STILL DREAMING OF BETTER MATERNAL HEALTH

By
KELSEY ATANGAMUERIMO HARRISON
Emeritus professor of Obstetrics and Gynaecology and
Former Vice Chancellor University of Port Harcourt.
A lecture delivered at the University of Abuja Teaching Hospital on the 7 November 2019

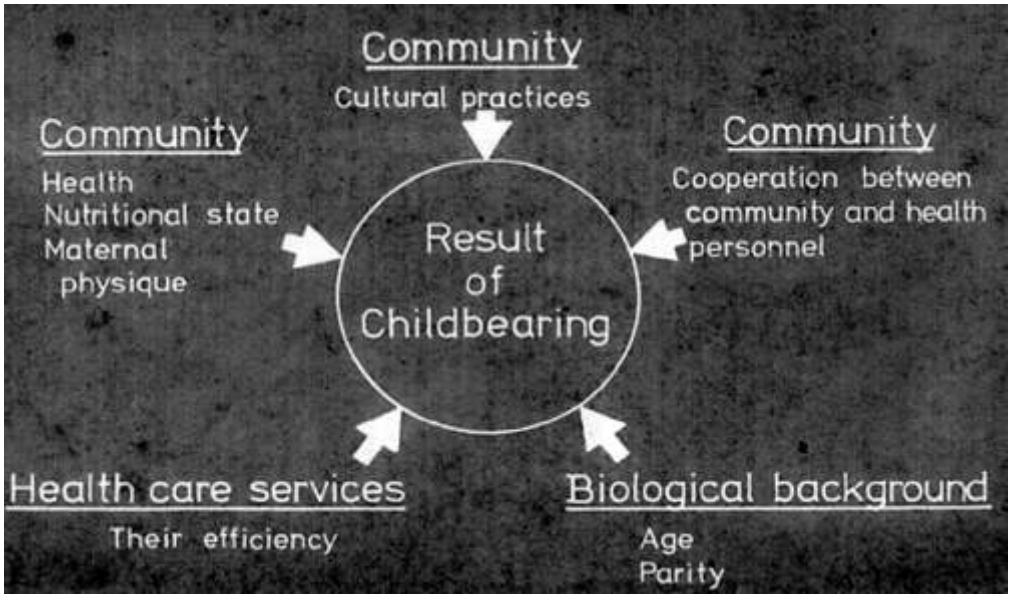
Introduction

I thank Professor Bissalla Ekele the Chief Medical Director of the teaching hospital and extend my gratitude to all those who also suggested and fixed this lecture at very short notice. I congratulate all three obstetricians from this city whose works have received marks of recognition from within this country and from abroad. Being a President of the Society of Gynaecology and Obstetrics of Nigeria (SOGON) is no joke and Dr. Fred Faruna Achem has done this. The award of the Fellowship ad eundem of the Royal College of Obstetricians and Gynaecologists to Professor Ekelle is a fantastic mark of distinction. We are pleased and proud. Also Dr. Ibrahim Wada received the Order of the Niger. To each one of you I say more grease to your elbow.

Preliminary Definitions

This lecture is titled STILL DREAMING OF BETTER MATERNAL HEALTH. But what exactly is maternal health? A short answer is women's health during pregnancy and labour and for six weeks afterwards. Nowadays, the related subjects of family planning, sterility and fertility, HIV and a few others have been added to the original set of subjects. Be that as it may, I wish to point out at this very beginning that the contribution from work in these fields by both expatriates and native Nigerians is not small. The fields covered not only the factors that influence pregnancy such as where the pregnant woman comes from but also the nature of her culture, the available health care facility and how well it is being used, and more besides (see Figure 1). The results of pregnancy are also many but we usually stick to the death of the mother, the death of the baby, and the size of the baby at birth because these sets of results are specific, easy to measure, easy to understand and easy to use in making international comparisons.

Figure 1: Childbearing: important factors which affect it



Early years

As I have already said, the scope of the work done by Nigerians and their expatriate colleagues in Nigeria is not small. Their studies began to be reported from the 1940s and 1950s onwards. There was Dr. Mason Thomas Dokubo Braide from Bakana in Rivers State. He was a surgeon practitioner in government hospitals. From the data he singlehandedly collected and afterwards analysed personally he concluded that female circumcision was bad, and the WHO and its partners in international health should take the lead toward its banishment. These bodies he appealed to took little notice until now over 50 years later.

