MATERNAL MORTALITY: THE DRAGON OF OUR TIME

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Heads of Departments

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Fellow Professors

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My Lords Spiritual and Temporal

Distinguished Traditional Rulers and Title Holders

Distinguished Guests

Gentlemen of the Press

'Malabites' and 'Malabresses'

Ladies and Gentlemen

PREAMBLE

It is with joy and deep sense of humility that I welcome you all to this very important occasion. I give all the glory to the Almighty God for making it possible for me to stand before this distinguished audience today. I thank the Vice Chancellor, the Chairman and members of the Committee of Deans and the entire University Management for giving me the opportunity to defray this debt I owed this great University.

Inaugural lecture is an academic tradition where a newly promoted or appointed professor is expected to give an account of his contributions to knowledge in his chosen area of specialization and also possibly throw open the direction of his future research. I was promoted professor by October, 2005, though my official letter (announcement) never came until 2008. I must thank the Vice Chancellor for the current development where the letter of promotion comes almost the same year of the promotion. I am here today to deliver the 75th Inaugural lecture of the University of Calabar, my Alma mater and the first inaugural lecture in my Department, the Department of Obstetrics and Gynaecology. By the grace of God, I have done a lot of work in many areas of women's health but today, I have decided to showcase my contributions in the area of MATERNAL MORTALITY which I am

mostly known for. I have chosen to title this lecture “MATERNAL MORTALITY: THE DRAGON OF OUR TIME.”

OUTLINE

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The Dragon and Maternal Mortality

At the beginning, God created an angel in heaven called Lucifer (the dragon). Lucifer was perfectly made, blameless, a model of beauty and full of wisdom. He was sweet, innocent looking and very well cherished. He was a guardian cherub, which is the highest position possible in heaven. Lucifer was in a perfect and sinless environment and had everything he possibly desired. (Ezekiel 28: 14-15 & 17).

Looking at his splendor, his beauty and exalted position, the dragon (Lucifer) became filled with pride and violence and mounted rebellion against God.

"……I will ascend into heaven, I will exalt my throne above the stars of God; I will also sit on the mount of the congregation on the farthest sides of the north;I will ascend above the heights of the clouds; I will be like the Most High"
(Isaiah 14: 13 – 14)

From all indications, Lucifer wanted to introduce democracy in heaven. He started his campaign and won one third of the angels to his side. War broke out in heaven.

"And there was war in heaven. Michael and his angels fought against the Dragon And the Dragon and his angels fought back. But he was not strong enough, and they lost their place in heaven . The great Dragon was hurled down – that ancient Serpent called the devil, or Satan who leads the whole world astray. He was hurled to the earth, and his angels with him." (Revelation 12: 7 – 9)

The defeated Lucifer, the Dragon now discovered himself with his angels on earth to a life of mischief and shame and here acquired new names; the devil, the satan, the serpent, the idol, the god and the accuser of the brothers. (Revelation 12: 10)

The dragon (the serpent) now started his work on earth. One of his earliest assignments was on Eve, the first woman on earth.

"Now the Serpent was more crafty than any other beast of the field that the Lord God had made. He said to the woman, "Did God actually say 'you shall

not eat of any tree in the garden'?" And the woman said to the Serpent, "We may eat of the fruit of the trees in the garden, but God said, 'You shall not eat of the fruit of the tree that is in the midst of the garden, neither shall you touch it, lest you die." But the Serpent said to the woman, "You will not surely die. For God knows that when you eat of it your eyes will be opened, and you will be like God, knowing good and evil." (Genesis 3: 1 – 5)

Here we find Eve the first woman on earth being deceived and she disobeyed God and ate the forbidden fruit and also gave to the husband to eat. God had pronounced death to follow this disobedience. This was the introduction of death to mankind.

When the Lord God visited the garden to see His creatures – Adam and Eve, the couple rather ran away and hid themselves with the reason that they were naked. It was then obvious to God that they had disobeyed His command. Now came curses:

"To the woman He said, "I will greatly multiply your sorrow and your conception; in pain you shall bring forth children; your desire shall be for your husband, and he shall rule over you.""(Genesis 3: 16)

The woman was now to deliver, and in pains and sorrow.

To make sure there is no antidote to this death, God chased Adam and Eve away from the Garden of Eden, to prevent them from eating of the tree of life.

"Then the Lord God said, Behold, the man has become like one of Us, to know good and evil. And now, lest he put out his hand and take also of the tree of life, and eat, and live forever." (Genesis 3: 22).

We also see the dragon at work in the family of Jacob. Jacob was the second son of Isaac. He spent a total of twenty years in the house of his uncle, Laban, and got

married to two daughters of his uncle, Leah and Rachel. At a stage, Jacob ran out of his patience and decided to return to his father's house. Jacob called his wives and other members of his household and asked them to gather their belongings in readiness for their journey home.(Genesis 31: 4 – 16). While others were arranging and packing their personal effects, Rachel, Jacob's second wife was busy packing her father's household gods, the dragon.

> *"…….and Rachel had stolen the household idols that were her father's"* (Genesis 31: 19).

After Jacob and his family had left, Laban discovered that his gods (the dragon) were stolen. He decided to pursue them to recover among other items, his household gods. On meeting Jacob he said:

> *"And now you have surely gone because you greatly long for your father's house, but why did you steal my gods?" (*Genesis 31: 30)

Jacob, not knowing what Rachel, his wife had done, permitted his uncle to search every member of his team with the aim that whoever would be found with the gods would be put to death. In the process, Rachel carried this dragon and put on the camel's saddle and sat on it and told the father that she was menstruating and would not be able to wake up for him to search.

"Let it not displease my lord that I cannot rise before you for the manner of women Is with me." (Genesis 31: 35a)

Rachel, having intermingled with the dragon, in her next pregnancy, had difficult labour and died.

> *"…….Rachel labored in childbirth and she had hard labor……..And so it Was as her soul was departing (for she died)……."(Genesis 35: 16 – 19)*

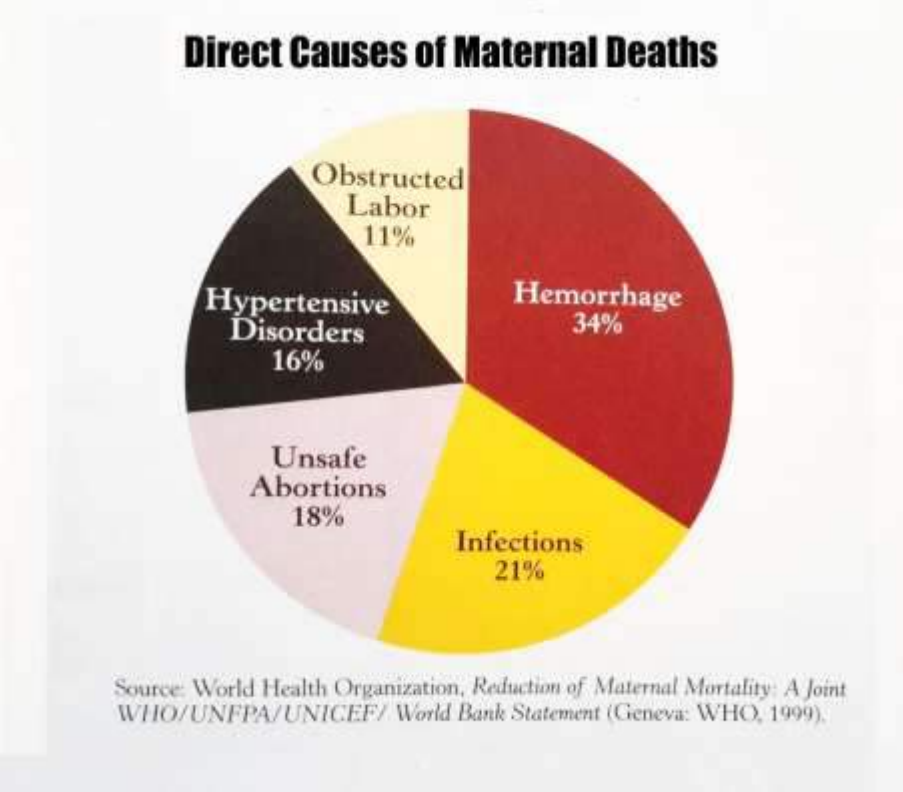
This stood as the first recorded case of maternal mortality – the handiwork of the dragon.

What is Maternal Mortality?

According to World Health Organization (WHO), "Maternal mortality is the death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes"[1,2] In certain situations where cause attribution is not adequate, WHO has introduced a new category termed: Pregnancy-related death, which is "The death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the cause of death."

