

## **WE REAP WHAT WE SOW**

**Being the First Distinguished Annual Lecture delivered by**

**By**

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### **INTRODUCTION**

I wish to thank the authorities of this university for the invitation to deliver this lecture. I cherish the honour.

Coming under the influence of many good people, I went into medicine, specialized in obstetrics and gynaecology, and then took to practicing, teaching and researching. It was a fruitful period for my colleagues and me, all pioneers. The period coincided with some great events in Nigeria and in international maternal health. It is some of these events and my own contributions that I wish to share with you believing as I do that this sharing of experiences especially in a budding university community is important for various reasons. It might be for the purpose of just acquiring knowledge for its own sake or for professional and academic advancement or for just pleasure and relaxation. Being idealistic, we thought that the correct application of information generated through our research in Nigeria, would lead to improvement in the health of our women. This then is an account of some research seeds, how we acquired the seeds, how they were planted, how they grew into fruition and who benefitted.

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I count myself fortunate in having many mentors in my career. Eight were outstanding and I am sure you will agree with my judgement during the course of this lecture. If not, please read the following two titles: They are “An Arduous Climb: From the Creeks of the Niger Delta to a Leading Obstetrician and University Vice Chancellor” and “Sowing the Seeds of Safe Motherhood in Sub Saharan Africa.” The former was published in 2006 and the latter in 2010.

### MY MENTORS

Here are brief pen portraits of my eight mentors. First, Ethel Taylor, my mother: she was born and raised in Abonnema Rivers State, where she received good primary school education. She told me in my early teens why she preferred hospital based maternity care available at Aba, in Abia State in South-Eastern Nigeria to local traditional birth attendants (TBA) at Abonnema. She died aged 91 years in 2001.

Next, my surrogate father, Anthony Karibi Bob Manuel of Abonnema, a top man in the administrative arm of the colonial civil service in the 1920s and 1930s. His archives drew my attention to the success of the Church Missionary Society in reducing maternal mortality in its area of influence in parts of Eastern Nigeria in the 1940s. He died in 1972 aged 92 years, heart broken by our bitterly fought civil war of 1967 - 1970.

William Simpson, the highly rated principal of Umuahia Government College was next. He counselled me successfully to study medicine, not civil engineering, my preferred choice when I was a teenager. He went to great lengths to inculcate modesty and character building as the two previous mentors did. He died in 1959 at his home in UK aged 58.

Then came Mason Thomas Dokubo Braide, a fellow Niger Delta man from Bakana in Rivers State. He qualified as a doctor in Glasgow University. His entire career was in the Nigerian Civil Service, which he served in various capacities. Touched by the awful state of women’s health, he singlehandedly collected data on over 2000 women in the region, some had been circumcised. He compiled his observations into a thesis and was awarded the Doctor of Medicine degree by his alma mater in 1956. He titled it “a study of female circumcision in Eastern Nigeria: its medical significance”. In it, he identified female circumcision in these words:

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*“It is a custom that causes a lot of suffering and ill health in African women. It is a custom that is bound to affect the span of life of African women adversely, on account of the associated obstetrical and gynaecological complications. It has brought misery and unhappiness to many husbands and wives. When critically analyzed, the practice has nothing to support the claims by its protagonists to perpetuate it. It is a primitive and barbaric custom. I condemn it in its entirety.”* He appealed to world bodies to act to stop it. Only now, over 50 years later has the movement he advocated for, materialised. Incidentally, the first caesarean operation I saw performed was by him at Obubra General Hospital in rural Eastern Nigeria in 1953. It was for the relief of obstructed labour and was successful. He died in 1995 aged 82 years.

John Bateman Lawson would always be remembered. He was the foundation professor of obstetrics and gynaecology at University of Ibadan. Later as Vice President of the Royal College of Obstetricians and Gynaecologists in London (RCOG for short), he was responsible for overseas affairs at the College. Generations of health care workers in and outside UK benefitted enormously from his work towards the betterment of women’s health in developing countries. Women with vesico vaginal fistula (VVF) have cause to be grateful to him. He died aged 75 years in 1997.

William Charles Wallace Nixon was professor of obstetrics and gynaecology in University of London at University College Hospital. A thoughtful and humane man, he personally taught trained and researched towards improving the welfare of women from all back grounds. He initiated and directed the 1958 National Perinatal Mortality Survey of England and Wales. It was the first of its kind and it led to many changes nationally and worldwide, in maternity care. He died aged 62 years in 1966.

