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"REPRODUCTION AND THE PROGRESS
OF MAN"

BY
OSATO F. GIWA-OSAGIE



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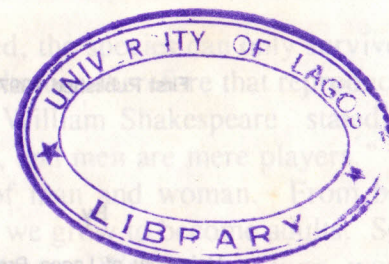
INTRODUCTION

"REPRODUCTION AND THE PROGRESS OF MAN"

An Inaugural Lecture delivered at the University of Lagos on
Wednesday, 8th October, 1997.

By

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INTRODUCTION

"A journey of a thousand miles begins with the first step" is a Chinese saying. And so it is with man. All religions have a scheme of events that marks the creation of man. In most religions, man is created by a Supreme being, the Almighty, God or Allah, the Omnipotent, Omnipresent. According to the Holy Bible Old Testament, Genesis chapters 1 and 2 God created the earth and all that is in it. Man was made master of all animals and everything in the world. The Bible also tells us in Genesis chapters 2 verses 20-22, that God created woman out of a rib taken from man. Was this the first description of a form of cloning or a gender selection? Atheists or scientific purists often take exception to supernatural events and most scientists definitely prefer to believe that man evolved from lower beings and that evolution is continuing. But who created those lesser beings from which man evolved? These issues still worry the mind of the unbeliever.

If man's origin is assumed, the species can only survive by reproducing itself. It is obvious therefore that reproduction is the key to survival. William Shakespeare stated that "All the world is a stage, and men are mere players." We are born by the union of man and woman. From being innocent, helpless babies we grow to become adults. Some marry, some have children. We do our lives work - productive or non productive, then, like ageing cars we creak, break down, and eventually die. I often describe life as an escalator. The units of an escalator rise, then recycle as the top goes off and the bottom steps go up to the top. It was the Great and late Dr Nnamdi Azikiwe, Nigeria's first indigenous Governor General and President, who said

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"No condition is permanent" and it is very important that we constantly remind ourselves of this saying in whatever we do.

THE PRODUCTION OF A PROFESSOR

A full Professorship is the highest academic position an academic can achieve. All other positions are by election or modified selection. I was appointed a Full Professor of Obstetrics and Gynaecology in December 1987. I received the message at a phone box in Singapore where I was visiting with my wife, my cousin and his wife. I had been interviewed two weeks before I went on leave. When the result of the interview was released the Provost of the College of Medicine told a colleague who called my sister, Mrs Sofola, who told me by phone!

I believe the journey to Professorship started many years before. I was born in Lagos at Massey Street Hospital. My elementary school education was all over Nigeria because my father was working for the Nigerian Prisons Service and later became the first Nigerian Director of Prisons. One advantage of having schooled in all the regions of Nigeria is that I speak or understand several languages and I learnt at an early age to be tolerant. The frequent changes of schools also sharpened my wits as I had to adapt very quickly to different schools. I attended Wesley and Banham Memorial Schools in Port-Harcourt; Mrs Funmilayo Ransome-Kuti's School in Kemta, Abeokuta; St. Michael's School, Kaduna; Government School, Okere, Warri; St. James' School, Benin City and Christ Church Cathedral School, Lagos. On January 4th 1959, I started my secondary education at King's College, Lagos where I followed the footsteps of my father, the late

Chief F.S. Giwa-Osagie, *MFR*, my uncle Prof. T. Belo-Osagie, *CON*, and my cousin Alhaji R.O.V Giwa-Osagie. I had an invaluable time at King's College, Lagos. We were taught that success is through hard work and that it is based on merit; that each person should be treated fairly and in his own right irrespective of race, ethnic group or social background. Indeed, I did not know the ethnic origin of some of my classmates at King's College, Lagos till many years later. We were taught to lead by example and do things in moderation. I left King's College, Lagos in 1965 having passed my West African School Certificate examination in Grade 1, and the Cambridge Higher School Certificate and G.C.E. Advanced level examinations in my three subjects of Zoology, Chemistry and Physics. I also passed the entrance examination to Clare College, Cambridge University to read Medicine. I must thank our teachers at King's College, Lagos for their dedication and interest in us. Most of them are still alive and well - Dr Rex Akpofure, the first Nigerian Principal, Mr R.S. Koko, Mr D.S. Somoye, Augustine Ibegbulam, Joe Abolade, Mr Ofurum, the late Mr R.W. Jefferies, the late Chief Agiobu Kemmar, Mr Dennis Okoro, and the late Gaius Anoka who died recently and had been Nigeria's High Commissioner to Sierra-Leone in the early eighties. It was Mr Gaius Anoka a graduate of Gonville and Caius College, Cambridge who invigilated my entrance examination to Cambridge University in early December, 1965.