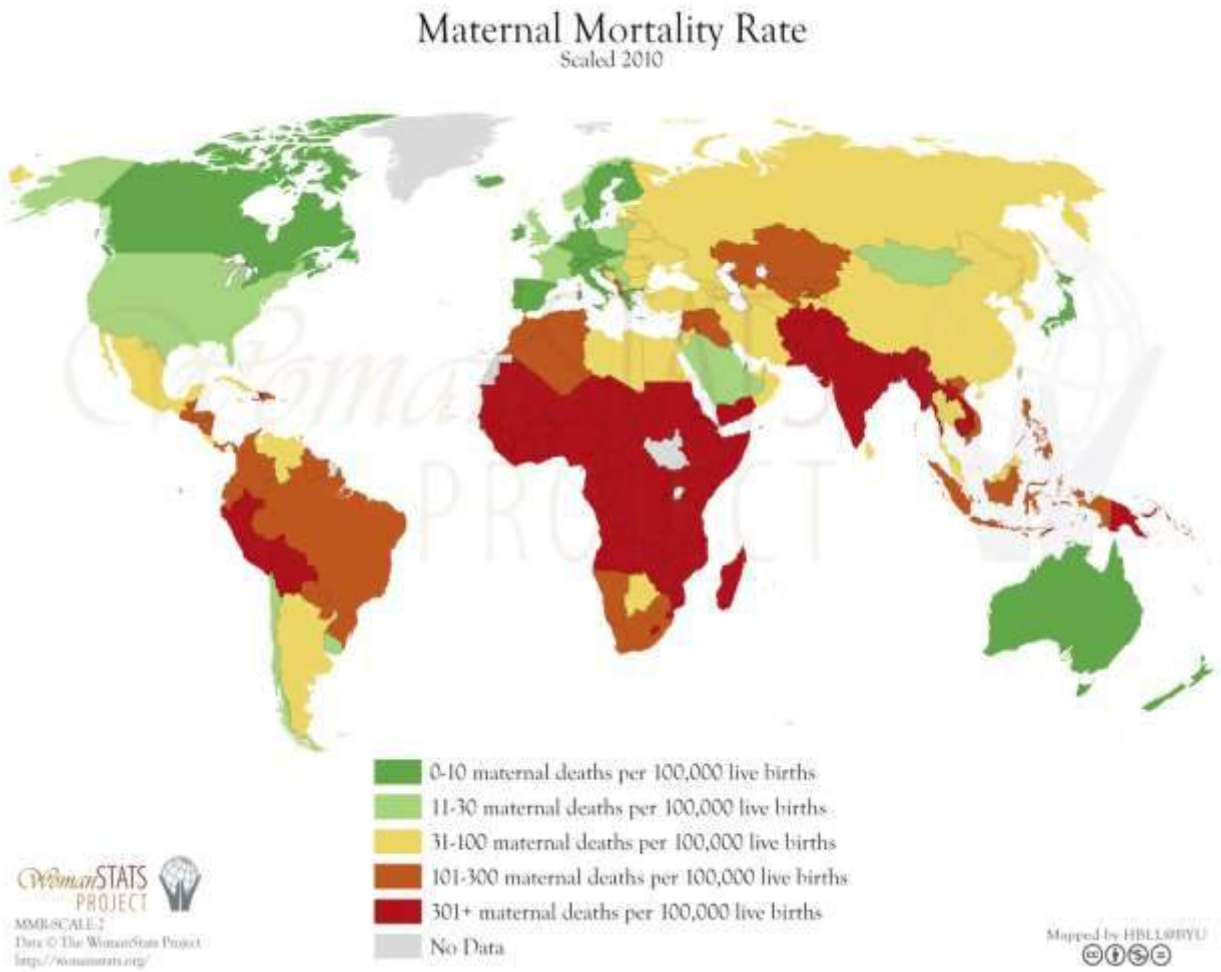
Causes of Maternal Mortality

The immediate direct causes of maternal death particularly in the developing countries are: haemorrhage (34%), sepsis (infection) (21%), unsafe abortion (18%), hypertensive disorders (16%) and obstructed labour/ruptured uterus (11%).[3]



These together are responsible for about 80% of maternal deaths. The remaining 20% are due to indirect causes such as malaria, anaemia, or diabetes mellitus.[4] However, there are remote factors which play a part in causing maternal death which need to be emphasized even more than the medical causes. These factors may be social, cultural, economic, religious, political or infrastructural.[5]

The maternal mortality belt



Maternal Mortality Before 1987

With the introduction of maternal mortality into the world by the dragon, the world discovered itself plagued by countless and aimless deaths of women in pregnancy, labour or during the puerperium. Women were looked at as a bag of babies to be discarded at emptying. According to an African folklore, a mother about to deliver told her older children:

"I am going to the sea to fetch a new baby, but the journey is long and dangerous and I may not return."[6]

This is still the situation even today. Many do not return.

As it was, nobody could really give the estimate of maternal death until about three decades ago. No doubt the statement:

"…….woe to the inhabitants of the earth and the sea. For the devil has come down to you, having great wrath because he knows he has a short time" (Revelation 12: 12)

Maternal mortality remained a neglected tragedy, neglected because those who suffered it were looked at as neglected people, with the least influence over how national resources should be spent, they were the poor, the peasant and above all, the women.[7] The point to note here is that when a woman dies during childbirth, the death sentence of the baby she delivers is almost certainly written and often the other children she leaves behind suffer the same fate and the family stands a good chance of disintegration.[7]

By the words of Fred Sai, the renowned former president of the International Planned Parenthood Federation:

"No country sends its soldier to war to protect their country without seeing to it That they will return safely, and yet mankind for centuries has been sending women to battle to renew the human resource without protecting them." [3]

No other group suffers death in the process of maintaining human species.[5] It is only women who lose their lives in the process of creating a new life.

Attempts at Reducing Maternal Mortality Before 1987

Mankind over the centuries had recognized the problem of maternal morbidity and mortality and had attempted to institute measures to assist women at delivery. In a typical African society for instance, when a woman is in labour, an elderly woman in the family takes the responsibility of assisting the parturient. In many communities, we have women who offer care to mothers during pregnancy and childbirth and are termed Traditional Birth Attendants (TBAs).[8] This is in recognition that pregnancy though a (normal) physiological process, could be turbulent and the woman can die.

Before 1987, Governments established conventional hospitals and also Maternal and Child Health (MCH) programmes[9] to specifically cater for women in pregnancy, during labour and delivery and to care for infants and children. These programmes created remarkable impacts in the developed nations In the developing countries, these health facilities were few and unevenly distributed and concentrated mostly in the cities, leaving the rural areas where most people lived uncovered. Besides, there was paucity of health workers. Hence, the impacts of the MCH were not felt.[10]

In view of the range of health related activities in which the TBAs were engaged and the general lack of other available health services in the communities where these TBAs practised, training and articulating them into the formal health care system was looked at as the best alternative approach for improving the maternal and child health services. This was even championed by WHO when it launched a worldwide survey of TBAs in 1972[11, 12]

On the international scene, there was a Universal Declaration of Human Rights in 1948 which prompted international conventions and conferences which affirmed and re-affirmed that **safe motherhood** is a right and have identified the indispensable role of safe motherhood interventions in women's health.[13] By adopting these conventions, governments were meant to have pledged to improve maternal health and could be held accountable for putting these plans into action. Again, these activities impacted positively in the industrialised countries but not in the developing nations.[7] The dragon therefore seemed to have settled in the developing countries and continued its work seriously and insidiously, unnoticed by the governments and people of these nations.

Whistle Blowing on Maternal Mortality

In 1985, Professor Kelsey A. Harrison and his team published an illuminating paper in the British Journal of Obstetrics and Gynaecology entitled: **"Childbearing and Social Priorities: A Survey of 22,774 Consecutive Births in Zaria, Northern Nigeria"** This article threw open:

- The problems of traditional forms of interference during pregnancy, childbirth and puerperium
- The challenges of adolescent marriage and pregnancy
- The problems of women's inferior status
- The problems of women's neglect in pregnancy, labour and puerperium
- The consequences of neglect especially, high level of maternal mortality and vesico-vaginal fistula (VVF)
- That both maternal and perinatal health benefitted hugely when women are educated
- That reducing maternal mortality, the real problem is not so much medical but sociological and that the eradication of mass illiteracy through universal education is a fundamental key to better maternal health.[14]

In that same 1985, Allan Rosenfield and Debora Maine also published a classic and ground breaking article in the Lancet entitled: **"Maternal Mortality – A Neglected Tragedy: Where is the" M" in MCH?"**[15] This was because on the basis of population and considering death rates worldwide, 173 per cent more women than would be expected die in Africa while 50 per cent more infants than would be expected die.[5] In this paper they unfolded certain issues concerning maternal death:

- That medical, obstetric and public health communities have neglected the problem of pregnancy related deaths.
- They unfolded the fact that conventional Maternal and Child Health (MCH) programmes have focused attention primarily on the health of infants and young children and not on the health of women.
- These programmes have not substantially reduced maternal mortality.
- They pointed out that, although most of the medical conditions that lead to maternal death can neither be predicted nor prevented, most of the deaths themselves can be prevented through prompt management of complications.
- They ended up with a call for a major initiative by the health and development communities (with Obstetricians and the World Bank in the lead) to tackle the problem.[10, 15]

This was when the eyes of the entire world opened to see the depth and gravity of maternal mortality, the handiwork of the dragon.

Following these ground breaking messages, WHO in that same 1985 held a meeting in Geneva, which was the first international meeting devoted for maternal mortality alone,[10] putting safe motherhood on the global and national agendas. WHO also gave an estimate that 500,000 women die each year from complications of pregnancy, and delivery[15, 16] Analysis of this translated to about 1,370 deaths every day, 155 every hour and 2 deaths every minute. Maternal mortality presents the widest disparity of all public health statistics,[5] as it was shown that 99% of these deaths occur in the developing countries. Again, that maternal mortality ratio was 400 per 100,000 live births worldwide but in sub-Saharan Africa it was 1,000 per

100,000 live births which was 50 times the figure in industrialized nations. Besides, it was also shown that the life time risk of a woman dying in pregnancy or childbirth was 1: 74 globally, 1: 30,000 in Sweden and 1: 16 in sub-Saharan Africa. It must be appreciated that when we talk about maternal death, we are not talking about mere words or numbers but women: wives, friends, sisters, mothers who have names[6].

Nigeria contributes about 1.76 per cent of the world population but contributes over 15 per cent of maternal deaths.[5] For every woman who dies from pregnancy related causes, 20 – 30 others suffer some morbidity, so devastating to the woman that many a time she bitterly wished she had died.[2] The message delivered here is that childbirth in a developing nation, such as Nigeria is a perilous journey; that breeding may be fun, but it is not without danger. Of all the human sports, sexual intercourse is one of the most hazardous; and of the conditions that are sexually transmitted, possibly conception is the most dangerous in a developing world environment.[17]

Maternal death causes a big loss to the family, the nation and to all. Besides bearing children, women are the main providers of care and comfort to other members of the family. Women plant, harvest, process and preserve most of the food we eat. Maternal death takes our women at the prime of their age; after all, no old woman gets pregnant. This is the stage they make indispensable contributions to the family and national economy. Again, maternal death is a very terrible way to die. It is death in the throes of agony, despair and distress [6]. Maternity is not a disease, so our women are dying from a privileged biosocial function entrusted to them by God. Worst still maternal mortality is preventable [6,13]

Maternal Mortality After 1987

In 1987, the World Bank reacted to the safe motherhood call initiated by Allan Rosenfield and Debora Maine and in collaboration with WHO, UNFPA and UNDP, sponsored the safe motherhood conference in Nairobi, Kenya (10 – 13 February 1987)[10]. At that meeting, Safe Motherhood Initiative was launched and an international call to action was issued with the aim of reducing maternal mortality by 50 per cent globally by the year 2000AD[10]. The World Bank and others also funded a series of national and regional safe motherhood meetings to raise awareness among policy makers.[9]

In 1987, the Carnegie Corporation of New York gave a grant to the Centre for Population and family Health at Columbia University's School of Public Health. This supported the formation of a network of multidisciplinary research teams in Africa. The network consisted of 12 teams; seven of them were in Nigeria, two in Sierra Leone and a technical support team at Columbia University. One of the teams was in Calabar. [18]

At the end of this project, the outcome was the emphasis on the importance of Emergency Obstetric Care (EmOC). They stressed that all the key life-saving procedures should be available at the district hospitals and many should be provided at the peripheral facilities, such as health centres.[19] This means any woman who arrives alive at any health facility has no business dying. They identified barriers that were preventing women from accessing the necessary obstetric care. They went ahead to group these barriers into three, referred to as the "Three Delays":

Delay 1: Delay in deciding to seek care when an obstetric complication occurs.

