child Health of the university teaching hospital, under the aegis of the National Programme of Immunisation (NPI).

Malaria and its complications remains a major public health challenge for Nigeria. The disease is endemic in the country and the burden on the national economy is heavy. It remains a major cause of infant febrile illness and death in Nigeria. Diarrhoeal diseases are significant causes of electrolyte and fluid loss which tend to compromise the health of children. The institution of oral rehydration therapy (ORT) prepared

and administered at home once illness starts has reduced the incidence of death from this disease to a large extent.

Childhood Care: This contributes substantially to ensuring that the mother-to-be grows up in a healthy manner and will be in the best possible condition of health¹. Love and affection shown to the newborn female child is invaluable. Her genitalia should not be mutilated for chauvinistic reasons in the name of female circumcision. Indeed, all harmful traditional practices against the girl-child should be abolished.

I used the case of “sexual abuse simulated by Schistosomiasis”² to explore childhood care and infection in children. Two cases of this infection were reported in the publication. A gynaecologist practicing in developing communities as elsewhere, should have a high index of suspicion for sexual abuse which could be rampant though unreported in our environment. However, he must also have a discerning mind. It is known that medical conditions can often be mistaken for child abuse. Examples from the literature include rickets reported by Paterson³ (1981) and misuse of folk remedies investigated by Nunez and Taff (1985)⁴. The first case was a 12-year-old Nigerian girl who presented in the hospital with a 2-week history of itching lesion in the perineum. She had not experienced sexual intercourse and was premenarcheal. On examination, there were numerous vulval and perineal warty growths. Purulent vaginal discharge was noted. The hymen was intact. A provisional

diagnosis of wart in the vulva was made. Microscopic analysis of the urine showed blood in urine, HIV and syphilis tests were negative. Some lesions were surgically excised and subjected to microscopic examination. This revealed granulomas containing the terminally spined ova of the worm, schistosoma haematobium. Therefore, perigenital schistosomiasis was diagnosed and she was successfully treated. The second case was that of a 14-year-old girl and her presentation, diagnosis and treatment were no different from the first case. Even in areas of the world where schistosomiasis is endemic, it is acknowledged that skin infestations are rare. In a small series covering the Igbo ethnic group in Nigeria (Onuigbo, 1975)⁵ skin involvement did not materialize. Rather, the involved sites were prostate, urinary bladder, appendix, peritoneum, testis, uterine cervix and fallopian tube. Consequently, skin eruption in a part of the body which may be associated with sexual abuse could turn out to be the aftermath of worm infestation. In conclusion, health professionals should consider medical conditions that could mimic the signs of child sexual abuse, particularly if these are rare.

An enigma often encountered in paediatric gynaecology in developing communities is female genital mutilation otherwise known as female circumcision. In a paper on acquired gynetresia “vulval agglutination”, I was able to show that female genital cutting was responsible for the majority (76%) of the cases of acquired gynetresia treated at the

University Teaching Hospital⁶. This finding is in contrast to reports from other studies in Nigeria which have implicated chemical vaginitis as the commonest cause⁷. Use of herbs applied to the vulva for management of gynaecological conditions such as infertility is widespread in Western Nigeria. In some other parts of the world such as Arabia, crude rock salt is inserted into the vagina in the puerperium to shrink it to its normal size⁸. This practice is unknown in Nigeria, and is a most serious one, since it militates against a satisfactory sexual life of the affected couple, thereby introducing stress into the marital relationship. It can also lead to infertility and consequently a broken marriage, since a childless marriage is viewed as a failed marriage in most Nigerian communities. Occlusion of the vagina, otherwise known as acquired gynetresia is known to lead to obstructed labour during child birth. Among the Igbo tribe of Eastern Nigeria, female circumcision is mostly carried out in the neonatal period, but a few communities carry out the operation at puberty or marriage. This contributed to the fact that most of our patients were first seen in the hospital at below 5 years of age.

The problems of female genital cuttings are of immense public health importance. This problem can only be effectively tackled by community-based education where the dangers of circumcision will be highlighted. The results of insertion of concoctions into the vagina and the consequences of patronizing

untrained local health practitioners and midwifery personnel should also be brought home to the general populace, and is hoped, will help to reduce the incidence of acquired gynetresia.

ADOLESCENT GYNAECOLOGY

While my practice of gynaecology for the childhood period has been shared essentially with paediatricians, adolescent gynaecological practice has been in most cases within the domain of the gynaecologist. My study on “Awareness and Practice of Contraception among Female Students of the Institute of Management and Technology (IMT), Enugu”,⁹ focuses essentially on our adolescents. It is a truism that there is remarkable increase in sexual adventurism amongst Nigerian young people as a result of westernization, with a lot of unintended consequences. This is so since parental watchfulness and the cultural taboos which are provided by the home settings and which reduce premarital sex are non-existent in the school environment. With little knowledge of sex education, poor attitude and lack of awareness of contraception, the effects of the sexual adventurism include unwanted pregnancies and contraction of venereal diseases.

The students’ poor knowledge of contraception is reflected in their reasons for objecting to the use of contraceptives. One major reason for objection was that the patients would subsequently develop infertility and ill health. This is not unexpected since in our

society a high premium is placed on a woman's fecundity. One would also hope that those who objected to the use of contraception due to religious reasons would not, for the same reasons, engage in premarital sexual intercourse. Ramez¹⁰ described an "adolescent syndrome" whereby the adolescent feels that others are at risk but not herself. In conformity with studies carried out elsewhere^{11, 12}; the majority of the students did not use any contraceptive at initial intercourse. The reason for this was lack of awareness and probably the "adolescent syndrome", were the girl did not consider herself at risk. Pregnancy could occur at initial intercourse.