Medicine is a long, hard journey for the trainee. Five to six years of medical school is followed by one year internship and another five years of specialisation. After specialisation you may need to sub-specialise and then climb the academic ladder - this usually means becoming a Clinical Consultant in a Hospital as well as a University

Academic title holder. I have travelled that long journey:

BA (Cantab) Pathology 1969

MA BCHIR (Cantab) 1972

MSc (Steroid Endocrinology) Leeds 1976

M.R.C.O.G 1977

FWACS 1982

FRCOG 1989

Research Fellow (Steroid Endocrinology) Leeds
1975-1976

Lecturer, King's College Hospital, London Jan.,
1976 - Oct. 1978

Senior Registrar, Lagos University Teaching
Hospital 1978 - 1980

Lecturer, College of Medicine, University of Lagos
1980

Senior Lecturer, 1981

Associate Professor, 1986

Professor - 1987.

During my clinical and academic journey I met many people and I have travelled widely from Cambridge and London to Australia, Japan, Brazil, USA, Canada, Switzerland and Israel to name a few places. I met many academic giants who took my welfare and career in hand and helped me achieve my objectives. I shall mention some of them now - my medical tutor at Clare College Cambridge University - Dr Gordon Wright who has retired but at the age of 75 years still teaches Neuro anatomy; my bosses at King's College Hospital - the late Sir Stanley Clayton, Sir Rustam Feroze, both Past Presidents of the Royal College of Obstetricians and Gynaecologists, Mr Michael J. Brudenell, a frank and reliable teacher and motivator, Prof. John Richard Newton, now of

Birmingham, with whom I had a discussion in 1971 at King's College Hospital - a discussion that mapped out my career for me! Mr Hamish Chalmers, retired Senior Consultant at Worcester and exponent of the ventouse extractor for his special interest in me; Professor S.R. Stitch, Professor Bob Oakey and Dr Michael Levell of the Steroid Endocrinology laboratory, Leeds University. I thank them all for their encouragement, motivation and advice.

OBSTETRICS AND GYNAECOLOGY AND MAN

Simply defined, *Obstetrics and Gynaecology* is the study and care of pregnancy, delivery and the period immediately after. From this definition it is clear that an Obstetrician looks after two patients - the mother and her unborn child. Once the child is born it becomes the responsibility of the Paediatrician. Gynaecology is the study of the function and diseases of the female reproductive tract. It is clear that in my field, we deal with women. Indeed my former Principal at King's College, Lagos, Dr Rex Akpofure when we met in London some years ago told me that people in my area of specialisation are called "Women's Doctors" or "Doctors of Women."

I jokingly tell my friends that "Women are my business" and that "I work where they play!"

Obstetrics and Gynaecology developed initially as a branch of General Surgery. In fact, the Royal College of Obstetricians and Gynaecologists of England is only 70 years or so old. Before the separate development of Obstetrics and Gynaecology, some General Surgeons

practised urology, gynaecology and obstetrics. My speciality has moved on since those days. Because of its surgical heritage, it was still the usual thing for trainees in Obstetrics and Gynaecology to become specialist Surgeons before learning Obstetrics and Gynaecology. You may notice that some of the older Obstetricians and Gynaecologists had Fellowships in Surgery as well as their certification in Gynaecology. By the time I was specialising in the early 1970s, trainees were being encouraged to do research, endocrinology, epidemiology or statistics rather than train specially in General Surgery. You will therefore find that the modern Obstetrician and Gynaecologist is likely to be an expert in subjects like genetics, endocrinology, ultrasonography, epidemiology, biostatistics with degrees like MSc, MD or PhD in addition to his speciality for the 1990s and the 21st Century. My speciality is now organised in sub-specialties in many countries. The main sub-specialties are Feto-maternal Medicine, High Risk Pregnancy, Perinatology, Oncology, Ultrasonography, Reproductive Endocrinology, Infertility and Assisted Conception, Community Gynaecology and Contraception. In modern practice, the specialist has to spend 1 to 3 years of further training in these sub-specialties to be able to practice effectively in these fields. At the College of Medicine of the University of Lagos the Department of Obstetrics and Gynaecology was started in 1963 with Dr. T. Bello-Osagie as its first Consultant, Prof William Thompson of Ireland as its first Head of Department and the late Dr. J.B. Akingba as Senior Registrar. Dr. Akingba soon became lecturer/consultant and was joined by Dr. Oladele Akinla and Dr. Kiki Coker. The Heads of Department have been Professor W. Thompson, Miss Ursula Lister, J.B. Akingba, O. Akinla, A. Agboola, A. Akinkugbe, O. Coker, A. Agboola again,

