Maternal Mortality: A Policy Comparison Between Nigeria and India.

Rachel Quarles
CUNY City College

Recommended Citation
# Table of Contents

ABSTRACT ................................................................................................................................. 2

CHAPTER ONE- INTRODUCTION .......................................................................................... 3

CHAPTER TWO- LITERATURE REVIEW .............................................................................. 10

CHAPTER THREE- MATERNAL MORTALITY ........................................................................ 20

CHAPTER FOUR- CASE STUDY: NIGERIA ........................................................................... 30

CHAPTER FIVE- CASE STUDY: INDIA .................................................................................. 41

CHAPTER SIX- COMPARING THE CASE STUDIES ............................................................. 52

CHAPTER SEVEN- CONCLUSIONS AND RECOMMENDATIONS ................................... 59

REFERENCES ......................................................................................................................... 65
Abstract

A staggering number of women die from preventable deaths each year from causes related to pregnancy and childbirth. India hosts the greatest number of actual maternal deaths in the world, although Nigeria’s ratio of maternal deaths to live births is greater than India’s. This thesis focuses on the experience of these two countries in order to determine if India’s governmental policies, level of government corruption, and traditional practices directly lead to its comparably better maternal health statistics. India has demonstrated lower ratios of maternal mortality and more consistent improvement in maternal health indicators than Nigeria as a result of stronger political support for maternal health, more effective government policies to improve accessibility of maternal healthcare, and fewer instances of government corruption. Nigeria must increase protections for citizens coming forward with complaints against government practices. Both countries will benefit from doubling their efforts to get the issue of maternal health on the agenda of state-level politicians, as well as strengthening strategies to recruit and train local women to serve in their own communities to improve the urban-rural divide in maternal health indicators.
Chapter One- Introduction

Despite falling maternal mortality rates in recent decades, across the globe more than 800 women die every day from causes related to childbirth. Maternal mortality refers to deaths caused by complications from pregnancy or childbirth, the most common being severe bleeding, infections, high blood pressure, and unsafe abortion (see distribution in figure 1).¹ This paper will examine the important roles governments play in regards to both maternal health (ensuring affordable and accessible prenatal and postpartum care, skilled providers during childbirth, and live-saving drugs) as well as reproductive health more generally (safe abortion).

The issue of maternal death is important because it is preventable in most cases if the birth is attended by skilled health professionals with proper equipment, drugs, and the ability to refer to emergency obstetric care when cesareans and blood transfusions are required.² Figure 2 shows that maternal mortality rates vary according to region and income, illustrating that not only does maternal death indicate inequality between men and women but it is also indicative of a woman’s economic and social status. According to the United Nation’s Children Fund (UNICEF), the lifetime risk of maternal death in industrialized countries is 1 in 4,000, compared to 1 in 51 in countries labeled as ‘least developed.’³ Ninety-nine percent of all maternal deaths occur in developing countries- more than half of these deaths occur in sub-Saharan Africa and one third in South Asia.⁴ Risk for maternal death further increases if the woman lives in a rural area.

³ Ibid.
Figure 1. Global distribution of the causes of maternal death.\(^5\)

*Nearly all (99 per cent) of abortion deaths are due to unsafe abortions.
**This category includes deaths due to obstructed labour or anaemia.

Figure 2. Adult lifetime risk of maternal death.\(^6\)

---


Maternal death has a strong impact on the health and economic prospects for the family left behind as well. When a woman dies from complications during birth such as eclampsia, obstructed labor, or hemorrhage the unborn is at risk of dying. Moucheraud et. al. write:

If the infant survives birth but the mother does not, the resulting lack of nutritional support from breastfeeding leaves the baby vulnerable to malnutrition, which can itself be fatal or may increase the risk of disease or death from infection. Older siblings also may suffer in many ways without maternal care: among orphans, the risk of child labor, poor learning outcomes and lower educational attainment.\(^7\)

Action from the international community reflects agreement that this investment in women is crucial for the future of the global community. Two of the eight original Millennium Development Goals (MDGs) in 2000 were to improve maternal health and to promote gender equality and empower women. A target under goal three of the new Sustainable Development Goals vows to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030 (global MMR was at 216 in 2015, according to the UN).\(^8\) Gender equality also remains on the list.

**Unanswered Questions from the Research**

The following research questions will be examined:

- What role does government corruption play in rates of maternal mortality?
- What are the most important government policies for sustaining maternal health?

---


• How useful are international treaties and agreements in improving maternal mortality?
• How do you address a lack of government buy-in?
• At what point should resources be put towards ending local traditions and cultural beliefs that may be affecting maternal health?
• What strategies should be implemented with the goal of changing behavior and beliefs related to gender and reproductive health?
• What are the challenges of creating a cohesive national health strategy for countries with many languages and ethnic groups? What would an effective strategy look like?

Hypothesis and Methodology

Through the exploration of these questions, I will argue that government policies regarding women’s health, government corruption, and traditional practices directly affect maternal mortality. I will use two contrasting case studies to support my argument: Nigeria and India. India and Nigeria hold the record for highest and second highest number of actual maternal deaths respectively, but differ widely in terms of their maternal mortality ratio, (number of maternal deaths during a given time period per 100,000 live births during the same period) due to differences in population- Nigeria is home to 173.6 million people and India to 1.2 billion. Both of these countries are important in terms of their growing populations but have had very different experiences reducing their maternal mortality.

In 2015, Nigeria’s maternal mortality ratio, or MMR, was 814 compared to 174 in India for the same year. In addition to lower ratios, figure 3 shows that since 2006, India’s MMR has consistently decreased from 265 while Nigeria has experienced undulating rates. Between 2007-
2009 Nigeria’s MMR went from 884 to 829 to 883. From 2012-2014 the rates went from 819 to 821 to 820, remaining generally stagnant.\(^9\)

Figure 3. Maternal mortality ratio of Nigeria and India for years 2006-2015.\(^{10}\)

The thesis will begin with a literature review. The review will give a current look at population and maternal mortality, starting generally with reports from UNFPA, UNICEF, and WHO and the recent turn to a human rights-based approach in addressing maternal mortality. The turn away from focusing solely on technical issues such as a lack of qualified providers leads into a review of theory on behavior and cultural change. Ending harmful cultural practices such as female genital mutilation and child marriage requires a complex and well thought out abandonment process that will take place over time. Much attention is given to the idea that a large part of reducing maternal mortality is simply getting it the political attention and buy-in it


\(^{10}\) Ibid.
deserves. This is explored as well as potential problems of corruption and inefficiency in public health systems.

Following the literature review will be an overview of maternal mortality. This chapter will provide information on what exactly women are dying from, what plays a role in these deaths and what is required to prevent them. The role that reproductive health education and modern contraceptives play in maintaining maternal health will be emphasized. The international response to maternal death rates, such as treaties and conventions that have addressed maternal and reproductive health, will be reviewed.

The next two chapters will be case studies of the maternal mortality situation in Nigeria and India. I will first examine data from the countries’ national health surveys in order to illustrate the extent of the maternal health problem. These household surveys were conducted at various intervals beginning in the 1990s with technical assistance and donations from various organizations such as USAID, UNICEF, UNFPA and WHO. They cover topics related to fertility, family planning, maternal and child health, and HIV/AIDS. The surveys include indicators such as women’s education rates, rates of contraception use, and rates of delivering at home all disaggregated by state or geopolitical zone. This stage of the research will provide a general understanding of gender equality in each country, as statistics such as literacy rates and level of education attained are separated by gender.