It is known that a good number of our female student population do not know their actual 'safe period' and thus abstain from coitus in the wrong phases of their menstrual cycles¹³. It has been suggested that concern about prevention of pregnancy, sexually transmitted diseases and acquired immunodeficiency syndrome (AIDS) may be involved in adolescents' use of condoms¹⁴. However, its usage by the adolescent is infrequent since sexual intercourse among this group is sporadic in time and place. Only 8.5% of the study population used the contraceptive pill, whereas it is commonly used by the youth of the United States of America and the Caribbean¹⁰. Apart from its contraceptive action, it has been found to prevent occurrence of ovarian and breast masses, tumours of

the womb, as well as infections of the upper genital tract. However, unlike the condom, it does not protect against sexually transmitted diseases. Thus in this era of the HIV epidemic, prescription of the oral contraceptive pill for adolescent use should be approached with caution.

In Nigeria, as in many developing countries, abortion has not been legalized. Therefore any abortion procedure carried out by quacks, herbalists or medical practitioners in their private clinics either medically or surgically are considered illegal. In such circumstances the instruments used are unlikely to be adequately sterilized, and the abortionists knowledge of anatomy limited, the risk of sepsis and perforation of the uterus and intestines is great. I have again explored this carnage on our young people with my publication titled "Morbidity and Mortality from induced illegal abortion at the University of Nigeria Teaching Hospital Enugu" in 1990¹⁵. The condition is most serious, not only because of the danger of death from peritonitis and septicaemia, but because in so many instances it is the cause of bilateral tubal occlusion and subsequently infertility in later life. In the light of the grave danger to which these patients are exposed, the management of this condition immediately becomes major and demanding on the physicians and hospital resources. I am happy to report that the incidence of induced illegal abortion at the University Teaching Hospital which stood at 4 per 1000 deliveries has now fallen

appreciably. Perhaps improved health education and better contraceptive awareness has led to this decrease.

The adolescent period otherwise known as the puberty marks a period of marked psychological, physiological and social changes in the life of a youth. It is during this period that the body is prepared for reproductive functions, most especially child birth.

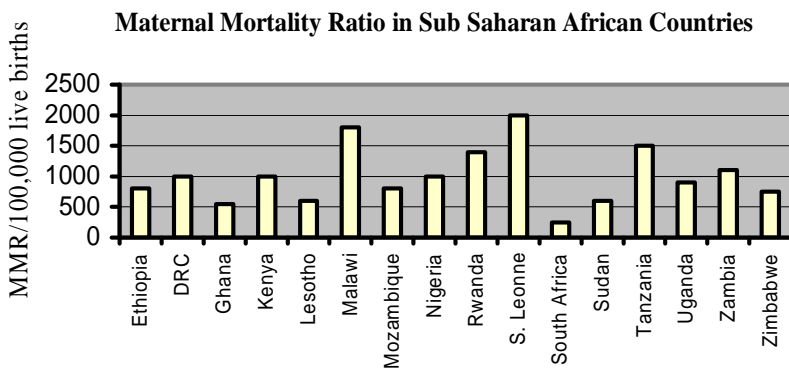
PREGNANCY AND CHILD BIRTH

Good Antenatal care is a sine qua non for a successful outcome for mother and child at childbirth. The essence of antenatal care is to identify and manage those illnesses, whose consequences could lead to morbidity or mortality of mother and infant. A maternal death has implications for the family, the community and the society in general. However, its impact is most immediate and especially severe on young children. According to the WHO, one million children worldwide are left motherless every year, primarily because their mothers had no access to or could not afford quality health care. These children are also more likely to die within two years of their mothers' death.

A sensitive antenatal care should identify mothers with high risk pregnancies, eg, grandmultipara who are women with five or more previous deliveries. These women are more likely to haemorrhage during delivery. Women who are pregnant for the first time,

the primigravidae are at increased risk of raised blood pressure, otherwise known as pre eclampsia, and may eventually convulse during delivery which is termed eclampsia. Another possible complications that could be obviated by good antenatal care is contracted pelvis, which could result in obstructed labour. Disease conditions such as sickle cell anaemia and HIV/AIDS could be detected and managed successfully. At the level of the secondary prevention, antenatal care should be seen as an essential component in the fight against maternal mortality. It is one of the major factors contributing to the reduction of maternal deaths in the industrialized countries¹⁶. In Zaria, Nigeria, the maternal mortality rate was 130/100,000 in women who had antenatal care and 2860/100,000 in women who did not have any form of antenatal care¹⁷. However, antenatal coverage in Nigeria is as low as 40% even in those areas, the quality of services is often less than optimal⁽¹⁸⁾. The larger proportion of pregnant women still patronize untrained traditional birth attendants during antenatal care and child birth¹⁹. It is known that pregnant women face considerable barriers in accessing orthodox antenatal care and delivery services throughout the country. These barriers are largely due to poverty at the household level which makes it impossible for women to access the increasingly expensive orthodox maternity services, especially in private health institutions. Reports on maternal deaths in Nigeria emphasize the strategic and important role made by adequate and accessible

antenatal care in its reduction; yet less than 20% of the women receive satisfactory care during pregnancy²⁰. Antenatal care therefore should be emphasized to our women as being essential in all pregnancies. Provision of such services free of charge will encourage the pregnant mothers to present themselves for care. Harrison¹⁰, in his review concluded the exemption of pregnant women from payment of user fees would go a long way to reducing the high maternal mortality rates in Nigeria. In Ebonyi State, Nigeria, since the introduction of free antenatal and delivery care in the State in February 2001, the number of antenatal patients attending the university teaching hospital has tripled and maternal mortality rate MMR has decreased from 4094 per 100,000 birth in the year 2000 through 3125/100,000 in 2001 to 889/100,000 in the 10 month period up until October 2002.



