

UNIVERSITY OF ILORIN



THE TWO HUNDRED AND THIRTY-ONE (231ST) INAUGURAL LECTURE

“REVERSING NIGERIAN WOMEN’S POOR HEALTH
INDICES: CHALLENGES AND PROSPECTS”

By

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FACULTY OF CLINICAL SCIENCES,
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UNIVERSITY OF ILORIN,
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The Vice-Chancellor

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Professors and other members of Senate,
Members of Staff (Academic and non-Academic),
My dear Wife,
My family,
My Lords Spiritual and Temporal,
Your Royal Highnesses
Gentlemen of the Print and Electronic Media,
My dear Students of the College of Health Sciences, and other
students here present,
Distinguished Ladies and Gentlemen

Preamble

I stand humbly before this distinguished gathering to present the 231st in the series of inaugural lectures of this great University on this day; 13th April, 2023. Permit me to also proceed in all reverence to the Almighty God - in the name of the Father, the Son, and the Holy Spirit.

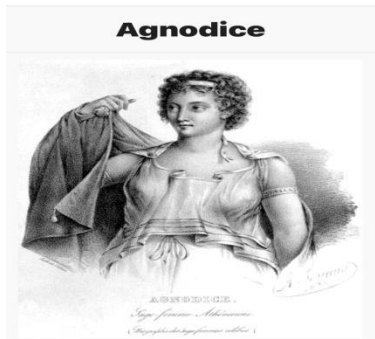
Sometime ago, we were told of this short story on Agnodice (https://www.brooklynmuseum.org/eascfa/dinner_party/heritage_floor/agnodice) by one of our teachers.

In ancient Greece, women were forbidden to study medicine. Born in 300 Before the Common Era (BCE), Agnodice cut her hair and entered Alexandria medical school dressed as a man. While

walking the streets of Athens after completing her medical education, she heard the cries of a woman in labour. However, the woman did not want Agnodice to touch her although she was in severe pain, because she thought Agnodice was a man. Agnodice proved that she was a woman by removing her clothes without anyone seeing and helped the woman deliver her baby.

The story would soon spread among the women and all of them accused Agnodice, whom they thought was male, of seducing female patients. At her trial, Agnodice, stood before the court and proved that she was a woman but this time, she was sentenced to death for studying medicine and practicing medicine as a woman.

Women revolted at the sentence, especially the wives of the judges who had given the death penalty. Some said that if Agnodice was killed, they would go to their deaths with her. Unable to withstand the pressures of their wives and other women, the judges lifted Agnodice's sentence, and from then on, women were allowed to practice medicine, provided they only looked after women.



Thus, Agnodice made her mark in history as the first female doctor and gynaecologist. A plaque depicting Agnodice at work was excavated at Ostia, Italy and is now on display at the British Museum. Mr. Vice-Chancellor Sir, I am glad I do not have to prove to this audience that I am not a female.

Introduction

When I was growing up, I was greatly motivated to getting really educated like my father. He was getting all accolades of an intelligent and a brilliant man. He was always well dressed in shirt

and trouser that were well iron - pressed hard with knife edged crease (gator). When we later accompanied him to the office, it was always with pride walking beside him, and then playing on the lawn around the office at the University of Ibadan. I was influenced early in life to be a doctor by my admiration for the commanding respect of the white top and trouser wear of a male Nurse - he is now over 100years old, Baba Soyele at Iwo, my hometown in Osun State. Then, my grand uncle, Baba I.A. Adisa (of blessed memory) who one day riding with him in his Peugeot saloon car model 403, at a police officer check point, spoke in Queen's English "fri-fra-fra" which then to me, (I was quite young then and just starting to master the full length of ABC in school) had been a not too easy task! He almost got a salute from the policemen... then I knew that one other pathway to community respect was through the mastery of the English language. Then again, when Dad and Mum returned from their sojourn in UK, we lived for some time with another grand uncle, Baba, D.A. Laosebikan a Medical Doctor, and his wife (Mama Naomi Laosebikan of blessed memory) was a nurse. The hours of work and duties of a medical doctor became clearer, and I wanted even more to be a medical doctor.

On getting to the secondary school, I had passion for calculus, physics, and technical drawing, and I had close friends who were in the same class, they are today architects and engineers. So, I thought to myself, I would be an architect, or an engineer and I would remain with my friends probably get admission into the same university. However, after much time in the architect / engineer class dream, I wasn't fully satisfied, so I went back to my first passion, the subjects that would enable me get admission into the medical school. Then, sometime in the early 1970s, my Mum lost an elder sister, "Iya Ile-Oluyena" She died during labour and my mum was devastated while the whole family was so disturbed and upset. Until then, I didn't know death could occur in labour just like that! From this bad experience, I had an idea of the specialisation in medicine I would pursue at postgraduate level; the art of Obstetrics and Gynaecology. I looked forward to making a change in the care of women in pregnancy, labour and after labour. In the medical school, I learnt of the indices of health care, their meanings, and the interrelationship of people, government, and the environment. The

differences and the inter-relationship of policy makers, the management team, and the health workers on the field (whether in hospital or community). The healthcare system became clearer that one could only play his role as a tiny dot. I returned for postgraduate training straight after the National Youth Service (NYSC). I found a mentor in the person of Prof. O. O. Fakeye, he has mentored me all through my training years and thereafter, and even till now (he is on zoom link to this event). I was nominated for, and I completed a Certificate Course in Health Planning and Management. I was appointed into various positions in the Hospital where I learnt more on health management and policy. From the recorded health care indices for our Nation, Nigeria, since the time of maternal death during labour of “Iya Ile Oluyena”, there has been improvements, but much is still left to be desired.

Mr. Vice – Chancellor sir, my dearest mother Mrs. C.A. Fawole, passed on to glory on 16th February, 2011, may God bless her soul, amen. But my equally dearest father is present here this evening, Emeritus Professor M.O. Fawole.



Mrs, C.A. Fawole



Emeritus Professor M.O. Fawole

I dedicate this lecture to my late dearest Mum, my dearest Dad, and to the memory of all the women who lost their lives in trying to reproduce mankind.

There are 219 Universities in Nigeria, (National Universities commission 2022), as of 12th September, 2022, one hundred and eleven (111) were private universities, State Universities were 59 and Federal Universities were 49. Based on data from the Nigeria Health Facility Registry (NHFR) March 2022 (<https://hfr.health.gov.ng>); Nigeria has a total of **39,914** operational hospitals and clinics. There are 93 University Teaching Hospitals, and 22 Federal Medical Centers situated across the country, I count myself

fortunate to be an employee of government in one of them. The University of Ilorin where I have been employed as lecturer in the College of Health Sciences since 1994 has a relationship with the University of Ilorin Teaching hospital adjacent to it, where I carry out practical teaching for students (undergraduates and postgraduates) and attend to patients in the Department of Obstetrics and Gynaecology.

The Department of Obstetrics and Gynaecology started with the Teaching hospital in 1980, and it has the current head as Prof. Kikelomo Temilola Adesina. There are four sub-speciality units in the Department, these are:

- (i) Maternal - Fetal Medicine
- (ii) Gynaecologic Oncology (where I belong)
- (iii) Reproductive Endocrinology & Infertility
- (iv) The Urogynaecology Units

Our teachers who are still living are: Professor Olurotimi Omoniyi Fakeye, my mentor and my friend, Professor O. O. Ogunbode, Professor. O. O. Adetoro and Dr. V. A. Ojo. Our teachers whom we lost to the cold hands of death and are of blessed memory are; Dr. O. B. Sobowale, 1990, Prof. M. O. Shogbamu 2009 (our first head of Department), and Prof. M. Anate, 2019. May their souls find peaceful rest, amen.

History of Obstetrics and Gynaecology

Obstetrics and Gynaecology, medical/surgical is the specialty concerned with the care of women from pregnancy until after delivery and with the diagnosis and treatment of disorders of the female reproductive tract.

The medical care of pregnant women (obstetrics) and of female genital diseases (gynaecology) developed along different historical paths. Obstetrics had for a long time been the province of female midwives {*indeed* the authors trace midwifery from its origins in 6000 BCE (before the Common Era)} to the present, but in the 17th century, European physicians began to attend on normal deliveries of royal and aristocratic families; from that beginning, the practice grew and spread to the middle classes. The invention of the forceps used in delivery, the introduction of anaesthesia, and Ignaz Semmelweis's discovery of the cause of puerperal ("childbed") fever and his introduction of antiseptic methods in the

delivery room were all major advances in obstetrical practice. Asepsis in turn made caesarean, in which the infant is delivered through an incision in the mother's uterus and abdominal wall, a feasible surgical alternative to natural childbirth. By the early 19th century, obstetrics had become established as a recognized medical discipline in Europe and the United States. The obstetrician's main tasks are to diagnose and bring a woman through pregnancy, deliver her child, and give the new mother adequate postnatal care. The most-important surgical operation performed by obstetricians is caesarean section. Episiotomy, a surgical procedure in which an incision is used to enlarge the vaginal opening to facilitate childbirth is also common.

Gynaecology as a branch of medicine dates to Greco-Roman civilization, if not earlier. The renewal of interest in diseases of women is shown in the huge Encyclopaedia of gynaecology issued in 1566 by Caspar Wolf of Zürich. In the early and mid-19th century, physicians became able to successfully perform a limited variety of surgical operations on the ovaries and uterus. The American surgeon James Marion Sims and other pioneers of operative gynaecology also had to combat the violent prejudice of the public against any exposure or examination of the female sexual organs. The two great advances that finally overcame such opposition and made gynaecologic surgery generally available were the use of anaesthesia and antiseptic methods. The separate specialty of gynaecology had become fairly well established by 1880; its union with the specialty of obstetrics, arising from an overlap of natural concerns, began late in the century and has continued to the present day.

Gynaecologists make routine examinations of cervical and vaginal secretions to detect cancer of the uterus and cervix. They perform two main types of surgical operations: repairing any significant injuries caused to the vagina, uterus, and bladder in the course of childbirth; and removing cysts and benign or malignant tumours from the uterus, cervix, and ovaries. The modern practice of gynaecology requires skill in pelvic surgery, a knowledge of female urologic conditions, because the symptoms of diseases of the urinary tract and the genital tract are often similar, and skill in dealing with the minor psychiatric problems that often arise among

gynaecologic patients (Obstetrics and Gynaecology I Encyclopaedia Britannica. <https://www.britanica.com>. and Michael O'Dowd and Phillip (1994).

The Life Cycle of Woman

The pregnancy world is fun for the mother, the father, the proud grandparents, and the whole family. The early pregnancy symptoms take over the whole house and everyone is in disarray and these are called 'morning sickness.' Some women don't experience it at all, in its mild form it changes not much of lifestyle but in its severe form, it can cause upsets and emotional upheavals. Along the pathway of a 9-month pregnancy are illnesses that remind the woman that she is not the same; malaise, fever, aches, and pains bring malaria like feelings. There is hunger for unusual meals /foods & drinks, the body shape changes to reflect a larger glory of God. Increased weight gain, sexual libido rises or reduces, increased normal vaginal discharge which sometimes could be corrupted by vaginal organisms to give infection of the vagina and vulva. The blood pressure from the changes of the body system in pregnancy would be lowered in the middle three months, then rise to pre-pregnancy levels in the final three months of pregnancy, but in abnormal situations, there could be abnormal rise in blood pressure called 'Pre – eclampsia' that would necessitate treatment with anti-hypertensive drugs. There could be some unusual painless bleeding in pregnancy called antepartum haemorrhage which could lead to some rapid decisions. Some women lose control of their body sugar, they have a high blood sugar, hyperglycaemia, and they are labelled 'Gestational Diabetes Mellitus.' For many, nothing happens unusual to them in pregnancy, and it is smooth sailing to labour which comes up most times at between 38 – 42 weeks of pregnancy.

Labour is defined as regular and painful uterine contractions that cause progressive dilation and effacement of the cervix. Contractions of the uterus and changes in the cervix (the opening of the uterus) prepare a woman's body to give birth. Then the baby is born, and the placenta follows. Labour usually starts two weeks before or after the estimated date of delivery (WHO *Labour Care Guide 2020– User's Manual*).

What things may be different; the woman may have a smaller passage (pelvis) than the size of the baby that makes it difficult / unsafe for the baby to pass, this is Cephalopelvic disproportion (CPD). When there is complete blockage of passage by the differences between these two parameters – pelvis and foetus - it is ‘Obstructed labour.’ Sometimes, the baby may be big or bigger than usual and thus cannot pass through the normal sized passage or vice – versa.

At times, the mother might get tired during delivery, or the womb stops contractions, and the mother cannot push the baby out with her abdominal muscles alone. Sometimes the perineum is not injured while sometimes there is perineal tear and sometimes it is cut (Episiotomy) to ease passage of baby. The tear could be undisturbing but sometimes it gets into the anus and disturb at passing stool and at some other times it doesn’t heal on time. After delivery of the baby, the placenta separates, and it is also delivered easily, moderate bleeding is permitted, and it stops. Sometimes placenta may not be delivered easily, in other cases, there is excessive bleeding which may stop without much generalised body system effects, and at some other times, the bleeding could lead to devastating and fatal consequences. Baby and mother are discharged, and they go to their home together, but sometimes, this is not always so. Sometimes, one of them doesn’t stay alive, at times both may not leave the hospital alive – perinatal mortality or / and maternal mortality.

At birth, a girl is born identifiable by the genitals between her legs, then she grows to some point that she begins to menstruate, undergoes the tensions, the pains of menstruation/periods, between 11 – 14years, these milestones are delayed in some girls. Occasionally swellings form on the ovaries (ovarian cysts), but they soon regress after ovulation, sometimes they don’t. Some present with abnormal vaginal discharge from infections, it is treated well in some, it is not so well treated in some and there are consequences. She blooms into a full woman, then she gets married, she gets pregnant when she wants, but sometimes it doesn’t come easy, then there is delay in getting pregnant. There could be reasons from the woman, could be reasons from the man. Swellings develop in the pelvis – abdomen some could be benign (fibroids, simple cysts)

with little effect, some could be malignant (cancers) with transformation into fatal consequences.