Next I will examine what programs each country’s government and local NGOs have put in place to reduce rates of maternal mortality. This will require reading reports, program evaluations, and journal articles in order to map the tangled and often overlapping web of programs and aid for reproductive health. I will also consider if these programs employ any behavior change strategies. Such strategies may be used not just at the level of citizens accessing
care but also for members of government and policy makers who do not recognize and value the importance of maternal and reproductive health.

Following the case studies there will be a chapter which compares the two experiences in order to determine if India’s lower MMR is a result of different government policies, less government corruption, different traditional and cultural beliefs, or some combination of the three. Based on the comparison I will be able to provide my own policy prescriptions for each country.
Chapter Two- Literature Review

The impetus for the research topic came from a 2014 UNICEF report titled “Generation 2030 Africa.” The report gives an in depth look at Africa’s rapidly growing population and what it means for the rest of the world. The report aims to draw attention to the fact that more and more of the world’s population will be African in the future and if investments are not made now, the population explosion will become a burden on the many economic and political systems that have already struggled to succeed. The report does not mean to provide policy solutions but instead intends to start a discourse that will provoke the international community to take action.

By 2050, Africa’s population is projected to double to nearly 2.4 billion people, with more than one fifth of this growth coming from Nigeria alone. As it stands now, the unmet need for contraception in Africa (those women who want to stop or delay childbearing but are not using any method of contraception) remains above the global average. The report calls directly for culturally sensitive reproductive health education and services for women and adolescent girls, more prenatal providers and birthing facilities, an end to child marriage, increased educational opportunities for girls, and improvements in civil registration. This report successfully demonstrates to the reader why this problem is important and time sensitive, especially in Africa. Because India has a lower MMR and is the second case study, I hope to provide more insight into challenges and solutions available.11

UNFPA’s 2013 report “Motherhood in Childhood: Facing the Challenge of Adolescent Pregnancy” gets to the root of child marriage and what must be done to solve the issue. The report states that 70,000 adolescents die every year from complication related to pregnancy and childbirth and 3.2 million adolescents undergo unsafe abortions. Adolescent mothers are

particularly vulnerable to prolonged labor, which often results in obstetric fistula if a cesarean intervention is not available. Obstetric fistulas leave a woman incontinent of urine or feces or both and husbands often reject their wives because of the foul odor. While increasing the number of births attended by a health professional and increasing access to cesarean section may help alleviate this issue, the best solution is to increase educational and economic options for girls so as to delay marriage and pregnancy until their bodies mature.

Unsafe abortions account for roughly half of all abortions and disproportionately affect girls under 20 years old. According to the World Health Organization an unsafe abortion is “a procedure for terminating unwanted pregnancy either by persons lacking the necessary skills or in an environment lacking minimal medical standards or both.”12 Adolescents may find safe abortion difficult to access due to transportation, cost, necessity of guardian permission, or provider preference. Once accessed, the WHO writes that girls are more likely than adults to suffer complications from unsafe abortion such as hemorrhage, septicemia, internal organ damage, tetanus, sterility and death.

The authors write that when a girl is forced into marriage, she will have little say in when and whether or not she will become pregnant, thus media campaigns or distribution programs will likely have no effect on her health. Instead, a holistic approach must be considered which takes into account interrelated factors such as poverty, social acceptance of child marriage, and insufficient efforts to keep girls in school. The authors ask for a multi-sectorial approach to empower girls so they may envision more opportunities for themselves in addition to motherhood. The report provides just one example of the complexities of maternal mortality and makes a case for a multi-sectoral response.13

Alicia Yamin discusses how human rights-based approaches (HRBAs) are necessary for reducing maternal mortality because instead of focusing on only solving technical issues, they address root causes such as poverty and structural gender inequality. This line of thinking took off in the 1990s with the Vienna Conference on Human Rights, the International Conference on Population and Development in Cairo and the Fourth World Conference on Women in Beijing. In Beijing women’s health was recognized as being “determined by the social, political and economic context of their lives, as well as by biology.”

This new focus on human rights was not immediately implemented within national policies and aid programs, and was disappointingly ignored in the Millennium Declaration in 2000. Millennium Development Goal 5 called for reducing the maternal mortality ratio by three quarters by 2015 and not until 2005 did they add goal 5b, which called for universal access to reproductive health.

The author moves on to highlight more recent gains from the HRBA, such as various publicized domestic and international court cases related to the obligations of governments to provide access to reproductive health care. Yamin admits that these cases are not always won but they still succeed in changing public opinions and calling attention to the issue. At the international level, the UN Human Rights Council passed a resolution stating that under Universal Periodic Review, all 193 member states, and not simply those that ratify a specific treaty, are required to report on their human rights performance. Additionally, in 2010 Ban Ki-moon’s Global Strategy on Women and Children called for the creation of the WHO’s Information and Accountability Commission on Women's and Children's Health which reviews the implementation and operationalization of policy and programs. This article provides crucial background knowledge and insight to the approach currently found to be most effective in

---

reducing maternal mortality.\textsuperscript{15}

In addition to child marriage, female genital mutilation (FGM) is another harmful cultural practice that increases chance of maternal death. LeJeune and Mackie argue that social convention theory, which was used to end foot binding in China, can be applied to ending FGM.\textsuperscript{16} Driving on the right side of the road is a social convention in the United States, and it is not possible for one person to decide not to follow this convention due the danger and confusion and would cause. This is similar to the marriageability aspect of FGM and the reasoning of parents that if they do not force their daughter to undergo this practice they likely will not be married and will have poor life outcomes. There is no incentive to forego the cultural practice, although it would be in everyone’s best interest to do so. Abandonment is possible only by coordinating a collective abandonment within the community. The authors write that an older version of the social convention model requires that most or all of the community simultaneously abandons the practice, but a more refined and dynamic understanding of the process calls for abandonment through sequences.\textsuperscript{17}

A small group of early adopters, called the critical mass, will abandon the practice. The critical mass will have an incentive to recruit other members of the community until they have enough adopters to form a tipping point. In order to reach a stable state of abandonment, those who adopt the new practice must be public about it so that the community can see that most people have abandoned the custom. Once expectations have changed, there is no reason to go back to the practice. The authors note that “an attempted public commitment imposed from outside, or from above that community, or prior to genuine community discussion and decision, would not be

\textsuperscript{15} Yamin, \textit{From ideals to tools}, 2-3.
\textsuperscript{17} Ibid., 1.
effective.”

The abandonment in one community will stimulate interest and consideration in other communities. The abandonment will be made more stable when other communities follow their lead, especially in cases of intermarriage between communities. The authors call this process organized diffusion and it has been used to end FGM in parts of Senegal. The NGO Tostan facilitated abandonment from over 3,500 villages. With average village sizes at 800 people, the NGO found it was sufficient to start with groups of 50 people as early adopters in five villages. Not all communities look the same, and an abandonment process among urban middle and upper class may focus more on workplace and faith connections, national notables, and media representations of what it means to abandon the practice.

The paper ends with a discussion on the value of participatory human rights education. LeJeune and Mackie state that in Egypt and Senegal public abandonment of FGM came after human rights education was added to the development projects of NGOs. The authors give the following anecdote (among others) about Tostan, an African NGO working with rural communities:

Tostan, after decades of work in Senegal that focused primarily on local development projects and basic literacy, health and life skills education experimentally added human rights education to its program. The first village where the module was added, Malicounda Bambara, on its own initiative after two years participating in the basic education program, became the first village to organize abandonment of FGM.