O.F. Giwa-Osagie who did two consecutive terms and a total of 6 years, S.N. Nnatu and the present Head, O. Abudu. Our Department in 1980 moved in the direction of sub-specialty and the encouragement of special interest with the formation of four units:-

- 1 Experimental and Maternal Medicine (EMM) under Prof. A. Akinkugbe. Present head is Prof. S. Nnatu.
- 2 Oncology and Pathological Studies (OPS) under Prof. A. Agboola. Present head is Prof. O. Abudu.
- 3 Reproductive Endocrinology and Fertility Regulation (REF) under Prof. O Akinla. Present head is Prof. O F Giwa-Osagie.
- 4 Ultrasound and Fetal Medicine (UFM) under Associate Prof O.O. Coker. Present head is Dr G.O. Ajayi.

The units exist to date but the full implementation of the hope has been hampered by shortage of funds to purchase modern research equipment and staff movements abroad and into retirement in the 1980s. An indication of the extent of staff movement can be seen by the fact that as of July 1980 there were 15 academic members of staff in our department which dwindled to just six staff on the ground by 1990. The Department is yet to reach its full strength. It would have been worse but for the excellent postgraduate/specialist training programmes run by the West African College of Surgeons and the National Postgraduate Medical College of Nigeria which produced specialists to fill some of the academic vacancies.

CONTRACEPTION/FERTILITY REGULATION

The relationship between reproduction and population is obvious. Strict adherence to the Biblical instruction to "Go forth and multiply" will lead to disaster. If we are to follow the thinking of Malthus, we do not need to worry about population and overcrowding since periodic disasters will wipe out thousands or millions of people.

My interest in contraception was kindled and nurtured in my days at King's College Hospital, London where I worked under Professor John Newton. My work in Nigeria continued with the encouragement of Prof Oladele Akinla and the collaboration of Dr (Mrs) Bomi Ogedengbe with whom I have worked in the same Unit for 17 years.

My special interest in contraception has been in long-acting methods of female contraception. These are methods such as two and three monthly injectable hormones like *Norethisterone oenanthate* (Noristerat-Schering) and *Depo-medroxy progesterone acetate* (Depo Provera - Upjohn); Implants such as Norplant - I and Norplant -II; Implanon; and newer types such as Capronor. These methods offer convenience, safety, effectiveness, and I believe long term cost-effectiveness. In a sub-continent where communication and healthcare personnel distributions are major problems, long acting methods should be specially attractive.

(A) INJECTABLE CONTRACEPTIVES

My first published research¹ in this field was the product of study at King's College Hospital, London in 1976 - 1978. Earlier studies by the World Health Organisation had

shown that when "Noristerat" and "Depo Provera" are given by injection every three months the failure rate of 'Noristerat' was unacceptably high². 'Noristerat' produced less menstrual disturbances compared to 'Depo Provera', but it was about to be abandoned because of its failure rate. In a study which I carried out in London we altered the dose schedule of 'Noristerat' by giving it every eight weeks for the first six months and then every 12 weeks thereafter. We showed in over 200 patients that this modified dose schedule resulted in no pregnancy in our study. Subsequent studies³ have confirmed our study that modification of the dose regime increases the efficacy and makes 'Noristerat' a usable contraceptive. I can claim to be one of those that saved "Noristerat." In further publications^{4,5} I showed that 'Noristerat' did not alter glucose metabolism and that the majority of discontinuations occur in the first four months of its use.

(A) VAGINAL RING CONTRACEPTIVES

In Lagos, Nigeria, under Professor Akinla we studied and established the efficacy of the vaginal ring contraceptive as part of a multinational, multicentre study organised by the Population Council^{6,7,8}. The vaginal ring containing oestrogen and progestogen remains a viable contraceptive option today.