As the woman advances in age, the organs of the female reproductive system - Ovaries, Fallopian tubes, body of the Uterus, the Cervix, Vagina and Vulva - could develop infection, benign swellings, and malignant changes. The menstrual cycle (menstruation, periods) which hitherto had been regular at 1 – 7 days bleeding duration in a 21 to 35-day cycle gradually slows down and stops at age 45 – 55 years (menopause). The once full woman, then becomes an elderly woman, the organs start to shrink more and more into old age. Sometimes, the change in the organs is overtaken by Cancers.

Summary of my Research Activities

Vice Chancellor sir, I would like to illustrate further by presenting some of my research works that are relevant to the story of this lecture.

One of the early commers in women in their reproductive age group is the onset of pre-menstrual syndrome, body, and emotional disturbances just before menstruation. It is estimated to occur in more than 95% of women. Thus, it can be said to be almost normal, but it is disturbing in some 3 – 5% of these women (Ajiboye, Aboyeji, **Fawole**, Adesina and Adewara, 2009). The commonest manifestations are craving for unusual foods, feeling out of control, mood swings, headache, depression, breast pains, and lower abdominal pains. Management is usually with pain relievers (NSAID), increased liquids intake, counselling, and in severe cases may need interdisciplinary approach with the Behavioural Scientists.

I teamed up with colleagues in the Basic Sciences in the Department of Physiology to investigate the association between plasma lipids and viscosity, the field of hemorheology, during normal menstrual cycle, during contraceptive device usage and in pregnancy. Olatunji, Soladoye, Adebisi, **Fawole** and Abe (2004) found that Relative Plasma Viscosity, Total Plasma Protein, had demonstrable changes during the menstrual cycle with gradual rise during the menstrual phase to peak during ovulation, then gradually decline to lower than the menstrual phase levels. There is also associated similar changes in the Systolic blood pressure pattern, with peak at ovulation. However, in Haematocrit, Plasma Triglyceride, Total Cholesterol, there were no changes.

During the use of contraceptive devices, hemorheological response was strongest among the users of Cu - T intrauterine contraceptive device, and it was lowest among the users of

Medroxyprogesterone acetate and the users of Norethisterone oenante, both injectable contraceptives (Soladoye, Olatunji, and **Fawole**, 1998). In pregnancy, among the primigravida, there was positive correlation between plasma Triglycerides and the other hemorheological factors and the plasma Triglycerides can be considered as an important indicator of alternate blood rheology. But this correlation was insignificant among the multigravida (Olatunji, Soladoye, Adebisi, **Fawole**, Jimoh and Olatunji, 2008).

Our culture from immemorial had believed in female circumcision to reduce sexual libido in females. However, this has not been found to be scientific. A lot on education and counselling has gone into this, aimed to reverse the trend, but the act has persisted. Despite global efforts at eradicating female genital mutilation/cutting (FGM/C), the act continues to be performed globally. Sexual health education is expected to be well formatted at the secondary school levels to bring about the desired changes with the teachers as pivots. On looking at knowledge and attitude towards FGM at the education sector, Adeniran, **Fawole**, Balogun, Ijaiya, Adesina and Adeniran, (2015), also found that up to 42.3% of the female teachers had been mutilated and the most mutilations had been performed by traditional circumcisers. The men initiated most of their daughters' mutilations, while the mothers-in-law were the main initiators among the women. A main worrisome finding was that even among secondary school teachers, the trend is continuing as 17.0% women and 20.4% men held the opinion that females should be circumcised.

Pregnancy and Maternal Health

In Nigeria, 9.2 million women and girls become pregnant each year (DHS, 2019). Antenatal Care (ANC) is type of preventive health care to ensure good health for mother and baby in pregnancy and to plan for safe delivery of the mother. It provides a platform for important health-care functions, including health promotion, screening and diagnosis, and disease prevention

Women are encouraged to book for antenatal care at 8 weeks (WHO). Pandit (1992) examined the Role of Antenatal Care in Reducing Maternal Mortality, he compared maternal mortality ratio in N. Wadia Maternity Hospital, Bombay. India, from 1929 to 1988 period with the 1929–1939 period and concluded that although there

was significant achievement in reduction of maternal mortality over the decades, there was obvious apathy on the part of the pregnant women to come forward to make use of available antenatal care though nearby even when rendered free of charge. To give maximum benefits to pregnant women especially in the developing nations, we must carry the antenatal care to the doorsteps of the community.

In our environment looking at a 3years review, less than 20% registered for antenatal care before 20weeks and even only 31% registered by 30weeks, the influence of maternal age and education on ANC attendance made good variables (**Fawole** and Akande, 2002); extremes of age less than 20years and greater than 40years were the last to register (book) for ANC, they stayed away out of ignorance or inadequate finance in the younger group, and over confidence, previous experienced parturition that nothing bad would happen, and inadequate finance among the senior mothers. The higher the level of education, the earlier the women register for ANC and the more they use the services. This has been brought to focus by Harrison (1985) in Zaria, he looked at 22,774 consecutive pregnancies and found that both formal education and antenatal care had a significant impact on the results of childbearing. Key words here are maternal education level and finance. Conclusion of the paper was that universal education improved economic power and that widespread social insurances are ingredients for improved maternal health care. Previous study of the obstetric performance of women 40years and above (**Fawole**, 1995) showed that many women who got pregnant 40years and above registered late in pregnancy and 22% of these women were unregistered for pregnancy care. The other maternal factor that is a component in determining good pregnancy outcome is Parity; the number of previous pregnancies by the mother, when this is 5 or more, the risks of pregnancy complications increase. Adeniran, **Fawole**, Fakeye, Ijaiya and Adesina (2014) studied the grand multiparous patient and found that they booked late in pregnancy and they had poor maternal and neonatal outcomes. When asked for the reason for this large number of pregnancies and why taking so much risk? The reasons given are; desire for more children, previous infant death and desire for specific gender. These women are exposing

themselves to a lot of risks, and these can greatly affect the outcome of the pregnancy, put much strain on the health care infrastructure, and it might affect their life after the pregnancy (Liu, Ruan, Liu, Zhang (2015) and Han, Tong, Jin, *et.al.*, (2021).

Malaria infection during pregnancy is a significant public health problem with substantial risks for the pregnant woman, her foetus, and the new-born child. Malaria-associated maternal illness and low birth weight is mostly the result of *Plasmodium falciparum* infection and occurs predominantly in Africa. Abdulraheem, Fabiyi, Babatunde, Alayande, Akanbi II and **Fawole** (2010) looked at malaria parasitaemia in pregnancy and found an overall prevalence rate of 10.5%. It was more common among the age group 14-20 at (14%). More common among the primigravidae than the multigravida and the difference was significant ($P<0.05$). The prevalence was highest during the first trimester (15.4%) and it was lowest during third trimester. Haemoglobin genotype AA had the mostly occurring infection (13%), followed by genotype AS (6%). Subjects with the blood group AB+ were more frequently parasitized (14.2%), followed by blood group O+ with 11%. Plasmodium infection leads to parasitaemia which may affect blood parameters and cause in the mother and the foetus significant morbidity in the semi – immune persons, and mortality in the non – immune. It is a National malaria policy (2014) that the pregnant woman is encouraged to make use of chemical agent as prophylaxis in the prevention of malaria infection in pregnancy.

Despite chemoprophylaxis, malaria infection is still present in these women. Ojurongbe, Tijani, **Fawole**, Adeyeba and Kuu (2011): were able to document using PCR, the presence of combined triple mutation presence in 17% in the 51 + 59 + 108 allele with resistance demonstrated mainly against the pyrimethamine component of Sulphadoxin – pyrimethamine used in prophylaxis against the parasite; Plasmodium. The reality is that sometimes the pregnant woman is not sick, but she might have asymptomatic malaria parasitaemia that might lead to lowering of her haemoglobin blood level resulting in increased morbidity for herself and her baby. It is still recommended that pregnant women be regular on the use of IPT using S-P tabs which is a combination drug, or Chloroquine or hydroxychloroquine while we are in

constant search for alternate chemoprophylactic therapy. (Irvine, Einarson, Bozzo., 2011).

In a case-controlled study, Adesina, Aderibigbe, **Fawole**, Ijaiya and Olarinoye, (2011) looked at the outcome of pregnancy in the obese women, the women were mainly the well-educated mothers and women in the range 30 – 39years old. The mothers developed more of the medical disorders like, hypertension, pre-eclampsia, and diabetes mellitus. These women also had more operative deliveries, instrumental vaginal deliveries, and caesarean sections. All these medical complications and increased operative deliveries add to our wide maternal morbidity and mortality ratio.

Spontaneous miscarriages (abortions) happen in wanted and desired pregnancies and a five - year review first trimester miscarriages carried out by Adeniran, **Fawole**, Abdul and Adesina, (2015) showed a prevalence rate of 4.2% against a global rate of 10 – 20% (Alves and Rapp, 2022.) In this study, women less than 35years of age were the majority 72%, it occurred more in the first pregnancies (primigravida) 60%, no identifiable risk factor was found in 59% as we lacked the necessary equipment capability to search for them. Diagnosis was incomplete miscarriage in 42% of the women; they were treated with surgical evacuation or medical evacuation to empty the uterus of the remaining products of conception. There is the need for a centre to screen for the risk factors – infections, autoimmune conditions that cause spontaneous miscarriages in these women and to check the chromosomes (karyotyping) in repeat miscarriages as some are preventable. Miscarriages are mentally stressing and can lead to depression or anxiety disorders. Of course, there were requested clandestine miscarriages (induced abortion of unwanted pregnancies) carried out in proportions unknown as they are usually not registered. They come into the open only when complications arise, these complications could be immediate or long term; the immediate and short term complications have the patients presenting early needing lifesaving interventions as found out by **Fawole**, Aboyeji and Olaoye, (2001). There were deep seated serious infections in the pelvis and abdomen in more than 50%, there were injuries to the uterus 73.8%, the intestines 9.3% and the surrounding structures in these women that needed heavy antibiotics and/or surgical

intervention, and in some women (8%), death was recorded. The long-term complications would come with complaints some of which were prolonged on & off vaginal discharge.

Also, menstrual disorders are a common complaint in women in their reproductive life and it can debut after a surgical evacuation of the Uterus. It was found that low volume menstruation and missed periods in the absence of pregnancy would present in these women and the cause was reduced uterine cavity internal space from uterine wall adhesions (uterine walls sticking together). Predisposing factors to this are many; endometritis, excessive cleaning at Caesarean section, morbidly adherent placenta, but the greatest culprit was dilatation and curettage to empty the uterus in induced abortion, 67.6 %. (Abiodun, Balogun and **Fawole**, 2007). The biggest reason for induced abortion is unwanted pregnancy. Indeed, we had a woman who had eight (8) children alive, she had a total of ten (10) pregnancies, in attempts to abort the eleventh pregnancy, she almost lost her life. It was a case of “Near Miss” of Maternal death - she had ten (10) pints of blood transfused, had surgery, spent 12 days in the hospital – calculating the amount of resources (direct and indirect) that went into this care would be over two hundred and fifty thousand naira (₦300,000), a substantial amount that could have been channelled into the family purse (Adeniran, **Fawole**, Adesina, Aboyeji and Ezeoke, 2014).

Spontaneous miscarriage occurs also sometimes in the second trimester of pregnancy, and it can be recurrent as well. The aetiological causes are different from the causes in the first trimester, the major ones are trauma to the uterus in domestic violence, in road traffic injury, the presence of abnormal tumours (swellings) in the uterus disturbing expansion of the womb, weakness of the mouth of the womb called cervical incompetence. These aetiological factors can be determined by pattern of investigations and imaging investigative techniques most times, and appropriate treatments to remedy the situation are thereafter taken. The injury from trauma can be repaired immediately, the weakness at the mouth of the womb is correctable, the abnormal growths are surgically removed in non-pregnant states. The weakness of the mouth of the womb was studied by Adeniran, Aboyeji, Okpara, **Fawole** and Adesina, (2014). The risk factors to this condition were

found to be – previous difficult/complicated vaginal deliveries, previous operations on the cervix, spontaneous miscarriage, induced abortion, Dilatation and Curettage and sometimes no risk factor was found. The good news is that the repair operation at the mouth of the womb which is called Cervical Cerclage operation has “child take home rate” of 89.4%.

Domestic violence against women mainly has been in the news for some time, and domestic violence against women in pregnancy is gathering much attention as well. Eno, **Fawole**, Aboyeji, Adesina and Adeniran, (2014) screened for domestic violence among our pregnant women who were between 18 and 42 years old in the antenatal clinic and we found domestic violence had occurred/still occurring in 50% of their homes. We consider this as under reporting as we are aware that we have a population that does not speak out much about happenings in their homes or husbands, or in-laws or their children. There were physical and there were non-physical domestic violence varieties, the culprits were mainly husbands, followed by in-laws, then neighbours. The consequences were higher pregnancy loss, premature delivery, spontaneous rupture of membranes, increased difficult vaginal deliveries, difficulty in establishing lactation, post-delivery (puerperium) emotional disturbances of anxiety and/or depression. Routine screening for domestic violence in the Antenatal Clinic followed up with couple and individual counselling was recommended.

Adeniran, Aboyeji, **Fawole**, Balogun, Adesina and Adeniran (2015) looked at the expectations of women from their male partners during pregnancy, labour, and delivery. Participants were aged 17 to 49 years (mean 30.23 ± 4.81), 82.4% desire male partners company during antenatal clinic visits. During labour and delivery, 427(84.4%) want company; 345 (80.8%) chose the male partner with 211(57.7%) hoping men will appreciate the value of females afterwards although 27.9% feared the men may disturb the health workers. Pregnant women wanted education for male partners on care of pregnant women (77.0%) and sex during conception (25.2%). It is of note that 59.1% of the women had male partners accompanying them during antenatal clinic in the index pregnancy and 84.8% of the women were satisfied with the experience.