---

19 Ibid., 26.
LeJeune and Mackie state that such an effect resulting from human rights education may be due to what is known as the endowment effect; once people realize and come to accept they have certain rights, they attach high value to securing and protecting their own rights and those of their children.\(^{20}\)

Dr. Joseph Nnamdi Mojekwu and Uche Ibekwe, faculty at the University of Lagos, argue in their paper that maternal mortality in Nigeria is a political problem. They use a multiple regression analysis of 14 variables to determine the factors that affect maternal mortality the most, and state that these are the variables that should be presented to politicians for action. The authors state that politicians are overburdened by too many problems and if they can present concise requests, it is more likely the requests will receive attention. Their multiple regression shows that births delivered by a health professional were the best predictor of the maternal mortality ratio followed by no formal education. This further strengthens the argument made elsewhere in the literature review that reducing maternal mortality will require collaboration among different sectors outside of ministries of health.\(^{21}\)

In his article for the American Journal of Public Health, Jeremy Shiffman argues that in 2007 maternal health was starting to be seen as a political priority in India, but not so in Nigeria. He maps out nine factors in three separate categories that shape the degree to which maternal mortality appears on the political agenda of his five case studies (Honduras, Indonesia, Guatemala, India and Nigeria). Shiffman identifies category one as transnational influence. Participation in international initiatives and enticement of assistance from international

organizations such as the IMF are seen as beneficial in shaping behavior.\textsuperscript{22}

Shiffman’s second category is domestic advocacy. Policy communities are cited as being extremely influential and are made up of various actors such as parliament members, physicians, and national health-focused entities employed by NGOs. The author notes that such communities have taken longer to organize and become formalized in Nigeria. Credible indicators are also important in making the case to government officials that the problem at hand is undeniable. Nigeria, for example, has been able to provide a national maternal mortality ratio estimate but data disaggregated by state or political zone is not available.

The third and final category is national political environment which addresses the challenges brought by transitioning governments and competing health priorities. In India, maternal health has been placed alongside population control in terms of importance. In Nigeria, however, the fight against HIV/AIDS has often out-shadowed maternal health in terms of international attention and funding. This article provides a thoughtful look at the dynamics of getting an issue on the political agenda.\textsuperscript{23}

Once maternal health is put on the agenda, the existing health care structure may serve as a roadblock to successful outcomes. In her report, Maureen Lewis outlines the major challenges facing public health systems, starting with staffing issues. Lewis states that training is typically adequate in low income countries but absenteeism is one of the most serious issues regarding health care staff. Absenteeism may occur because rural health workers have to travel to larger towns to receive payments, drugs and other supplies, because there is a lack of oversight and


\textsuperscript{23} Ibid., 799-801.
attendance records, or because staff is being paid so poorly that they have taken on second jobs requiring their attention. Lewis writes that absenteeism is caused by ineffective governments and reduces output, leading to a downward spiral of overall unsatisfactory performance.24

Next, Lewis discusses the role of mismanagement of drugs and other supplies. The World Bank reports that the lack of drugs has repeatedly been shown to discourage utilization of public health facilities. Lewis uses the term “leaked” to describe how drugs are often sold by health staff in the private market for higher prices. Additional crimes occur, such as importation of substandard medications, substituting lower quality medications, and drugs being stolen from clinics and hospitals. Data on these occurrences is often unknown due to lack of regulation and enforcement. As a result, surveys and focus groups from around the world demonstrate that many patients in public facilities are required to bring or purchase their own supplies such as bed sheets, bandages, or drugs.25

Leaked public funding is another area requiring attention. Inadequate funding makes it unnecessarily difficult to provide “free” government health services and frequently leads to informal payments from patients to ensure they are at the top of the waiting list, receiving medications, etc. Low levels of informal payments may indicate that there is a reliable private sector alternative to public services. Although this alternative will require substantial out of pocket costs, it will likely result in higher customer influence over services and provider performance.26

25 Ibid., 21-22.
26 Ibid., 25-27.
The final challenge covered by Lewis is mismanagement in health care service delivery stemming from a lack of incentives for performance and efficiency. Lewis cites commonalities such as employee advancement caps after a single promotion, inability to fire employees, low wages or delays in payment as contributing to poor performance. Several studies cited in the literature show that vague or non-existent policies and poor record keeping make it difficult to hold employees accountable for their actions and to improve overall service delivery.27

In her recommendations for improving overall effectiveness, Lewis creates two separate categories: Improving government effectiveness and controlling corruption. Under the former, Lewis calls for adequate payment and incentives for health professionals and clear criteria for hiring and promotions. There should be an organized oversight of staff that includes things like performance evaluations and inspectors whose job is to ensure staff are preforming their jobs and not committing absenteeism. Government audits and patient satisfaction may help management pinpoint areas needing attention.

In terms of controlling corruption, strong political commitment and follow through will be required. The author uses the example of Colombia setting up a nationwide database for payment controls to correct the problem of “ghost” workers who may be receiving multiple salaries or not working for the employer at all. Drug procurement will benefit from increased scrutiny and clear rules. Bids for drugs should be allowed to come from a broad spectrum of companies to assure lower prices and the storing and handling of drugs should be systemically regulated with standard packaging and labels. This in-depth examination of the major challenges facing health care systems will serve as guide for the the analysis of current and potential future

27 Lewis, Governance and corruption, 33-35.
government policies in the two case studies.\textsuperscript{28}

The literature provides many tools to utilize when examining the case studies of India and Nigeria. The literature presented here provides general views and prescriptions of a particular issue--be it population growth, child marriage, lack of political clout or corrupt government. The literature fails, however, to consider these issues together with the focus of improving maternal mortality rates in specific countries. The intention of this thesis is to bring the expert lenses from the many scholars referenced above into cohesive analyses of specific contexts and to then provide recommendations for future policy.

This study adds to the existing literature by analyzing the causal relationships between governmental policies and lower or high rates of maternal deaths. By comparing relatively successful policy actions in India with weak policies in Nigeria, I will be able to collect useful evidence that can lead to more successful policy implementation in the future.

\textsuperscript{28} Lewis, \textit{Governance and corruption}, 39-43.
Chapter Three- Maternal Mortality

The World Health Organization estimates that there were 303,000 maternal deaths in 2015.\textsuperscript{29} Another way to measure maternal mortality is the global ratio of maternal deaths to live births, called the maternal mortality ratio or MMR. The term live birth refers to the expulsion of a neonate, regardless of the duration of the pregnancy, who breathes or shows any other evidence of life after separation.\textsuperscript{30} The global MMR for 2015 was 216 per 100,000 live births and explains the probability of a woman dying once pregnant.\textsuperscript{31} Similar to the MMR is a measure of the lifetime risk of maternal death, which is the probability of maternal death during a woman’s reproductive years.\textsuperscript{32} In 2015, the lifetime risk of maternal death in low income countries was 1 in 41, compared to 1 in 3,300 in high-income countries. Among regions, women in sub-Saharan Africa face the highest lifetime risk (1 in 36), followed by South Asia (1 in 200).\textsuperscript{33}

In order to address policies surrounding maternal mortality appropriately, the actual medical causes of maternal death must be well understood. As previously shown in figure one, the World Bank has organized the global distribution of causes of maternal death into five categories: Indirect causes, abortion, embolism, hemorrhage, hypertension, sepsis (infection), and other direct causes (such as obstructed labor). This chapter will examine each of these categories in depth and identify available interventions.