Delay 2: Delay in reaching a health facility that can provide the needed obstetric care.

Delay 3: Delay in receiving the Emergency Obstetric Care (EmOC) at the facility.[20]

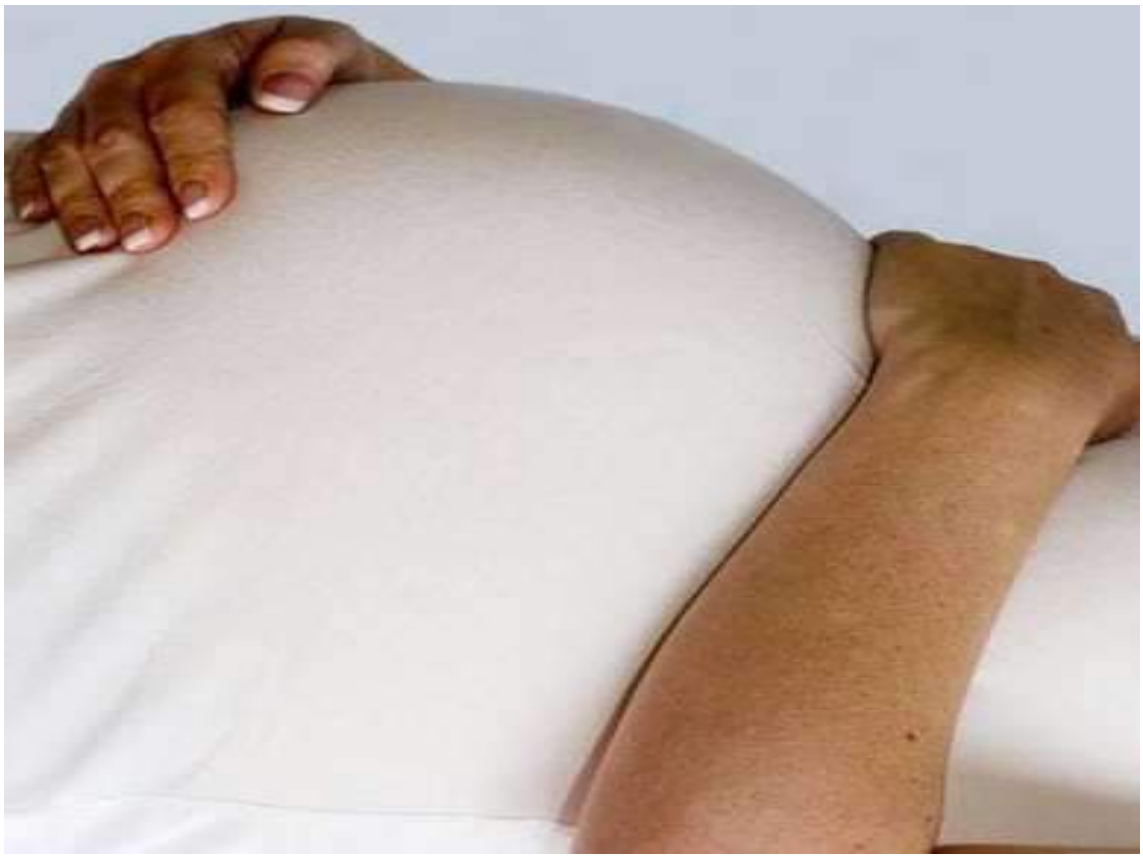
In spite of this enlightenment, some policy makers in the developing countries continued in their attempt to reduce maternal mortality through emphasis on provision of antenatal care and training of traditional birth attendants. They were still applying the clinical instead of the public health approach to reducing maternal mortality ratio in the developing nations. The end result was a rise in maternal mortality instead of falling. [21]

A re-assessment by WHO showed that 585,000 women were dying from complications of pregnancy each year as against the earlier estimate of 500,000 [21] and that 99% of these deaths were still in the developing nations.

My Contribution to the Reduction of Maternal Mortality

My journey into the sub-specialty of Feto-maternal medicine started when I was a senior resident in Obstetrics & Gynaecology at the Maternity Annex of the University of Calabar Teaching Hospital. One evening, I was reading in the hospital. At about 6.00pm, I was tired and decided to go home. A nurse from our then isolation ward, **"UPPER BLOCK"** ran and blocked me at the hospital gate shouting; **"doctor please come, doctor please come."** I parked my car at the hospital gate and followed her to the ward. In the ward was a woman who had good formal education, a university degree holder with very expensive but roughened clothing. This woman had booked for antenatal care in this same

hospital. She had her two previous babies delivered by caesarean section in the same hospital. In this third delivery, she was scheduled for an elective repeat caesarean section. According to her, she went to a church here in Calabar where a prophecy came:



"The prophecy said that he is the god, who created the baby in my womb and that he has the ability to expand my waist for my baby to come out. That if I make the mistake of coming to the hospital for the operation, I would die."

When labour started she went to this church to deliver. She laboured in the church for two days and her uterus ruptured (womb tore). Even when she discovered that her labour was not going on well and that she had started feeling weak, according

to her, she was ashamed to come to the hospital. “What will I tell my doctor?” She was rather rushed to the hospital when she was almost dead.

In the ward, this woman held my hand and said: **“doctor, I have made a mistake, whatever you can do to help me, please do.”** These sentences, though slurred, the grammar and the pronunciation would earn her an “A” from the Department of English and Literary Studies. I became confused and thought it was a dream. As I came back to myself, I started some resuscitative measures. I set up an intravenous line with the available intravenous fluid, but noticed that for her to survive, she needed blood. I took blood samples and prescribed drugs for the nurse to administer. With the blood samples, I personally rushed to the blood bank in the then Saint Margaret wing of the hospital. Getting there, the blood bank was locked. I then looked for the medical laboratory Scientist on call. When he came, I urgently requested, signed and collected uncross-matched blood group ‘O’ Rhesus negative blood. Before I could reach the ward the woman had died. The nurse was packing the corpse.

It was a terrible night for me. I found it difficult to trace my way to my house . The face of this woman was before me the whole night and even lives in my memory till date. The following morning I went to my Consultant, Professor E. E. J Asuquo, and narrated the whole story; how a well-educated woman who was obviously financially stable could die because of being misled by prophecy. He said; “why don’t you take that up as your research topic for your Part11 FMCOG dissertation?” That is how my dream of what to do to salvage our women became paramount in my programme. I then went to work.

Generally, what I could derive from this patient was that some of our pregnant women, who booked for antenatal care, delivered outside orthodox health facilities. My first step was to find out the defaulting rate and reason for such actions. We discovered that 47.8% of the women who booked for antenatal care in the University of Calabar Teaching Hospital (UCTH), delivered outside the hospital, and that 43.5% of these defaulters delivered in unorthodox health facilities, where there are no skilled birth attendants[22, 23]. Reasons given for this action were:

Reasons booked women delivered in unorthodox health facilities

Reasons	No. of patients	Per cent
High hospital bill	81	24.1
"Fear of spiritual attack by wicked people and prophetic warning in church"	59	17.6
Lack of transport facilities	48	14.3
Pressure from relatives	32	9.5
Distance	30	8.9
Preference of place of delivery	24	7.1
"Labour came suddenly"	22	6.5
Strike action by hospital staff	17	5.1
Afraid of caesarean section/induction of labour	13	3.9
Poor attitude of hospital staff	8	2.4
Unsatisfactory care during previous delivery	2	0.6
Total	336	100

High hospital bill caused 24.1 %(81) to default, while 17.6 %(59) defaulted because of "fear of spiritual attack by wicked people and prophetic warning in church." Lack of transport facilities discouraged 14.3 %(48) of the women from delivering in orthodox health facilities.

We tried to find out the reasons why they booked for antenatal care at all.

Reasons for booking for antenatal care by defaulters

Reasons	No. of patients (n=336)	Per cent
Belief that antenatal care is valuable	206	61.3
Husband's decision	102	30.4
Ill health	15	4.5
To have maternity leave	2	0.6
Obeying government instruction	1	0.3
Do not know	10	3.0
Total	336	100.1

About 61.3% (206) of the patients booked because they believed antenatal care was valuable. In 30.4% (102) of them, the booking was out of the husband's initiative. In majority of the cases, the family knew the value of antenatal care.[23]

Over the years, emphasis had been placed on antenatal care with no mention of place of delivery, probably with the belief that all booked women would choose to deliver in orthodox health facilities. On the contrary, many pregnant women in our communities today book for antenatal care, thinking that this on its own, would take care of their pregnancy and delivery complications and therefore they choose to deliver outside orthodox health facilities.

The preferred places of delivery of the defaulters were then investigated

Unorthodox delivery facilities used by the antenatal clinic defaulters

Delivery facility	No. of women (n=336)	Per cent
Church	149	44.3
Home	98	29.2
TBA'S house	89	26.5
Total	336	100.0

The spiritual churches were the most preferred place of delivery. The practitioners here are deaconesses, some of whom are visioners believed to be chosen by God and trained by the "Holy Spirit" to function.[24]

We then looked at the morbidity pattern of these defaulters:

Maternal morbidity pattern in women who booked for antenatal care but delivered outside orthodox health facilities and control

Morbidity	Study group (%), n=336	Control (%), n=336	McNemar X^2	P – value
Perineal tear	64 (19.0)	22 (6.5)	27.11	<0.001
Primary PPH	42 (12.5)	7 (2.1)	29.64	<0.0001
Puerperal Sepsis	18 (5.4)	2 (0.6)	14.06	<0.001
Prolonged labour	14 (4.2)	3 (0.9)	7.69	< 0.001
Postpartum Eclampsia	8 (2.4)	2 (0.06)	4.17	<0.05
Retained Placenta	10 (3.0)	10 (3.0) 0.25)	0.25	o.62
Obstetric palsy	4 (1.2)	0 (0.0)	-	-

About 19% (64) of the defaulters had perineal tear.[25] Primary postpartum haemorrhage occurred in 12.5% (42), puerperal sepsis in 5.4% (18) and prolonged labour in 4.2% (14) of them.