Certain definitions are necessary, for ease of discourse in this paper

- **Maternal death:** The death of a woman from pregnancy-related causes while pregnant or within 42 days of termination of pregnancy.
- **Maternities:** The number of mothers delivered of registerable live births at any gestation or still-births of 28 weeks or later.
- **Maternal mortality ratio:** The number of maternal deaths per 100,000 live births.
- **Direct maternal deaths:** Deaths resulting from obstetric complication of the pregnant state.
- **Indirect maternal deaths:** Deaths resulting from previous existing disease or disease that developed during pregnancy, and which was not due to direct obstetric causes.
- **Booked women:** Those who received formal antenatal care and delivered within the UNTH.
- **Unbooked women:** Those who did not receive any formal antenatal care but presented to the UNTH in labour or with complications.

I have tried to explore the issue of maternal mortality with four publications, the first two actually written while I was a resident. In the paper titled “maternal mortality in Anambra State of Nigeria”²¹ published in International Journal of Obstetrics and Gynaecology, in 1988, the maternal mortality rate (MMR) in 10 hospitals scattered all over Anambra State over a five

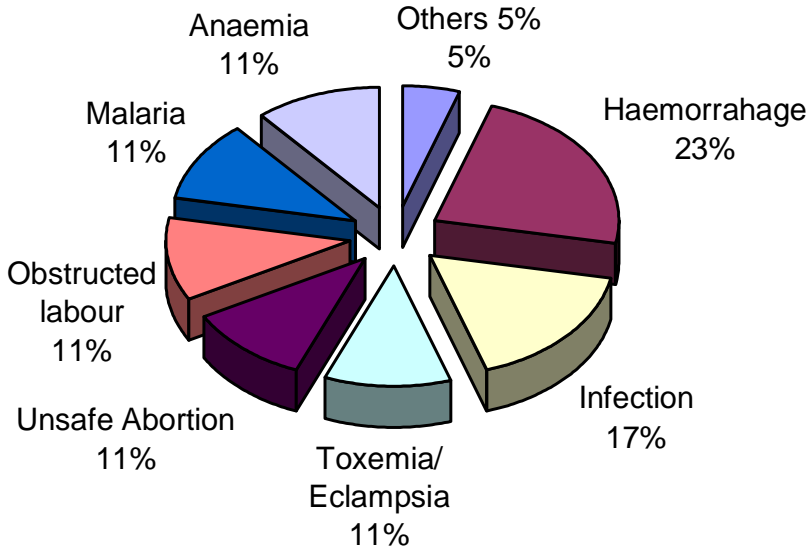
year period was studied. The hospitals covered urban, semi-urban and rural areas. A maternal mortality rate of 497 per thousand was recorded. My other publications on maternal mortality, include the following; Maternal mortality at the University of Nigeria Teaching Hospital Enugu; A 10 year survey²², Trop J obstet Gynec vol1 No 198 23-28; Maternal mortality in a rural community in Northern Nigeria, Orient Journal of Medicine, 1991, vol3, No3, 168-170²³; Avoidable maternal mortality in Enugu, Nigeria, Publ Hlth²⁴. The distribution of the causes of death are shown in the table beneath.

Table 1: Major causes of Maternal Death in Anambra State, Nigeria.

Causes of death	No.	%
Obstetric haemorrhage	55	23
Ruptured uterus	66	27.6
Obstructed labour	31	13
Sepsis	29	12.1
PIH ± eclampsia	19	7.9
Anaemia	7	2.9
Jaundice	7	2.9
Septic abortion	5	2.1
Not Stated	18	7.5

This picture is not different from that painted in other parts of Nigeria. See chart.

Major Causes of Maternal Deaths in Nigeria



Determinants of maternal mortality

- * **Phase I delay:** Delay in seeking care due to lack of knowledge of the woman and her family of complications in pregnancy, and cultural factors. Decision making on when to seek care, accessibility and quality of care.
- * **Phase 2 delay:** Delay in reaching the health facility due to lack of transportation, terrain, communication and affordability.
- * **Phase 3 delay:** Delay within the health facility due to inadequate skilled personnel, inadequate equipment, lack of blood and lack of motivation of staff.

These other determinants were discerned from the particular study quoted. A substantial amount of obstetric care is still being offered by traditional birth attendants, prayer house proprietors and other less skilled personnel. Maternal deaths and deliveries resulting from their practices are not recorded and are therefore unknown.

Of interest is an examination of the booking status of the casualties. Eighty-seven percent of the deaths occurred in unbooked patients. The importance of professional antenatal care can hardly be more eloquently depicted. Very closely associated with this phenomenon of unbooked cases are the factors of illiteracy and poor economic status. Poverty coupled with lack of appreciation of the benefits of modern antenatal care and delivery services inhibit those individuals from availing themselves of these services, thereby jeopardizing their chances of a successful pregnancy and delivery.

Avoidable factors

All the major causes of death are avoidable. Obstructed labour with or without uterine rupture, is a result of neglect either by the patient not seeking prenatal and intrapartal care or by the health provider in not anticipating or recognizing the existence of fetopelvic disproportion or abnormal lie.

The existing health care system in the state is far from ideal. Hospitals and health centres where facilities for overcoming some of the complications of pregnancy and labour such as eclampsia and obstructed labour, are sparsely located and often ill equipped. In the rural areas where 70% of the inhabitants of the state live, access to health facilities may at best be difficult and at the worst non-existent. In many cases there is absence of all-seasons roads and difficult terrain will have to be traversed before reaching, a health institution. In some instances, the only means of transporting these ill patients is the “bicycle taxi” or canoe, as the case may be. For a majority of these women the distances traveled are consequently often great both in time and length, and this contributes to further deterioration of the condition of the patients before any form of help can be rendered. Easy and prompt access to health facilities as well as good maternal and intrapartum care can eliminate obstructed labour and ruptured uterus almost completely.