\textsuperscript{33} UNICEF, Maternal health status.
Indirect Causes

The WHO defines maternal death as occurring while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.\(^{34}\) Responsible for 28% of global maternal deaths, indirect causes can often be predicted. This category refers to preexisting conditions that are exacerbated by pregnancy, such as mental illness and HIV.

According to the WHO, 20 percent of women in developing countries experience clinical depression after childbirth, and in severe cases this may lead to suicide.\(^{35}\) The latest International Classification of Diseases from the WHO, called ICD 10, includes a definition of late maternal death from 6 weeks to 1 year after termination of the pregnancy, and in the case of suicide countries may decide whether to label the death as being directly or indirectly caused by the pregnancy.\(^{36}\) The symptoms experienced by women with postpartum depression are similar to those in women who have depression unrelated to pregnancy, and may include despondency, guilt, loss of appetite, sleep disturbances, feelings of being inadequate, poor concentration and memory, fatigue and irritability.\(^{37}\)

Despite what is known about post-partum depression, it often goes undetected in women. Intervention strategies have been focused on brief and simple screening questions incorporated into prenatal care. The WHO states that health care providers should be trained to recognize signs of mental health problems and to then provide counseling and referral to appropriate

---

\(^{34}\) WHO, *Health data and information systems*.


supportive services.\textsuperscript{38} In order for this intervention to work, basic health care systems must be strengthened through formalized procedures.

HIV is another major indirect cause of maternal death. Research has shown that women who are HIV positive have a higher risk for maternal death than women who are HIV negative, and in some areas of the world HIV/AIDS has replaced direct obstetric complications as the leading cause of maternal death.\textsuperscript{39} McIntyre states that pregnancy does not seem to speed up the progression of HIV disease but instead leaves women more susceptible to post-partum hemorrhage, sepsis and complications from caesarean section due to anemia and decreased immune function which are common among HIV positive individuals.\textsuperscript{40} Additionally, HIV infections increase susceptibility to other illnesses such as tuberculosis and pneumonia. Unfortunately, exact statistics regarding HIV related maternal death are not known due to low rates of HIV testing in less developed countries.

Maternal deaths among HIV positive women are comparatively low in developed countries due to the wide availability of HIV testing and education and the accessibility of highly effective anti-retroviral medication, or ARVS, which slow progression of the disease and help maintain a strong immune system. Some HIV positive women may not even want to become pregnant, but lack access to modern contraceptives. HIV positive women need access to a strong health care system to ensure quality care.

**Hemorrhage**

Second to indirect causes in bringing about maternal death is hemorrhage, responsible for 27 percent of deaths worldwide. Hemorrhage, or heavy and uncontrolled bleeding, most often

\textsuperscript{38} WHO. (2008). Improving maternal mental health. Retrieved from \url{http://www.who.int/mental_health/prevention/suicide/Perinatal_depression_mmh_final.pdf?ua=1}


\textsuperscript{40} McIntyre, \textit{Maternal Health}, 131.
occurs during or immediately after childbirth. Hemorrhage can occur as a result of many medical conditions, but immediately after childbirth women can die as a result of the uterus being unable to contract properly, tears of the cervix or vagina, and clotting disorders. Hemorrhage is rare in developed countries but is often found in less developed countries because many women deliver without skilled professionals who can recognize warning signs, it is often too difficult to get quick transportation if it is determined that a woman needs emergency obstetric care, and if a woman makes it to a professional facility the required medication and equipment may not be available.

Only one percent of maternal death by hemorrhaging occurs in developed countries, proving that it is extremely preventable. Gynuity cites two inexpensive technologies which can be used to prevent and manage hemorrhaging during and immediately after childbirth:

- Certain clinical procedures performed by skilled providers after the delivery of the newborn, collectively termed “active management of the third stage of labor,” have been shown to prevent hemorrhaging. These procedures cause the uterus to contract and speed the delivery of the placenta, thereby reducing the potential for severe bleeding.

- The administration of a uterus-contracting drug (uterotonic) immediately after delivery of the baby can also prevent excessive bleeding. Drugs for this purpose include oxytocin, ergometrine, and possibly misoprostol. Each of these medications offers potential advantages (in terms of

---


42 Genuity, Postpartum Hemorrhage, 4.

effectiveness, route of administration, cost, and stability in hot climates) to be considered.\textsuperscript{44}

\textbf{Hypertension}

Hypertension is the third largest cause of maternal death globally, causing 14 percent of deaths. According to Ghulmiyyah and Sibai, preeclampsia refers to the onset of hypertension, or high blood pressure, after 20 weeks of gestation. Eclampsia is the development of life-threatening seizures in a woman with gestational preeclampsia.\textsuperscript{45} Ten million women develop preeclampsia each year around the world but the risk is not evenly distributed. In developing countries, a woman is seven times more likely to develop preeclampsia than a woman in a developed country.\textsuperscript{46}

If a woman has access to proper prenatal care, preeclampsia can be recognized and treated with medication that lowers blood pressure and magnesium sulfate which prevents life threatening seizures.\textsuperscript{47} Women will typically be monitored by their medical provider for any increase in severity. In cases of severe preeclampsia, a doctor may decide to deliver the fetus prematurely, as giving birth is the only cure for the medical condition.\textsuperscript{48} A 2013 WHO survey that examined maternal care in 29 countries concluded that even when magnesium sulfate is available when needed, overall maternal death from hypertension did not decrease. The authors concluded that additional issues regarding delays in interventions and quality of interventions

\textsuperscript{44} Genuity, \textit{Postpartum Hemorrhage}, 5.
\textsuperscript{47} Ghulmiyyah & Sibai, \textit{Maternal Mortality}, 58.
must concurrently be addressed.\textsuperscript{49}

Unsafe Abortion

The World Health Organization defines unsafe abortions as a procedure for terminating an unintended pregnancy performed by persons lacking the necessary skills, in an environment that does meet minimum medical standards, or both.\textsuperscript{50} Every year about 19-20 million abortions are performed resulting in 68,000 deaths, or about 8 percent of global maternal deaths. Ninety-seven percent of these unsafe abortions occur in developing countries.\textsuperscript{51} Women are often forced into seeking unsafe abortions in places where abortion is illegal or where cost or distance to professional services exist as barriers. As is the case with HIV, data on unsafe abortion is only an estimation due to the clandestine nature of the procedures and surrounding stigma.

Access to contraceptives and access to safe abortion are critical to preventing death from unsafe abortion. The Guttmacher Institute states that in 2008, four out of five pregnancies in the developing world occurred among women with an unmet need for contraception and in general, abortion rates remain low in regions where contraceptive use is high.\textsuperscript{52} These statistics demonstrate that many lives could be saved by simply improving access to modern contraceptives. However, contraceptives do not work 100% of the time and safe abortion still needs to be provided. As Barot pointedly states, “legal restrictions on abortion largely do not affect whether women will get an abortion, but they can have a major impact on whether

abortion takes place under safe or unsafe conditions.”