Comparing these morbidities in the defaulters with the control group, all were significantly higher in the defaulters than in the control group except retained placenta.

Two deaths were recorded in the study group giving a maternal mortality ratio of 600.0 per 100,000 live births. No death was registered in the control group.

Perinatal outcome in these pregnancies booked for antenatal care but delivered outside orthodox health facilities were then studied. The findings were:

Perinatal morbidity pattern in booked women who delivered outside orthodox health facilities[a]

Morbidity	Study group (%) (n=336)	Control group (%)	McNemar x^2	P – value
Birth asphyxia[x]	48 (14.3)	16 (4.8)	18.48	< 0.001
Neonatal infection/Tetanus[x]	22 (6.5)	8 (2.4)	7.68	<0.01
Birth trauma[x]	10 (3.0)	2 (0.6)	6.13	<0.05
Prematurity	6 (1.8)	10 (3.0)	0.75	>0.05
Neonatal jaundice	10 (3.0)	8 (2.4)	0.17	>0.05
Congenital abnormality	- (-)	2 (0.6)	-	-

d. f. = 1

[x]statistically significant

Birth asphyxia was the commonest morbidity in the study population (14.3%), this was followed by neonatal infection/tetanus (6.5%) and birth trauma (3.0%).

Comparing perinatal morbidity in the study and control groups revealed that birth asphyxia was more common in study group (48 (14.3%)) than the control group (16(4.8%)). This difference was very statistically significant ($p<0.001$)

Neonatal infection/tetanus was also significantly more common in the study group (8(2.4%)) ($p<0.01$)). Further analysis even showed that three of the babies in the

study group had neonatal tetanus but none in the control group. Birth trauma showed a statistically significant difference between the study group (10 (3.0%)) and the control group (2 (0.6%)) ($p<0.05$).[26]

Eighteen babies in the study group died giving a perinatal mortality ratio of 53.6 per 1000 births while six babies died in the control with a perinatal mortality ratio of 17.9 per 1000 births. This difference was statistically significant ($p<0.05$)

The risk of perinatal loss in booked women when labour is conducted outside orthodox health facilities is three times higher than when conducted at UCTH.

Birth asphyxia was the most common perinatal morbidity in the unorthodox health facilities. There was need to find out the treatment offered the asphyxiated babies in these centres and the outcome.

Treatment offered babies with birth asphyxia in unorthodox delivery facilities and their outcome.[a]

Treatment	No. of babies	%	Outcome	
			Survived (%)	Died (%)
Prayers	21	43.8	18 (86)	3 (14)
Immersion in cold water	12	25.0	10 (83)	2 (17)
Herbs/roots	5	10.4	4 (80)	1 (20)
Referred to hospital	6	12.5	4 (67)	2 (33)
Nothing done	4	8.3	2 (50)	2 (50)
Total	48	100.0	38 (79)	10 (21)

[a]Birth asphyxia case fatality rate, 20.8%

Birth asphyxia case fatality rate 20.8%

Of the 48 babies who had birth asphyxia in the study, 21 (43.8%) were treated by offer of prayers; 12 (25%) by immersion of the asphyxiated baby in cold water and

5 (10.4%) by herbs and roots. Only 6 (12.5%) of the babies were referred to hospital for optimal treatment. Four (8.3%) received no treatment. [27]

Ten deaths were recorded in the study population giving birth asphyxia case fatality rate of 20.8%. No death occurred in the control group.[27]

To identify pregnant women who would most likely default from our antenatal care and deliver in unorthodox health facilities, we set out to determine the socio-demographic and reproductive characteristics of women who default from orthodox obstetric care in the centre.

The findings were as follows:

Odd ratios 95% CI and P-value of socio-demographic variables influencing default from orthodox obstetric care

Variable	Defaulters (n=138)	Non-defaulters (n=177)	Odds ratios (OR)	95% CI	X^2	P-level
Age (years) <20 ≥20	 20 118	 8 169	 5.58	 1.52 – 8.40	 9.52	 <0.01
Place of origin Indigenes Non-indigenes	 123 15	 129 48	 3.05	 1.62 – 5.73	 12.80	 <0.001
Religion Spiritual Churches Non-spiritual Churches	 108 30	 99 78	 2.84	 1.72 – 4.67	 17.13	 <0.001
Marital status Married Not married	 128 10	 169 8	 0.61	 0.23 - 1.58	 1.06	 >0.05
Woman's education Uneducated Educated	 12 126	 24 153	 0.61	 0.29 – 1.26	 1.79	 >0. 05
Husband's education Uneducated Educated	 16 122	 13 164	 0.65	 0.77 – 3.56	 1.69	 >0.05

Social class High social class Low social class	 25 113	 67 110	 0.36	 0.21 – 0.61	 14.61	 <0.001
Distance from UCTH ≤5km >5km	 104 34	 147 30	 0.62	 0.36 – 1.08	 2.86	 >0.05

Young women, belonging to indigenous population in Calabar and worshiping in spiritual churches are likely to deliver in unorthodox delivery facilities. [28]

Odd ratio, 95% CI and P-value of reproductive characteristics influencing default from orthodox obstetric care

Variable	Defaulters (n=138)	Non-defaulters (n=177)	Odds ratios (OR)	95% CI	X^2	P - level
Parity 0 ≥	 45 93	 38 139	 1.77	 1.07 – 2.92	 4.99	 <0.05
Type of previous delivery Vaginal C/S No previous delivery	 87 3 48	 119 20 38	 4.87	 1.40 - 16.88	 7.30	 <0.01

Place of previous delivery Unorthodox delivery centre Orthodox delivery centre No previous delivery	 74 16 48	 28 111 38	 18.3	 9.25 – 36.34	 85.60	 <0.0001
Outcome of previous delivery Live-birth Still-birth No previous delivery	 87 3 48	 137 2 38	 0.42	 0.07 – 2.58	 0.85	 >0.05
Complication in previous delivery No complications complications	 85 5	 122 17	 2.37	 0.84 – 6.67	 2.80	 >0.05

Place of previous delivery, type of previous delivery and parity have a tendency of influencing the decision to default and deliver in unorthodox health facility.[28]

Even poor outcome of previous delivery does not seem to deter women from defaulting from orthodox obstetric care. Most of those who had complications,

particularly in church believed that it was the way God wanted it or that it could have been worse if it were outside the church. [28]

Here we concluded that any woman who had vaginal delivery in her previous pregnancy and the delivery was in unorthodox delivery centre, if she is of low socio-economic class from indigenous population in Calabar and worships in a spiritual church is likely to default from orthodox obstetric care. Young nulliparous women in Calabar also have a high tendency to default from orthodox obstetric care.[28] There was need for one – to – one person education and counseling of these classes of women in our antenatal clinic.

Caesarean Section

Some of the pregnant women who defaulted and delivered in unorthodox delivery facilities and even the patient that prompted my research into this area of obstetrics were afraid of caesarean section.[29] We then started thinking of what could be done to make caesarean section safer. We looked at **"Avoidable factors in maternal mortality following caesarean section in Calabar."**

From this work it was revealed that the maternal mortality rate following caesarean section in the centre was high, 15.6 per 1000 caesarean sections.[30] The avoidable factors in this high maternal deaths following caesarean section were: lack of antenatal care, [31] high bills for caesarean section in the face of poverty in the environment (95.8%), late referral of patients from unorthodox delivery centres to the hospital (37.5) and delay in offering the needed interventions in the hospital (25%).[30, 32] This delay was mostly caused by non-availability of materials to work with and most importantly blood for transfusion.[30]

Postpartum Haemorrhage

Another medical condition observed to cause maternal mortality in Calabar was postpartum haemorrhage. We then decided to research to identify the role of postpartum haemorrhage in maternal mortality at the University of Calabar Teaching Hospital; the predisposing factors to postpartum haemorrhage in those women who died from this complication of labour and to recommend measures that could help reduce maternal mortality following postpartum haemorrhage in the centre.

Within the period of study we found that maternal mortality ratio in the centre was 16.2 per 1000 deliveries, postpartum haemorrhage prevalence rate was 99.3 per 1000 deliveries and PPH case fatality rate of 2.2 percent. [33] Again, 13.6% of maternal deaths in the centre was as a result of PPH. This study also unfolded the fact that a large number of primiparous women also died from PPH contrary to the generally accepted belief that death from postpartum haemorrhage is a problem of the grandmultiparous women.[32], [34]

Another striking factor revealed by this study was that women who did not book for antenatal care and were brought in from unorthodox health facilities contributed most to the maternal mortality following PPH in the centre. Again when these women bleed, they easily die from it (PPH case fatality rate of 25.8%) [33]

Prolonged labour was also noted as a major predisposing factor to postpartum haemorrhage. These were women who were in labour in unorthodox delivery facilities and were brought to the hospital after many days in labour.[34]

Staff Attitude

There was need for us to establish the place of staff attitude as a barrier to the utilization of University of Calabar Teaching Hospital for obstetric care. We used **Focus Group Discussion** in this study because it allows the people affected to express their feelings directly and in their local language. Two communities within which the main referral centres to the University of Calabar Teaching Hospital are located were chosen. These are; Ikot Omin and Ikot Ene.

A total of 20 focus group sessions were conducted, nine sessions with women in Ikot Ene, eight with women at Ikot Omin, one with men in each of the two communities and one with the hospital staff. The hospital staff consisted of resident doctors, practising midwives and ward orderlies. It was arranged that all categories of women and men were involved.

The findings of this survey confirmed that staff attitude was a big barrier to the utilization of orthodox health facilities.[35] Some of the women particularly the uneducated high parity ones reported that most of them visit traditional birth attendants and spiritual churches first when complications like haemorrhage, eclamptic fits and prolonged labour arise [36] and would only go to the hospital when all unorthodox attempts at delivery have failed.[37] A large number of women reported that sometimes doctors and nurses on duty would not be found. They would prefer to die at home instead of going to die in the hospital.