A cursory look at some of my studies will throw some light into the five major causes of maternal deaths. The significance of anaemia and obstetric haemorrhage as complications of pregnancy and delivery in our environment is amply brought out by the publication titled “The challenge of grandmultiparity, in Nigerian obstetric practice”.²⁵

Table 11 : Complications of Grandmultiparity.

Complications	Grandmultiparae	Non grandmultiparae		Test of significance	
	(n = 733) (%)	(n = 5844)	(%)	Z	P
Anaemia	122	478	(8.1)	5.986	<0.05(S)^a
PET/hypertension	(16.6)	44	(0.7)	3.599	<0.05(S)
Placenta praevia	22	33	(0.6)	1.798	>0.05(NS)
Abruptio placentae	(3.0)	16	(0.3)	2.200	<0.05(S)
Multiple pregnancy	10	107	(1.8)	3.531	<0.05(S)
Breech presentation	(1.4)	40	(0.7)	3.498	<0.05(S)
Unstable/transverse lie	9	27	(0.5)	2.326	<0.05(S)
Diabetes mellitus	(1.2)	7	(0.1)	0.966	>0.05(NS)
	34				
	(4.6)				
	21				
	(2.9)				
	12				
	(1.6)				
	2				
	(0.3)				

^aS, significant; NS, nonsignificant.

This table clearly shows the magnitude of these problem.

A grandmultipara is a woman who has had five or more deliveries. Anaemia as a complication of pregnancy in the grandmultipara is universally recognized²⁶. Severe depletion of nutrient reserve in the ageing mother is no doubt a major cause of this problem. However, some writers²⁷ are of the opinion that the anaemia of grandmultiparity is a consequence of the low socio-economic class with which these patients are associated. Primary post partum haemorrhage is a major component of obstetric haemorrhage. The smooth muscle component of the

womb is largely replaced by fibrous tissue with repeated pregnancy. The ability of the womb of the grandmultipara to contract effectively is then limited, leading to uncontrolled bleeding at birth. Deaths from haemorrhage from whatever cause are entirely avoidable through early diagnosis and recognition of high risk cases, prompt and adequate treatment especially blood transfusion and the existence of facilities for surgical delivery. At the university teaching hospital, the booked pregnant women are encouraged to bring their spouse to donate a unit of blood. This policy ensures that blood is available at emergencies. The usefulness of this method is illustrated by the case of a husband who was asked to donate a unit of blood to his wife, otherwise she would die from haemorrhage. He asked to be allowed to consider the request for a while. About 10 minutes afterwards, he came back and announced that he had given it a thought and his decision was that it was wiser not to donate his blood, because it made more sense for one person to die than for both of them to die²⁸. We cannot and ought not prevent the first pregnancy, but we can and should surely prevent the 6th or 8th. Family planning is therefore invaluable in ensuring the health and life of our mothers.

Obstructed labour, which is a significant cause of maternal death, arises when the baby cannot descend in the birth canal for mechanical reasons despite good contractions of the womb. Obstructed labour is largely

preventable. Poor skeletal development arising from malnutrition and uncontrolled infectious diseases in childhood have been blamed for the high incidence of cephalopelvic disproportion leading to obstructed labour in developing countries²⁷. However ignorance, superstitious beliefs and inadequate health facilities also contribute to this unfortunate condition. Since a woman who is delivered by caesarean section is considered a reproductive failure in most communities in Nigeria, our women go to all lengths to achieve vaginal delivery even at great risks to their lives. Thus they may remain in their homes bearing down against a contracted pelvis or previous uterine scar under the supervision of a traditional birth attendant until obstruction or uterine rupture ensues. In a study by the author in 1991²⁹, it was noted that disproportion between the head of the fetus and the mother's pelvis was the commonest cause of obstructed labour. It is our practice to assess the pelvis of all first time pregnant women at 36 weeks of pregnancy to rule out this disproportion. This procedure helps to decrease the number of mothers who would eventually end up with disproportion. Inadequate transportation system as well as scarcity of medical facilities also play their role in this condition. Infection is a major consequence of obstructed labour since a majority of the patients have been interfered with, others being haemorrhage, rupture of the womb, and uncontrolled dribbling of urine due to tear of the bladder. In order to deliver the baby with obstructed labour, the obstetrician has to

resort to surgical procedures such as ceasarean section, symphysiotomy (splitting of the pelvis at the joint) or instrumental delivery such as forceps or vacuum extraction. In unusual cases when the baby is dead, the doctor could mutilate the baby and bring him/her out piecemeal.

Pre eclampsia and eclampsia contributed significantly to maternal deaths in our communities³⁰. Eclampsia simply means ‘fitting’ during pregnancy, childbirth or soon after, and is associated with raised blood pressure and presence of protein in the urine of the pregnant woman. In pre-eclampsia, the blood pressure is markedly raised, but the pregnant woman has not yet fitted. In developed countries, eclampsia and its consequences are rarely seen, because mothers prone to raised blood pressure are identified by good antenatal care and treated. A consequence of this fitting is that the mother is unconscious, with dire consequences for her and her baby.

SAFE MOTHERHOOD INITIATIVE IN NIGERIA – STILL UNSAFE

Safe Motherhood

- * More than half a million women die in pregnancy and childbirth every year – that’s one death every minute. Of these deaths, 99 percent are in developing countries. In parts of Africa, maternal mortality rates are 1 in 16.

* Only 28 in 100 women giving birth are attended by trained health personnel in the least developed countries.

* It is time for us to end this gross inequality in basic human health. Childbirth should be something to look forward to everywhere in the world, not just in rich countries. And we can make it that way. The world now has the financial resources and know-how to end extreme poverty. All that is lacking is the political will to change the status quo.