Mothers' death in pregnancy (maternal mortality) studied over a six-year period in 2007 by Aboyeji, Ijaiya and **Fawole** showed our maternal mortality ratio to be 825 per 100,000 births. The main causes were severe pre-eclampsia/eclampsia (Pregnancy induced high blood pressure 27.8%, Haemorrhage 20.4%, unsafe abortion 14.8%, followed by puerperal sepsis. The worst risk factors were mother's age at or greater than 40years and grandmultiparity. While pre-eclampsia is managed with blood pressure control drugs, complications of unsafe abortion are varied and need multi-disciplinary management. The Department of Obstetrics and Gynaecology decided to tackle the problem of haemorrhage (Excessive blood loss during pregnancy, in labour and after birth). The greatest problem in combating haemorrhage had been inadequate blood supply from the stock at the blood bank (store for keeping donated blood), early in the year 2000, the department suggested the policy of 'compulsory donation of one unit per pregnant woman' preferably by husband, it was mildly managed as voluntary donation, but it wasn't yielding many fruits. In year 2006, when I became head of Department, I took a bolder step, consulted with colleagues, in the Department, the Chief Medical Director (CMD) Prof. S.A. Kuranga, (2001-2009) and the management of the hospital. With that, enforcement came into play, as it was by this time a practice in many hospitals in the nation. This raised a lot of dust in the town, complaints of the hardship to the people of the town and indeed the whole of Kwara State who we were trying to rescue the women of the State from the '*clutches*' of premature death at childbirth from excessive blood loss. There were lots of media noise, in all I hid behind the CMD. The Kwara state of Assembly listened to the groanings of the people, it summoned the Head of the Hospital, the CMD, to appear before its Committee on Health in 2006 for explanations. A good presentation was rendered, there were questions and comments (some of them were awful), the CMD demonstrated good knowledge, empathy, and sympathy for the women, played his political game well, we were asked to go, to allow thorough debate by members of the State House of Assembly and we would hear from them. After some days, the Clerk of the House invited the CMD to the House of Assembly where he was given the 'okay' to continue with the policy and improve the lot of

pregnant women in the state to the delight of the Department of Obstetrics and gynaecology and the whole hospital at large. The policy has been sustained, and we are still enjoying its benefits till today. But how did the women perceive the issue at hand back then?, Balogun, Raji, Adesina, **Fawole**, Jimoh (2009) in a review among pregnant women, found; 79% of them knew that women may bleed at delivery, 90% believed that extreme blood loss was dangerous at delivery, and almost all of them agreed that lack of blood for transfusion when needed was a major challenge at delivery.

Acquired Immunodeficiency Syndrome (AIDS) is an acquired defect of the cellular immunity associated with infection by the human immuno-deficiency virus (HIV), the first cases of AIDS were reported in May 1981 in the United States of America by Dr. Michael Gottlieb of the Medical School of Los Angeles, United States, and was followed by an official report by the Centre for Disease Control (CDC) on 5th June, 1981. The first victims were five homosexual men who were suffering from unusual pneumonia called *Pneumocystis Carinii* pneumonia and Kaposi's sarcoma.

On the African Continent, HIV/AIDS was first reported in Uganda, East Africa in 1982. The first case of HIV and AIDS in Nigeria was identified in 1985 and reported at an international conference in 1986. Okoroiwu, Umoh, Asanga, *et al.* (2022).

The first two cases as reported by the Federal Ministry of Health were a sexually active 13-year-old girl and a female commercial sex worker from a neighbouring West African country. These reported subjects died shortly after diagnosis while the whole world was still trying to find effective therapeutic agents that would work against the virus. The disease was thus initially associated with bad behavioural persons and with early death. The disease became stigmatised with the title; 'gateway to hell'. It was localized among gays, lesbians and other persons with abnormal sexual behaviour, pharmacologic agents (drugs) were not yet discovered to combat the disease. It wasn't long afterwards however, the HIV and the disease state crossed over to the bisexual/heterosexual persons (as some people with abnormal sexual orientation were heterosexual individuals and had infected their wives or husbands). Epidemiologists studied the pathway of the disease and informed

the world that the spread of the disease was through blood, semen (cum and pre-seminal fluid), rectal fluids, vaginal fluids, and breast milk.

As the years rolled by, HIV started appearing in pregnant women, perinatal outcome was poor in the children born by these women discovered to have been infected with HIV in pregnancy, and the women also had altered life span. Ammann (2017). In recognition of these, the Centre for disease Control (CDC) since 1995 recommended that all pregnant women be tested for HIV and, if found to be infected, should be offered treatment for themselves to improve their health and to prevent passing the virus to their infant. Aboyeji, **Fawole** and Ijaiya, (2000) looked at Knowledge and Attitude to Antenatal Screening for HIV/AIDS by Pregnant Mothers in Ilorin. Women who wanted to be screened were 62%, awareness that HIV was transmissible from mother to child in pregnancy was 85% and these were aware that the drugs effective against the virus (HAART) could be used in pregnancy. Majority 55.8% obtained their knowledge and awareness from the mass media. This paper probably helped to put together the first draft of the Nigeria National guidelines for the use of Antiretroviral (ARV) drugs in 2003. It provided the template for the development of National Guidelines for HIV and AIDS Treatment and Care in Adults and Children. The National Guidelines for Prevention of Mother-to-Child Transmission of HIV in 2005 and it has been under regular constant review since then for the benefit of mankind.

Labour

Labour is defined as regular and painful uterine contractions that cause progressive dilation and effacement of the cervix. Contractions of the uterus and changes in the cervix (the opening of the uterus) prepare a woman's body to give birth. Then the baby is born, and the placenta follows. Labour usually starts two weeks before or after the estimated date of delivery. (WHO *Labour Care Guide 2020 – User's manual*).



A Newborn Baby

In our studies, attention is shifting from quantity- absolute figures of live or death in pregnant women and their babies to, quality of outcome of pregnancy. Adequate intrapartum care is important in pregnancy outcome through prevention, early recognition, and appropriate treatment of intrapartum complications. The importance of early arrival in hospital for delivery is emphasized in Ezeoke, Adesina and Olabinjo, Ogunlaja, Olumuyiwa, **Fawole** and Adeniran (2022) looking at early versus late presentation in labour by parturient women at a tertiary facility in North Central Nigeria. The labour outcome in early labour presenters (those with cervical dilatation less than or equal to 5cm) were compared with late presenters' outcome (those with cervical dilatation greater than or equal to 9cm). Out of all the deliveries, 5,809 (67.2%) presented early while 2,836 (32%) presented late in labour. Early presentation was higher among women who had antenatal care and those that had one treatment or another in the index pregnancy. Labour interventions when necessary - augmentation of labour, procedure of episiotomy, assisted breech delivery, Ventous/Forceps assisted vaginal deliveries and caesarean deliveries, done more for early presenters, were instituted to ensure good delivery outcomes were instituted in both parties. The perinatal mortality was 78 / 1000 and 192 / 1000 live births for early and late presentations in labour respectively. The study concluded that the late presentation was associated with higher perinatal mortality. Antenatal health clinic education should emphasise early presentation in labour.

In the intensive care unit (ICU) where critically ill obstetric mothers were admitted and managed, Adeniran, Bolaji, **Fawole** and Oyedepo (2015) found that two leading indications for admission of these women into the ICU which were massive postpartum haemorrhage and severe pre-eclampsia/eclampsia. The patients who survived the ordeal of care had higher level of educations, level of consciousness (GCS) score, oxygen saturation, less multiple organ failure at ICU admission and need for mechanical ventilation or ionotropic drugs after admission. The clinical state of the patient at ICU admission of the critically ill obstetric patient is a major outcome determinant in whether she might die or live. It was concluded that early referral from the Primary and the Secondary

care centres/recognition of need for ICU care and prompt transfer will significantly improve outcome in this woman.

Caesarean Section

Caesarean section is about the commonest major surgical operation in obstetrics. It is an operation to deliver the baby through a cut made on the abdomen and on the womb. While women in the developed world request for caesarean section, in our environment, usage is still limited to mainly emergency needs and medical indications. It is associated with a lot of fear and myth. Some of the fears and myth are post-operative, pains and fears of mother's demise, fear of baby's demise, fear that they might be unable to have a normal delivery after a caesarean section.

We carried out some studies, to obtain more information that would help us to make caesarean section more acceptable in our environment. We looked into post operative pains, maternal death at / after caesarean section, vaginal delivery after a single caesarean section and fear of high expense. Postoperative pains have been a significant fear and a cause of concern for many people planned for or who need to undergo the procedure of Caesarean Section. Kolawole and **Fawole** (2003), investigated the drugs used for postoperative analgesia in 88 consecutive patients who had elective caesarean section under general anaesthesia. Surgeon-prescribed, nurse-administered intermittent intra-muscular administration of analgesics was the method used for postoperative pain control in all the patients. Most of the patients (95%) experienced some degree of pain in the immediate postoperative period. The first 24 hours postoperatively was particularly painful for the patients with 79.6% and 54.6% reporting moderate to severe pain in the recovery room and on day one (1) respectively. These patients in the majority were unsatisfied with pain relieve methods in the first 24hours post-surgery. We reasoned it could be of help if we injected some local anaesthetic agent close to the operation site under the skin (skin infiltration with Xylocaine) just at the end surgery before general anaesthesia was cut-off. This intervention reduced post-operative pain tremendously and also significantly reduced the need for pain relief injections in the first 24hours of the surgery. Majority of the patients expressed satisfaction with this method of pain control.

Another fear of women about caesarean section is the possibility of mother's death (maternal mortality) at surgery or after surgery. Maternal mortality associated with delivery by Caesarean section (elective and emergency caesarean sections taken together) was investigated by Aboyeji and **Fawole** in 2003. We found that truly in Ilorin that, mortality ratio was 15.4/1000 for caesarean sections whereas at the same time, the maternal mortality ratio from vaginal delivery was 4.1 per 1000. The relative risk of Elective caesarean section to Emergency caesarean section was 2.4. Patients mainly paid out of pocket for their care, and this caused some significant delay in care. The commonest cause of death following these caesarean sections was the presence and multiplication in the blood of bacteria (septicaemia) in 72.7% occasions mostly in patients referred from peripheral centers. Its associated factors were late presentation of patients at the hospital, lack of antenatal care and non-usage of appropriate prophylactic antibiotics at surgery. Generally, these are preventable factors.

The University of Ilorin Teaching Hospital (UITH) commenced a revolving fund scheme to stem the tide of maternal mortality from preventable causes, this was the Prevention of maternal mortality project (PMMP) during the tenure of Prof. Olurotimi Omoniyi Fakeye, my teacher, my mentor as Chairman Medical Advisory Committee (CMAC) and later as Chief Medical Director (CMD 1994 -2002) of the UITH.



**Inaugural Lecturer with
Prof. O.O. Fakeye**

Antibiotics were made available and affordable, pints blood was available in the blood bank for transfusion when needed, and senior obstetricians were available and can be called upon when there was need. The scheme is still running till date. Then came the Health Insurance Scheme, maternal health became better, and with the projected wider coverage of the National health insurance

through the newly created National Health Insurance Agency (NHIA), we expect even better improvement still.

After one caesarean section, it is possible to have a vaginal birth (VBAC)? To provide some answer to this question, a study, 'Delivery outcome and predictors of successful vaginal birth after primary caesarean delivery (VBAC)' was reported by Adewole, **Fawole**, Ijaiya, Adeniran, Adesina and Aboyeji, (2022). Safety and labour outcome in women with previous CS were found to be comparable to those women who did not have a previous caesarean section. Out of 1,768 deliveries, 105 (5.9%) had one previous Caesarean Delivery (CD); 60 of these women attempted but only 37 had successful VBAC. Twenty-three (38.3%) women had failed VBAC, and they had repeat CD. while 23.3% among the control group had CD. The significant predictors of successful VBAC were cervical dilatation greater than or equal to 4cm on admission ($p=0.003$), maternal age greater than or equal to 35 years ($p=0.019$); and augmentation of labour ($p=0.020$). The maternal and neonatal outcomes were not statistically different among women who had successful VBAC after one CD compared to women without previous CD.

Although out-of-pocket (OOP) payment for health services is common (fear of cost by husband), information on the experience in maternal health services especially caesarean delivery (CD) is limited. Adeniran, Aun, **Fawole** and Aboyeji (2020) conducted a comparative (retrospective) study of women who had CD as OOP with health-insured clients over 30 months at Anchored Hospital, Ilorin. Findings: Of 1,246 deliveries, 410 (32.9%) had CD; of these, 186 (45.4%) were health-insured and 224 (54.6%) were OOP payers. The health-insured were mostly civil servants (60.0% vs. 40.0%; $P = 0.009$) of high social class (48.0% vs. 29.0%; $P = 0.001$). The payment for CD was higher among OOP ($P = 0.001$), as the health-insured patients were paying only percentages. OOP payers are prone to a lot of spending on health. There is need to bring down the expenses for all patients that need CD to improve acceptability of the procedure and remove the fears of the expenses. After many provisions of the other phases of factors that determine maternal and perinatal health for the health care insured - patient, the phase of referral and transportation during emergencies was found suboptimal and it deserves attention.

One of the key factors designed to maintain women's health is ensuring that babies are made only when desired by the family. This is achievable with the promotion and use of contraception so the number of babies that can be coped with is adopted, the percentage of unwanted pregnancies and its problems are thus much reduced (Family planning). Essential obstetric services are provided to take care of the women in their desired pregnancies, while the contraceptive services help the women plan their desired pregnancies and to limit the number of children. Together they help to fulfill Sustainable Development Goals (*SDG3*) – *improve maternal health*.

Akande and **Fawole** (2001) also looked at Attitudes of Mothers in Ilorin to Family Planning in the immediate Puerperium. Almost all the respondents were aware of family planning, 43% had ever used family planning methods. More than 54% of women intended having more pregnancies and among them 31.8% wanted the next delivery before 2yrs. Over 59% of the respondents intended using family planning methods, 28.3% had no intention to use and 12.5% were not sure. The fear of side effects was the most common reason for not wanting to use family planning method, a third of those that did not intend to use family planning methods gave no reason.