Tertiary institutions of maternal health began to be established in the 1950s. Ibadan was first. They currently total over one hundred. John Bateman Lawson an Englishman was the pioneer head of the department of obstetrics and gynaecology in the 1950s and 1960s. He ensured that his department had a strong base in organization and research. He led from the front. He and his counterpart in Jamaica in the West Indies, Derrick B. Stewart, wrote one of the most influential books ever on tropical obstetrics and gynaecology. Titled "Obstetrics and Gynaecology in the Tropics and Developing Countries" and published in 1967, it served a great need for over three decades. Percy Nylander, also in Ibadan, worked on the epidemiology of multiple births. The nature and influence of anaemia, malaria, and haemoglobinopathies were all thoroughly researched by Bill Fullerton, John Watson Williams, Paul Hendrickse, John Lawson, Herbert Gillies, Lucio Luzzatto, Alan Fleming, Kelsey Harrison, Hugh Platt, Pat Ibeziako, A. Kadiri and Linus Ajabor. The safe method of blood transfusion we use today in treating dangerous anaemia came from the work of Kelsey Harrison. Local journals for information dissemination in the field of maternal health began, and one of them – African Journal of Reproductive health – established by Friday Okonofua of Benin, continues to prosper. However, nothing remains static.

The 1970s and beyond, Zaria Maternity Survey, Maternal Deaths and Morbidities

Based in Zaria in the 1970s, my colleagues and I were sufficiently moved by what we saw there, to record our experience for posterity. We collected data on all 22774 consecutive births that took place at the old Ahmadu Bello University Teaching Hospital at Tudun Wada from January 1976 to June 1979. The data set when analysed over a period of five years, revealed that maternal and perinatal mortality were exceptionally high, severe anaemia, endemic malaria, adolescent marriage, obstetric fistula (VVF) from prolonged obstructed labour were all very common. We concluded that formal education by changing existing social attitudes held the key to better and improved maternal health in our country and in the developing world at large. The results of the Zaria studies were published in the October 1985 issue of the British Journal Obstetrics and Gynaecology. Within one month of the publication of these results, the World Health Organisation (WHO) summoned its first ever inter regional meeting on the prevention of maternal mortality. The purpose was to raise world awareness of the problem and how to tackle it. In February, 1987 the World Safe Motherhood Initiative was formally launched in Nairobi, Kenya. The aim of this initiative was to help reduce the existing high levels of maternal mortality and morbidity especially in developing countries. This initiative did not work as was intended and was replaced in 1990 by the Millennium Development Goals which were in turn replaced by Sustainable Development Goals in 2016.