Many people consider the day their child was born the happiest day in their life. In the world's wealthier countries, that is. In poor countries, the day a child is born is all too often the day its mother dies. In high fertility countries in Sub-Saharan Africa, women have a one in 16 chance of dying in childbirth. In low-fertility countries in Europe, this number is one in 2,000 and in North America it is one in 3,500.

This carnage on the young and highly productive population has raised a lot of concern globally leading to setting up of programmes to ameliorate it.

The Safe Motherhood Initiative was launched in 1987 by a coalition of International Organizations and Non-Governmental Organizations. I had earlier on described "Safe Motherhood" as a woman's ability to have a safe and healthy pregnancy, delivery and puerperium.

Nigeria constitutes 1.2% of world's population but contributes 10% of the global estimates of maternal deaths. This rate is unacceptably high even by African standards. Institutional figures on maternal mortality rates are staggering and frightening 2,100 per 100,000³¹ and 3,380 per 100,000³² from two institutions in Nigeria. A comparative study to review maternal mortality rate before and after launching of Safe Motherhood Initiative (SMI) in Nigeria suggests that mortality is higher after, than before the launchings – 1406 versus 270 per 100,000 (a five-fold increase)⁽³⁴⁾. Indeed recent data published by UNFPA/UNICEF indicate that Nigeria now has the second highest rate of maternal mortality in the developing world.

Nigeria is the most populous country in Africa, with a population of 140 million by 2006. Her reproductive health indices however rank among the poorest in the world.

Reproductive health statistics in Nigeria

- Available statistics indicate that Nigeria has one of the highest rates of maternal mortality in the developing world.
- Presently Nigeria account for 10% of the global estimate of maternal mortality.
- Estimates of maternal death are under reported by as much as 50% because most maternal

deaths occur outside facilities and are not counted for many reasons.

- For women who survive the ordeal of pregnancy and labour, a substantial number suffer long-term morbidity including VVF, infertility and chronic pelvic disability.
- 40% of pregnant Nigerian women experience pregnancy related problems during or after pregnancy and childbirth.
- 600,000 induced abortions occur annually of which young people account for >60% in Nigeria.
- Use of antenatal care services is low and that of postnatal care is negligible
- Majority of those who attend ANC deliver at home with TBAs or Faith based facilities.
- 31% of deliveries take place in health facilities.
- Many deliveries (about 67%) take place at home.
- Inadequate number of skilled birth attendants result in TBAs being main care providers especially in rural areas NE, NW and SS Zones.

UN agencies including the World Health Organization (WHO), the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and the World Bank issued a joint statement in 1999⁽³⁵⁾ to address the issue of Safe Motherhood.

The statement details three key areas for action.

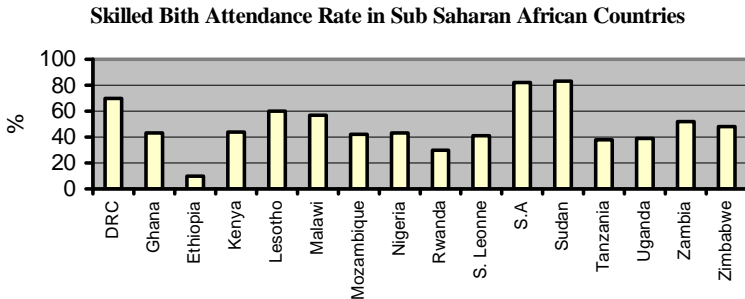
- Safe motherhood can be advanced through respecting existing human rights, through empowering women to make choices in their reproductive lives with the support of their families and communities.
- The access to and quality of maternal health services need to be improved. All deliveries should be overseen by skilled attendants and essential care should be available when obstetric complications arise.
- Women need to be able to choose if and when to become pregnant, through ensured access to voluntary family planning information and services.

Reflecting on the tenth anniversary of the Safe Motherhood Initiative, World Bank President James Wolfensohn asked “How is it possible that in a world about to enter a new millennium, in the midst of unprecedented economic growth and technological breakthroughs, we have managed to allow alarming numbers of young women to continue dying during pregnancy and childbirth?”

Improving the Social Status of Women can help

The joint statement notes that the low social status of women in developing countries is an important factor underlying maternal mortality. Low social status limits women’s access to economic resources and basic education, impeding their ability to make informed decisions on childbearing, health and nutrition. Poor

nutrition before and during pregnancy contributes to poor health, obstetric problems and poor pregnancy outcomes for both women and their newborns.



Midwifery can make a difference

The joint statement holds that a ready supply of health providers with essential midwifery skills, backed up by referral services for complications, is critical in preventing maternal deaths. At the present time, only 53% of deliveries in developing countries are attended by a health professional, and only 40% take place in a hospital or health centre. Some 15% of women who become pregnant experience life-threatening complications that require emergency care. Some 40% of pregnant women need professional care for a pregnancy-related complication.

Preventing unwanted Pregnancies reduces maternal deaths

As many as half of all pregnancies are unplanned and a quarter are unwanted. Prevention of unwanted

pregnancies is one of the key strategies for reducing maternal mortality. Thus, in addition to midwifery and referral services, there is also a need to provide client-centred family planning services with safe and effective contraceptive methods and counseling.

Helping mothers means saving children

A maternal death has implications for the family, the community and the society in general. However, its impact is most immediate and especially severe on young children. Poor maternal health care is also the cause of nearly half of all infant deaths. During the first week of life, 3.2 million neonatal deaths occur each year, largely a consequence of inadequate or inappropriate care during pregnancy, delivery, or the first critical hours after birth.

The former Director General World Health Organization Dr. Brundtland, commenting on the role of society in reducing maternal mortality opined that communities must pay special attention to the nutritional and educational needs of girls and women, enabling women to make decisions for themselves about the number and timing of their children and use of maternal health care services.