Frank Hytten differs from the rest because he is still alive. A pioneer and top researcher and writer in the field of Human Reproductive Physiology, he became the most influential editor of the British Journal of Obstetrics and Gynaecology. Now aged 92, he and his wife still live at their own home in UK, and we still keep in touch.

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Lastly, Niilo Hallman: he was Professor of Paediatrics at University of Helsinki in Finland. While serving in that capacity, he became the moving spirit in the modernization of the Finnish health system. In later years, his support for the creation of maternal and child health clinics in rural Africa became legendary, and in the case of Zaria, the support came always when it was most needed. He died in 2011 aged 94 years.

### **THE IBADAN YEARS 1960 - 1971**

*UCH and contributions to anaemia in pregnancy.* My time in Ibadan began with me as one of only three house officers in the 107 bedded department of obstetrics and gynaecology at University College Hospital (UCH), and ended when I rose to the post of a professor in the same department, and left. The department handled about 3000 deliveries annually with a large proportion of complicated deliveries. Consultant staff strength was never more than six. The facilities provided were sufficient to allow us to cope, although there were occasions when we were much stressed.

The subject of maternal deaths dominated much of the department's activity. We were all made to realize that the death of a woman during pregnancy, labour and/or soon after her delivery, from largely preventable conditions, was awful, and that we all have to work together in tackling the problem. The medical causes were anaemia, complicated abortions, obstructed labour, eclampsia, infections, and hemorrhage or excessive bleeding. Severe anaemia was by far the commonest cause of maternal death. Lawson, who headed the department, encouraged a multidisciplinary approach to the study of the subject. These studies revealed that poor nutrition especially folic acid deficiency, malaria and sickle cell disease were the principal causes. When anaemia became extreme, exchange blood transfusion, not straight blood transfusion, was needed to correct the anaemia without killing the patients through overloading the failing anaemic heart. But exchange blood transfusion was too complicated and costly to set up and use in rural settings where the patients first reported for treatment. While I was still a house officer, I suggested a rigorous search for a simpler method of transfusion to replace exchange transfusion. Next, acting on a felt need, the department's laboratory technologist, Mr. A. Kadiri, and I mapped out the changes in the circulation severe anaemia

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produced, and I went on to devise the method of combining direct blood transfusion with a rapidly acting diuretic, ethacrynic acid. Joined at that stage by enthusiastic colleagues, a successful clinical trial followed. Thereafter, in correcting extreme anaemia, the administration of a rapidly acting diuretic followed immediately afterwards by conventional direct blood transfusion replaced exchange transfusion. This was in 1970. Since then, this simple technique continues to be used worldwide, only that the readily available frusemide has replaced ethacrynic acid.

Next, we showed for the first time that anaemia in the mother impaired the growth of her baby in the womb, and that the correction of the anaemia during pregnancy led to catch-up growth of the baby; an issue of enormous public health interest in and outside this country.

Meanwhile, collaborating with haematologists, morbid anatomists and fellow obstetricians, we unraveled the influence of several haemoglobinopathies in pregnant women and their babies, and how best to deal with the most dangerous of them, namely sickle cell disease.

An important part of the offshoot of these endeavours was the establishment of a quality research laboratory for the department of obstetrics and gynaecology in 1970. I believe it still thrives.

*Other contributions at Ibadan.* While we were still based in Ibadan, there were other fruitful activities. One was the care we took of poor village women in and around University of Ibadan in illustrating how to run a community based maternal health service properly. Another was the pioneering of the use of anti-cancer medicines in treating one particular rare cancer in women. Suffice it to say that these and other additional duties made heavy demands on our time, but we still managed to carry out our routine clinical and teaching duties.

It has to be said that in Ibadan living and working conditions in terms of availability of facilities, and supporting infrastructure and personnel were almost at par with what I experienced during my undergraduate medical training in London from 1955 to 1959.

The basic elements needed to take care of ourselves and look after the patients were provided and they functioned properly. All in-patients were hospital fed and without charge. Nursing

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standards were high. The whole place was vibrant, racially mixed at work and in private, with blacks, whites and Asiatic. Rented accommodation provided by both the university and its teaching hospital was good. Telecommunication, problematic occasionally, was not too bad. Outside, other forms of support such as facilities for children's education and recreation were good and easily affordable. We even made out time to resume playing cricket for Nigeria and went on tours to Ghana, Sierra Leone and Gambia. There, buoyed up by the lavish hospitality on and off the fields of play, we were full of joy.