(C) "NORPLANT" IMPLANT CONTRACEPTIVE

Subdermal implants containing norgestrel offer long term, effective contraception. In our society where the acceptance of permanent contraception by sterilisation is still little

accepted, my Unit saw in it an attractive option for those who wanted to space their children as well as those who wanted no more children but did not want to be sterilised. Our social and scientific analysis was correct. My Unit at the College of Medicine and Lagos University Teaching Hospital was a centre for a multicentre study of "Norplant." The method which is effective for up to 6 years had very low failure rate and very few side effects. The Lagos centre which I directed in collaboration with Dr. (Mrs.) Bomi Ogedengbe and Mrs Charity Usifoh had one of the best safety records and the least complication rates⁹.

(D)INTERVAL DAYCARE FEMALE STERILISATION

Female sterilisation for those who do not wish to have more children or those in whom it is indicated on medical grounds has been available in Nigeria for many years. The number of families choosing sterilisation remains small compared with Countries like Kenya, India, and the developed Countries. In Lagos of the 1970s and early 1980s, female sterilisation was usually because of multiple Caeserean Sections or ruptured Uterus. Interval sterilisation was virtually not practised. With the support of the Association for Voluntary Surgical Contraception (A.V.S.C.) and with a female Consultant, Dr.(Mrs.) Ogedengbe, leading the strategy, we in our Family Planning Clinic embarked upon comprehensive counselling and offered day case female sterilisation, by minilaparotomy and my Laparoscopic Falope Ring application^{10,11,12}. Through this strategy, the acceptance of female sterilisation in our service increased over a five year period. The higher cost of hospital admission, makes out

patient surgery even more attractive today. In 10 years of implementing our strategy we had no request for reversal of sterilisation due to regret among patients counselled by us.

(E)EMERGENCY POST-COITAL CONTRACEPTION

Unplanned and unprotected sexual intercourse is a major cause of unplanned, unwanted pregnancy particularly in young people below the age of 25 years. Dr.(Mrs) Ogedengbe, myself and Mrs Usifoh have recently concluded a World Health Organisation Coordinated, multicentre multinational study of two regimes of post-coital contraceptives. One hundred women who had unplanned, unprotected sexual intercourse participated with only one case of failure in those who used the post-coital contraceptive. This method by preventing unwanted pregnancy is an important part of the strategy to reduce abortions and its complications.

INFERTILITY, ENDOCRINOLOGY AND ASSISTED CONCEPTION

Many people associate my name more with infertility than with contraception. As may have become obvious from the resume of my work on Contraception, I have probably done more research and published more papers on contraception than I have on infertility. This may have to do with the low contraceptive prevalence rate of 5-10% in Nigerians of reproductive age, and a 15-20% of prevalence rate of infertility in the same age group. When I came back from King's College Hospital to Lagos in 1978, I found that


every medical Doctor, Native Doctor, Herbalist and Spiritualist claimed to be an expert in the causes and treatment of infertility. This chaotic situation was encouraged by the belief of Nigerians in magical things. I decided to apply orthodox science to the management of infertility. I think, Mr Chairman, distinguished Ladies and Gentlemen that we can say that Lagos University and its Teaching Hospital have been number one in Nigeria and West Africa in the Scientific investigation and treatment of male and female infertility^{13,14,15}. We can also say that those two institutions and the city of Lagos were the only places until twelve months ago in West Africa that have functioning sperm freezing and banking and assisted conception services. I have been part of those who made these things happen.

(a) **The Causes of Infertility:**

Our paper "The Aetiologic Classification of Infertility in 250 Couples" by Giwa-Osagie *et al*¹⁶ applied modern techniques to the investigation of infertility. We showed the importance of tubal disease and low sperm count as causes. We also showed the poor results of treating tubal factor infertility whereas failure to ovulate and the treatment of zero sperm count had good results.

(a) **Male Factor Infertility, Donor Artificial Insemination.**

Since 1979 we have treated azospermia or severe low sperm count by donor artificial insemination. Our publication "Donor Insemination in Lagos" by Giwa-Osagie, Nwokoro and Ogunyemi¹⁷ showed the good results of this method of treatment. In those days we used fresh



semen for the Acquired Immune Deficiency Syndrome (AIDS) was unknown in Nigeria. Since the AIDS virus (HIV) can be transmitted by semen it is no longer ethical to use fresh semen for donor insemination. For nine years now we have been using frozen stored semen for donor insemination^{18,19}.