We are a male dominated head and decision-making family in orientation, do our men support family planning? The effect of Male partner's support on spousal modern Contraception use in a Low Resource Setting was studied by Balogun, Adeniran, **Fawole**, Adesina, Aboyeji and Adeniran (2016). Male partner support was 68.5% as payment for the contraceptives 66.6% or transportation to the clinic 64.9%. Eighteen percent (18) of the women failed to comply with contraception recently due to male partner hindrance 45.5% or inability to pay for contraceptive 20% or transportation to the clinic 14.5%. Male partners hindered contraception by reporting the woman to relatives/friends 32% or denying her money for feeding allowance 24%, Covert contraceptive use was by 7.2% of the clients. More than 90% of the clients want contraception to be couple decision, and 85.6% will accept the administration of contraception only if both partners consented.

Aboyeji, **Fawole** and Ijaiya, (2001) studied the knowledge of contraceptives and previous use of contraceptives among pregnant

teenagers who were in the beginning of start plans for their families and our findings show that these women were aware of contraceptives (91.7%), but a number were afraid to use them due to the fear for their advertised side effects, only 16.3% of these women had previously used them before. None of the respondents used any contraceptive method prior to or during their first sexual experience. To improve contraceptive usage uptake at all levels, there is need for the introduction of Family life Education in schools and the provision of Comprehensive Health Choices at Reproductive Health Service sites. There is need for attitudinal change through carefully designed information, education, and communication (IEC) strategies.

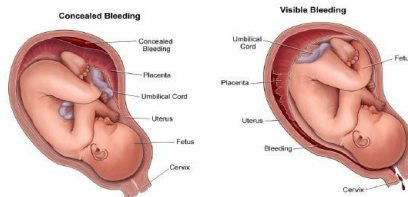
Mr. Vice-Chancellor, we need to raise awareness regarding the major problem of needless maternal deaths:

- (1) I came into Obstetrics and Gynaecology fired-up that I could do something for women in the community as my aunt "Iya Ile Oluyena" died in 1974 (49years ago) from postpartum haemorrhage following vaginal delivery. My aunt went to a farm settlement to sell her wares, unfortunately, her time was near, and she fell in labour. The main health worker in the community was away far from the land, transportation to the land was usually once a week, the only other man with a transport was a bicycle and he had flat tires. A messenger was sent to town on foot to get help, help came the next day, she had delivered a set of twins, bleeding after birth of the babies was not heavy but it did not stop, the afterbirth (placenta) had not been completely delivered, it was a case of 'Retained placenta.' When help came, a health assistant helped, the placenta was completely delivered, she was carried into a vehicle towards the nearest health centre where she would get professional help, but she never got there, she died on the way..... the indices are still the same many years down the line?
- (2) Mahmoud Fathalla, Professor of Obstetrics and Gynaecology; former Director of the WHO, founder of the Safe Motherhood Movement, at the Launch of the Safe Motherhood Movement during the International Conference on Safe Motherhood. Nairobi, 1987, presented this story, "Why did Mrs X die?" to explain the concept of the road to maternal death.

This story of one anonymous woman illuminates the key causes of maternal mortality, as well as the remedies to this tragic and preventable

situation. This is typical profile for one of those unfortunate half a million mothers who die every year around the world. <https://iris.paho.org/handle/10665.2/43302>.

Mrs X died during labour in a small district hospital by antepartum haemorrhage due to placenta praevia, which means that the placenta was situated too low down in the uterus and ahead of the foetus. A woman with this condition will inevitably develop bleeding in the latter part of pregnancy or before delivery.



Antepartum Haemorrhage due to Placenta Praevia

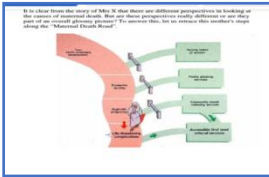
Mrs X was admitted to the hospital as a case of severe bleeding and in a condition of shock. She received only 500 cc or 1/2 litre of blood by transfusion which was all the blood the hospital had available to give her. That amount was barely sufficient to compensate for her severe blood loss. Mrs X had undergone caesarean section in the hospital to stop the bleeding. That operation was carried out three hours after her admission. Mrs. X died during the operation. The death of Mrs X was avoidable if blood transfusion had been readily available, and if the service had been better prepared to deal with emergencies.

Root Cause Analysis of Why did Mrs X die?

1. It took her four hours to reach hospital from the time she started bleeding severely because transport was not readily available to take her to hospital.
2. She did not have access to any sort of prenatal care during her pregnancy, she was unbooked.
3. She was 39 years old with 5 living children, three of them were males. She did not want another child.

4. She never had access to any family planning information, education, or services. She had no opportunity to use any method of family planning in her life.
5. She was housewife and her husband a poor agricultural labourer.

Mrs X did not voluntarily go on that Road to Maternal Death



Steps to maternal death road

She was led to the start of the Road by the poor socio-economic development of the community in which she was born, and in which she lived. If Mrs X had been an educated woman, if she had been gainfully employed and if she had had her fair share of nutrition within the society, her risk of dying would have been much less”.

A video tape with the author’s title of “Why did Mrs. X die” is available in English, French, Spanish and Arabic, from the World Health Organization.

- (3) Again, in March 2023 ... **Mrs XY died!**

A 36years old woman had a spontaneous vertex delivery of a live female neonate at about 7pm on 18/2/2023 in one of our government owned hospitals. She started bleeding per vagina soon after delivery, the medical team on ground made a diagnosis of laceration of the cervix (tear at the mouth of the womb) which must have occurred while she was pushing the baby out at delivery. The laceration was promptly sutured, she needed blood replacement, and the quantity available was given to her according to her blood group type. However, she needed more blood to be transfused for which she was referred to the next level of health care. Due to the logistics of transportation, roads and movement, Mrs XY arrived at her destination long after she was referred. She was weak, very pale, and restless. Active resuscitative measures were immediately commenced, IV access were mostly unsuccessful, but access was later gotten in one of the veins at the feet and

blood transfusion was pumped through this. Oxygen was passed into her nostrils, but her oxygen saturation not satisfactory, after some moments, the blood oxygen saturation level kept dropping despite transfusion, pulse rate and volume were getting lower, more injections to improve cardiac activity were instituted, sadly, she succumbed to the cold hands of death less than 30 minutes on getting to the hospital.

Mr. Vice-Chancellor sir, the following are two examples of local programmes that have significantly improved maternal health:

In response to the 2008 Nigeria Demographic Health Survey (NDHS), which put Ondo State as having the worst maternal and child health indices in the southwest of Nigeria, the state implemented a program to address the four most prevalent reasons why women in the state die during or after childbirth. Ondo State trained 'health rangers' to monitor pregnant women in their ward. The health rangers helped women register with health facilities, prepared birth plans, and accompanied them to antenatal appointments. The government provided transportation for the health rangers, motorbikes, and a fleet of ambulances, to ensure that women easily reached health facilities without delays. Ondo State also upgraded and refurbished primary health facilities, provided medical supplies and personnel trained in safe delivery practices, emergency obstetric care, and new-born care. It also created two hospitals to handle emergencies and referrals. The “Abiye” (Safe Motherhood in the Yoruba language) program was initiated in Ondo state, Nigeria, in 2009 under the administration of the Executive Governor, Dr Olusegun Mimiko to address the challenges of poor maternal and child health outcomes in the state. It was funded by the state government, and it brought maternal health in pregnancy and childcare nearer with the provision of free health care program for pregnant women and young children up to age 5. There was early and increased usage of ANC and other obstetric services with a resounding result of reduced Maternal Mortality Ratio (MMR) by 84.9 per cent; from 745 per 100,000 live births in 2009 to 112 per 100,000 live births in 2016. The Abiye programme validated the statement that says ‘when ANC is brought to the doorstep of our parturient and made free, they would be well utilized. An evaluation report of the Abiye programme in the International Journal of

Humanities and Social Science, revealed that between 2010 and 2012, there was a 45% reduction of maternal mortality cases in Ondo State, an increase of 58% of registered patient and an increase of 96% of the number of live births. The evaluation also noted a remarkable increase in child deliveries handled by trained midwives and qualified health personnel. In concluding, the knowledge of pregnant women regarding safe motherhood had a strong association with their education level, employment status and socio-economic status, while the behavior was strongly associated with age at marriage. However, as beautiful as the program was, it has taken a downward trend since 2017 for economic reasons.

In 2007, Jigawa State introduced the Haihuwa Lafiya (Safe Motherhood) Programme to provide free maternal and child health services in the state, the Jigawa State Government set up 353 Safe Motherhood Demand Creation Committees to enhance reproductive health services in rural areas of the state under the Haihuwa Lafiya (Safe motherhood) programme. The committees have the responsibility of educating communities on reproductive health and mobilising the public to participate in maternal care issues to reduce the mortality rate. The state government also provided 71 vehicles to communities (and some community members who owned private vehicles also joined in) to ease transportation difficulties associated with transporting women on labour to health facilities. The impact of the program is showing with increase in the number of women accessing the ANC and having their delivery in the health centres under skilled health care workers. From 2019 till-date, they have documented over 10,000 pregnant women who have delivered under the scheme with an average of 2000 to 3000 annually and are still improving.

The model adopted by both states is based on the comprehensive policy formulated to address four critical delays contributing to *maternal mortality* and *morbidity*, namely: the delay in deciding to seek care (Primary Phase), The delay in reaching care (Secondary Phase), The delay in receiving appropriate care on arrival (Tertiary Phase). The delay in referral (Quaternary Phase) <https://bmcpregnancychildbirth.biomedcentral.com>

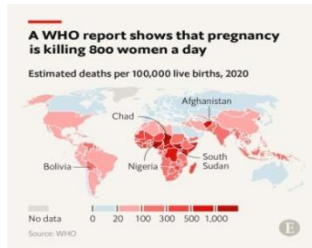
Twenty-nine (29) years after my qualification as a specialist, an Obstetrician and Gynaecologist, I feel so sad that I could not

prevent what happened in 1974 to my aunt, “Iya Ile Oluyena” from happening to Mrs XY in 2023.

The latest WHO report on maternal deaths is alarming, Nigeria has one of the highest figures in the world at an estimated death of 1,000 women per 100,000 live births. While other countries have improving and making it safer for women to get pregnant and have safe delivery, Nigeria is grouped together with Chad, South Sudan, and Afghanistan!

Here is what the World wants to achieve - **Five clearly defined global and national targets for 2025**. The Ending Preventable Maternal Mortality (EPMM) initiative, drawn up in February 2021 with inputs from 40 countries includes a broad coalition of partners working in maternal and new-born health. It established coverage targets and milestones that need to be achieved by 2025 if the SDGs are to be met. Globally, these are for:

- (1) 90% pregnant women to attend four or more antenatal care visits (towards increasing to eight visits by 2030).
- (2) 90% births to be attended by skilled health personnel.
- (3) 80% women who have just given birth to access postnatal care within two days of delivery.
- (4) 60% of the population to have access to emergency obstetric care within two hours of travel time; and
- (5) 65% of women to be able to make informed and empowered decisions regarding sexual relations, contraceptive use, and their reproductive health.



Two years to 2025, our figures have refused to improve. Despite our developments, our advancements and progress moving with other sovereign nations in the twenty - first century, our challenges remain the same, our health indices have refused to

change, hence the title of this inaugural lecture – **Reversing Nigerian Women’s poor health indices: challenges and prospects.**

Existing Interventions to Improve Maternal Health

Nigeria in 1979 adopted the Primary Health Care (PHC) approach. When it was becoming obvious that the country could not meet the WHO recommendation on available skilled healthcare personnel, it integrated of Traditional Birth Attendants (TBA) into the health care system. In Nigeria, they cater for 70% of the reproductive population who patronise them in their various communities due to accessibility, affordability and social acceptance for pregnancy-related care, delivery, other sexual and reproductive healthcare concerns but, a large number of them were unskilled.(Agoyi, Ojo, Afolabi, Ogunyemi and Adejumobi (2022). Government deployed a lot of resources on training the TBAs to improve their practices to recognition of high risk pregnancies, early referral, asepsis among others, with high expectations. However on review after decades, though a lot of resources had been deployed in the training of the TBAs, a large number of our women still died (Ofili and Okojie, 2005) they were the poor and lived in rural communities and city slums. It became clear that MCH would only be improved with professional health care personnel attending to this women and children.

Again in tune with many other countries in the world, there was a shift in approach to the use of professional skilled personnel for MCH. Adopted method was increasing the capacity of health professionals, especially midwives, nurses (increase in nursing and midwifery training schools intake, retraining of active midwifery and nursing personnel) Barbara, 1991.

Spending increased time in rural posting into the communities was encouraged for; students and teachers in the midwifery school, the medical students with their (called COBES at University of Ilorin, and the postgraduate resident doctors in training with their teachers was encouraged (some time had always previously been dedicated in the training curriculum in these training institutions before now). There was also the retraining of interested retired midwifery and nursing personnel and a recall to service.

The government started the voluntary rural midwife service scheme - young midwives were encouraged to practice in rural communities, retired but active midwives were re-trained and motivated to return to work in rural communities and villages, these areas are remote from the cities with difficulties of transportation, and scarcity of other social amenities. Remunerations were enhanced for health workers working in the rural communities.

The Society of Gynaecologists and Obstetricians of Nigeria (SOGON), adopted the community outreach program through the voluntary supervision of near health centers and cottage hospitals. Maternal health was the focus of these SOGON specialists, including screening for cancers of the cervix and breast.

There are additional various interventions into the rural communities by NGOs, associations individuals and groups.

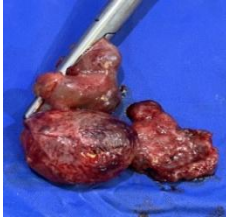
The Federal Ministry of Health (FMOH) in 2012 launched the “ saving one million lives initiative ” by 2015 targeting the rural communities. broad-based investment program with six distinct health pillars – immunization, malaria control, nutrition, prevention of mother to child transmission of HIV, delivery of essential medicines to address common childhood illnesses, and strengthening of MCH delivery platforms. It was aimed to help increase the number of mothers and children’s lives saved and establish a sustainable funding architecture for the future (Federal Ministry of Health (2016).