### **THE ZARIA YEARS 1972 - 1981**

***The Zaria Maternity Survey.*** In 1972 I received the invitation to come to Zaria to replace an elderly British woman in charge of the department of obstetrics and gynaecology. There, the acute shortages of everything and the sight of large number of women having their babies under intolerably bad conditions, with too many dying, worried us most. We vowed to bring about improvements based on the real needs of these women and their newborn babies. To this end, between January 1976 and June 1979, my team and I obtained detailed information from all 22774 mothers who delivered at our hospital or were admitted there soon after delivery elsewhere.

Our findings were published as a special supplement to the October 1985 issue of the British Journal of Obstetrics and Gynaecology was titled "Child-bearing, Health and Social Priorities: A survey of 22,774 Consecutive Hospital Births in Zaria, Northern Nigeria. Supplement 5." The work had taken 13 years to complete from conception to publication. Expert opinion is that the findings and the lessons this survey teach are still relevant not just locally but also elsewhere in developing countries.

The work opens with these words: "Childbearing in most areas of the Third World is a dangerous gamble". And it ends "Until there is a fundamental social change beginning with universal formal education, emergency obstetric care must continue to make the best of an unsatisfactory situation .....Lastly, there can be no doubt whatsoever that reducing maternal deaths is the *real* priority. Here, the health services and those who manage them must assume

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the critical role of demonstrating to a skeptical public that the hospital can provide excellent life-saving treatment and should be patronized by everybody". In between, here are some highlights:

*Some preliminary data.* The women in the survey were from over 120 different ethnic groups, and half were Hausa - Fulani. The youngest was only 9, and the oldest was 50. The shortest was 1.16 metres in height, and the tallest was 1.93 metres. Some had had over 24 previous deliveries. There were 238 maternal deaths and 2718 perinatal deaths giving an overall maternal mortality ratio of 1050 maternal deaths per 100,000 deliveries, and a perinatal mortality rate of 116 perinatal deaths per 1000 babies born. The principal medical causes of death were the same as in Ibadan and anywhere else in Nigeria, only that the delay on the part of the women in reporting to hospital for effective treatment made things very much worse. I should add that unlike Ibadan, complicated abortion was very rare.

More importantly the survey revealed that non-medical factors contributed hugely to the very bad situation. These non-medical factors were those which acted in combination, and made it impossible for women to have decent medical and obstetric care when they needed them. They included poverty, lack of formal education, adverse cultural, ethnic, and religious influences, inadequate health and physical infrastructure, and poor logistics.

*Maternal outcome in three main subgroups of women.* The survey confirmed that the state of the general health of a community is a powerful determinant of the results of reproduction. This concept was quantified as follows.

**Insert Table 1 here.**

The survey population was divided into three subgroups and the results of their pregnancies and other characteristics were compared. The first sub group received antenatal care and remained free of complications throughout pregnancy but not necessarily in labour. This is the booked-healthy subgroup. The second subgroup received antenatal care but each woman had at least one major complication during pregnancy. This was the booked-complication subgroup. The third and last subgroup was classified as unbooked-emergencies. None intended to come

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to hospital, and they reported when difficulties developed during labour or when pre-existing disease such as severe anaemia worsened.

Most deaths occurred in unbooked emergencies amongst who the death rate of 2900 per 100,000 deliveries was similar to that of Europe in the 16 – 18<sup>th</sup> centuries. By contrast, in booked healthy women, the maternal mortality ratio was less than 40 per 100,000, similar to the death rate in UK in the 1940s. Particularly striking was that in Zaria there were no deaths amongst the over 1300 women with post-primary education. It gave a hint as to one important lesson learnt from the whole survey, namely that universal education is an important key to better maternal health.

The protective effect of good maternal health on fetal results is also evident on Table 2.

[Insert Table 2 here](#)

*Notes on VVF.* We take a break from maternal mortality and go on to another scourge of women in our country. As we all know, women, during childbirth, can sustain horrific injuries in their birth canal if they fail to get the care they need. By far the worst of these injuries is VVF. It carries with it, serious reproductive, social and economic consequences which the work of a dedicated sociologist in Zaria, Dr. (Mrs). Margaret Murphy, a Scot, helped to unravel in great detail. VVF occurs all over Nigeria, but it is commonest in the North. Early teenage mothers, who were less than 1.5 metres tall, were the most vulnerable. VVF was often the result of prolonged obstructed labour whose underlying cause was traced to the exceeding harsh conditions under which these girls were brought up. More will be said about VVF later.