> *"Where the nurses on duty are seen, they show no sympathy but rather throw abuses on the women."*

They accused the hospital staff of uttering such statements as:

"….Madam, I did not send you o If you like push your baby, if you don't like lie down there. Doctors and nurses only pay attention to their friends and relatives or those who have seen them privately" (the few privileged rich ones).

Most of them affirmed that even ward orderlies shout at and scold them, especially when a woman is in active labour, helpless and cannot walk around to throw orange peels into the dust-bin. Some of them lock toilets and tell us.

"I am not a night-soil-man…….There is no water to flush your big shits"

Most of the time there is no ambulance where there is one; the driver feels he needs some sleep, as one of them put it:

"...is driver not a human being? I beg-O I go sleep for even fifteen minutes, Make I no go jam rock and die for this ona call. How much I dey earn sef."

The record clerks need little tips to retrieve a patient's folder, otherwise they become very rude or "go to the bank" and leave patients on the chairs.

The men believe that women should always go to hospital when labour starts. Most of the time money would be made available and transportation provided but the women prefer TBAs and churches. They usually complain of abuses from nurses, that they might be neglected and that even when they are about to deliver, no one comes around to give the needed care.

"We men are at times embarrassed by the action of nurses. They would not allow You get close to your wife. Where you attempt, they would shout "…oga go out O Other women are here, not your wife alone.""

The hospital staff agreed that their attitudes most of the time were negative. They ascribed this to the fact that women usually come very late to the hospital. For

example, those booked for elective caesarean section would not come until many hours in labour at home. Many of them would usually arrive without any money to procure the required consumables.

Many at times there may be nothing available to work with in the hospital, even water and electricity may not be available. The doctors feel, the worst place was the theatre, where you may find nothing there. Drapes may not be available. Patients for caesarean section are usually given a long shopping list even at night before the procedure is done. The doctors find the job most frustrating with no element of job satisfaction coupled with their paltry monthly wages.

At this stage, we started thinking about what was happening at the national level. We discovered that in Nigeria, there are no population-based data on maternal death at the national level and the vital registration system is currently unable to provide reliable estimates [38]. Nigeria as a country relies on estimates derived from statistical modeling by international agencies, which are often insufficient to assess the quality of care, monitor trend on the short term or determine national health system priorities [38].

We undertook a nationwide, multicentre cross-sectional survey of maternal deaths and near-misses in 42 consented out of the existing 46 public tertiary hospitals across the six geopolitical zones of Nigeria. The study prospectively identifed cases of severe maternal outcome (SMO), that is, maternal near-miss or maternal death, based on WHO criteria, over a one-year period. The aim was to establish the burden and causes of life-threatening maternal complications and the quality of emergency obstetric care (EmOC) in Nigerian public tertiary hospitals. We specifically assessed the frequencies, areas of substandard care provision for

women experiencing SMO and over-all performance of care using standard indicators of quality of care. We also explored avoidable factors affecting maternal survival by comparing health service events surrounding the management of cases of near-misses and maternal deaths.

The result of this study showed that unacceptably high number of maternal deaths occurs in Nigerian public tertiary hospitals annually (intra-hospital maternal mortality ratio of1088 per 100,000 livebirths) [38]. A large proportion of our women [2,333 (91.8%)] arrived these hospitals in a critical state and some of them (136) were dead before arrival. This suggests significant deficiencies in the prevention, identification and referral of severe morbidities at lower levels and private hospitals as well as barriers to appropriate care-seeking at the community level. The study showed that the over-all performance of our tertiary hospitals as shown by the survival rate of women with life-threatening complications was suboptimal. Although majority of the women who presented with life-threatening conditions received essential interventions to avert maternal death, this was with substantial delays in many cases. This was a cause for concern. The result also showed that obstetric haemorrhage (39.0%) and hypertensive disorders (24.0%) were the most frequent causes of organ dysfunction [38, 39], confirming their persistent role as lead contributors to preventable maternal death also at the facility level. The survival rates following infections and indirect complications were considerably lower compared to those of haemorrhage and hypertensive disorders.

Intervention to Reduce Maternal Mortality from Primary Postpartum Haemorrhage

At a stage we started wondering whether it was impossible for maternal mortality to be reduced in our environment. Led by my teacher, Professor E. E. J. Asuquo, we set out to design an interventional project which was sponsored by the Calabar Prevention of Maternal Mortality Project. This was entitled: **"Effects of Community and Health Facility Interventions on Postpartum Haemorrhage"**

In UCTH, key persons like the Chief Medical Director, the Head of Haematology Department and Blood Bank Personnel were involved. The findings of our studies and the need for some interventions were highlighted. The project assisted in the repair of refrigerator in the blood bank and provided some blood bags, reagents and bleeding sets. Bureaucratic procedures were streamlined so that requests could be channeled directly to the blood bank and blood released more readily to clinicians.

Two communities, Ikot Omin and Ikot Ene were again chosen. In these communities, contacts were made with clan heads, village heads, male and female opinion leaders and youth leaders. The findings of our study and the need for intervention were discussed. They all appreciated the gravity of the problem and promised to co-operate.

Fifteen education and mobilization campaigns were conducted for about eight months. After this, a major blood donation campaign was started. The campaign messages were in both English and Efik (the local language) and emphasized that blood transfusion can save lives; blood transfusion is only possible if blood is available, and that blood can be available if members of the community voluntarily

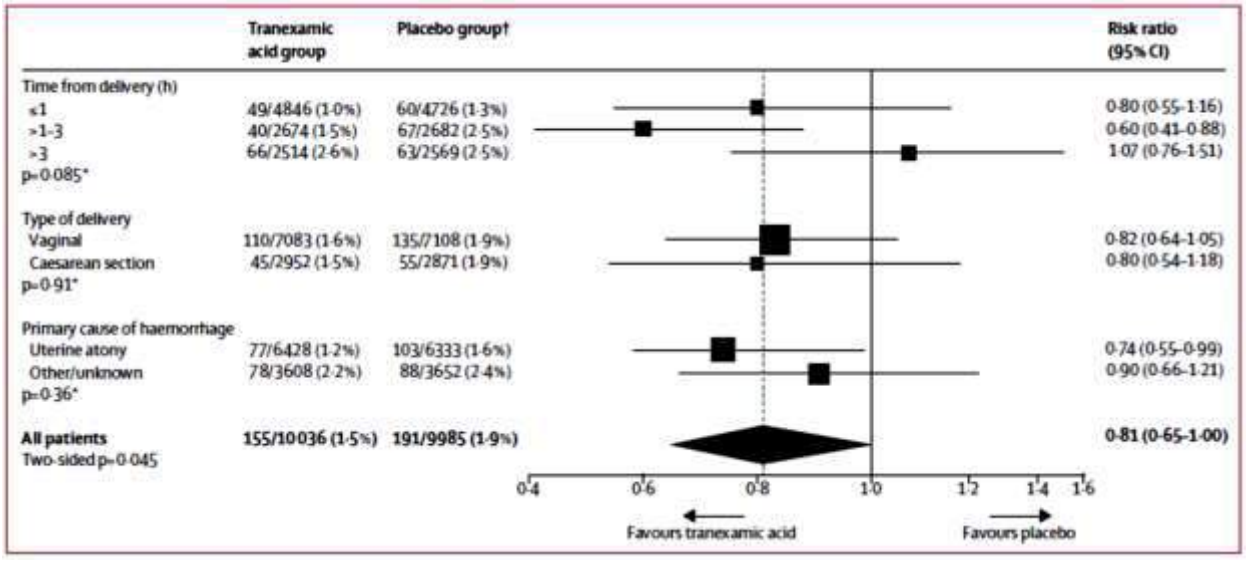
donate. Posters and hand bills were displayed and distributed freely. A song about blood donation and transfusion was written for the campaign. Campaign activities extended from the villages to major markets, schools and churches.

To assess the effects of the interventions; postpartum haemorrhage – its management and outcome were studied within the pre- and post- intervention periods. A primary postpartum haemorrhage prevalence rate of 3.6% was recorded in the pre-intervention period as against 4.8% in the post-intervention period ($p<0.01$) [40]. The intervention instituted, changed the blood availability from 39.4% in the pre-intervention period to 79.2% in the post-intervention period ($p<0.00001$). [40]

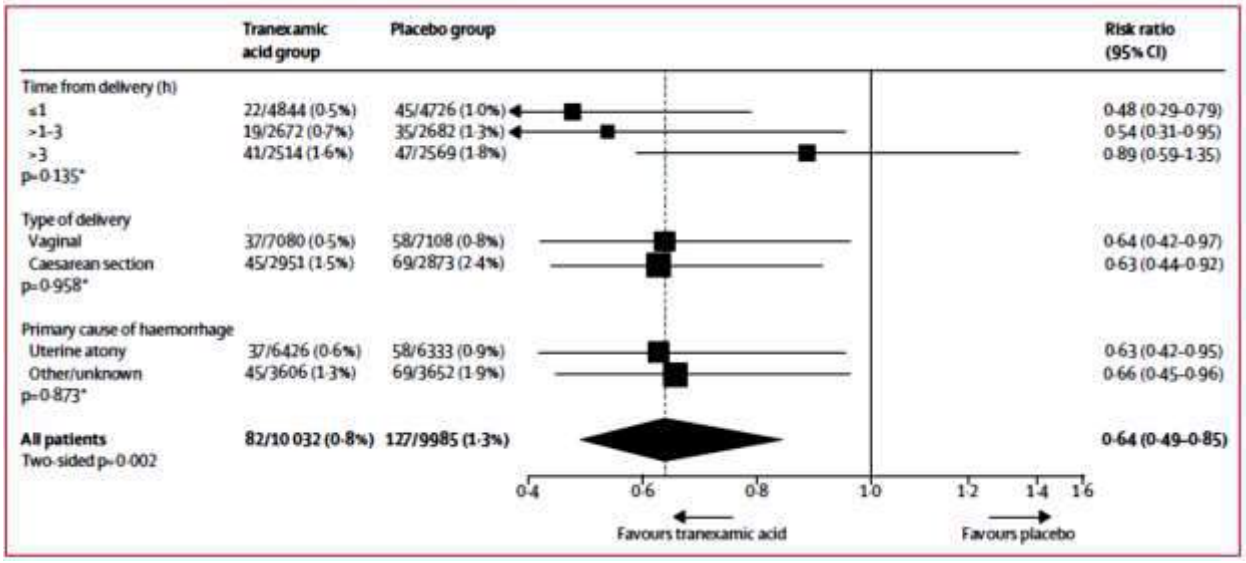
Besides, more than 50% of the units of blood used in the pre-intervention period came from paid donors while over 80% of the units of blood used in the post-intervention period were from voluntary donors, a source that is safer. [40]