Then with the downward trend in world economy, the people’s became poorer, the political will to continue the program could not be sustained, many midwives and obstetricians are leaving for other countries where there are more material gains.

Gynaecology

Early sexual debut: prevalence and risk factors among secondary school students in Ido-Ekiti, Ekiti State, South-West Nigeria was studied by Durowade, Adeyemi, Babatunde, **Fawole** *et. al.*, (2018). More than two-thirds, 40 (67.8%), had early sexual debut, the prevalence of early sexual debut was about 11%. The mean age of sexual debut was 13.10 ± 2.82 ; the mean age for early sexual debutants was 11.68 ± 1.98 . The mean number of sexual partners was 2.44 ± 1.99 . Male gender, having friends who engaged in sexual activities had association with early sexual exposure

($p < 0.05$). Alcohol intake had the strongest strength of association for early sexual debut among the students. The high prevalence of early sexual exposure among the students calls for urgent interventions to stem the trend, as early sexual debut leads to early infection with Human Papilloma Virus (HPV).



Ruptured ectopic pregnancy in the fallopian tube

Ectopic pregnancy (pregnancy outside the womb) studied by Aboyeji, **Fawole** and Ijaiya, (2001) was found to be 1.4% of all our deliveries, in 1:69 ratio. Majority were in the low socio-economic class and they were of low parity. Possibility of the condition occurring again (Recurrence rate) was 14.1%. Predisposing factors were previous Pelvic inflammatory disease (PID) and previous induced abortion. There is need to increase education for behavioural change, increase uptake of contraceptives and prompt report in hospital for the treatment of PID.

Chlamydia trachomatis is a bacterial infection that is closely associated with Pelvic Inflammatory Disease. PID is a risk factor for the development of pre-cancerous lesions of the cervix. Abiodun, Ijaiya, **Fawole** and Jimoh, (2007) gave a report on the study titled ‘Serological Evidence of Prior Chlamydia Trachomatis infection in patients with ectopic pregnancy’.

The commonest tumour in women of reproductive age group is Uterine fibroids, Uterine fibroids, also called leiomyomas or myomas, are growths that appear in the uterus. They're made of uterine muscle. They're noncancerous and extremely common.

In fact, 75 to 80% of people with a uterus will be diagnosed with fibroids at some point in their lives. The present with either of or combinations of; excessively heavy or prolonged menstrual bleeding as a common symptom, pelvic discomfort, pelvic pain, bladder problems, low back pain, rectal pressure, discomfort, or pain with sexual intercourse. The most common method of

treatment is with surgery. Surgery can be either myomectomy (removal of fibroid) in those who still wish to continue to menstruate or hysterectomy (removal of womb) in those who have completed their family size.



Fibroid riddled uterus



**Removed fibroid pieces
(68) from the womb above**



**The womb above after
removal of fibroid pieces**

Cancer

Cancer is a disease in which cells in the body grow out of control. Cancer is always named for the part of the body where it starts, even if it spreads to other body parts later. Cancer of the reproductive tract in women can affect the cervix, the ovary, and the fallopian tubes, also the uterus, the vulva, and the vagina. Of all, cervical cancer is preventable. With the detection and treatment of pre-invasive cervical lesions through effective National screening programs, the burden of invasive lesions has been significantly reduced in the developed world. In our environment, a lot of public enlightenment has been done on this, the main request is for our women to come out for cervical cancer screening. But there is a reluctance by our women to present themselves for screening.

Caring for women afflicted with cancer of the female reproductive tract is of special interest to me and I have always wanted to be a major player in the fight against the scourge of Gynaecologic cancers which our environment also has its own share

of. I attended conferences on female reproductive tract oncology within Nigeria and abroad. I searched for and joined the African Organization for Research & Training (AORTIC) domesticated in Cape Town, South Africa, and the Society of Gynaecologic Oncology domesticated in Chicago, Illinois, USA. It was in one of the conferences in 2015, the Society of Gynaecologic Oncology's 46th Annual meeting on Women's Cancer in Chicago that I met with one of the greatest names in Gynae-Oncology in Africa and indeed the whole world, Prof. Lynette Denny, University of Cape Town, South Africa and the Groote Schuur Hospital, Cape Town.



Prof. Lynette Denny

I requested for the minimum acceptable short term (12 weeks) modified training schedule in the Gynae-oncology division at her centre in Cape Town, she was the head of her department at that time. My request was granted, and I was able to spend twelve (12) weeks – October to December 2015 in the Gynae-Oncology Division of the Department in Cape Town. I was taken as a Medical Doctor on Volunteer service. I was not paid any emoluments. I depended on my savings mainly, supported in part by the University of Ilorin and the University of Ilorin Teaching Hospital, Ilorin.

On getting to Cape Town, I settled down quickly and decided to sponge in as much skill as possible, I got to observe/assist in procedures. Surgery in oncology is not 'cut and sew' but more of beneficence to the patient most times, 'the dictum of "above all do no harm"' is very appropriate here. Dissecting / surgical removal of advanced tumours is neither a cure nor the end of the disease but the beginning of a tortuous and long journey. Aggressive surgery that did not follow treatment guidelines was inadequate surgery and sometimes it was more damaging to the patient than no surgery at all.

Tumours that are operable are early-stage tumours, the surgery must be able to take out all the tumour and have a reasonable margin of normal tissue left behind, or they are palliative surgeries in advanced stage tumours to relieve obstructions or give succour. I like the principles behind the saying: "*Old surgeons are not bold surgeons, and bold surgeons are not old surgeons*" (author

unknown) and also he aphorism “*The most important result of any surgical operation is a live patient*” (Hippocrates 460-377 BCE)

There is no middle position, too much may leave the patient worse off and speed up the rate of progression of tumour to the next worse stage.

A lot is achieved with the empathy and exposure to continuous training. Effective surgeries depend on patients presenting in early stage of disease. Administration of Chemotherapeutic agents – injections and tablets that are poisonous to this cancer cells - kill them in small, small bits. These agents can be used as single agent or used in combination with surgery either before surgery or used after surgery. Exposing the cancer cells to ionising radiation generated as X-rays from Linear Accelerator machines or / and from Radioactive Cobalt, or Iridium or Iodine can also cause damage to the cancer cells. Radiotherapy in gynae-oncology, can be used as mainstay of treatment in cancer of the cervix, but mainly used post-surgery treatment in other gynaecological cancers. Chemotherapy and Radiotherapy are used sometimes used together as Chemo-radiation therapy as it has been proven that chemotherapy potentiates the effect of radiation on the cancer cells as tumours beyond the early stages are no longer amenable to radical surgeries.

Public Mass Education and Enlightenment Programs with Community involvement through Local Health Committees to encourage patients to turn up early in disease. Direct entry into the community to screen for some cancers with complete government support and a strong referral system will further enhance our successes in cancer care.

Cancer of the Ovary

Ibrahim, Fawole, Folaranmi, Abdulmajeed, and Adegboye, (2018), studied cancers of the Ovary. In our series, Ovarian cancer constituted 17.9% of all female genital malignancies at that time, it spanned from age 10–84yrs, the peak age of occurrence in adults and the elderly was 41–50yrs. The commonest variant as surface epithelial ovarian tumors 52.6%; serous adenocarcinoma followed by mucinous adenocarcinoma. In children and young adults, peak age



Cancer of the Ovary

of occurrence was 11–30yrs, and the commonest tumour in this group was malignant germ cell tumours.

In a large multi- centre study of Ovarian Cancer Histotypes across the African Diaspora involving women in Nigeria, the Caribbean-born blacks (CBB) and US – born blacks (USB), George, Omotoso, **Fawole** *et al.*, (2021), there is significant variation in age of diagnosis and distribution of ovarian cancer Histotypes/diagnosis across the African Diaspora. Nigerians had the highest proportion of germ cell tumour (GCT) 11.5% and sex cord stromal (SCST) 16.2% ovarian tumours relative to the CBB and USB. CBB (79.4%) and USB (77.3%) women were diagnosed with a larger proportion of serous ovarian cancer than Nigerians (60.4%) ($p < 0.0001$). Nigerians were diagnosed with epithelial ovarian cancers at the youngest age ($51.4\% \pm 12.8$ years relative to USB ($58.9\% \pm 15.9$) and CBB (59.0 ± 13.0) ($p < 0.0001$). Black women CBB (25.2 ± 15.0), Nigerians (29.5 ± 15.1) and [CBB (33.9 ± 17.9)] were diagnosed with GCT younger than white women (35.4 ± 20.5 , $p = 0.011$). Black women [Nigerians (47.5 ± 15.9), USB (50.9 ± 18.3) and CBB (50.9 ± 18.3)] were also diagnosed with SCST younger than White women (55.6 ± 16.5 , $p < 0.01$). In conclusion, there is significant variation in age of diagnosis and distribution of ovarian cancer histotype /diagnosis across the African diaspora. The aetiology of these findings requires further investigation.

Most patients with ovarian cancer are diagnosed with advanced disease which carries significant mortality. The treatment involves surgery, chemotherapy with some limited radiation (germ cell tumours respond well to radiation). Unfortunately, copious improvements in treatment have only resulted in modest increases in survival. Efforts are also being made to pick up the ovarian malignancies in the earlier stage, in the UK for example, the Multimodal ovarian cancer screening using a longitudinal CA125 algorithm resulted in diagnosis at an earlier stage, both in average and high-risk women in two large UK trials. However, no randomized controlled trial has demonstrated a definite mortality benefit (Nash and Menon (2020). In population screening for Ovarian cancer, extended follow up is underway in the largest trial to date, the UK Collaborative Trial of Ovarian Cancer Screening (UKCTOCS), led by UCL researchers, looked at data from more

than 200 000 women who were aged 50-74, and followed them up for an average of 16 years. The women were randomly allocated to one of three groups: no screening, annual screening using an ultrasound scan, and annual multimodal screening involving a blood test followed by an ultrasound scan as a second line test.

The results, reported in the *Lancet*, showed that there was no evidence of an increase in the number of ovarian and tubal cancer cases in either of the screening groups compared with the no screening group. And while multimodal testing picked up cancers at an early stage, this did not lead to a reduction in deaths. Screening for ovarian cancer cannot be recommended at this stage after trial found it did not reduce deaths. <https://doi.org/10.1136/bmj.n1223> (Published 12 May 2021).

Cancer of Uterus (Womb)

High levels of estrogen can lead to thickening of the endometrium (the tissue lining the uterus). This overgrowth can progress to form endometrioid tumors, which account for about 80% of endometrial cancers, and over 90% of uterine cancers begin in the endometrium. There are two main subtypes of endometrial cancer, endometrioid (diagnosed more in younger women) and nonendometrioid (diagnosed in older, post menopausal women)

Unlike many other cancers, the incidence and death rates for uterine cancer are rising. Rates of new uterine cancer cases have risen 0.6% per year from 2010-2019, and death rates have risen an average of 1.7% per year for the same time frame. Deaths from endometrioid tumors remained steady. However, the death rate from the aggressive nonendometrioid tumors rose by 2.7% each year.



Uterus with cancer removed at surgery

Preventable approaches to this cancer are undergoing trials in high risk patients with prophylactic hysterectomy, (the surgery completely removes the uterus and cervix), treatment with

progesterone, the use of Metformin, and Exemestane, an aromatase inhibitor.

However in women at low risk, screening is not currently advocated. (*National Cancer Institute (gov) July (2022)* and Endometrial Cancer Screening (PDQ®)–Patient Version – NCI. 2021. cancer.gov.

Cancer of the cervix

Cervical cancer affects over half a million women each year and kills a quarter of a million. One woman dies of cervical cancer every two minutes, adding up to over 270,000 deaths globally per year, making it one of the greatest threats to women’s health. Each one is a tragedy, and we can prevent it. Most of these women are not diagnosed early enough and lack access to life-saving treatment. If we don’t act, deaths from cervical cancer will rise by almost 50% by 2030. Cervical cancer is diagnosed at any age, it has been diagnosed between 17 - 85 yrs. The women are raising children, caring for their families, and contributing to the social and economic fabric of their communities. Most commonly patients present in advanced clinical stage 3, treatment pattern changes from curative to palliation, prognosis is quite bad. Most women will succumb to death with 24 months of diagnosis.

WHO’s Draft Global Strategy towards the Elimination of Cervical Cancer as a Public Health Problem, (2020).



Invasive cancer of the cervix

WHO Director-General Cervical Cancer: An NCD We Can Overcome.

What causes cervical cancer? (<http://www.cancer.org>). There is no precise cause, but there are risk factors, I will dwell on only a few here.

- 1) Infection by the human papillomavirus (HPV) is the most important risk factor for cervical cancer.

- 2) Sexual history such as becoming sexually active (sexual debut) at a young age (especially younger than 18 years old) and having many sexual partners.
- 3) Women who smoke are about twice as likely as those who don't smoke to get cervical cancer.
- 4) Having a weakened immune system: Human immunodeficiency virus (HIV) weakens the immune system and puts people at higher risk for HPV infections.
- 5) Some studies show that the Chlamydia bacteria may help HPV grow and live on in the cervix.

Genital human papillomavirus (HPV) is the most common sexually transmitted infection probably in the whole world. More than 40 HPV types can infect the genital areas of men and women, including the skin of the penis, vulva (area outside the vagina), and anus, and the linings of the vagina, cervix, and rectum. These types can also infect the lining of the mouth and throat. Most HPV infections are self-limited and are asymptomatic or unrecognized. Sexually active persons are usually exposed to HPV during their lifetime. HPV can spread from one person to another during skin-to-skin contact. It can spread through sexual activity, including vaginal, anal, and oral sex.