(c) **Semen Freezing and Sperm Banking.**

Veterinary surgeons and farmers have used artificial insemination of semen for reproducing their livestock for decades. The risk of transmitting HIV has forced all human donor artificial insemination practitioners who practise ethically to use only semen from sperm banks. Semen is collected from voluntary donors who have been interviewed and screened for HIV, and other sexually transmitted diseases. The semen is used only after it is ascertained that the donor is HIV negative on two occasions. This practice minimises the risk of infecting the recipient. As little as 0.25 - 0.5mls of thawed semen is needed per insemination. In order to get good results only semen with high count (≥ 40 million /ml) and motility ($\geq 60\%$) is best for freezing because some loss of viability of about 20% results from freezing^{18,19}.

(a) **Prolactin, Menstrual Abnormality and Infertility.**

A woman whose menses fail to come may worry for a number of reasons. She may be pregnant, menopausal

or have some pathological lesions. Her absent menses may also be psychogenic, being the result of stress, a rigorous slimming diet regime, or it may be secondary to trauma to the uterus from curettage (D&C) described as the Asherman's Syndrome. It may more commonly be due to failure to ovulate for any reason such as polycystic ovaries, a prolactin secreting tumour of the pituitary or due to an adrenal thyroid gland disorder. Working in collaboration with Mr Ayo Sanyaolu, the Chief Technologist in my Department, in the 1980s we investigated the hormonal basis of menstrual abnormality and infertility. Our publication in *Tropical and Geographical Medicine*²⁰ found that in 5-10% of the patients with absent menses and inappropriate lactation a pituitary tumour was present. My related research and publications looked at the causes and relative frequency of causes of Secondary amenorrhoea and found that failure to ovulate, Asherman's Syndrome and polycystic ovaries were the three most common causes in Lagos²¹. Specific treatment using drugs such as bromocryptine, Lisuride, Clomiphene and Gonadotrophins has resulted in 40 - 60% cumulative pregnancy rate at 12 months and the births of many healthy babies,^{21,22)}

(a) Assisted Conception - Test Tube Babies.

Loiuse Brown who is now an adult was the first baby resulting from in-vitro fertilisation (IVF) and was the result of collaboration between the late Mr Patrick Steptoe CBE, a Gynaecologist of Oldham England and Dr Patrick Edwards, an academic reproductive physiologist of Cambridge University. The success achieved by Steptoe and Edwards was a salute to collaboration

between Clinical and Laboratory Scientist and to perseverance. I remember Dr Edwards from my student days at Cambridge. He was our Lecturer in Reproductive Physiology during our second year in Cambridge. When he used to tell us about rabbit oocytes and fertilisation and possible relevance to human infertility treatment, we thought he was dreaming the impossible. Patrick Steptoe on his part mastered the technique of Laparoscopy and so was able to collect human eggs for Edwards to fertilise with human sperm by invitro fertilisation. IVF provide new hope for women with blocked tubes. In Lagos, my study of infertility and the follow-up of women with blocked tubes showed clearly the poor prognosis of tubal damage^(16,23). In 1981/1982 myself and our colleague Prof. Dapo Ashiru of the Department of Anatomy had discussions following a Scientific meeting of the Lagos University Medical Society where we had presented papers. Prof. Ashiru who had experience with hormones in rats and mice was convinced he could achieve IVF in those animals. I, on my part had been well trained in laparoscopy and I was certain like Steptoe, that I would be able to get human oocytes from women with blocked tubes for IVF using their husbands sperms. In 1983, I went to Monash University, Australia to work with the IVF team there. In 1984/1985 we achieved several successful IVF and pregnancies but all ended in miscarriages^(24,25,26,27). Like good Scientists we documented all our work and two panels set up by the Federal Government of Nigeria - the Professor I Grillo and Prof. J Adeleye panels concluded that our Lagos team was doing IVF and had achieved IVF and some pregnancies. Our first live babies were in 1989 and 1990 more than ten years after the British, Americans, Australians but first in West, East

and Central Africa. We worked on a low budget using reagents and equipment donated for related research or by colleagues in America, Australia and England. Even after we had achieved success in Lagos, most attempts by us to get proper funding for our work through various international agency assistance to Nigeria failed because our Federal Minister of Health at the time Prof. Olikoye Ransome-Kuti, who was a Professor in this University, decided that infertility could not be an area worthy of support even after the World Health Organisation had recognised infertility as a major health problem. In spite of all these problems, the work still continues and there are now three centres in Lagos that offer IVF. A year ago, an IVF centre opened in Accra. These are the only four IVF centres in West Africa, and Lagos University led the way. In the last two years, we have started working on the use of donor eggs for women who cannot produce their own eggs. We have so far had five pregnancies but no deliveries. This method offers hope for those with premature menopause or with Turner's Syndrome, a congenital condition. Our work is continuing.