An original discovery made was that of growth during pregnancy in early teenage girls who had not finished growing when they became pregnant. Malaria and anaemia prevention by the use of antimalarial drugs, and iron and folic acid tablets taken throughout pregnancy made these underage girls grow even faster, with some having growth spurts during pregnancy. We reasoned that if the growth enhancing effect of antimalarial and anti anaemia measures is confirmed, it can become a way of preventing VVF in this country.

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*On stillbirths, growth stunting and its long term consequences: a hypothesis.* One would not have thought that information on stillbirths would open up important insights into the consequences of socio-economic deprivation. But it did. In Zaria, initially, there was strong opposition to the weighing of dead babies for cultural reasons. Eventually we arrived at a compromise. We provided separate sets of baby weighing scales, one set for babies born alive, another set for babies born dead and with torso intact, and the last set for babies born dead and with mutilated torso. We discovered that among babies born after prolonged labour had resulted in VVF, the stillbirths were on the average much heavier than the live births. In all other situations, the reverse was the case in that stillbirths were lighter than live births. This reversal of the pattern of birth weight distribution in VVF carries implications.

One of such is the long-term consequence of pelvic contraction. In the growth-stunted adult woman, pelvic contraction is permanent. When she gets pregnant, her baby at term will either be small or big. If small, easy passage through the contracted pelvis will result in the birth of a small baby. If her baby is big, the result is different. In this case, labour will be difficult, it may become obstructed which if neglected, results in damage to both mother and baby. The danger can be averted by timely caesarean operation with the birth of that big live baby. If the obstruction is allowed to persist for whatever reason, it will result at the end, in the birth of a baby of good size that is either born dead or born alive but severely damaged.

It is well known that in general, heavier babies are superior to their lighter counterparts in terms of their potential for growth and physical and mental development. We therefore postulated that in a population where obstructed labour is common, the surviving babies might not be the best babies. Furthermore, because of the bad conditions in which those inferior babies are reared – bad housing, no prevention against infection, excessive physical work, and bad nutrition – these inferior babies in their adulthood become growth stunted, and give birth to more damaged babies. So the end result of pelvic contraction is damaged babies that grow up to be damaged adults who in turn produce the next generation of damaged babies. Obviously, emergency obstetric care cannot break this horrible cycle because it does not correct the underlying fault, which is pelvic contraction. Only fixing the politics and sustaining

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the needed social change, will. For as long as the cycle is allowed to persist, there is this dreadful thought that superior babies die, and inferior babies survive. This thinking is only a hypothesis, but in the prevailing circumstances in Nigeria, it sounds plausible.

*Saving mothers.* The overall message from this survey is that there are four key factors for maternal survival during pregnancy and childbirth. First, living conditions must improve to the point at which the vast majority of people are healthy. Second, all pregnant women must receive basic but professional antenatal care. Thirdly, measures must be taken to ensure that pregnant women who develop life-threatening complications get effective treatment if necessary operative interventions, before it is too late. Fourthly, records must be kept for audit and other purposes.

### **BEYOND IBADAN AND ZARIA**

Major events that affected the whole of Nigeria happened in the years I lived and worked in Ibadan, Zaria and Port Harcourt. These events impacted on our work and living conditions, and on the living conditions of the society at large. In the 1960s and 1970s, there was first the Nigerian civil war, and second, the great Sahel drought. In the 1980s, it was the effects of the adoption of structural adjustment programmes (or SAP for short).

Our civil war did much damage throughout the Eastern Region. Before the war, there were impressive human and infrastructural investments. During the war, these developments were halted. Afterwards, support was needed to start afresh as it were. I became a relief worker. In the process, though still on the payroll of Ibadan University, I voluntarily gave the needed expert assistance on the spot in Port Harcourt in rebuilding the maternity services that had been destroyed through military action. Furthermore, partly through our efforts, the government of the Rivers state established the Rivers State School of Nursing and Midwifery.