PROSPECTS OF ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS FOR MATERNAL HEALTH IN NIGERIA

In September 2000, 189 Heads of State adopted the UN Millennium Declaration, which was then translated into a road map setting out goals to be reached by 2015. The eight Millennium Development Goals (MDGs) build on agreements made at United Nations Conferences in the 1990s and represent commitments from both developed and developing countries. The goals range from halving global poverty and hunger to protecting the environment, improving health and sanitation and tackling illiteracy and discrimination against women.

The intention is that almost all of these targets will be achieved by 2015. Unfortunately, while some significant progress is being made towards meeting some of the targets in some affected countries, in many cases progress is patchy, too slow or non-existent.

The eight Millennium Development Goals are listed hereunder:-

- Eradicate Extreme Poverty and Hunger
- Achieve Universal Primary Education
- Promote Gender Equality and Empower Women
- Reduce Child Mortality
- Improve Maternal Health
- Combat HIV and AIDS, Malaria and other Diseases

- Ensure Environmental Sustainability
- Develop a Global Partnership for Development.

It can be seen that four of the goals relate specifically to health. Essentially the aim of the Millennium Development Goals on maternal health aims to reduce maternal mortality by three quarters by the year 2015.

The barriers

The International Federation of Gynaecologists and Obstetricians in its 1994 World Report on Women's Health concluded that improvements in women's health would require much more than better science and health care. Africa is falling behind in the race to sharply lower the number of deaths among children under the age of five and pregnant women by the year 2015, says the World Bank. It further says this situation is particularly distressing as many of the technologies' needed to improve health are available and affordable, and that even in countries with little money and few health facilities, sensible and systemic efforts to improve health can work.

State action is required to correct injustices to women²⁹. Those injustices are necessary to correct in order to attain the Millennium Development Goal for maternal health in Nigeria.

a) Tradition, Culture and Religion

The existence of misogynistic conceptions, beliefs and normative values in culture and

religion fosters practices that provide institutionalized support for women's subordination and systemic discrimination against women. In a patriarchal society where women's role is subordinated to that of men and the purpose of women's lives is virtually confined to their reproductive functions in service to a society where men's interests reign supreme, it can only be expected that women's reproduction will be controlled by men. In context these pervasive traditional, cultural and religious beliefs and normative values are used to supplant scientifically established evidence that many beliefs and practices relating to sex, sexuality and reproduction put women's health at risk. Female Genital Mutilation (FGM), early marriage, early and repeated child bearing, unequal female status and gender based violence (GBV) are usually presented as part of our identikit which must be preserved against encroaching westernization and globalization of culture. These militate against maternal health.

b) **Inadequate Legal and Policy Framework**

Arguably, the major challenge in the area of inadequate legal framework is the conflicting values espoused by the law as exists. Whereas Nigeria is signatory to an array of international human rights instruments which affirm in clear terms the aspiration of enhancing maternal

health and rights, Nigeria also has an array of laws reflecting aspirations in direct variance to what these international instruments espouse. For example, Nigeria has many customary laws that provide institutional support for practices such as early marriage, early and repeated child bearing, Female Genital Mutilation (FGM), widowhood rites and inheritance that limit women's exercise of their reproductive choices and expose their health to injury. Even where statutory law exists to outlaw some of these inimical customary and religious practices, historical evidence is that enforcement level is so low suggesting only a half-hearted commitment on the part of the State and its agents.

Another major challenge is the complicit silence of the law in many areas where it is expected that the law would directly and expressly intervene to secure the rights of the vulnerable. For example, there is no law to facilitate access to contraceptives against the backdrop of awareness that even health care providers exhibit various forms of prejudices that constrain user's access to health care nor is there a specific law to respond to the confidentiality rights of individuals seeking reproductive health services. International instruments and documents usually require state parties' thereto to take necessary steps to review and amend their laws to bring them in line with the standards and aspirations

reflected in them. It is known that with the exception of a few states of the federation which have passed laws prohibiting female genital mutilation and widowhood rites, very little has been done to reform laws relating to sexual and reproductive health.

Law's complicity in compromising women's reproductive health is also evident in the status of Nigeria Law on abortion. Nigeria law restricts legal abortion to abortion carried out to save the mother's life only and criminalizes all other forms of abortion. The law does not only punish the person who carries out the abortion but the women on whom the abortion is carried out, where she had consented to the abortion. Yet, this is a country where female fertility rates rank highly; there is no financial support for families from government and access to contraceptives is poor. Many thus resort to clandestine and unsafe abortions. Available statistics place deaths due to induced abortion at 40% of all maternal deaths.

A number of policy documents on sexual and reproductive health and rights have been adopted in the last five years, but commendable as this is, these do not constitute legally enforceable standards. They serve merely as administrative guidelines promising much but need a lot of

governmental commitment to translate the realities of maternal health in Nigeria positively. In the main, they call for genuine political will to be expressed in adequate resourcing of programmatic interventions. This is yet to be done.

c). **Inequities in the Distribution of Access to Health Care**

As indicated from the situation of women's health in Nigeria, the bane of women's reproductive health is institutionalized denial of women's rights and lack of access to health care, including:-