Sepsis

Sepsis, the body’s response to life-threatening infection, results in tissue damage, organ failure, and death. According to figure one, sepsis is responsible for 11 percent of global maternal deaths. In terms of maternal mortality, the WHO defines sepsis as infection of the genital tract occurring at any time between labor and the 42nd day postpartum. In developing countries little reliable data is available on sepsis. Since it most often occurs more than 24 hours after delivery, even if a woman did deliver in medical facility she will likely have been discharged by the time warning signs are present.

In low income countries, sepsis is usually the result of noncompliance with infection prevention policies. Three main strategies which require a low level of technology are: proper hand washing, application of intravaginal antiseptics, and antibiotics. The WHO describes factors that increase a woman’s risk of severe sepsis as delivery by an untrained birth attendant, poor transportation options and long distance to health facilities, cultural attitudes that delay seeking professional medical care, low social status of women, and lack of knowledge regarding prevention and treatment.

---

53 Barot, Unsafe Abortion, 25.
55 Ibid., 3.
57 Dolea & Stein, Global Burden, 10.
Embolism

Figure one shows that 3% of global maternal deaths are due to embolism (when arteries are blocked by blood clots). Embolism occurs most often after delivery due to the hyper coagulation undergone by the body in order to reduce bleeding. Embolism is very difficult to predict and diagnose, as this would require the use of ultrasound radiation which is not always available and is generally avoided as it may cause harm to the fetus. 58 Stone and Morris write that 66 percent of women die within 30 minutes of an embolic event. 59 If recognized in time, the blood clot can be treated with intravenous filters and drugs. Embolism remains a challenge to both developed and developing countries due to the high level of monitoring and technology required to recognize and treat the condition in time.

Other Direct Causes

Other direct causes, such as obstructed labor, are responsible for 10% of global maternal deaths. Obstructed labor occurs when the fetus is not able to travel through the birth canal despite uterine contractions and can be safely treated through a cesarean section. 60 This may occur for several reasons: the fetus may be large in relation to the pelvic opening (possibly because of young age of the mother), the fetus may be in a challenging position or the vaginal canal may not be elastic enough due to FGM. Obstructed labor can lead to infections, ruptured uterus and subsequent hemorrhage, and obstetric fistula— a hole which forms between the vaginal wall and the bladder or the rectum or both. 61

59 Ibid., S295.
61 Ibid., 1.
While not always fatal, obstetric fistula can disable and isolate women for the rest of their lives. These women are often abandoned by their husbands, stigmatized by their communities and live in extreme poverty due to inability to obtain to work. Obstetric fistulas can be prevented if a woman can receive a safe and timely caesarean section through emergency care. Fistulas can be repaired through a surgery done by skilled medical professional. Surgeries are relatively simple but face numerous challenges, including scarcity of surgeons with specialized skills, operating rooms, equipment and funding from local or international donors to support surgery and necessary post-surgery care.\textsuperscript{62}

Pregnancy before physical maturation risks complications from prolonged labor, making child marriage a major concern in the effort to reduce maternal mortality. Girls who are younger than 15 are five times more likely to die in childbirth than women in their 20s, and pregnancy is the leading cause of death worldwide for women between the ages of 15 and 19.\textsuperscript{63}

Female genital mutilation (FGM) is an additional risk factor for obstructed labor. FGM refers to all procedures involving partial or total removal of the external female genitalia or other injury to the female genital organs for cultural or religious reasons. According to the WHO, it is not entirely clear yet why women who have undergone FGM have more complications during childbirth but the general consensus is that the scar tissue present is not elastic enough to withstand birth and leads to obstruction and tearing. In most cases it would be recommended that these women undergo Cesarean section, an option not available or safe for all women.\textsuperscript{64}

Access to prompt emergency obstetric care is critical in saving the life of a woman with an obstructed labor, hemorrhage or one of the other serious conditions mentioned. The three delays model identifies why women and their families may fail to seek care in time to save a woman’s life. The following three delays model should be used by policy and program designers in the field of maternal and reproductive health.

1. Delay in decision to seek care due to cost, lack of information or gender inequality
2. Delay in reaching care due to distance and poor transportation and infrastructure
3. Delay in receiving adequate care due to inadequate staff and medical supplies

In 2014, the WHO released a report titled "Trends in Maternal Mortality: 1990 to 2013”. The report found that maternal mortality is declining, but not fast enough to meet Millennium Development Goal Five (reduce maternal mortality by three quarters) by 2015. In 2013, the global MMR was 210, down from 380 in 1990 (a 45% reduction). One major challenge noted in the report was the lack of accurate data on how many women are dying and of what cause. Cause of death is especially under reported in developing countries where women die at home in greater numbers. The report cites that only one-third of all deaths worldwide are recorded and less than 100 countries record the cause of death using WHO’s International Classification of Disease. These causes must be absolutely understood in order to guide funding and program development.

---

UNICEF’s 2014 report “Generation 2030” highlights the demographic explosion happening in Nigeria that is fueling the sense of urgency to address maternal health in the country. Nigeria has more births than any other country in Africa and in 2015 one fifth of the continent’s births took place in that country alone. By the year 2030, it is anticipated that 19 per cent of all African babies and 6 per cent of the global total will be born in Nigeria. More and more Nigerian women and girls are being put in a dangerous, life threatening position without proper safeguards and support from their government.

---

Nigeria’s regional inequalities are stark. When the British took control of the area in the 19th century it was composed of various kingdoms at war. Today, the thirty-six states have been organized into six geopolitical zones. These zones were not created based only on geography but instead focused on grouping together states with similar cultures, ethnic groups, and common histories. In the three northern zones (North Central, North East, and North West), civil law is heavily influenced by Sharia, an Islamic code of conduct for religious, political economic and social affairs. The three southern zones (South East, South South, and South West) follow secular law. According to Guttmacher, six in ten women of childbearing age in Nigeria live in the northern zones, which have repeatedly seen lower rates of female empowerment. The effect of this unique divide between north and south on maternal health will be further explored in the section on sociocultural factors.

Causes of Maternal Mortality

Data on the medical causes of maternal death in Nigeria are unknown and are frequently just an estimate. Mojekwu and Ibekwe state that 70% of maternal deaths in Nigeria are attributed to the complications outlined in the previous chapter: hemorrhage, sepsis, unsafe abortion, eclampsia, and obstructed labor. Additionally, the authors move beyond medical factors and draw special attention to the poor access and utilization of reproductive health services. Interventions are available for the aforementioned medical causes of maternal death, but prenatal and postpartum care as well as delivery attended by a skilled health professional are critical.