Most people who become infected with HPV do not know they have it. Usually, the body's immune system gets rid of the HPV infection naturally within two years. This is true of both oncogenic and non-oncogenic HPV types. By age 50, at least 4 out of every 5 women will have been infected with HPV at one point in their lives. HPV is also very common in men, and often has no symptoms. When the body's immune system can't get rid of an HPV infection with oncogenic HPV types, it can linger over time and turn normal cells into abnormal cells and then cancer. About 10% of women with HPV infection on their cervix will develop long-lasting HPV infections that put them at risk for cervical cancer. Basic information about HPV and Cancer: <http://www.cdc.gov> > cancer > HPV >basic info **What causes cervical cancer?** <http://www.cancer.org>

In 2010, Adesina, Saidu, Aboyeji, **Fawole**, Olarinoye and Ibrahim investigated attitude of women who were in hospital for Papanicolaou smear (cervical smear) and found that, 80% of the

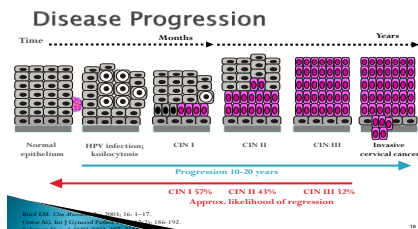
women previously heard about screening for cervical cancer, 50% were aware cervical cancer can be prevented, but 90% had never been screened, and only 65% wished to be screened. Also, Idowu, Olowookere, Fagbemi and Ogunlaja. (2016) also studied determinants of Cervical Cancer Screening Uptake among Women in Ilorin, All the women were aware of cancer of the cervix, 88.9% were aware of cervical cancer screening 81.5% had positive attitude to screening, but only 8.0% of the women had ever been screened for pre-cancer lesions.

Conclusion of the study was that there is urgent need to improve the knowledge base and attitude of Nigerian women to enhance cervical cancer screening uptake among them.

Consecutive 566 Pap smears over a two-year period were reviewed in 2018 by Ibrahim, **Fawole**, Folaranmi, Abdulmajeed, and Adegboye. The mean age of the women was 43 +_10 yrs., the indications for the smears were routine screening (58.1%), complaints of abnormal vaginal discharge (20.3%), postcoital bleeding (12.0%), postmenopausal bleeding (7.6%). The epithelial abnormalities seen were Low grade squamous intraepithelial neoplasia (LSIL) in 5.3% of the women, and High grade squamous intraepithelial lesion (HSIL) was present in 1.6%. An important finding of the study was that majority of the abnormal smears were seen in women who came for routine screening.

Disease Progression from infection with hrHPV to invasive cancer

Abnormal epithelia changes occur with the infection of the cervix by the high-risk Human Papilloma Virus (hrHPV), the HPV types 16 and 18, have been associated with these pre-cancerous mucosa changes in the cervix. The changes are slow in progression, they span between 10 - 20 years before they progress to invasive cancer.



Prevention of Cervical cancer

Although there is currently no cure for HPV infection, there are ways to treat the warts and abnormal cell growth that HPV causes. Also, *HPV vaccines* are available to help prevent infection by certain types of HPV and some of the cancers linked to those types. With the cooperation of our womenfolk, we can prevent further occurrences of cervical cancer in our community. Two most important activities to prevent cervical cancer are:

- (1) To administer the HPV vaccine for those eligible,
- (2) To promote and ensure that the women get regular screening for pre-cancer lesions.



The Vaccine for HPV types 16 & 18

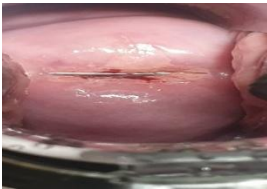
HPV vaccines - These vaccines only work to prevent HPV infection; they will not treat an infection that is already present there. Thus, to be most effective, the HPV vaccines should be given before a person becomes exposed to HPV (such as through sexual activity). HPV vaccination of children between the ages of 9 and 12, and children and young adults age 13 through 26. Vaccination of young adults will not prevent as many cancers as vaccination of children and teens.

Previous *data* from the United Kingdom, showed that cervical cancer rates were 87% lower among girls who received the HPV vaccine compared to previously unvaccinated generations. Based on the analysis, the authors concluded that the UK's HPV immunization program "almost eliminated cervical cancer" in women born since September 1995. *Milena Falcaro, PhD., Alejandra Castañón, PhD., Busani Ndlela, PhD., Marta Checchi, MSc., Kate Soldan, PhD., Jamie Lopez-Bernal, PhD et al., (2021).*

Another study published in *JAMA Pediatrics*, reports a 38% drop in cervical cancer incidence and a 43% decline in mortality among young women and girls after HPV vaccination was introduced in the US. *JAMA Pediatr.* Published online November 29, 2021. *Tabibi, Barnes, Shah, Osazuwa-Peters, Johnson, and Brown, (2022).*

Screening tests - Screening is having tests to find conditions that may lead to cancers and can find pre-cancers before they can turn into invasive cancer. The **Pap test** (or Pap smear which came from the name of the big name in gynae-oncology - **George Nicholas Papanicolaou, 1883-1962**) and the **human papillomavirus (HPV) test** are specific tests used during screening for cervical cancer. If the test is positive, this could mean more follow-up visits, more tests to look for a pre-cancer or cancer, and sometimes a procedure to treat any pre-cancers that might be found. It's important to know that most invasive cervical cancers are found in women who have not had regular Pap tests. **Regular Pap screening decreases cervix cancer incidence and mortality by at least 80%.** (24 06 2022). <https://www.cancer.gov>.

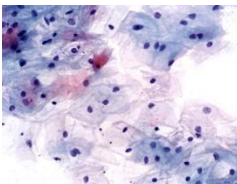
Sample collection for Pap Smear and HPV testing is typically performed during a gynaecological examination, where the health worker inserts a speculum into the vagina to widen it. Then, a brush is inserted into the vagina to collect cells from the cervix. The sample is then sent to a laboratory, where the cells can be checked to see if they are infected with the types of HPV that cause cancer (an HPV test).



Normal appearance of the cervix at gynaecological examination for cervical smear at screening for pre-cervical lesion.

There is also self-collection of the vaginal cells for HPV testing - A self-collected sample is taken from the vagina (not the cervix). All the woman needs to do is insert a swab a few centimetres into her vagina and rotate it for 20 to 30 seconds. The sample can be taken in a private place within a healthcare clinic.

TDL Self-Collection HPV Test - London - The Doctors Laboratory.
<https://www.tdlpathology.com>

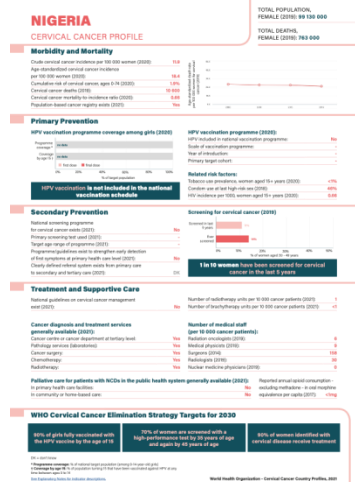
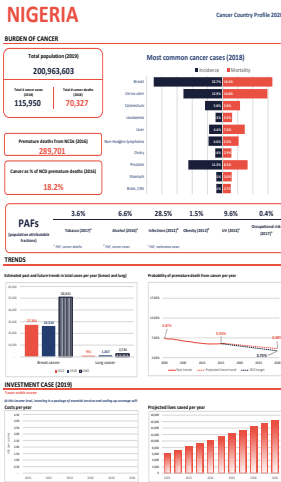


View of a Pap smear slide

Our cancer burden in Nigeria

From the World Health Organisation, here is Nigeria's country Cancer burden collated for year 2018. As was recorded in the small cluster studies, the incidence of the most common cancers related to the population are; Breast 22.7%, Cervix 12.9%, and Colorectal 5.8%. The total number of cancers was 115,950 people, and 70,327 died from cancer related causes constituting 18.2% of deaths from Non-Communicable Diseases (NCD).

The cervical cancer specific profile shows that our female population is 99.1 million, the Crude cervical cancer incidence per 100 000 women (2020) was 11.9 and the Cumulative risk of cervical cancer, ages 0-74 (2020) was 1.9%. The summary of this is that every day, about twenty-eight (28) Nigerian women die from Cervical Cancer. The projected number of lives saved per year (concomitant reduction in deaths from cancer related deaths) increases with the level of investment in the package of essential services and scaling up by the country.



Our investments into the three level of care proposed to eliminate cervical cancer, from the society has been low. On primary prevention, **(90% of girls to be fully vaccinated with the HPV vaccine by the age of 15)** is yet to be included in the national immunisation schedule. On secondary prevention, **(70% of women are screened with a high-performance test by 35 years of age and again by 45 years of age)** only 1 in 10 women (11%) have been screened for cervical cancer in

the last 5 years. On the third (3rd) level of treatment and supportive care, **(90% of women identified with cervical disease receive treatment)** cancer diagnosis and treatment services have been made generally available (2021), though not as much as the WHO recommended rates per population. Obviously, Nigeria is yet to join the fight against cancer of the cervix, the WHO Cervical Cancer Elimination Strategy Targets for 2030 appears far! Our health indices have not improved much in the past many years.

Our activities at the Gynae-Oncology unit of the Dept of Obstetrics and Gynaecology

At the University of Ilorin and the University of Ilorin Teaching Hospital, Ilorin, the Gynae -Oncology unit of the Dept of Obstetrics and Gynaecology is staffed and equipped to handle the secondary care level and some level of treatment and supportive care. We do a lot of information, education, and counselling activities (EIC) to encourage women come out to be screened, we joined the ‘save a million lives program’ of the FMOH in 2015 when we took screening to the rural communities.

From one of our routine screenings, Ibrahim, **Fawole** and Abubakar-Akanbi, (2018) reported one of our patients, a 45years old multipara with a first degree family history of breast cancer presented for breast and cervical screening, cervical smear revealed HSIL on two occasions, at that time we were limited in scope, she had a simple hysterectomy on which histopathology revealed carcinoma in – situ, she is still alive continuing frequent regular repeat smears of the vault of the vagina. The need for early screening for malignancies generally in persons with significant family history of organ specific cancer is highly emphasized. The genetic predisposition to cancer of the cervix is rare, the proportion that are directly attributed to inherited genes is small. We are limited in treatment and support care of the third level of care because we do not have yet Radiotherapy services at our centre.

The Nigeria National Cancer Control Plan (NCCP 2018 – 2022) understudied our disease burden and joined the world to reproduce our data to the world so we could sit with stakeholders and the League of Nations in the fight to eliminate cervical cancer completely. Nigerian stakeholders are leveraging on the global strategy to rally states, National and International collaborations towards reducing the burden of cervical cancer in Nigeria. A major stakeholder is the Society of Obstetricians and Gynaecologists of Nigeria (SOGON). Oliver C. Ezechi, Okusanya, Aimakhu, Adesina... and **Fawole** (2019) developed on behalf of the Society of obstetrics and gynaecology of Nigeria– Clinical practice guidelines: Guidelines for the prevention of cervical cancer suited to own environment. This has many ways assisted the

NCCP in its strategies. With organized National screening programs, the pre-invasive epithelial lesions will be picked up and treated, and progression to invasive cancer of the cervix halted. This can be translated literally into, the saving of many lives of our women from the scourge of cervical cancer.

My Roles as Lecturer and as Medical Practitioner

I became a teacher before I completed my postgraduate training, leading tutorials, clinical clerkship for younger colleagues, under the supervision of my teachers and mentor. I completed my postgraduate training, and I was appointed lecturer to the University and Consultants Obstetrician and gynaecologist. I lectured medical students mainly, but also post-graduate students. Clinical practice and work took much of my time, but I enjoyed it especially that office for work was cited in the bowels of the teaching hospital. Taking part and supervision at the community-based experience and service (COBES) was also quite fulfilling.

I have been involved in producing mentees who have made themselves bigger in their careers, a large number has ventured into other areas of clinical practice, but some have remained in academics, our department can boast of – three Professors, three Readers, CEO of Institutions/Corporations within the country and in the diaspora.

When I was acting head of department (2006 – 2008), the department formalized and deeply encouraged sub-specialization in the department. We (the department) promoted and made morning clinical review of patients in the ward a daily affair before work for the day is commenced compulsory for undergraduate and postgraduate students. Examinations for students had been the ‘going through the ‘traditional method of examination, we, popularised and encouraged the utilisation of the Objective Structured Clinical Examination (OSCE) which was the new trend in medical examination techniques at that time following approval by the College Academic Board. Documentation and strict implementation of roadmap for postgraduate training of Resident Doctors was institutionalised.

My foray into Private Medical practice started quite early, started working in the evenings after office time and I wasn’t on call, 2hrs twice a week. Both Dr Idowu Olanrewaju and Dr Razaq Jimoh welcomed me as younger colleague and a younger brother, they taught me more of the rudiments of medicine and some level of medical economics needed for sustainability in private hospital practice. Anchored hospital is a result of their mentorship. Anchored is a family business with the theme, ‘**God’s Strong Support is Here**’, it was derived from that classic Christian hymn written by Priscilla Jane Owens, first published in 1882 in the United States,

“Will Your Anchor Hold.”

This community medical practice is contributing its own quota to the benefit of mankind in providing health for some, and employment opportunities for some, to the glory of God.

Mr. Vice-Chancellor sir, ladies and gentlemen,

I would like us to ponder on this inspiration word of wisdom from Toni Lynn Chinoy, President at Harlan Evans, Inc.:

“You must predict the future and you must learn to act deliberately to control your destiny”.

If we do not change our methods, we will end up with the same results, but we can succeed by re-engineering ourselves, putting all hands, not just few, all hands to act deliberately (President Obama inaugural speech, 2009) to control our destiny.

Community Service.

Mr. Vice-Chancellor, Sir, my major Community Services: I have been appointed as member and as Chairman of various Committees in the Department, the Faculty, the College, and the University Senate.

I started and still running the annual Business Start-up initiative in 2020 for Medical students aimed at stimulating them to think outside the field of Medicine.

I give public talks / presentations to institutions, groups and religious houses in my spare time.

I am an active member of the Special Marshal Unit of the Federal Road Safety Corp (FRSC) Ilorin Unit command.

I was a member of the 9th Management Board of the University of Ilorin Teaching Hospital (UITH), Ilorin, 2018 – 2022 and I am currently a member as Senate representative of the University of Ilorin Governing Council.