Nigeria next lurched from a man-made disaster which the civil war was, to a natural disaster. There was severe drought in the entire Sahel region of West Africa including Nigeria. For the best part of 1970s, crops and livestock production failed, food became scarce, and food prices rose sharply. In fact, at the height of that period of extreme economic hardship – August to

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October 1977 - the price of staple foods suddenly doubled. For example, yam sold at 50 kobo per kg whereas before, it was 25 kobo per kg: cow meat was N3.3 per kg whereas before, it was N1.7 per kg. A similar pattern of price fluctuations was reported for beans, garri and to a lesser extent guinea corn. Looking at our Zaria data, we noticed that for a subset of the population, the proportion of low birth weight babies being born rose very abruptly at around 23% from January 1976 to June 1977 to 40% in August 1977. Data from Port Harcourt showed the same trend though less marked. Clearly, therefore, both the rising food prices and the prevalence of low birth weight reached their peak at the same period.

[Insert Table 3 here.](#)

So that there is more than a mere suggestion that in Zaria, circumstances resulting in uncontrolled and sudden rise in prices of staple food can exert harmful influences on both adults and children already born, but also on babies still in the womb. The latter suffer from stunted growth, and would therefore be more exposed to the conditions tied to low fetal birth weight. These are high dead rates at birth and soon afterwards, higher than normal rates of impaired motor and social development and learning difficulties in childhood and adolescence, and higher rates of chronic diseases such as obesity, hypertension and diabetes in adulthood. The figures quoted here are of course for Zaria and Port Harcourt. But if they were the case nationwide, the resulting death and disability burden must have been huge.

So, of the three national disasters that befell us in 1960s to 1980s, I have discussed two, namely civil war and drought in the context of reproductive health. I shall do likewise about the third, namely, SAP, later.

### **PORT HARCOURT YEARS AND BEYOND 1981 -**

The years we were based in University of Port Harcourt (1981-1998) were the most difficult. I was the university's vice chancellor for 3 years only (1989-92). Throughout, provisions for staff and student accommodation and academic work were grossly inadequate, and the increasing activities of the secret cults meant more insecurity. Even so, we made out time for the promotion of advocacy for better maternal health in developing countries. With generous

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sponsorship from several donor agencies, we travelled widely within and outside Nigeria acting like town criers on this issue.

Within Nigeria, the Nigerian National Task Force on VVF was formed in July 1990. It was initially led by Amina Sambo from Kano. I succeeded her as President in 1996. We were 15 members initially. The task force which later became National Foundation on VVF worked to increase advocacy and to building of the needed capacity to deal with thousands of women with VVF awaiting surgical repair and rehabilitation. Support came initially from Ford Foundation, joined later by the Federal Ministry of Health, and other philanthropic groups. Since then, the WHO and other powerful international organisations and many donor agencies have taken over this concept and extended it to some African and Asian countries.

Next we facilitated an important UK Government sponsored joint project between Liverpool School of Tropical Medicine and University of Port Harcourt with Professor N.D. Briggs as its local coordinator. Based at K-Dere in Ogoniland, it was on the nature and pattern of non-fatal illnesses in women. Although the project ended nearly two decades ago, the University of Port Harcourt still benefits from it.

Then, there were the numerous invitations to write and publish. Among them, one gave me the greatest pleasure. It was an editorial for the African Journal of Reproductive Health on its debut in 1997. It was titled “Maternal Mortality in Nigeria: the real issues”. Since then, under the competent editorship of Friday Okonofua, your vice chancellor, the influence of this journal continues to grow, whereas some other Nigeria-based journals have packed up.

### **THE GREATEST SEEDS AND HARVESTS**

*World reacts to the results of the Zaria Survey:* International health experts reacted very quickly to the results of the Zaria Survey. Within one month of the publication of these results, WHO summoned its first interregional meeting on the prevention of maternal mortality. The purpose was to raise world awareness of the problem and how to tackle it. I noticed that at the meeting which took place at the headquarters of WHO in Geneva, each of us 40 or so participants from over 25 countries received a free donation of the published Zaria Survey. And in February 1987,

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the World Safe Motherhood Initiative was formally launched in Nairobi, Kenya. The aim of this initiative was to help reduce the existing high levels of maternal mortality and morbidity world-wide especially in developing countries. Empowering women, the setting up of efficient antenatal care, working referral systems, and emergency obstetric care, and an increased acceptance of family planning were seen as the corner stones for improving reproductive health. Its implementation gave fairly good results elsewhere but not in Sub Saharan Africa and most certainly not in Nigeria, where estimated maternal mortality ratio still exceeded 600 per 100,000 births. When progress became painfully slow, a rethink took place at the highest international level. Heads of UN agencies, development partners, research funders, and health foundations met and were confident that things could work better and that achievement through fresh goals was possible.