---

As mentioned in the previous chapter, women who are HIV positive have a higher risk for maternal mortality than woman who are HIV negative. Although HIV prevalence in Nigeria is low (3.2%) compared to countries like South Africa (19%), Nigeria has the largest population in Africa and thus the number of people living with HIV is significant.\footnote{AVERT. (2015). HIV and AIDS in Nigeria. Retrieved from http://www.avert.org/professionals/hiv-around-world/sub-saharan-africa/nigeria} In 2014, the Joint United Nations Program on HIV/AIDS (UNAIDS) estimated that between 1.6 and 2 million women aged 15 and older are living with HIV in Nigeria and only 20 percent of all people living with HIV/AIDS in Nigeria are taking ARVs.\footnote{UNAIDS. (2014). The gap report. Retrieved from http://www.unaids.org/sites/default/files/media_asset/UNAIDS_Gap_report_en.pdf} Unfortunately, efforts to identify and treat pregnant women living with HIV are insufficient. Due to poor quality and utilization of prenatal care, only 14 percent of pregnant women were tested for HIV in 2014.\footnote{UNICEF. (2010). Nigeria: PMTCT factsheet. Retrieved from http://www.unicef.org/aids/files/Nigeria_PMTCTFactsheet_2010.pdf}

**Use of Maternal Health Services**

According to the 2013 Demographic and Health Survey (DHS) in Nigeria, age, geographic location and education are related to whether or not a woman has access to maternal health care. The nationally representative survey found that 47.8 percent of women under 20 years old received prenatal care from a skilled provider compared to 63 percent of older women aged 20-34. Eighty-six percent of women any age living in urban areas received professional care, compared to 46.5 percent of women living in rural areas. And finally, only 36 percent of women with no education received professional prenatal care compared to 71 percent of women with a primary education.\footnote{National Population Commission. (2014). Nigeria Demographic and Health Survey 2013. 128-129. Retrieved from https://dhsprogram.com/pubs/pdf/FR293/FR293.pdf}

Just as Nigeria’s MMR has fluctuated over the years (see figure 3), figure 4 demonstrates
similar trends in various national-level maternal health indicators. The figures taken from the 2013 national survey show that consistent prenatal care is quite low and that more than half of women do not attend postpartum visits. Such visits after delivery are valuable as they provide medical professionals the opportunity to identify health problems (such as high blood pressure) and apply evidence-based interventions.

Figure 4. National maternal health indicators- Nigeria.75

<table>
<thead>
<tr>
<th>Year</th>
<th>MMR (per 100,000 births)</th>
<th>% of females in home &gt; 6 years old with no education</th>
<th>% women 15-49 that received no prenatal care in last pregnancy</th>
<th>% of deliveries by MDs, nurses, or midwives</th>
<th>% of women with 2-3 prenatal visits</th>
<th>% of women with no postpartum checkup</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1350</td>
<td>43%</td>
<td>35%</td>
<td>32%</td>
<td>10%</td>
<td>n/a</td>
</tr>
<tr>
<td>1999</td>
<td>1200</td>
<td>38%</td>
<td>30%</td>
<td>42%</td>
<td>9%</td>
<td>n/a</td>
</tr>
<tr>
<td>2003</td>
<td>1040</td>
<td>46%</td>
<td>37%</td>
<td>35%</td>
<td>11%</td>
<td>71%</td>
</tr>
<tr>
<td>2008</td>
<td>829</td>
<td>40%</td>
<td>36%</td>
<td>39%</td>
<td>8%</td>
<td>56%</td>
</tr>
<tr>
<td>2013</td>
<td>821</td>
<td>40%</td>
<td>34%</td>
<td>38%</td>
<td>10%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Although there is encouragement for women to utilize health facilities, much work is required to improve the ease of access and quality of services. Those conducting a 2012 study visited 20 health facilities providing maternal care in each Nigerian state and found that most primary health facilities were unable to provide basic emergency obstetric care. Facilities generally lacked adequate staff, ambulance services, and uninterrupted electricity. Of the surveyed female patients who had accessed care, most lived within 30 minutes of the facilities but frequently cited having difficulty traveling there.76

75 Data comes from Nigeria Demographic and Health Surveys, years 1990-2013.
Sociocultural Factors

In 2008, CEDAW expressed concern about the persistence of patriarchal attitudes and deep-rooted stereotypes concerning women’s roles and responsibilities in Nigeria.\(^{77}\) The committee was especially concerned about areas of northern Nigeria that follow Sharia law. The Nigerian constitution protects women from discrimination, but women in the twelve northern states under Sharia law remain restricted. Lamidi explains that "the inherent gender discrimination in Sharia courts is implicit in the unequal voices of men and women: the testimony of two females equals that of one male."\(^{78}\)

The UNFPA noted in their 2012 6th Country Program Evaluation that “although Nigeria has excellent policies, laws and a constitution which favor gender equality and women’s empowerment, development outcomes and life chances for women and girls remain poor.”\(^{79}\)

Research shows that the longer girls remain in school, the more likely it is that they will delay marriage and pregnancy.\(^{80}\) The likelihood of employment also rises with level of education, and data shows that women are more autonomous when they have regular paid work rather than unpaid care work.\(^{81}\) The following figures 5-9 demonstrate the gender inequity between men and women as well as regional differences for women in northern zones compared to southern zones.

---


\(^{81}\) NPC, *Nigeria 2013 DHS Survey*, 44 and 289.
Figure 5. Percentage distribution of educational attainment of females age six and older in 2013.\(^{82}\)

<table>
<thead>
<tr>
<th>Zone</th>
<th>No education</th>
<th>Completed Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>38%</td>
<td>9%</td>
</tr>
<tr>
<td>NE</td>
<td>61%</td>
<td>6%</td>
</tr>
<tr>
<td>NW</td>
<td>63%</td>
<td>7%</td>
</tr>
<tr>
<td>SE</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>SS</td>
<td>13%</td>
<td>14%</td>
</tr>
<tr>
<td>SW</td>
<td>17%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Figure 6. Percentage of births assisted by someone\(^{83}\)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Doctor</th>
<th>Nurse/Midwife</th>
<th>Relative</th>
<th>No one</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>12%</td>
<td>32%</td>
<td>35%</td>
<td>7%</td>
</tr>
<tr>
<td>NE</td>
<td>3%</td>
<td>14%</td>
<td>39%</td>
<td>10%</td>
</tr>
<tr>
<td>NW</td>
<td>4%</td>
<td>9%</td>
<td>25%</td>
<td>28%</td>
</tr>
<tr>
<td>SE</td>
<td>14%</td>
<td>60%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>SS</td>
<td>14%</td>
<td>38%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>SW</td>
<td>30%</td>
<td>45%</td>
<td>7%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Figure 7. Percent of women age 15-49 who make decisions by themselves or jointly with spouse.\(^{84}\)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Woman’s own healthcare</th>
<th>Visits to her family</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>42%</td>
<td>47%</td>
</tr>
<tr>
<td>NE</td>
<td>26%</td>
<td>37%</td>
</tr>
<tr>
<td>NW</td>
<td>16%</td>
<td>24%</td>
</tr>
<tr>
<td>SE</td>
<td>63%</td>
<td>73%</td>
</tr>
<tr>
<td>SS</td>
<td>66%</td>
<td>73%</td>
</tr>
<tr>
<td>SW</td>
<td>73%</td>
<td>86%</td>
</tr>
</tbody>
</table>


\(^{83}\) NPC, Nigeria 2013 DHS Survey, 23.

\(^{84}\) Ibid., 289.
Figure 8. Percent of men and women in professional, technical, or managerial occupations. (Other occupations are not shown.)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>NE</td>
<td>16%</td>
<td>26%</td>
</tr>
<tr>
<td>NW</td>
<td>15%</td>
<td>26%</td>
</tr>
<tr>
<td>SE</td>
<td>23%</td>
<td>na</td>
</tr>
<tr>
<td>SS</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>SW</td>
<td>22%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Figure 9. Median age at first marriage.