PRENATAL DIAGNOSIS OF HAEMOGLOBINOPATHIES

In parts of South West Nigeria, the sickle cell gene exists in up to 25% of the population. We are familiar with the morbidity and mortality of sickle cell disease. When two persons who are genotype A/S have a child, the child has a one in four chance of being a sickler. Most people will prefer not to have a child who is S/S if they know the genotype of the fetus early in pregnancy.

Techniques for obtaining fetal cells and blood for diagnosis have been available for about 25 years now. These techniques include fetoscopy, chorionic villus sampling and umbilical vessel aspiration under ultrasound guidance. In early 1993, Professor Olu Akinyanju, a Professor of Medicine of this University and Chairman of the Sickle Cell Club of Nigeria, approached me as Head of Obstetrics and Gynaecology to collaborate with his club to enable the British Council sponsor Prof. Charles Rodeck of the University College Hospital, London, and his Lecturer, to come to the College of Medicine and Teaching Hospital, Lagos to train interested Obstetricians in Chorionic Villus sampling for prenatal diagnosis. The training proceeded and lasted two weeks at the end of which Dr (Mrs) R F Disu, Dr O Akinde, Residents in Obstetrics and Gynaecology, and Dr John Esangbedo an Obstetrician and Gynaecologist in Private Practice, became competent in obtaining chorionic villi. The Nigerian Institute of Medical Research under Professor Salako was and has been enthusiastic in its support since Dr Adewole a Senoir Research Fellow at the institute was already trained in Chorionic villus identification and manipulations. Since the training, the prenatal diagnosis by chorionic villus sampling has been carried out in Lagos. A year ago, another Obstetrician, Dr Edward Emuveyan, Senior Lecturer in our Department trained with the prenatal diagnosis team and has also been obtaining Chorionic villi as part of the team. Here again, Ladies and Gentlemen, Lagos University and its Teaching Hospital became the first centre for prenatal diagnosis of Sickle Cell in West Africa. I consider the establishment of this process as a major achievement of my Department when I was Head of Department and it was due to collaboration between the sickle cell club, the

British Council and my Department.

MATERNAL MORTALITY, SAFE MOTHERHOOD, TRAINING.

Far too many Nigerian women are dying in pregnancy or labour. Figures as high as 5-8 per 1000 births have been reported. Most of these deaths are preventable. We know the causes. We know what to do about it. We just have not done what is required at all or we have not done it well enough. Structured education of the population in reproductive health, improved access to and communication with functional health services and a safe, functioning, co-ordinated blood transfusion service will within five years more than half maternal deaths in Nigeria. It is for us all to demand that these things are done. I was a member of the review committee on the National Maternal and child Health Programme and a member of the task force on the national blood transfusion programme.

A major contributor to maternal deaths is unsafe abortion. These deaths can be prevented by education in reproductive health which includes contraception and by proper training of health personnel in the management of abortion complications. For nine years my unit at the College of Medicine has run training programmes in counselling, family planning and manual vacuum aspiration. My unit in Lagos and Dr Shittu at Ahmadu Belo University Teaching Hospital have trained over 500 Medical officers and over 600 Nurses during the last 9 years. We must recognise the valuable support of the International Projects Assistance Service (IPAS) and

the Macarthur Foundation of the USA in making these initiatives possible.

As a teacher and examiner, training and assessment have been part of my life during the last 17 years. I have served as assessor for PhD of the University of Ibadan and Lagos and supervised a PhD of the University of London in addition to examining for undergraduate medical examinations in Nigeria and Sierra Leone. As Secretary-general of the West African College of Surgeon I have been deeply involved in the training, settling of standards and assessment of Surgical Specialists in Anglophone and Francophone West Africa.