The primary postpartum haemorrhage case fatality rate dropped from 12.3% in the pre-intervention years to 5.4% in the post-intervention period ($p<0.05$). This drop probably could have been more but for the increase in hospital bills during the post-intervention period in the face of harsh economic climate in the country. This forced many patients to deliver in unorthodox delivery centres leaving UCTH to receive complicated and exsanguinated patients from these unorthodox delivery centres. This also explains the higher postpartum haemorrhage prevalence rate and lower delivery rate noticed in the post-intervention years. This made it obvious to us that reduction of maternal mortality in any community is very possible, that the dragon is not insurmountable. [40]

To find a lasting solution to death of women following postpartum haemorrhage, we set up an international randomised double blind placebo controlled trial where we recruited 20,060 women, 16 years and above with a clinical diagnosis of primary postpartum haemorrhage following vaginal delivery or caesarean section. This project was done in 193 hospitals in 21 countries of the world, coordinated by a team from London School of Hygiene and Tropical Medicine, but we in Nigeria took the lead and I was the Principal investigator in UCTH. The main aim here was to search for a drug that could help prevent death following postpartum haemorrhage. Tranexamic acid, a known anti-fibrinolytic agent was tried. Death due to primary postpartum haemorrhage was significantly reduced (by nearly one third) in women who were given tranexamic acid (155 [1.5%] of 10036 patients vs 191 [1.9%] of 9985 in the placebo group, risk ratio [RR] 0.81; 95% CI 0.65 – 1.00; P=0.045) especially when this drug was administered within 3hours of delivery (89 [1.2%] in the tranexamic acid group vs 127 [1.7%] in the placebo group).[41]



Tranexamic acid also reduces the incidence of laparotomy to control postpartum haemorrhage with no adverse effects or complications.[41]



This work has given birth to a new, very effective drug for the management of primary postpartum haemorrhage which is used all over the world today. As it were, a bullet to fight this dragon.

The main messages delivered from our studies to the world were:

- Maternal mortality in our sub-region is indeed very high
- The dragon is taking the lives of women through preventable causes
- Postpartum haemorrhage, a major weapon of the dragon is treatable.
- The delivery and operation fees in our orthodox delivery centres are not affordable
- With community involvement and commitment, women's lives can be saved.

- The most striking of the messages delivered here is, that although some of our women book for antenatal care, a large proportion of the booked women do not have skilled birth attendants at delivery and therefore most of them who develop complications die. This was the first time to the best of my knowledge this particular message was ever recorded in the obstetric world.

Application of My Contributions

With regard to non-affordability of delivery fees in our orthodox health facilities, we recommended increased budgetary allocation to health and the introduction of National Health Insurance Scheme.

In 1999, Nigeria introduced the National Health Insurance Scheme.[42]At the moment the scheme is poorly managed. We still believe if well-handled and made accessible to every Nigerian, it will go a long way to reducing the country's health problems. As for the budgetary allocation, Nigeria is yet to make any meaningful attempt in that direction as there is no year we have ever gotten close to 50% of the recommended 15% of the Annual Budgetary allocation to health.

At the eve of the new millennium, the United Nations had its summit in New York, United States of America (USA) in September 2000. One hundred and eighty nine (189) member states including Nigeria, adopted the Millennium Declaration. This later translated into a road map, setting out goals in August 2001, to be achieved by 2015. [43]The goals, eight in number, known as the Millennium Development Goals (MDGs) had its targets and indicators. The fifth of these goals was to improve maternal health. One of the targets of this fifth goal was to reduce maternal mortality by 75% from the 1990 figure and another was to achieve universal access

to reproductive health [43, 44]. The indicators for monitoring the reduction of maternal mortality were:

- Maternal mortality ratio
- Proportion of births attended by skilled birth attendants [43] – the message we delivered.

This was when the whole world, particularly the developing countries, including Nigeria started realizing and emphasizing the importance of place of delivery in safe motherhood, a message I had delivered to the world many years before then as a means of slaying this dragon.

To key in, Nigeria in 2009 established the Midwives Service Scheme (MSS), funded by the office of the Senior Special Assistant to the President on Millennium Development Goals (MDGs) and implemented by the National Primary Health Care Development Agency (PHCDA) under the 2009 Appropriation Act. [45] The MSS was meant to be a collaborative effort between the Federal Government, the states and local governments with clearly defined shared roles and responsibilities through Memorandum of Understanding (MOU), with the support of the strategic partners: World Health Organization (WHO); United Nations Educational Fund (UNICEF); Partnership for Reviving Routine Immunization in Northern Nigeria – Maternal and Newborn Health (PRRINN-MCH) Pathfinder International; Access/JEPHIGO and Planned Parenthood Federation of Nigeria (PPFN). Strategic partners were to give technical support and help monitor the scheme.[45,46]

MSS was to address the shortage of skilled birth attendants (SBAs) and poor access to basic emergency obstetric care. Newly qualified, unemployed and retired

midwives were recruited for this programme. Some Primary Health Centres (PHCs) were selected and equipped to provide Basic Emergency Obstetric Care.

Four of the selected PHCs clustered around one General Hospital which can offer Emergency Obstetric Care. A total of 652 PHCs were selected to cluster around 163 general hospitals.[45] Over 7,000 midwives were employed for this programme. PHCDA was to pay the salaries of these midwives and provide the midwifery kits. The states and local governments were to provide accommodation for these midwives and also give them some allowances. NPHCDA won an award of the Common Wealth Association for Public Administration and Management (CAMPAM) on innovation in government services and programmes, presented to it in New Delhi, India in 2012.[47]

In 2012, from the gains of withdrawal of oil subsidy, Nigeria set up a Subsidy Re-investment and Empowerment Programme (SURE – P). This had a Maternal and Child Health component (SURE-P-MCH).[48]This was like MSS to aspire to contribute to the reduction of maternal and newborn morbidity and mortality and place Nigeria on the track to achieving the fourth and fifth MDGs. This was borne out of experience with MSS.

Sure-P-MCH went a step further to offer pregnant women N1,000 (one thousand naira) as they register for antenatal care, N1,000 (one thousand naira) as they complete the four visits of their focused antenatal care, N2000 (two thousand naira) when they deliver at the health facility and another N1,000 (one thousand naira) as they bring baby for immunization.[49]

As colourful and award-winning as these programmes were, they did not attain the expected height as the states and local governments could not play their parts to

sustain the MSS. The salaries of these midwives were not paid by the Federal Government. The parts that were released did not at all get to the midwives. In the case of Sure-P-MCH, Nigerians were allowed to manage the money directly. The outcome was not difficult to imagine.

The Status of Maternal Mortality Following the Application of My Contributions

The outcomes of adopting my contributions to tackle the dragon were:

- Globally, maternal mortality ratio declined by 45% from the 1990 figure [50]
- In Southern Asia, the maternal mortality ratio declined by 64% between 1990 and 2013 [49]
- In Sub-Saharan Africa maternal mortality ratio fell by 49% [50]
- Globally 71% of the births were assisted by skilled birth attendants in 2014 as compared to 59% in 1990 [5]
- In Nigeria, in spite of the failure of MSS and Sure-P-MCH, the maternal mortality ratio declined by 45.5% [51] though it still remained the country with the second highest maternal mortality in the world, contributing 15% of maternal mortality in the world.[52]

MSS and Sure-P – MCH have now been scrapped in addition to the current economic recession, maternal mortality is rising again, Nigeria now has the highest maternal mortality ratio in the world by the current analysis, contributing about 19% of maternal mortality, while India which had the highest, now comes second. Ladies and gentlemen, let this be another whistle blowing.

The Way Forward for the Future

To slay this dragon is everybody's business whichever sphere of life you find yourself and does not require any esoteric weapon or technology. Governments at all levels must take the lead in the business of reducing maternal mortality.

Funding of Health Care

Towards the end of the Millennium Development Goals, the United Nations General Assembly met, precisely on 25 September, 2015. Here, they reviewed the gains of the MDGs and then adopted a new Agenda, the 2030 Development Agenda, titled; transforming our World the 2030 Agenda for Sustainable Development.[52] This Agenda has 17 Sustainable Goals and 169 targets. Goal 3: has to do with ensuring healthy lives and promoting well-being.[53,54] One of its targets is to reduce the global maternal mortality ratio to less than70 per 100,000 live births by the year 2030.[53] The main aim of this Agenda, like it was with MDGs is to guide the 194 member nations, including Nigeria, on policies and funding that will enable them attain the set goals. The question now is, how has our beloved country been faring?

In 2016, Nigeria allocated 4.2 per cent of its budget to health [55,56] and in 2017 the allocation is 4.16 per cent. [57] This is against the recommended 15 per cent. The truth of the matter is that, to kill this dragon and possibly bury it, there must be **a sustained political will** by our governments to invest in health care, particularly in maternal health care. This expected level of investment in health care would provide free medical care, at least for women and children, make materials to work with available in health facilities and hence relieve health workers of tensions they face every day. Up till date the governments in Nigeria have not been able to appreciate the fact that there is a positive relationship between investment in

maternal health and the socio-economic well-being of the nation.[58] This level of investment is possible, and it can be done even in this country. A glaring example can be seen in Ondo State of Nigeria, where the government of Dr. Olusegun Mimiko, decided to invest in maternal health care and the maternal mortality ratio fell from 708 per 100,000 live births in 2010 to 208 per 100,000 live births (70%) in 2014.[59]

Family Planning

Family planning is one of the pillars for the prevention of maternal morbidity and mortality anywhere in the world. Family planning alone can reduce maternal mortality by 33 per cent. [60] It is an established fact that death rate rises with parity and maternal age.[61] Therefore, if there is voluntary postponement of the first pregnancy and restriction of childbearing by older women, pregnancy would then be concentrated in the safest years of childbearing.[61,62] Contraceptive use can help protect women's lives and health by avoiding and reducing the likelihood of complications during pregnancy and improving outcome of pregnant women with complications. [63, 64] Unsafe abortion contributes about 18 per cent of maternal mortality, with effective use of contraceptives; this can be drastically reduced if not eliminated[3,65].