Conclusion

This day 13th April, 2023 of 231st Inaugural Lecture of the University had been ordained by God, it is the only Inaugural Lecture coming in a period dedicated to fasting and prayers by both the Christian and the Muslim believes, may God hear our supplications and accept our prayers. Also, April is a great month in our family, the initial date scheduled for this lecture was April 2022, but this was not to be as there was no academic programme at that time. When it was time to re-schedule, I chose the month of April again.

My Dad’s birthday is 10th of April, once again, happy birthday Baba. *“Igba Odun, Odun kan ni”.*

Motorised into this world almost 62yrs ago, modelled into today by master craftsmen and women, I have presented this small piece of my experience in academia and medical practice to you, wonderful mothers and fathers, ladies, and gentlemen in the presence of God. Our government is doing much but both government and the people can do

more. With our present structure, we cannot produce breakthrough research and innovations, but we can work harder, and turn our immediate community round and make some measurable progress for the betterment of us all. Put a stop to preventable illnesses and complications in maternal care, and drive away the malignancies, especially, the cancer of the cervix.

Recommendations

- (1) We, the people need to change in our attitude towards everything labelled Government. We need to take responsibility for our health and for our environment.
- (2) The populace should be empowered, to be economically self-reliant and self-sustaining. The girl child education needs more support.
- (3) Our women should be more encouraged to increase their use of obstetric services manned by professional health care workers. There should be the need to rekindle the outlined national program on the fight against cervical cancer.
- (4) The Government should continue its trajectory on the health insurance scheme and implement the proposed coverage of the National health insurance scheme to cover more of the population soonest.
- (5) There is need for Government support to strengthen our health systems facilities as a matter of urgency. Specifically, we need to be provided a 'Radiotherapy centre' at the University of Ilorin Teaching Hospital, Ilorin for complete cancer care.
- (6) Primary Health Care, the main source of referral to the Secondary and Tertiary Centres needs to be overhauled and well-coordinated with set targets to meet its obligations in the Community. Reward – Discipline model to be encouraged and adhered to.
- (7) There is need for Government to introduce more incentives for the people working / trading in all sectors of the economy within the country who have refused to travel out (japa syndrome) for greener pastures (though they are qualified to).

Acknowledgements

Mr. Vice-Chancellor Sir, at this juncture, as it is written and commanded in the Holy Bible; book of Isaiah 12:4-5 "*Give thanks to the LORD, call on His name. Make known His deeds among the peoples; make them remember that His name is exalted.*" I would first and foremost give thanks to Almighty God for His blessings, mercies, for His shining light on my career path and making today a reality.

I would now like to publicly acknowledge some of the people who have played pivotal roles in my life:

My parents, Baba, Emeritus Professor Moses Oyeleke Fawole, Faculty of Life Science, University of Ilorin. One time Deputy Vice – Chancellor (1994 – 1998), Ag. Vice – Chancellor (August - October 2002) of this great university. And my Mama, Mrs Comfort Adetipe

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“Okun o, omo-ayiye, oya-ayiye”.

I love you so much darling, you are the best ...

'We got it together, didn't we?'

'We've definitely got our thing together haven't we baby?'

TO THE GLORY OF GOD ALMIGHTY, WE DID.

(I refer the lovers of music to the YouTube channel and listen to “*You're the First, the Last, My Everything*” is a song written and recorded by Barry White from his third studio album *Can't Get Enough* (1974).

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References

- Abdulahem, O. J., Fabiyi, J. P., Babatunde, S. K., Alayande, M. A., Akanbi II, A. A. & **Fawole, A. A.**, (2010): Prevalence of Malaria Parasitaemia in Pregnant Women Attending Antenatal Clinics at The University of Ilorin Teaching Hospital, Ilorin, Nigeria. The *Tropical Journal of Health Sciences* 17(2): 69-73 Ilorin, Nigeria College of Health Sciences, University of Ilorin, Ilorin. <http://ajol.info/index.php/tjhc>.
- Abiodun, O. M., Balogun, O. R. & **Fawole, A. A.**, (2007): Aetiology, Clinical Features and Treatment outcome of Intrauterine Adhesions in Ilorin Centra, Nigeria *West African Journal of Medicine* 26(4): 298-301 Lagos West African Postgraduate College www.wajm.org.
- Abiodun, O. M., Ijaiya, M. A., **Fawole, A. A.** & Jimoh, A. A. G. (2007): Studied of Serological Evidence of Prior Chlamydia Trachomatis infection in patients with ectopic pregnancy. *European Journal of Scientific Research* 16(3): 461-466 Europe European Journals Inc. www.eurojournal.com/EJSR.htm
- Aboyegi A. P. & Ijaiya M. A. (2002): Uterine fibroids: a ten-year clinical review in Ilorin, Nigeria. *Niger J. Med.* Jan-Mar; 11(1):16-9. PMID: 12073294.
- Aboyegi, A. P. & **Fawole, A. A.**, (2003): Maternal Mortality Associated with Caesarean Section at Ilorin. *Tropical Journal of Medical Research* 17(2) 4-9 Newui, Nigeria Medical Research Society, Nnamdi Azikwe University, Nnewi Campus <http://ajol.info/index.php/njm>.
- Aboyegi, A. P., **Fawole, A. A.** & Ijaiya, M. A. (2000): Knowledge and Attitude to Antenatal Screening for HIV/AIDS by Pregnant Mothers in Ilorin, Nigeria. *Nigerian Quarterly Journal of Hospital Medicine* 10(3) 181-184 Lagos, Nigeria College of Medicine, University of Lagos <http://ajol.info/index.php/nqjhn>.
- Aboyegi, A. P., **Fawole, A. A.**, & Ijaiya, M. A., (2001): Knowledge Previous Contraceptive Use by Pregnant Teenagers In Ilorin, Nigeria *Tropical Journal of Obstetrics and Gynaecology* 18(2): 73-77 Ibadan, Nigeria Society of Gynaecology and Obstetrics of Nigeria. <http://ajol.info/index.php/tjog>
- Aboyegi, A. P., **Fawole, A. A.**, & Ijaiya, M. A. (2001): Knowledge Previous Contraceptive Use by Pregnant Teenagers In Ilorin, Nigeria *Tropical Journal of Obstetrics and Gynaecology* 18(2) 73-77 Ibadan, Nigeria Society of Gynaecology and Obstetrics of Nigeria. <http://ajol.info/index.php/tjog>
- Aboyegi, A. P., **Fawole, A. A.**, & Ijaiya, M. A. (2001): Trends in Ectopic Pregnancy in Ilorin, Nigeria. *The Nigerian Journal of Surgical Research* 4 (1-2) 6-11 Ahmadu Bello University Zaria, Surgical Research Society of Nigeria <http://bio.line.org.br/sr>.
- Aboyegi, A. P., Ijaiya, M. A. & **Fawole, A. A.** (2007): Maternal Mortality in a Nigerian Teaching Hospital - a continuing tragedy. *Tropical Doctor* 37(2). 3-6 London Royal Society Medicine <http://td.rsinjournal.com>.
- Adeniji, K.A. (2001). Analysis of the Histopathological Pattern of Carcinoma of the Cervix in Ilorin, Nigeria. *Niger J Med.* 2001 Oct-Dec;10(4):165-8. PMID: 11805997.
- Adeniran A. S., Aun II, **Fawole, A. A.**, & Aboyegi A. P. (2020) Comparative analysis of caesarean delivery among out-of-pocket and health insurance clients in Ilorin, Nigeria. *Niger Postgrad Med J* 2020;27:108-14.
- Adeniran A. S., **Fawole, A. A.**, Abdul I. F. & Adesina K. T. (2015). Spontaneous abortions (miscarriages): Analysis of cases at a tertiary center in North Central Nigeria. *J. Med Trop.* [serial online] 2015 [cited 2023 Mar 20];17:22-6. Available from: <https://www.jmedtropics.org/text.asp?2015/17/1/22/148571>.
- Adeniran, A. S., Aboyegi, A. P., Okpara, E. U., **Fawole, A. A.** & Adesina, K. T. (2014): Pregnancy Outcome in Cervical Incompetence: Comparison of Outcome Before and After Intervention. *Tropical Journal of Obstetrics and Gynaecology* 31(1): 23-29. The Publication of Society of Gynaecology and Obstetrics of Nigeria (SOGON). Available at: <http://www.ajol.info/index.php/tjog>
- Adeniran, A. S., **Fawole, A. A.**, Adesina, K. T., Aboyegi, A. P. & Ezeoke, G. G. (2014): Maternal near-miss in a great grand-multipara following unsafe abortion: A focus on the uncommon contributing factors. *International Medical and Technological University Journal* 5:11-14. The Publication of the International Medical and Technological University, Dar-es-Salam, Tanzania. Available at: <http://www.ajol.info/index.php/imj>.

- Adeniran, A. S., **Fawole, A. A.**, Adesina, K. T., Aboyeji, A. P. & Ezeoke, G. G. (2014): Maternal near-miss in a great grandmultipara following unsafe abortion: A focus on the uncommon contributing factors. *International Medical and Technological University Journal* 5:11-14. The Publication of the International Medical and Technological University, Dar-es-Salam, Tanzania. Available at: <http://www.ajol.info/index.php/imj>.
- Adeniran, Abiodun, **Fawole, Adegboyega**, Balogun, Rabi, Ijaiya, Munir'deen, K. T., Adesina & I. P., Adeniran. (2015). Female Genital Mutilation/Cutting: Knowledge, practice and experiences of secondary schoolteachers in North Central Nigeria. *South African Journal of Obstetrics and Gynaecology*. 21. 39-43. 10.7196/sajog.1047.
- Adesina K., Saidu, R., Aboyeji, A., **Fawole, A.**, Olarinoye, A., & Ibrahim, K. (2010): Factors Contributing to Low Cervical Cancer Screening in a Population at Risk *Nigerian Journal of Health Sciences* 10(1) 21-25 Obafemi Awolowo University College of Health Sciences, Obafemi Awolowo University, Ile-Ife. www.ajol.info
- Adesina, K., Aderibigbe, S., **Fawole, A.**, Ijaiya, M. & Olarinoye, A. (2011). Pregnancy outcome of the obese in Ilorin. *Obstetrics Medicine*. 4(4):160-163. Published by Royal Society of Medicine Press Limited. <https://doi.org/10.1258/om.2011.100081>.
- Adewole, A., **Fawole, A.**, Ijaiya, M., Adeniran, A., Kikelomo, A., & Aboyeji, A. (2022). Delivery outcome and predictors of successful vaginal birth after primary caesarean delivery: A comparative study: Vaginal birth after caesarean section. *Babcock University Medical Journal*, 5(1), 1–10. <https://doi.org/10.38029/bumj.v5i1.99>
- Agoyi M, Ojo R, Afolabi T, Ogunyemi O, Adejumbi S, Awoniyi (2022) : A Role of Community-Based Birth Attendants in Reduction of Maternal and Child Mortality [Internet]. Mortality Rates in Middle and Low-Income Countries. *IntechOpen*; Available from: <http://dx.doi.org/10.5772/intechopen.101789>
- Ajiboye, P. O., Aboyeji, P. A., Adesina, K. T., **Fawole, A. A.**, & Adewara, A.A. (2009): Premenstrual Tension Syndrome in Women in Ilorin. *Sexual Health Matters*: 3-7, UK James Cook University Hospitals Middlesbrough <http://www.sexualhealthmatters.com>.
- Akande, T. M. & **Fawole, A. A.** (2001): Attitudes of Mothers in Ilorin to Family Planning in the immediate Puerperium *The Tropical Journal of Health Sciences* 8:6-8 Ilorin, Nigeria Library and Publications Committee, University of Ilorin <http://ajol/index.php/tjhc>
- Alebiosu, E. A. (2014): National Health System, Maternal Health and the Millennium Development Goals: A Review of Abiye Programme in Ondo State, *Nigeria International Journal of Humanities and Social Science*, 4(12); October 2014.
- Alves C. & Rapp A. (2022). Spontaneous Abortion. [Updated 2022 Jul 18]. In: *StatPearls* [Internet]. *Treasure Island (FL): StatPearls Publishing*; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK560521/>
- Ammann, A.J. (2017): *Lethal Decisions: The Unnecessary Deaths of Women and Children from HIV/AIDS*. Vanderbilt University Press, 2017. *JSTOR*, <https://doi.org/10.2307/j.ctv16757zv>.
- Antoinette Ofili and O.H. Okojie (2005): Assessment of the role of traditional birth attendants in maternal health care in Oredo Local Government Area, Edo State, Nigeria. *Journal of Community Medicine and Primary Health Care*.17(1): 55-60.
- Barbara E. Kwast. (1991): Safe motherhood: a challenge to midwifery practice. *World Health Forum*. 12: 1 - 24. apps.who.int
- Balogun, O. R., Raji, H. O., Adesina, K. T., **Fawole, A. A.**, Jimoh, A. A. G., (2009): Knowledge and Attitude of Pregnant Women Towards Antenatal Blood Donation Policy in University of Ilorin Teaching Hospital *Nigerian Journal of Health Sciences*. 20-22 Ile Ife College of Health Sciences, OAU, Ile-Ife. www.ajol.info.
- Basic information about HPV and Cancer: http://www.cdc.gov > cancer > HPV > basic_info.
- BMJ 2021; 373: n1223 (published 2021).
- Burd EM, *Clinical Microbial* 2003;16:1-17.
- Durowade K., Babatunde O. A., Omokanye L. O., Elegbede O. E., Ayodele L. M., Adewoye K. R., Adetokunbo S., Olomofe C. O., **Fawole A. A.**, Adebola O. E., Olaniyan T. O. (2017). Early sexual debut: prevalence and risk factors among secondary school students in Ido-ekiti, Ekiti state, South-West Nigeria. *Afr Health Sci*. 2017 Sep;17(3):614-622. doi: 10.4314/ahs.v17i3.3. PMID: 29085388; PMCID: PMC5656187.