But at the same time, the awareness which the publication of the Zaria Maternity Survey helped to create, led to other important and related events during the 1990s. One early example was the UNESCO's World Conference on Education for All at Jomtein in Thailand in 1990.

*UN Millennium Development Goals 2000* replaced the safe motherhood initiative, but the truth was that we were stuck. There was not much to show for the combined efforts made by national and international bodies. By then I had left Nigeria for Finland on retirement but received regular information on the state of maternal health in Nigeria.

### **WE WERE STUCK**

In faraway Finland, news kept reaching me that the poor state of maternal health at home had worsened. Trust in conventional maternity care was severely eroded. Good organization and proper communication between those concerned in maternity care had all but disappeared. In this tough situation, more and more of our women who could afford the cost travelled abroad to have their babies. Those who could not afford the cost remained at home but increasingly put their trust in TBAs, Pentecostal churches, and even faith healers. I felt rage and anger for our expectant mothers.

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Something had to be done. On Africa Day 23 March 2007 at the Royal College of Obstetricians and Gynaecologists in London I presented a very short paper titled “Thoughts on making safe motherhood work better”. I quote relevant sections of what I said:

“.....Sadly, high maternal mortality in much of Sub-Saharan Africa including my country, Nigeria, persists and still rising. The reason, in my view, is because we are looking at and dealing with the wrong end of the problem. Dead and damaged mothers and infants make up a cluster of conditions resulting from one thing, very poor obstetric care. Very poor obstetric care is, in turn one result of the chaotic socioeconomic and political systems, which is the major underlying disease. It is the disease, which has to be treated.

Insert Figure 1 here.

Throwing resources at a single symptom such as high maternal mortality will at best lead to a temporary amelioration and at the worst, no improvement at all. In Zaria, our efforts in improving obstetric care in the area, lead first to an increase in institutional deliveries, then to eradication of VVF, but VVF has resurged because of failure to sustain the effort and at the same time tackle the problem at the correct end, namely its root.

Presently, most black Africans live in very rough and tough conditions to the extent that hardly anything in public domain works properly. So the challenge is to turn things round to ensure that most things work to the general benefit of society. At the core of the strategies needed to achieve this, is quality universal basic formal education because of the social, economic, demographic, political, and health benefits it confers. We must fix education; invest in it, resource it properly, look at countries which do it best, seek their assistance, and copy.

As I ponder over the situation in my country, I have come to realize that there are things we have done right, others we have done wrong, still, others we knew were wrong but were imposed on us. Here are examples. In the 1940s, alarmed by the unsatisfactory obstetric outcome in an area that is now part of Eastern Nigeria, the people, their Native Administration, the Lagos-based colonial government, and the Church Missionary Society went into action. By

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1949, in the 31 maternity homes handling over 6500 births each year, the maternal mortality ratio became 46 per 100,000 births. The action taken ranged widely and was directed to improve the way people lived and the way their health needs were being met. The account of what happened was reported in *The Lancet* in August 2003, and in it, two passages in particular intrigued me. The first described the aim of the work in these words, and I quote: “The plan was to raise the standard of midwifery work in this country and to try to bring it nearer to that of similar work in England and other countries”. The second passage gave an indication of the level of commitment shown. It read, “Some workers were sent out to teach people the prevention of diseases”. That was in Eastern Nigeria.

Elsewhere in Northern Nigeria, beginning in 1945, Katsina emirate was able to maintain for over 25 years, reliable records of births and deaths in the whole emirate of over one million people. What a fantastic development that was. It afforded an opportunity of nurturing countrywide, the culture of generating reliable health and socioeconomic statistics and indeed population statistics but we blew it. Instead, the use of sporadic estimate of population data came into vogue. Pity, because if you want to change anything, you get your public facts first and in doing so, do not distort reality in order to make the task easy. The best thing is to start from the reality. For safe motherhood it means actual counts of births and deaths on a continuous basis and in a structured manner, not ad-hoc estimates of population data. The latter is a poor substitute for compulsory civil registration. Not surprisingly, it has failed to get us very far. It is a mistake.