More than 120 million women in the developing world are not using contraception, although they want to avoid pregnancy [63,66]. Sexual experience among never married women is more common in sub-Saharan Africa. [67, 68, 69] In Nigeria, the level of unmet need of family planning is more than 16 per cent.[60] Only 20 per cent of the public health facilities in Nigeria offer family planning services and products. Contraceptive prevalence has remained 10 per cent for the past 10 years or more.[70]

Hence, to wage a meaningful war against this dragon, family planning must remain our veritable weapon.

Formal Education of the Girl Child

For us to make progress in the fight against this dragon, our girl child must be educated. According to the 1948 Universal Declaration on Human Rights, education has been recognized as a basic human right.[71]There is a positive correlation between enrollment of girls in primary schools and the gross national product and increase in life expectancy.[71] As a result of this, enrollment in schools represents the largest component of the investment in human capital in any society. Rapid socio-economic development of any country has been noticed to depend on the calibre of women and their education in that country. Education bestows on women a life-long acquisition of knowledge, values, attitudes, competence and skills.[14, 72] Women who have acquired formal education are more likely to seek medical care, ensure their children are immunized, be better informed about their children's nutritional requirements and adopt improved sanitation practices.[72] According to Harrison et al [14], both maternal and perinatal health, benefit hugely when women are educated and that eradication of mass illiteracy through universal education is the fundamental key to better maternal health. They unfolded in their work that women who had no formal education and no antenatal care had maternal mortality of 2,900/100,000 deliveries and perinatal mortality rate of 258/1000 births, while those who had formal education and antenatal care had maternal mortality of 250/100,000 deliveries and perinatal mortality rate of 30/1000 births. The education that a girl receives is the strongest predictor of the

age she will marry and is a critical factor in reducing the prevalence of child marriage and ultimately reducing maternal mortality. [73]

Women Empowerment

Women empowerment here refers to the development of women in terms of politics, social and economic strength in nation development. It is also a way of reducing women vulnerability and dependency in all spheres of life.[74]Though women have made a huge progress in promoting themselves economically, they still face challenges applying for jobs, owning land and inheriting property. Most women rely on the informal work sector for their income.[75] Like many African women, Nigerian women have a subordinate role to their male counterparts.[14] In many parts of this country, a woman in labour, for cultural reasons, cannot on her own leave the house to go to a hospital to deliver, if the husband is not available to give permission. In areas where this is culturally possible, the woman may still not go because of economic handicap. No doubt, Lynne Featherstone is quoted to have said that Nigeria is one of the toughest places in the world to be born a girl.[74]It therefore becomes obvious that if we are to make headway in the battle against this dragon, our women must be empowered.

Provision of Basic Infrastructure

For Nigeria to find itself on the path of reducing maternal mortality and therefore attaining SDG-3 come 2030, every effort must be made to provide basic infrastructure. When the distance from health facility is far with poor and deplorable road network and in the absence of accessible, affordable and timely transport facilities, and poor power supply, there is always delay in the

management of life-threatening complications. [76] It is clear that transport and health is inextricably linked. We must note that most obstetric emergencies are difficult to predict, and in the presence of these constraints, the survival of such mothers could be difficult. WHO estimates that 75 per cent of maternal deaths can be prevented through timely access to childbirth related care. [76] We must therefore call on governments, our political leaders and all financially capable Nigerians to help provide the necessary infrastructure to save the lives of our women. Our Senators, members of the House of Representatives and House of Assembly members should help spend their constituency allowances to provide basic amenities for our people.

Religious/Faith Leaders

If we are to succeed in the fight against this dragon, religious leaders must be brought to the fore-front of this battle. They are often the first people consulted when families face important life decisions. Whatever they decide is what the family takes. Permit me to give this story to drive home my message. We once had a patient whom we were managing for her uterine fibroids. This lady was fully investigated and scheduled for an operation. On that fateful day, as she was being rolled into the theatre, at the entrance of the theatre, her phone rang. This was her pastor calling. The pastor said: “do not go in for that operation.” The woman jumped off the trolley and said: “My pastor says I should not go in for this operation today.” For over four years now, she has not returned for the operation she had fully paid for. This is the level at which the religious leaders are rated in our society.

The white man who brought Christianity to us came with hospitals and schools. As at today going to hospital has suddenly become a sin and lack of faith in some churches. [24] This battle will be won if our religious leaders incorporate positive health messages into their preaching, advocate against harmful traditional practices that infringe maternal health and child survival, raise a prophetic voice to address maternal and reproductive health globally and in their own communities, educate themselves and their faith communities about the crisis of maternal mortality and the need for sexual and reproductive health services worldwide. [77] Our religious leaders should work within their traditions to make the reduction of maternal mortality a social priority and make a solemn commitment to help create a just and equitable world where no woman will die giving birth to the next generation.[77]

Ignorance, Myths and Misconceptions

Ignorance, myths and misconceptions have ruined a large number of women. A woman in obstructed labour, may not be offered any assistance on the belief that she is suffering as a result of her unfaithfulness and infidelity.[5] The fact that a woman's mother delivered nine children, all at home is believed by the woman that she must also deliver all her children at home. "Not my portion" is a common slogan by our pregnant mothers. Once this phrase is made, means either no hospital delivery or no caesarean section or no other form of intervention can be accepted. Some of our pregnant women are of the opinion that once they have antenatal care, they have adequate coverage to prevent the onset of any complication.[21] The influence of ignorance, myths and misconceptions on our society is stronger than the positive impact of formal education.

We once had a patient, a Master's Degree holder and the husband with a PhD. The first pregnancy ended with a mentally challenged child following a prolonged labour in church with severely asphyxiated baby before referral to a health facility. This second pregnancy which we were managing came after a period of infertility. We had an uneventful antenatal period and we preempted the couple that this delivery would be by caesarean section. At the end of the antenatal period, we started arrangements for caesarean section which she refused. We sent for the husband and re-explained the problems involved. The man answered: "I thought you were a Christian. The person who referred us to you gave us that impression. Can't you believe or trust God for a miracle?" I tried to explain the difference between believing or trusting God and tempting God but this did not make any meaning to them. Few days later I saw the woman along Unical Hotel road, I parked my car, went and begged her but she ignored me and went her way. I was ashamed but could do nothing. Two weeks after, she went into labour in a church, ruptured her uterus, the baby died and she was then brought to the hospital. This woman narrowly escaped death courtesy of serious interventions in the hospital. As she is now, there is no more pregnancy and unless she decides to adopt or accept surrogate motherhood there is no hope for her to own children. If we cannot wipe away or reduce the level of ignorance, myths and misconceptions in our society, the dragon may continue to dominate.

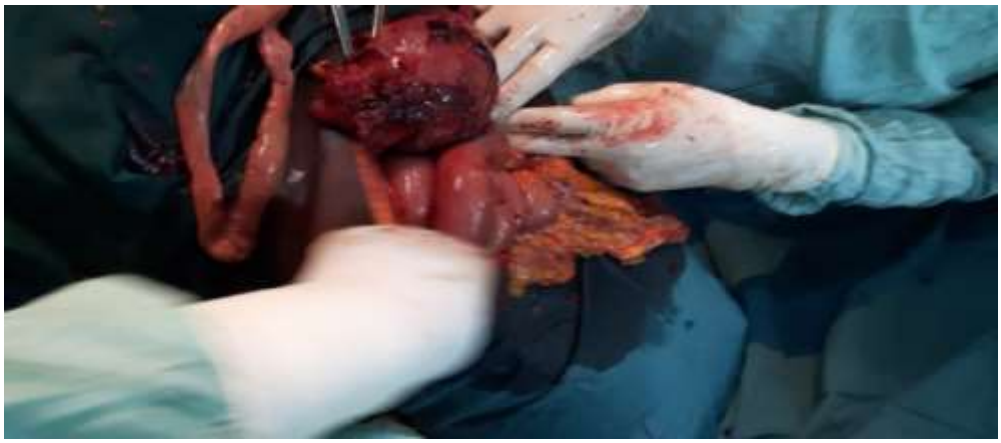
Traditional Birth Attendants (TBAs)

The use of TBAs for antenatal care and delivery is deeply rooted in our culture. The TBAs live in and are part of our local community, culture and traditions and have a high social standing in many places as well as exerting considerable influence in the

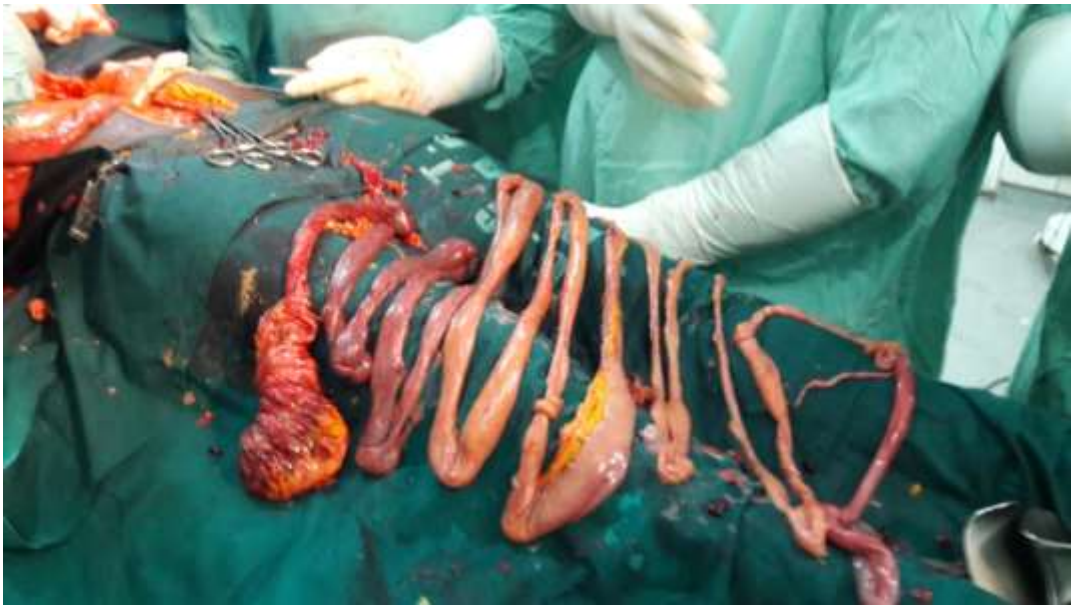
care of pregnant women and delivery. [78] WHO in want of what to do, advocates training them for this job. [11, 12, 78] What WHO and many others do not understand is that, contrary to the popular belief that most TBAs had prolonged period of apprenticeship before commencing independent practice, in our TBAs, the signal to start practising is a supernatural call through prophecy or dreams.[27, 79] Their practice is steeped in superstition, unhygienic practice, false prophecy and suspicion, all of which breed secrecy and prevent them from knowing when to refer their patients to orthodox health facilities. [79, 80] Let me show to you one or two of the outcomes of the practice from these centres.