- Lack of access to information about diseases/infections or STIs.
- Lack of access to information about family planning and modern contraceptives and lack of access to safe, effective affordable and acceptable methods of family planning, which in turn impinge on the freedom to exercise informed choice in determining the number and spacing of their children and services needed to go safely through pregnancy and child birth.
- Absence of reproductive health education and services for adolescents. Access to health care would include also access to the essential services recommended by the Safe Motherhood Initiative, namely community education on safe motherhood, prenatal care and counseling

including promotion of maternal nutrition, skilled assistance during child birth, care for obstetric complications, including emergencies, post-partum care, management of abortion complications and post abortion care, family planning counseling, information and services. While women's access to health care during pregnancy is almost universal in the developed regions, it is estimated that 35% of women in all the developing regions of the world receive no care at all. The estimate for the African region is put at an average of 66% although country variations are marked. In Nigeria, it is estimated that only 60% of women receive prenatal care at all (1996). The presence of a skilled attendant who can recognize and manage obstetrical complications is essential to ensure that child birth is safe for both mother and child and closely tied to this, is access to a health facility where a woman can receive emergency care and interventions as needed. However, the estimate for the developed regions is near universal, the average for Sub-Saharan Africa is put at 42% and the Nigerian average is a paltry 31%: While a woman's lifetime risk of death from pregnancy related causes (maternal mortality) stands at 1 in 1,400 for women in Europe and 1 in 65 for women in Asia, it stands at an astronomical rate of 1 in 16 for women in Africa, and 1 in 21 for women in Nigeria.

Contraceptives have proven useful in helping couples avoid unwanted or mistimed pregnancies and reducing maternal mortality and morbidity as well as infant mortality. In particular, barrier methods of contraception have also been useful in protecting against the spread of STIs including HIV, which have long term and sometimes life-threatening consequences for women, yet access to, and use of contraceptives remain at very low levels and some of the reasons for this are non-availability, lack of knowledge, and high cost of some methods. These statistics demonstrate clearly that access to health care is indeed inequitable, with political geography (with its implications for differential in wealth and resources between the North and the South) largely accounting for the inequities. The new perspective informing the analysis of public health problems urge a rights-based approach to equity of access to health and distributive justice.

d). **Poverty**

It is apparent how easily individual and national poverty undermines the attainment of maternal health. Trends in maternal mortality demonstrate that poverty constrains choices that individuals and even states make in terms of safer motherhood. It is pertinent to note that

poverty does not stand alone in constraining the State in the context of Nigeria, in its ability to finance and resource maternal health programme. Rather, the bane is poverty occasioned by corruption and bad governance.

e. **Ignorance/Lack of Education**

Widespread ignorance as a result of lack of basic education as well as the result of low level awareness and poor knowledge level in relation to maternal health. Many still believe that female genital cutting is effective in protecting against promiscuity and enhances sexual pleasure, while many are of the opinion that the clitoris is injurious to the child during delivery.

What must be done

Education

Human Rights Education:

The importance of education in promoting respect for human rights is underscored by the provisions of the Universal Declaration of Human Rights (UDHR). While human rights are proclaimed as universal rights, there is a clear recognition that they have not been universally accepted as such and education is considered key in de-briefing individuals, people-groups and even the state of beliefs, attitudes and values that provide support for the non-respect for human rights of all.

Basic Education:

Studies have consistently demonstrated that basic education is critical in improving individual's basic health status and in particular, women's education is critically influential in improving women's reproductive health. Both the Cairo and Beijing Programme for Action (PFA) call for institutionalizing universal primary education by 2015 as well as for closing gender gaps in primary, secondary and higher education as part of the strategies towards improving maternal health. Although Nigeria can be said to have set in motion machinery towards this end, there is so much more to be done. We are speaking on institutionalizing universal basic education more than 50 years after some other countries of the world and more than forty years after independence.

- (a) **Sexual and Reproductive Health Education:** It has been found that ignorance about sexuality, human reproduction, sexual health and reproductive health is a major contributory factor to the non-attainment of reproductive health and rights. We know well the massive wave of resistance against publicly affirming the relevance of condoms either for family planning or protection against sexually transmitted disease.

- (b) **Instituting and Adequate Legal and Policy Framework:**

It is submitted that there is an urgent need to affirm a constitutional right to health to place the importance of health in proper perspective in Nigeria. The current approach merely includes health as a social objective for the State to improve the social order founded on the ideals of Freedom, Equality and Justices. This provision however is not enforceable against the State. Unfortunately our reality is that the State has paid more lip service in this direction than it has substantially improved the health of Nigerians. Rife corruption and bad governance has been characteristic, so that available resources are neither judiciously nor maximally applied to protect the health of Nigerians. Nigerians should not have to die simply because they are Nigerians. States have to be challengeable and constitutional guarantees have always provided the necessary framework for challenging government's accountability to their people. There is need for a constitutional affirmation of an enforceable right to health as has been done under the South African Constitution.

c) **Improving Health Care Delivery and Access to Health:**

The right to health includes the right to a system of health protection which provides equality of opportunity for people to enjoy the highest attainable level of health, an obligation to be

discharged by the State. If we are to realize improved health care delivery in Nigeria, government must take urgent steps to bring to reality the proposed National Health Insurance Scheme.

In conclusion, it is to be noted that even with general economic growth and faster progress on the non-health MDGS, many regions will still miss many of the health MDG targets including maternal health. It is important to look at measures such as committing increased resources to meeting the health related MDGs, and using those resources more effectively in countries. For African countries, including Nigeria, the World Bank says increasing health spending is part of the answer to getting poor people the effective treatments they need, but it is not the whole story.

In countries without solid health and economic reforms in place, spending will have little impact unless money and services are targeted at people who need them most, such as the pregnant mothers in resource poor countries. On top of more spending, health systems also need to be modernized to better distribute life-saving drugs and treatments as well as family planning services. Medical staff needs to be trained to offset the steady 'brain-drain' loss of doctors, nurses and others to more affluent countries.

CONCLUSIONS

Mr. Vice Chancellor Sir, I have within the time available for this lecture been able to deliberate on the state of maternal health in our country Nigeria, highlighting the constraints and opportunities for improving the situation. I have tried to share my experiences as a clinician, and administrator practicing and teaching obstetrics and gynaecology over the past two and half decades in this locality. I have observed during this period that the predicament of our womenfolk during their reproductive age is not encouraging. Consequently I intend to offer some recommendations necessary to address the situation.