<table>
<thead>
<tr>
<th>Zone</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>NE</td>
<td>16</td>
<td>26</td>
</tr>
<tr>
<td>NW</td>
<td>15</td>
<td>26</td>
</tr>
<tr>
<td>SE</td>
<td>22.7</td>
<td>na</td>
</tr>
<tr>
<td>SS</td>
<td>22</td>
<td>29</td>
</tr>
<tr>
<td>SW</td>
<td>22</td>
<td>28</td>
</tr>
</tbody>
</table>

National Health System

Nigeria’s health system operates in three tiers. Primary healthcare is managed by the 774 local government areas (LGAs) within states. Secondary healthcare, such as lab work and rehabilitation, is managed by the State Ministry of Health at state hospitals and comprehensive health centers. Patients at this level are often referred from primary healthcare physicians. Tertiary healthcare is provided by the Federal Ministry of Health at teaching and specialist

---

86 Ibid., 58.
hospitals. At the tertiary level, the government also works with nongovernmental organizations and private practitioners.\(^87\)

The National Health Insurance Scheme (NHIS) came into action in 2005 to expand health insurance in Nigeria. However, by 2012 only 3 percent of the national population was covered by the initiative.\(^88\) In Odeyemi and Nixon’s review of the NHIS, the authors cite multiple surveys which show many Nigerians have never heard of the health scheme. Medical providers describe experiencing delays in receiving approval to refer patients to specialists. Rural survey participants were less likely to experience quality care, and level of income slightly improved satisfaction in the scheme.\(^89\) In 2014, 53 percent of Nigeria’s population lived in rural areas underserved by primary healthcare facilities.\(^90\)

Major initiatives to improve maternal health in Nigeria tend to come piecemeal and depend on current political leadership. In the early 2000s, Kano and Anambra states began offering free maternity care. In Jigawa state, state and local budgets have included funds for improving maternal health facilities and hiring new providers. All of these initiatives were the product of strong political support and collaboration among respective state health commissioners and state governors. However, Mojekwu and Ibekwe note that these services are spread thin due to lack of appropriate staff and providers to handle the many patients who begin attending clinics for free services. Medications also run out quickly and stock is not well

---


Transportation to health facilities is a major challenge faced by women living in rural areas of Nigeria. The Abiye program in Ondo state gives women in these areas prepaid cell phones so that they may always be in touch with medical professionals throughout the pregnancy. In emergencies, staff use motorcycles to bring a medical kit to women’s homes and transport them to a health facility via designated ambulances if necessary. A 2014 study of the Abiye program determined that maternal deaths were not lower but utilization of healthcare facilities was significantly higher in the project area than in the control area. A survey showed that 50 percent of pregnant women who had received an Abiye phone found the phone very useful, they used it the most in the third trimester, and getting help in emergencies was easier.92

The Integrated Maternal, Newborn and Child Health Strategy (IMNCH) was developed in 2007 by the Nigerian Ministry of Health to integrate the various facets of its health systems as well as mobilize and educate women to take control of their health at the community level. A key element of this strategy is the use of community health extension workers (CHEWs) in areas where it has been difficult to attract traditional providers such as medical providers and nurse midwives. CHEWs are chosen by recommendation from their school and study from specifically designed manuals in order to provide basic primary care and minor medical procedures under the consultation of a physician.93 A 2010 study on the experience of CHEWs in southern Nigeria demonstrated that they provide quality, satisfactory care to patients who have never been

91 Mojekwu & Ibekwe, Maternal mortality, 138.
diagnosed with serious health problems.\textsuperscript{94}

Another solution to the lack of skilled medical professionals is the Midwife Service Scheme (MSS). Created in 2009 as a partnership between all three levels of the health system, the MSS sends newly qualified, unemployed, or retired midwives to underserved areas of Nigeria for a period of one year. Midwives are paid by the federal government. Success has been uneven across regions and midwife retention rates have been poor due to security issues in the northern regions of the country, varying levels of support from states and LGA’s, and irregular payment of salaries.

\textbf{Funding}

After reviewing all of the challenges faced by Nigeria in improving maternal health outcomes, government corruption may be the biggest. In 2014, Nigerian President Goodluck Jonathan signed into effect the Nigerian Health Bill to define the government’s roles and responsibilities to the health sector. The bill states that 1\% of oil revenues will go to the health sector, but the proposed annual budget for 2016 still fails to meet this goal.\textsuperscript{95} Nigeria is the largest oil producer on the African continent and it is not unreasonable to imagine its vast resources financing a functioning healthcare system. However, in a 2014 interview with the New York Times, the former head of Nigeria’s Central Bank described how he was fired by President Jonathan after threatening to expose $20 billion of missing oil money.\textsuperscript{96}

Of what does exist of health funds, half stay at the federal level, the 36 states share a quarter, and the other quarter is distributed to the LGAs. Because these resources are not

\begin{flushleft}
\footnotesize
\textsuperscript{94} Ordinioha & Onyenaporo, \emph{Experience with community health extension workers}, 243.
\textsuperscript{96} Nossiter, A. (2014, March 10). Nigerians ask why oil funds are missing. \emph{The New York Times}. Retrieved from \url{http://www.nytimes.com/2014/03/10/world/africa/nigerians-ask-why-oil-funds-are-missing.html?_r=0}
\end{flushleft}
officially earmarked for health spending, there are no budgets or reports available to track how money is being spent.\textsuperscript{97} Cooke and Tahir explain that even if money does trickle down to LGAs, they are incentivized to direct their political allegiance towards the state governor who may or may not be interested in using that money for public health.\textsuperscript{98}

\begin{flushleft}

\end{flushleft}
Chapter Five - Case Study: India

The largest number of maternal deaths in the world occur in India, with an estimated 55,000 women dying annually from preventable causes related to pregnancy. However, when population size is taken into consideration, India is not the riskiest place for a pregnant woman to live. The Central Intelligence Agency (CIA) ranks India 55th out 184 countries for the highest MMR. Disparities in maternal health indicators occur between the more developed South and West and less developed Central, East, and Northeast of the country. Rural areas, home to 68 percent of the population in 2014, continually host the worst demographic and health

---


indicators in the country. A 2014 research paper estimated MMR to be 397 in rural areas of poorer states compared to 115 in urban areas of richer states.\textsuperscript{102} Figure 10 shows the national variation in MMR.

Figure 10. MMR along with 95\% confidence interval in India from 2010-2012.\textsuperscript{103}


Causes of Maternal Mortality

According to one study which analyzed the distribution of maternal deaths registered in 2006, there were no differences between causes of maternal deaths in poorer and richer states or between rural and urban areas. However, three-quarters of maternal deaths occurred in rural areas of poor states. The major causes of maternal mortality are hemorrhage, other conditions such as anemia, sepsis, unsafe abortion, obstructed labor and hypertension. Anemia, a potentially fatal condition in which there are not enough red blood cells to carry oxygen to tissue throughout the body, affected about 54 percent of pregnant woman in India between 2011-2015. Anemia can be easily treated by taking iron pills, furthering the argument that consistent and quality prenatal care is critical.