- Endometrial Cancer Screening (PDQ®)—Patient Version – NCI. 2021. cancer.gov
- Eno, E. E., **Fawole, A. A.**, Aboyeji, A.P., Adesina, K.T. & Adeniran, A.S. (2014): Domestic Violence and Obstetric Outcome among Pregnant Women in Ilorin, North Central, Nigeria. *International Journal of Gynaecology and Obstetrics*. 125(2): 170-171. The Journal of the International Federation of Obstetrics and Gynaecology (FIGO). Available at: <http://dx.doi.org/10.1016/j.ijgo.2013.11.007>.
- Fawole, A. A.**, & Akande, T. M. (2002): Influence of Maternal Age and Education on Antenatal Clinic attendance in Ilorin, Nigeria. *Centrepoint. Science Edition* 11 (1) 65-72 Ilorin, Nigeria Library and Publications Committee of the University of Ilorin www.unilorin.edu.ng/unilorin/index.php/centre-point.
- Fawole, A. A.**, Aboyeji, A. P. & Olaoye I. O. (2001): Visceral injuries in Unsafe Abortions in Ilorin, Nigeria. *Centre-point Science Edition* 10 (1) 23-29 Ilorin, Nigeria. Library and Publications Committee, University of Ilorin. www.unilorin.edu.ng/unilorin/index.php/centre-point.
- Fawole, A. A.**, & Akande, T. M. (2002): Influence of Maternal Age and Education on Antenatal Clinic attendance in Ilorin, Nigeria. *Centrepoint. Science Edition* 11 (1) 65-72 Ilorin, Nigeria Library and Publications Committee of the University of Ilorin www.unilorin.edu.ng/unilorin/index.php/centre-point.
- Fawole, A. A.** (1996): Pregnancy and its outcome Among Mothers 40 years and above at Ilorin, *Nigerian Medical Practitioner* 32(1&2) 2-6 Lagos, Nigeria MST Publishers Ltd. www.ajol.info.
- Federal Ministry of Health (2016): Saving One Million Lives Program for Results. Program Implementation Manual (PIM), Abuja, Nigeria. Available from <http://somlpforr.org.ng/wp-content/uploads/2017/02/SOML-PIM.pdf> (29/09/2022), 2016.
- George S.H.L., Omotoso A., Pinto A., Mustapha A., Sanchez-Covarrubias A.P., Umar U.A., Umar A.B., Oluwasola T. A., Okolo C. A., Anthony U. U., Ukekwe F. I., Bakari M.A., Dahiru A.M.C., Abdullahi H.I., Abimiku B.A., Abdurrahman A., Usman A., Ahmed S.A., Usman H.A., Kabir A., Eleje G.U., Chiemeka M.E., Nzeribe E., Nweke I., Kadas S., Suleiman D.E., Ekanem E., Uche U.M., Paul J., Agwu U.M., Edegebe F.O., Anorlu R.I., Banjo A., Ajenifuja K.O., **Fawole A.A.**, Kazeem I.O.O., Magaji F., Silas O., Athanasius B.P., Tamunomie N.K., Basse E., Abudu K., Ango I.G., Abdullahi K., Lawal I., Kabir S.A., Ekanem V., Ezeanochie M., Yahaya U.R., Castillo M.N., Bahall V., Chatrani V., Brambury I., Bowe S., Halliday D., Bruney G., Butler R., Ragin C., Odedina F., Chamala S., Schlumbrecht M. & Audu B. (2021). An Assessment of Ovarian Cancer Histotypes Across the African Diaspora. *Front. Oncol.* 11:732443. doi: 10.3389/fonc.2021.732443.
- Grace Ezeoke, Adesina Kikelomo, Afusat Olabinjo, Ogunlaja, Olumuyiwa, **Fawole Adegboyega & Adeniran, Abiodun.** (2022) looking at early versus late presentation in labour by parturient women at a tertiary facility in North Central Nigeria: A cross-sectional study. *Medical Journal of Zambia*. 48. 181-187. 10.55320/mjz.48.3.821.
- Han, Y., Tong, M., Jin, L. *et al.* (2021). Maternal age at pregnancy and risk for gestational diabetes mellitus among Chinese women with singleton pregnancies. *Int J Diabetes Dev Ctries* 41, 114–120 (2021). <https://doi.org/10.1007/s13410-020-00859-8>.
- Harrison KA. (1985). Child-bearing, health and social priorities: a survey of 22 774 consecutive hospital births in Zaria, Northern Nigeria. *Br J ObstetGynaecol.* 1985 Oct;92 Suppl 5:1-119. PMID: 4052352. <http://www.cancer.org>
- <https://apps.who.int/iris/handle/10665/336583>
- <https://iris.paho.org/handle/10665.2/43302>
- <https://www.dhsprogram.com>: <https://maternalfigures.com>.
- Ibrahim, O.O.K., **Fawole, A.A.** and Abubakar-Akanbi, S. (2018). Pap Screening as Preventive Tool Against Cervical Cancer: A Report of Carcinoma in-situ in Women with Family History of Cancer in Ilorin. *The Tropical Journal of Health Sciences*. 25(1): 72-4, Ilorin, Nigeria, College of Health Sciences, University of Ilorin, Ilorin. [Http://ajol/index.php/tjhc](http://ajol/index.php/tjhc).
- Ibrahim, O.O.K., **Fawole, A.A.**, Folaranmi, O.O., Abdulmajeed, A.A. & Adegboye, O. (2018). A 10-year histopathological review of ovarian malignancies in University of Ilorin Teaching Hospital, Ilorin, North-Central Nigeria. *Archives of Clinical Research*. Vol. 6: 17 – 20. Published by Ambrose Alli University, Ekpoma, Nigeria.

- Idowu A., Olowookere S.A., Fagbemi A.T. & Ogunlaja O.A. (2016). Determinants of Cervical Cancer Screening Uptake among Women in Ilorin, North Central Nigeria: A Community-Based Study. *J Cancer Epidemiol.* 2016;2016:6469240. doi: 10.1155/2016/6469240. Epub 2016 Jan 6. PMID: 26880916; PMCID: PMC4736774.
- Irvine MH, Einarson A, & Bozzo P. (2011). Prophylactic use of antimalarials during pregnancy. *Can Fam Physician.* 2011 Nov;57(11):1279-81. PMID: 22084457; PMCID: PMC3215604.
- Key practice: Antenatal Care | UNICEF Uganda <https://www.unicef.org/uganda/key-practice-antenatal>.
- Kolawole, I.K., and **Fawole, A.A.** (2003): Postoperative pain management following caesarean section in University of Ilorin Teaching Hospital (UIH). *West African Journal of Medicine* 22(4) 305-309. Lagos, Nigeria. *West African Postgraduate Medical College calc* www.wajim.org
- Liu, Xiaoli & Ruan, Yan & Liu, Yajun & Zhanq, Weiyuan. (2015). [Relationship between maternal age and hypertensive disorders in pregnancy]. *Zhonghua yi xue za zhi.* 95. 19-22. 10.3760/ema.j.issn.0376-2491.2015.01.007.
- Michael J. O'Dowd & Elliot E. Phillip. (1994): The History of Obstetrics and Gynaecology, 700 pp, New York, NY. Parthenon Publishing. 1994.
- Milena Falcaro, Ph.D., Alejandra Castañón, Ph.D., Busani Ndlela, PhD., Marta Checchi, MSc., Kate Soldan, PhD., Jamie Lopez-Bernal, PhD et al (2021): The effects of the national HPV vaccination programme in England, UK, on cervical cancer and grade 3 cervical intraepithelial neoplasia incidence: a register-based observational study. *The Lancet.* Volume 398, Issue 10316, P2084-2092, December 04, 2021. [https://doi.org/10.1016/S0140-6736\(21\)02178-4](https://doi.org/10.1016/S0140-6736(21)02178-4).
- Nash Z. & Menon U. (2020). Ovarian cancer screening: Current status and future directions. *Best Pract Res Clin ObstetGynaecol.* 2020 May;65:32-45. doi: 10.1016/j.bpobgyn.2020.02.010. Epub 2020 Mar 3. PMID: 32273169.
- National cancer Institute: <https://www.cancer.gov>
- National Cancer Institute (July 2022): Rising Endometrial Cancer Rates Spur New Approaches to Prevention. <https://prevention.cancer.gov/blog>.
- National malaria policy 2014, Federal Ministry of Health, Nigeria
- Nigeria Demographic and Health Survey 2018
- Nigeria. National Cancer Control Plan. 2018 – 2022
- National Universities Commission 2022.: List of approved Universities. NUC Bulletin.17;(32):17-18 www.nuc.edu.ng
- Obstetrics and gynaecology | Encyclopaedia Britannica. <https://www.britanica.com>.
- Okoroiwu, H.U., Umoh, E.A., Asanga, E.E. et al. Thirty-five years (1986–2021) of HIV/AIDS in Nigeria: bibliometric and scoping analysis. *AIDS Res Ther* 19, 64 (2022). <https://doi.org/10.1186/s12981-022-00489-6>
- Olatunji, L.A., Soladoye, A.O., Adebisi, S.A., **Fawole, A.A.** & Abe, F. A. (2004): Influence of the Phases of Menstrual Cycle on haemorrhologic markers in healthy women *Tropical Journal of Health Sciences* 12 (2) 6-9 Ilorin, Nigeria College of health sciences, University of Ilorin www.ajol/index.php/tjhc
- Olatunji, L.A., Soladoye, A.O., **Fawole, A.A.**, Jimoh, R.O. & Olatunji, V.A. (2008): Association between Plasma Triglyceride and Haemorrhological Variable in Nigeria Primigravidae and Multigravidae. *Research Journal of Medical Science* 2(3) 116-120 MaxwellJournals <http://medwelljournals.com/mss/index.php>
- Olayinka Balogun, Abiodun Adeniran, **Adegboyega Fawole**, Kikelomo Adesina, Abiodun Aboyeji & Peace Adeniran. (2016). Effect of male partner's support on spousal modern contraception in a low resource setting. *Ethiopian journal of health sciences* 26 (5), 439-448, 2016. DOI 10.4314/ejhs.v26i5.5
- Oliver C Ezechi, Babasola O Okusanya, Chris O Aimakhu, Olubukola A Adesina, Aigbe G Ohihoin, Hadiza A Usman, Odidika U Umeora, Rotimi Akinola, Rose Anorlu, Atiene Sagay, Bala Audu, Olusola Fasubaa, Adekunle Oguntayo, Olutosin Awolude, Michael Ezeanochie, Adegboyega Fawole, Munirdeen Ijaiya, Azubuike Onyebuchi, Lamaran Dattijo, Osayande E. Osagie, Adetokunbo Fabanwo, Faye Iketbuson, Bukola Fawole, Bose Afolabi, Chris Agbogoroma, Habib Sadauki, Anthony Okapani, Ibrahim Yakasai, Josiah Muthir, Patrick

- Okonta. (2019): Society of obstetrics and gynecology of Nigeria—Clinical practice guidelines: Guidelines for the prevention of cervical cancer. *Tropical Journal of Obstetrics and Gynaecology*. 36; (2) : 161 – 164.
- Olusola Ojuronbe, Bukola D Tijani, Adegboyega **A. Fawole**, Oluwaseyi A. Adeyeba, Juergen F. Kuu (2011): Prevalence of Dihydrofolate reductase gene mutations in Plasmidium falciparum isolated from pregnant women in Nigeria. 3(2) 73-76 *Pravia, Italy PAGEPRESS*, <http://www.pagepress.org/journals/index.php/idr/article/view/idr.2011.e16>
- Ostor AG. *Int. J Gynaecol Path.* 12 (2);186-192.
- Pandit RD. Role of antenatal care in reducing maternal mortality. *Asia Oceania J ObstetGynaecol*. 1992 Mar;18(1):1-6. doi: 10.1111/j.1447-0756.1992.tb00291.x. PMID: 1627055.
- President Barak Obama 2009: Inaugural Speech.
- Self-collection HPV Test: TDL Self-Collection HPV Test - London-*The Doctors Laboratory*. <https://www.tdlpathology.com>
- Soladoye, A.O., Olatunji, L.A. & **Fawole, A.A.** (1998): Haemorrhagic Consequences of Contraceptive Usage Among Healthy Nigerian Women. *Bioscience Research Communications* 10(4) 253-256 Ilorin, Nigeria Bioscience Research Society, University of Ilorin www.klobex.org/page 8.html.
- Solomon D. *et al. JAMA* (2002); 287: 2114-9.
- Tabibi T, Barnes JM, Shah A, Osazuwa-Peters N, Johnson K.J., Brown D.S. (2022). Human Papillomavirus Vaccination and Trends in Cervical Cancer Incidence and Mortality in the US. *JAMA Pediatr*. 2022 Mar 1;176(3):313-316. doi: 10.1001/jamapediatrics.2021.4807. PMID: 34842903; PMCID: PMC8630656.
- The four critical delay models to stem maternal morbidity & mortality (2018) <https://bmcpregnancychildbirth.biomedcentral.com>
- The Hihuwa Lafiya (Safe motherhood) program of Jigsaw state Government, Nigeria (matemafigures.com).
- The story of Agnodice-https://www.brooklynmuseum.org/easca/dinner_party/heritage_floor/agnodice
- Thirty-five years (1986–2021) of HIV/AIDS in Nigeria: bibliometric and scoping analysis. Okoroiwu *et al. AIDS Research and Therapy* (2022) 19:64 <https://doi.org/10.1186/s12981-022-00489-6>.
- Video tape with the author's title of "Why did Mrs. X die" is available in English, French, Spanish and Arabic, from the *World Health Organization*.
- WHO Antenatal Care (2016) <https://apps.who.int/handle/9789241549912-eng>
- WHO Director-General Cervical Cancer: An NCD We Can Overcome.
- WHO Global strategy to accelerate the elimination of cervical cancer as a public health problem. *World Health Organization - Cervical Cancer Country Profiles*. (2021).
- World Health Organization (2020).
- WHO Labour Care Guide (2020) – User's manual. <https://apps.who.int/iris/789240017566-eng>.
- WHO's Draft Global Strategy towards the Elimination of Cervical Cancer as a Public Health Problem, (2020) the fourth most common **To eliminate cervical cancer in the next 100 years, implementing an effective strategy is critical** *World Health Organization (WHO)*