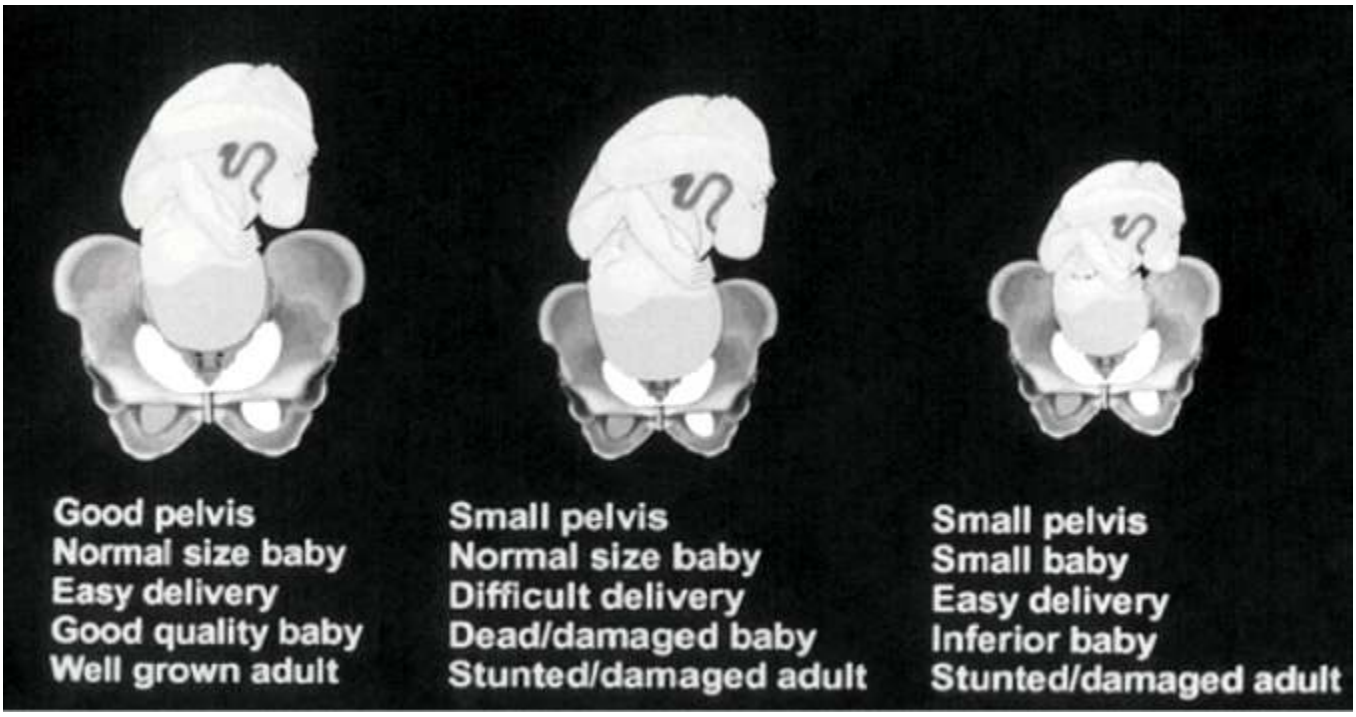
There were several chance findings in the Zaria study I now wish to draw attention to because of their clinical and public health implications.

Growth during teenage pregnancy: Increases in height of up to 16 cm during pregnancy were recorded in primigravidae aged 16 years and under: those taking antimalarial drugs and iron and folic acid supplements grew much more than those who were not taking these prophylactic measures during pregnancy.

The increase in height was associated with better pregnancy outcomes: the prevalence of both pelvic contraction and cephalopelvic disproportion fell sharply, bigger babies were born and there was a sharp reduction in the proportion of those who needed caesarean section and destructive operations for obstructed labour. Among the same early teenage primigravidae the pattern of growth during pregnancy was such that the shorter and presumably younger girls grew faster than the taller girls, but this was only in those who received antimalarial drugs combined with iron and folic acid supplements. We know that this regime reduces anaemia during pregnancy. What are needed are field trials to see whether the regime also protects against obstructed labour under the harsh conditions in which most of our people live.

Stillbirths and long term consequences of pelvic contraction: We ensured that every baby born dead or alive was weighed at birth. We were astonished by one of the implications of this simple series of measurements. Among babies born after prolonged labour had resulted in VVF, the still births were on the average much heavier that the live births. In all other situations the reverse was the case in that stillbirths were lighter than livebirths. This reversal of the birthweight distribution in VVF carries implications. One of such is the long-term consequence of pelvic contraction.

Figure 2: Long term consequences of contracted pelvis



In the growth stunted adult woman, pelvic contraction is permanent. When she gets pregnant her baby at term will either be small or big. If small, easy passage through the contracted pelvis will result in the birth of that small baby. If the baby of this small woman is big, the result will be very different. In this case, labour will be very difficult, it may become obstructed, which if neglected, will result in the birth of a baby of good size that is either born dead or born alive but severely damaged.

It is well known that in general, heavier babies are superior to their lighter counterparts in terms of their potential for growth and physical and mental development.