A) Advocacy

This entails raising the profile of the problem of poor maternal health in Nigeria. Reducing maternal mortality requires above all, political leadership to stimulate action. It should be recognized that maternal health has long been neglected and underlying the failure to act are broader social, cultural and political factors. The low status of women, the failure to fulfill their sexual and reproductive rights; and the lack of political commitment to address the problem.

The primary determinant of maternal mortality is how well national health systems function, in ensuring that every woman can be delivered by a skilled birth attendant (a nurse or doctor with midwifery skills), backed up by ready access to emergency obstetric care

when needed. This requires an effective, functioning health service, reliable supply chains for medicines and equipment, communications and transport system. In Nigeria expenditure remains too low to provide basic health services, including maternal health.

B) Scale-up evidence-based intervention

A major drawback to implementing interventions in maternal health, is lack of accurate data. Maternal mortality ratios reported for developing countries are often inaccurate, but what is well known is that maternal mortality and morbidity remain unacceptably high.

Specific interventions designed to improve maternal health have been suggested as follows:

Family Planning

- Ensuring that our women have free and unfettered access to family planning services. By this, our women in the reproductive age group can have only the number of children they want, and also at suitable intervals. It is known that at parity 5 and above, the maternal mortality rate increases by five times.

Free Antenatal Care

- Free antenatal care ensures that high risk cases such as those with raised blood pressure are screened out for special care. This reduces the risk of complications in pregnancy and delivery.

The unbooked patients constituted a disproportionate number of maternal deaths.

Delivery by Skilled Health Attendant

- Clean delivery services should be ensured. Efforts should be intensified to ensure that every delivery is taken by a skilled health attendant. This should reduce sepsis among other things. Where deliveries are taken by traditional birth attendants, those should be retrained.

Emergency Obstetric Care

- * Facilities for emergency obstetric care should be made readily available. Haemorrhage leads to an alarming number of maternal deaths. The delivery staff should be well trained in the use of oxytocics to prevent and arrest bleeding at child birth. Effective blood transfusion services should be institutionlised. Antishock garments which are known to save lives in obstetric haemorrhage should also be provided in obstetric units by the government.

Community and Society

The community and society as a whole have very important roles to play in efforts to improve maternal health in Nigeria. The status of women in our rural communities which hitherto have been relegated to the lower echelons of the society has to be elevated. The girl-child should not be treated any differently from her

male counterparts. Debilitating and often injurious practices such as female genital mutilation should be done away with. Our women must be adequately educated so that they can make informed, life saving reproductive choices.

The larger society has useful roles to play. The Society of Obstetricians and Gynaecologists of Nigeria has proposed that data on maternal deaths should be collected based on Wards in our local governments. This will also serve to sensitize our politicians at grassroots level on this unfortunate situation. Professional bodies such as the Society of Gynaecologists and Obstetricians of Nigeria, happily has recently taken proactive roles to contain this scourge. This is being done through advocacy, training and research. It is hoped that other bodies such as the Nigerian Medical Association, and the National Nurses Association will follow soon.

HEALTH OF COLLEGE OF MEDICINE

Finally, Distinguished guest, ladies and gentlemen, I wish to comment on the health of the College of Medicine. I am happy to remark that it is currently enjoying very robust health, having scaled the last accreditation process of the National Universities Commission with flying colours. It attained the highest score of any many Medical School in the country, and therefore can be proudly described as the foremost medical school in the country. It has added

another feather to its cap, with the successful establishment of the first Faculty of Dentistry, East of the Niger. The first phase of the permanent site of the college at Ituku Ozalla has been completed under my watch. I can now happily testify that the good Lord has seen me through most graciously in my clinical and administrative carrier at the college of medicine of the university.

ACKNOWLEDGEMENT

I give all Glory, Honour and Adoration to the Most High, who has continued to shower me with His love, protection and benevolence. I thank Him especially for making this day possible.

I want to appreciate very profoundly my late parents Chief (Sir) Arthur and Lady Alice Ozumba, whose labour of love and immense sacrifices in my life has made this day a reality. I am very happy seeing my uncles and aunties as well as my brothers and sister who have been very supportive in my life and career all these years at this occasion. My numerous teachers have played enormous roles in my stride towards success. Notable among them is my elementary school teacher, Mr. Bennet Madugwulike whom we fondly call “teacher”. He laid a strong foundation for my academic life and has continued to be a mentor.

I shall continue to cherish with thanks Professor Uchenna Megafu (Kpajie), the first Consultant I

worked with during my residency training at the University of Nigeria Teaching Hospital, Enugu. He showed a keen interest in my progress and played a key role in my entry into the University of Nigeria as an academic staff.

I remember happily Dr. Peter Jackson, the Consultant Obstetrician and Gynaecologist who accepted me into his training programme in England and was used by the Almighty to guide me through the intricacies of obstetrics and gynaecology in the United Kingdom.

At this occasion, I remember with gratitude my teachers at Harvard University, Professor Michael Reich, (Chairman of Department of Health Policy) and Dr. Rachel Snow (Head of Unit of Reproductive Health). They made possible my entry into the greatest citadel of learning, Harvard University, and for me to acquire skills in Health Policy.

I must thank and congratulate my dear wife Chinelo for the love and care which has bestowed on me during all these years we have spent together. She has been a pillar of support as I have toiled away with my academic work. Our five lovely children, Chukwumdinu, Onyinyechukwu, Ifunanyachukwu, Chidinma and Ikemsinachukwu have been a source of warmth and joy at home.

Mr. Vice Chancellor, Distinguished Ladies and Gentlemen, I appreciate you all.

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