The greatest mistake, however, is the World Bank and International Monetary Fund promulgated Structural Adjustment Programmes (SAP) and the conditions which brought them about. SAP was meant to cure our socioeconomic ills. We were coerced to adopt it in the 1980s. The results especially on maternal and child health, and education were catastrophic, job retrenchment and inflation increased sharply, corruption levels soared, and recovery is still nowhere in sight. Thus, SAP in one fell swoop wiped out much of the good work done in the field of social welfare by generations of dedicated men and women, both nationals and non-

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nationals. Hence, adoption of the principles of SAP or anything remotely like them will mean reinforcing failure, which is never a good thing to do.

Finally, back to the issue of reducing high maternal mortality in Sub-Saharan Africa. My point is that in fixing it what is needed is a change in emphasis from treating just the one condition namely high maternal mortality to treating the major underlying disease, namely the region's chaotic socioeconomic, political, and health systems. Obviously, only bold measures will have the desired impact..."

Older top officials present recognized that we in Nigeria were in the same situation as we were in 1979 when I spoke on the same subject in that same venue (RCOG). It meant we had worked and published on this subject for nearly 30 years yet there was little on the ground in Nigeria to show for it, except perhaps unregulated private practice, which is part of the chaos, we mentioned earlier. Obviously, an individual no matter how energetic, no matter how dedicated, can succeed without support from like-minded followers. So my hope is in the coming generations. But things can change quickly, and they have in Ondo.

### **GOVERNOR OLUSEGUN MIMIKO AND ONDO PEOPLE SHOW US HOW IT CAN BE DONE**

Dr. Olusegun Mimiko, a trained physician and politician became the governor of Ondo State in 2009. He then declared loudly and with absolute conviction that improving social welfare, including education, and reducing deaths of women and children would be among his priorities. The policies and strategies would be aimed at the removal of barriers to safe motherhood. Attention would be paid to the avoidance of delays encountered by pregnant women in seeking, reaching and receiving quality health care at both primary and secondary levels. He would provide skilled personnel for government health centres and hospitals, and ensure that through efficient administration of the resources provided, the results would improve. The promise was kept and the results exceeded my highest expectations in that maternal mortality ratio dropped from one that was above the average for Nigeria (600 per 100,000 deliveries) to around 100 per 100,000 deliveries. There is still a long way to go compared to the results elsewhere, for example, Finland, where the ratio is 5 maternal deaths per 100000 births.

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Nonetheless, a break-through has been achieved. Governor Mimiko's administration has transformed ideas into actual deeds.

### **CONCLUSION**

Finally, let us reflect on a few ideas as we round up this lecture. I have made my points without overlooking the context around which the various events occurred. This, I believe, enables each listener to see the points he or she would want to take away with him or her. It could be history rather than medical science or vice versa. Or it could be drought rather than social science or vice versa. Next, it is clear that good training, good mentoring, and good support are important in order to excel. Also, longer term research is important and should be encouraged. I plead with you all to do what you can to spread these messages to all universities in this country.

True, the success achieved in Ondo is worth celebrating but at the same time we should also see it as having brought pressure on all sectors of health care in this country to do their job. This can no longer be regarded as mission impossible. Lastly, Governor Olusegun Mimiko, Chancellor, Pro Chancellor, Vice Chancellor, Academic and Professional Staff, Junior and Senior Staff, and Students, you all having started this university, the ball is still in your court as it were. We hope the good seeds you have sown will eventually reap a bountiful harvest.

### **ACKNOWLEDGEMENTS**

I thank the following colleagues for their helpful suggestions and critical comments on the original draft of this lecture: Emeritus Professor N.D. Briggs and Professor R.S.Oruamabo, both of University of Port Harcourt and Professor T. C. Harry of Niger Delta University, Bayelsa State.

LIST OF TABLES AND FIGURE

Table 1. Maternal outcomes in booked-healthy subgroup, booked-antenatal complications subgroup, and unbooked emergencies subgroup in Zaria Maternity Survey 1976-1979.

Table 2. Fetal outcomes in booked – healthy subgroup, in booked antenatal complications subgroup, and in unbooked emergencies in Zaria Maternity Survey 1976 -1979.

Table 3. Food prices and % Low Fetal Birth Weight in Zaria 1976 – 1977.

Figure 1. Chaos in Nigeria. The Underlying Disease.

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