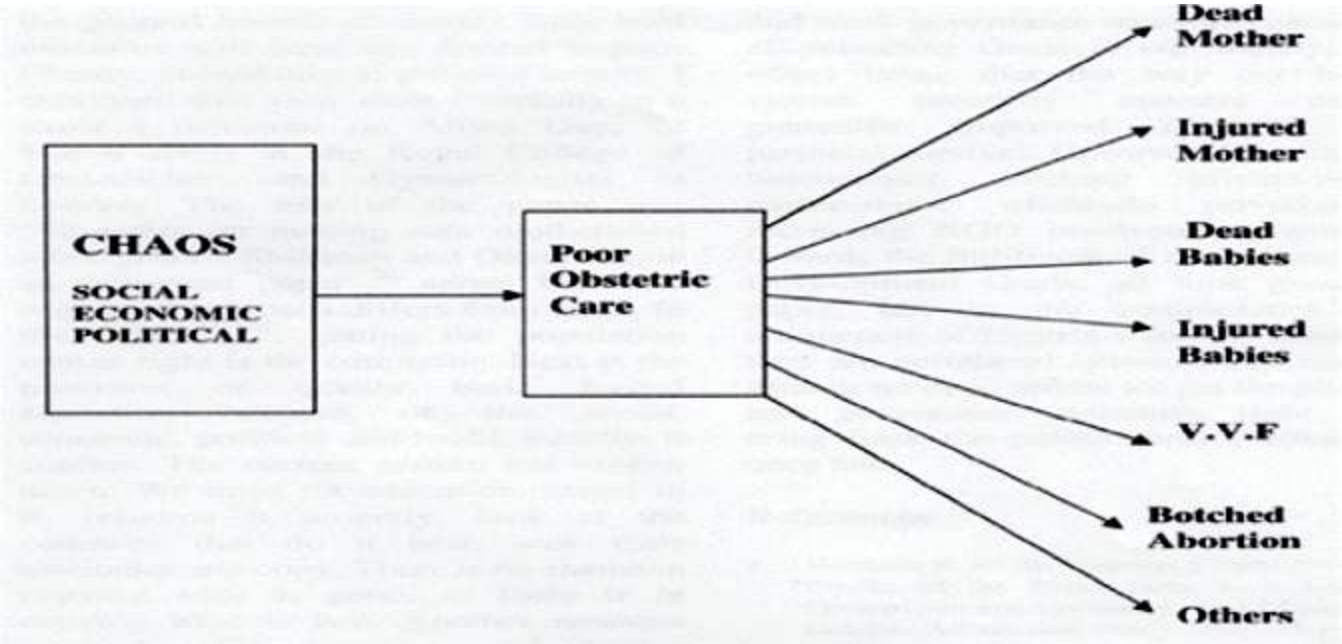
We therefore postulated that in a population where obstructed labour is common, the surviving babies might not be the best babies. Furthermore because of the bad conditions in which these inferior babies are reared – bad housing, no protection against infections, excessive physical work, and bad nutrition- these inferior babies in their adulthood become growth stunted and give birth to more damaged babies.

Obviously emergency obstetric care cannot break this horrible cycle because it does not correct the underlying fault which is pelvic contraction through growth stunting . Only fixing the politics and sustaining social change will. For as long as the cycle is allowed to persist, there is this dreadful thought that superior babies die and inferior babies survive.

This thinking is only a hypothesis but in the prevailing circumstances in parts of our country, it sounds plausible.

High maternal mortality: its underlying disease: High maternal mortality is still a scourge in our country despite all our current and past efforts to tame it. But why? The short answer is that we are looking at and tackling it at the wrong end. Dead and damaged mothers and infants make up a cluster of conditions resulting from one thing, very poor obstetric care. Very poor obstetric care is in turn one result of the chaotic health, socioeconomic and political systems, which is the underlying disease. It is the disease which has to be treated. Hence the need is to turn things around to ensure that most things in the public domain work to the general benefit of society.

Figure 3: Maternal mortality: the underlying disease



Conclusion

We as pioneers worked as researchers, teachers and practitioners in our various disciplines, and it is true to say that all things considered, we opened the fountain of knowledge in various aspects of maternal health. It is now up to you to face up to the challenges squarely. And you can. The immediate past governor of Ondo State, Dr. Olusegun Mimiko did so with his Abiye project that he first conceived in 2009, and thereafter acted upon. We salute him and I personally dedicate this lecture to him. Well done, Sir.