Obstructed Labour with tomatoes vulva following labour management by a TBA

A case of ruptured uterus with intestines brought down through the vagina by TBA



A case of ruptured uterus at operation



Resected intestines which were dragged down by TBA

To make meaningful progress in the fight against this dragon, I call on our governments to empower our retired nurses and midwives to take over this practice in their communities.

Hospital Management

The management teams of our hospitals must note that without patients, there are no hospitals. Therefore, in the face of scarce resources, priority must be given to what concerns the patients. Materials to work with must be provided to ease the work of the health workers and the working conditions of the health workers should not be neglected. The services in the hospital should be affordable and assessable to all. The environment should be made conducive for all. With this, everybody will work towards humiliating this dragon.

Negative Attitudes and Behaviours of Health Workers

Negative attitudes and behaviours of maternal health care providers are an important element of quality, as they influence negatively, how women perceive maternal health care.[35] A patient, who comes to the hospital, comes with her burden and this burden must not be made heavier by health workers. Lack of respectful care from providers, may lead to dissatisfaction with the health system, reducing the likelihood of seeking antenatal care, delivery and postnatal services and hence increasing the chances of such a woman dying from complications of the pregnancy. [81] Strike actions should not be looked at as the only weapon to fight dispute in the health sector. If we must win this war against the dragon, our health care providers must put up positive attitudes and behaviours towards our women.

Acknowledgements and Appreciation

I am who I am today because of the inestimable hand of the Almighty God on me. He picked me up right from my mother's womb and provided all that were needed to put me where I find myself today. Words would fail me if I attempt to describe who He is to me, except to summarize that I am the only one that has palpated GOD in this generation.

Let me appreciate my late father, Mr. Job Akpan Etok-Akpan, whom the cold hands of death never allowed me to enjoy him even as an infant. However, his love for God and education, which prompted him to train people's children, opened the way for me, even when there seemed to be no way. I feel pained today that my mother, Mrs. Selinah Asukwo Ekpo, who was both mother and father to me, is not here today to witness the outcome of her suffering. She was a brave, courageous, hardworking, intelligent and wonderful woman, who could manage any challenging situation with smiles. I cannot forget the contribution of my step father late Elder Asukwo Udo Ekpo, who helped in no small measure to shape my life. I must also pay glowing tribute to my maternal uncle, late Pastor Okon Udo Ekpo who developed special interest in me and encouraged me to attain my academic career. He gave me hope and advised me at every stage in my life. Again, it is sad that he is not here today to witness this presentation. Chairman Sir, please permit me to break protocol, by asking this great audience to please stand to observe a minute silence in honour of these wonderful people in my life. May their gentle souls rest in perfect peace, Amen.

I want to very specially appreciate and thank my very beloved and matchless wife, Professor (Mrs.) Imaobong S. Etuk; MB.BCh; FMCPead; CBPh; CCEpi; a renowned and seasoned Professor and Consultant Paediatrician. This is one woman too many.

She has been everything in my life. A woman who managed childbearing concurrently with academic pursuit without lagging behind in any, even when the husband was also pursuing his academic career and had little or no time to help her. Her humility, submission, organizational acumen and her show of respect, most of the time beats my imagination. Her entry into my life, made a whole world of difference. Nne, your input has paid off. Thank you very much.

Let me appreciate my four lovely and gold-getting children, Dr Inimfon Nsikak Jackson, Dr Mbereobong S. Etuk, Dr Aniekeme S. Etuk and Mr Emediong S. Etuk. I also thank God for my wonderful son-in-law, Dr. Nsikak Jackson, a great blessing to my family. These ones are precious gifts to us and the entire world. They make waves wherever they are found. We give God all the glory. I appreciate God for making me at this stage already a grandfather, Annalisa and Gabriella you are great. My beloved brothers, sisters especially Mrs. Maria Vianney Enang and numerous relations, I appreciate you all for your prayers and various forms of support.

I thank my teachers in primary school, typified by Mr. S. Akpanudo, Mr. O. F. Inanga, Mr. I. I. Udosen and Mr. A. U. Udoh for the academic foundation they laid in me. I thank God that you are all alive to witness this presentation today. I cannot fail to thank my secondary school teachers, they were outstanding in trying to build me. I thank Mr. U. A. Afia, the principal who admitted me into Government Trade Centre, Abak and made sure I was offered scholarship in my year one. I appreciate Professor R. Etor who encouraged me on the path of Christianity in my secondary school and still doing so even today. This is a man who used Newton's third law of motion to preach the Gospel in our school. I remember Mr. Mbaba, Mr. Umoren and Mr.Ukut who physically pushed me out of Government Trade Centre, Abak that

I was too brilliant to remain in that school and sent me to Holy Family College, Abak. I cannot forget in a rush their slogan to me: “Walk across the road and make your fortune.” This is because Holy Family College is directly opposite Government Trade Centre, Abak.

Going over to Holy Family College, I was loved by all my teachers. Let me mention a few of them: Mr. M. O. Dickson, the principal who admitted me into the school and followed me up and made me a prefect in my final year. He said “The boy has the capacity to take extra responsibility.” Mr. Okonkwo who taught me how to write essay, Mr. Ekpenyong who taught me mathematics and said to me: “Do not greet me wherever you see me in life if you do not make an A-1 in Additional Mathematics.” I thank God I did not disappoint him at all. I cannot forget my beloved friend and classmate, Dr. Ikoedem Ibanga, the Director, Pro-Health International, who took special interest in me and did all he could to make me comfortable throughout my stay in Holy Family College.

In my University, I found very wonderful lecturers in Faculty of Science. My lecturers in the Faculty of Basic Medical Sciences were great. I cannot forget Professor Monsurate and Professor Singh in Anatomy, Professor Iyer in Biochemistry, with his slogan: “Nature makes use of simple simple rules to avoid mistakes.”; Professor Kevin Etta in Physiology. In Laboratory Medicine, I had great teachers. I remember Professor Ed. B. Attah who was also our Provost, Professor Imabong A. Ekanem, Professor Gupta, Professor S. J. Utsalo and Dr. Okpara. To late Professor Jones Akpan, I am very grateful, a man who insisted I must do Pharmacology.

I lack words to describe my teachers in my clinical training; they were very good, to say the least. Permit me to mention a few of them: Professor Edars, Okuku (Professor) A. A. Otu, Late Professor Spencer Efem, Dr. Odedum and Professor Paul D. Ekwere all in Surgery; Professor Chandracheka, Professor Sankaran, Professor E. Ezedinachi and Dr. Powe in Internal Medicine. Late Professor Effiong, Late Professor Adeyekunu and Professor A. A. Asindi did me well in paediatrics. I owe them a debt of gratitude.

Chairman Sir, if you see a tortoise on the wall, somebody must have carried it there, because the tortoise does not have that ability to climb. This really spells my situation. I want to acknowledge and thank very specially these "teachers of teachers" who took me through undergraduate and postgraduate programmes and molded me out a complete Obstetrician and Gynaecologist. They are Muri (Professor) I. H. Itam, Professor A. D. Ekanem and Professor E. I. Archibong. Ntufam (Professor) E. E. J. Asuquo, I stood on your shoulder to be counted today. A man who took me to his house and gave me the key to his library which led to my becoming a prize winner in my postgraduate examinations. Again, he taught me the arts of Obstetric and Gynaecological surgery. It is only God that will reward you Sir. I remain eternally grateful to late Professor Vincent Aimakhu, University College Hospital, Ibadan, for his tutelage and Emeritus Professor Nimi Briggs for his special interest in me during my postgraduate programme. I appreciate Emeritus Professor G. C. Ejezie for his advice and encouragement in the pursuit of my academic career.

Let me thank my other fellow Consultants in my Department in Calabar whom I trained and supervised their dissertations. They are Professor T. U. Agan, Professor John Ekabua, Professor E. I. Ekanem, Professor Chris Iklaki, Associate Professors

Mabel Ekott and Atim Udoh; Drs. Efiok E. Efiok, Ubong Akpan, C. Emechebe, Patience Odusolu, Boniface Ago, Sylvester Abeshi, Charles Njoku, Edu Eyong, E. Edet, E. O. Ezukwa and A. Okon. My fellow Consultants in the University of Uyo whom I trained; Professor A. M. Abasiattai, Dr. Emem Bassey, Dr. Unang, Dr. Abah, Dr. Inyang-Etoh, Dr. Utuk, Dr. Ibanga, Dr. Ugege, Dr. Opone, Dr. Nyoyoko, Dr. Mike Ukpe, Dr. Inwang, Dr. Ola, Dr. James, Dr. Edemekong and Dr Anietimfon Akpan. My Colleague and classmate, Professor Aniefiok Umoiyoho, you are wonderful. I appreciate my other colleagues still in Uyo, Professor Augustine Umoh, Dr. Idorenyin Udoh and Dr. Etete. My colleagues in Abakaliki very specially Professor Paul Ezeonu, the immediate past Chief Medical Director who completely transformed the hospital, you are a great man and a gold-getter. Dr. C. R. Onoh, my trainee, now the Chairman Medical Advisory Committee, your loyalty to me is beyond imagination, I appreciate you. My other trainees in other hospitals: Dr. Emmanuel Nkwo, Dr. A. O. Bassey and Dr. Sunday Ido. I thank all my residents in Calabar, Uyo and Abakaliki for their support and encouragement. May God bless all of them. Dr. Paul C. Inyang-Etoh, I thank you for always being there for me.

I once again thank the Vice Chancellor, Professor Zana I. Akpagu, the Chairman, Committee of Deans, Professor Francis E. Asuquo, Deputy Registrar/Secretary to Committee of Deans, Mrs. M. E. Akpan and the Head and members of the University of Calabar Information Unit for all their inputs to make this lecture possible today.

Thank you all for your attention.

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