EDUCATION, MEDICINE AND THENATION

Education is the greatest gift one generation can give to the next, while health is wealth for without health, all our plans fail. It is important that education and health care remain relevant to the nation. Some of us believe that you can assess how serious any nation and its leaders are by the importance, or lack of importance, they place on education and health. Educational institutions train the nations manpower and for them to survive they must be properly funded. No nation becomes great by exporting its brain power. We have been exporting our brain power and we have not done enough to keep those staying in Nigeria feel happy about their lot. A word is enough for the wise! Academia also must not be like the Ostrich. It must face realities and not expect handouts all the time. Every Unit and individual should seek means of attracting additional funds to assist their work and better their life. It is possible to do this, and I know that our current Vice

Chancellor and the present and some past Provosts of our College of Medicine have taken steps in this direction. The issue of whether we have too many Universities or Polytechnics still comes up from time to time. For 100 million people who are hungry for education, we do not have too many Universities and Polytechnics. What we must do without fear or favour is to do a critical analysis of our strengths and weaknesses and rationalise our courses and staff. Institutions should build on their strengths and let other institutions take over Departments or courses that they cannot run. There is no doubt that some degrees awarded by some of the newer Nigerian Universities are of very doubtful quality. Perhaps, as is done in some other Countries, there should be an annual or bi-annual publication of the league table of Universities - each University being assessed on research publications and numbers, grant and awards obtained, class size, average entry qualifications, staff on ground, and final degrees obtained. A recent daily newspaper headline reported that the Chief Justice of Nigeria Hon. Justice Mohammed Lawal UWAIS, has called on the Federal Government to appoint more Supreme Court Judges to improve dispensation of justice. I congratulate him for articulating his needs because there are many very senior Government officials - including those in the Universities and parastatals - who rather than speak up, just grumble. Any Government likes to hear the opinion of responsible senior people. Senior academics in Nigeria in the 1970s allowed Universities to proliferate too quickly and class sizes to expand because many could not speak boldly for fear of losing their jobs. We all have a duty to assist in the government of Nigeria.

It is clear that the 6-3-3-4 educational system we adopted ten or more years ago and as implemented, has no merit over the previous 5 or 7 year secondary school system ending with the School Certificate or Higher School Certificate. We could have enlarged the curriculum and still retained the old system. At the moment it is only Nigerians who understand our secondary education system. We should go back to a modified 5 or 7 year secondary school system.

In the health sector, our people have gradually got used to having to pay for service. The National Health Insurance Scheme should be strongly supported to avoid inadequate access to health care. As an Obstetrician and Gynaecologist I am also particularly worried that in 1997, large companies - private corporate and public parastatals - can still openly discriminate against women in health coverage. Many companies refuse to pay for antenatal or gynaecology services - the very activities that assure the survival of the species. Yet a man in the various companies can have any of his illnesses paid for. I have brought this matter to the notice of the Hon. Minister of Women's Affairs some months ago and she has promised action. I think companies that take this discriminate attitude are failing in their duty to women, society and the species. Women should fight for their rights and black-list such companies and parastatal organisations.

CONCLUSION

Mr Vice Chancellor, Members of Council, My Lords, Your Excellencies, distinguished Ladies and Gentlemen

and my colleagues, I hope I have told you who I am, what I do, what I and my collaborators have contributed to Nigeria and the world. When I was appointed a full Professor in this University in 1987 I was 40 years old. There were some who thought that even at 40 one was rather young to be a full Professor in a Clinical subject, in a prestigious University like Lagos. I hope, and I think, I have told you this evening why I am a full Professor. I am told that the Hausa Have a saying "Gafini Ga doka" meaning "Here is the horse, here is the field." I hope this horse has run well.

I thank my family for educating me to the highest level, and constantly being there for me. I thank especially my wife, Angela, for her unwavering faith and loyalty and for adapting to the many demands of my life abroad and in Nigeria. To my close friends, collaborators and funders, I wish to say that without you all this work may not have been done. I shall end with an excerpt of a famous hymn which goes:

**"O GOD OUR HELP IN AGES PAST,
OUR HOPE FOR YEARS TO COME
OUR SHELTER FROM THE STORMY BLAST
AND OUR ETERNAL HOME."**

Indeed Reproduction is the key to the progress of man. And God created man and His wonders continue to perplex man. We study reproduction. We have achieved test tube pregnancies and deliveries. We are still seeking for solutions to man's reproductive problems. That search for solutions is what keeps an active mind working.

I THANK YOU!

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