Unsafe abortion is another cause of maternal death in India that can be prevented. Abortion is legal in India for a range of reasons: to save a woman’s life, to preserve her physical or mental health, in cases of economic or social necessity, in cases of rape, incest, fetal impairment or the failure of a contraceptive method used by a married woman. Studies on abortion practices in India reveal two scenarios. First, women and traditional healers are attempting their own abortions with sticks, herbs, ineffective drugs and other unsafe methods. Second, high rates of infection are resulting from procedures done by licensed medical professionals. Dilation and Curettage, or D&C, is a common method of abortion in India. There has been a push in recent years to switch to less invasive methods of abortion which are less

---

104 Montgomery et al., Maternal mortality, 3.
likely to result in complications.\textsuperscript{108}

**Use of Maternal Health Services**

Education, wealth and urban versus rural living are major determinants of whether or not a woman receives maternal health services in India. The most recent nationally representative Family Health Survey from 2006 found that 83.5 percent of women with 5-7 years of education received prenatal care from a skilled health professional compared to 56.7 percent of women with no education. About 96.2 percent of women from the highest wealth index received skilled care compared to 52.1 percent of women from the lowest wealth index. And finally, 89.1 percent of urban women received professional care compared to 67.5 percent of rural women.\textsuperscript{109} Prenatal care varies widely by state as well; the percentage of women who had three or more prenatal visits ranged from 17 percent in Bihar and 27 percent in Uttar Pradesh to at least 90 percent in Kerala, Goa, and Tamil Nadu.\textsuperscript{110}

Despite the government’s increased promotion of prenatal care and institutional deliveries, women in rural areas must weigh the decision of whether or not to travel long distances to a facility that may not offer an experience much more beneficial or safer than staying at home. Furthermore, studies show that the lack of a formal referral system leaves women traveling from facility to facility until they find a place to deliver.\textsuperscript{111}

\textsuperscript{110} Ibid., 205.
Sociocultural Factors

Several studies have shown that the quality of health services in India improve as women’s education levels increase and they concurrently demand higher quality care.\textsuperscript{112} Despite rising rates of education for both males and females in India, women and girls still face gender discrimination which increases their risk for death during or immediately after childbirth. Figures 11-14 demonstrate the gender inequity between men and women as well as disparities between urban and rural dwelling women. As seen throughout this chapter, social and health indicators are generally poorer in rural areas where the majority of India’s population resides.

Figure 11. Percent of household population with no education.\textsuperscript{113}

<table>
<thead>
<tr>
<th>Residence</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>25%</td>
<td>13%</td>
</tr>
<tr>
<td>Rural</td>
<td>49%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Figure 12. Percent of women 15-49 who make decisions by themselves or jointly with spouse.\textsuperscript{114}

<table>
<thead>
<tr>
<th>Residence</th>
<th>Woman’s own healthcare</th>
<th>Visits to her family</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>69%</td>
<td>70%</td>
</tr>
<tr>
<td>Rural</td>
<td>59%</td>
<td>57%</td>
</tr>
</tbody>
</table>

\textsuperscript{113} IIPS, 2005-2006 FHS survey, 28.
\textsuperscript{114} Ibid., 464.
The UNFPA noted child marriage as a key area of concern in their country program action plan for 2013-2017. According to data from 2000-2011, 47 percent of girls in India are married before their 18th birthday despite the national law which sets the minimum age of marriage for females at 18. In some states the majority of girls marry before they are 18:

---

115 IIPS, 2005-2006 FHS survey, 164.
116 Ibid., 166.
Rajasthan (65.2 percent), Uttar Pradesh (58.6 percent), Madhya Pradesh (57.3 percent) and Bihar (69 percent).\textsuperscript{117} Child marriage is practiced not only because it is a traditional, cultural practice that has not yet been abandoned but also out of economic necessity. Girls from poor families are almost twice as likely to be married at a young age than women from wealthy families. When girls are married, their economic burden is handed off to their new husband and the cost of their dowry, or money given to the groom’s family, is more likely to be lower if they are young. Furthermore, sexual purity is highly valued and younger brides are preferred to ensure their virginity.\textsuperscript{118}

Fertility is highly prized and married girls are expected to bear children. As mentioned previously, pregnancy before maturity can lead to obstetric fistulas and death. Successful interventions in delaying marriage age among females have been documented. One example is the Maharashtra Life Skills Program, a year-long life skills course offered to girls ages 12-18 by the Institute of Health Management Pachod with the goal of delaying age of marriage. Trained local women lead empowerment courses on communication skills, local government, and reproductive health for one hour each weekday afternoon and hold monthly meetings for parents. Research shows that after one year, median age of first marriage increased by one year and the proportion marrying before age 18 declined by almost 20 percentage points in the entire intervention area.\textsuperscript{119}


National Health System

India’s health system operates in a three-tier system. The lowest tier is comprised of subcenters for every 5,000 people in the plains and about every 3,000 in hilly or difficult terrain. Paramedics are the only professionals available here. At the second tier are primary health centers. These are someone’s first contact with a doctor and are available for every 30,000 people in the plains and about 20,000 in more difficult terrain. The top tier is made up of hospitals which treat major ailments and referrals from sub-centers and primary health centers.120

The National Rural Health Mission (NRHM) was launched by the government in 2005 to improve health outcomes of the rural poor with a focus on 18 low performing states. The mission aims to improve community ownership of federal health funds and covers a range of health determinants such as immunizations, nutrition and reproductive healthcare. NRHM led to creation of the National Ambulance Service and the Janani Shishu Suraksha Karyakram initiative (JSSK), which provide free ambulatory services and absolutely free deliveries for pregnant mothers in public facilities.121

The NRHM has been one of India’s most touted health successes, but failed to meet increases in funding as originally planned. The strategy was to increase the government’s allocation for NRHM by 30 percent for the first two years and then by 40 percent until 2012, when states were required to begin matching at least 15 percent of government allocations. The mission did not see cohesive success throughout the country because in some cases, states simply

substituted health spending from other areas to be able to fulfill their matching requirements. Additionally, the increases in central government funding are lower than originally expected.122

Another important initiative is the Rashtriya Swasthya Bima Yojana (RSBY) health insurance scheme. This initiative is intended to offset rising out-of-pocket costs and is funded by both the central (75%) and state governments (25%). RISBY provides insurance coverage, daycare and transportation to and from medical visits for people living below the poverty line. As of 2011, about 27 percent of all poor families in India were enrolled on the insurance plan. Some states have chosen not to implement RSBY and use their own state insurance plan instead.

The government has implemented several conditional cash transfer initiatives aimed to delay age of marriage for girls. One incentive, the Apni Beti Apna Dhan (ABAD), offers a small cash disbursement to mothers soon after they deliver a baby girl. Within three months of her birth the government provides a savings bond which is redeemable once she turns 18, given that she is not yet married. Studies show that the program led to more years of schooling than those girls not participating in the program but hasn’t necessarily been proven to delay marriage.123 Janani Suraksha Yojana (JSY) compensates pregnant woman below the poverty line for attending the recommended number of prenatal visits, delivering in a health facility and receiving postpartum care. Eligibility restrictions require that recipients be at least 19 years old and have no more than two births. The FHS survey that took place in the years following the initiation of JSY showed the proportion of deliveries in health facilities increased in Madhya Pradesh from 29 percent to 47 percent, Rajasthan from 30 percent to 46 percent and in Andhra Pradesh.

Pradesh from 59 percent to 72 percent.\textsuperscript{124}

The Indian states of Kerala and Tamil Nadu have consistently offered low maternal mortality rates and serve as role models for the rest of the country. In Kerala, most women are highly educated and live in urban areas with excellent infrastructure allowing women to easily travel to health facilities. Additionally, Kerala holds a strong political commitment for the social sectors and issues such as maternal health. In Tamil Nadu, the states government has remained committed to pilot-testing of evidence-based initiatives and scaling up those that prove to be successful. Tamil Nadu has invested in technical capabilities in order to monitor and analyze causes of maternal deaths.\textsuperscript{125}

\textbf{Funding}

Public sector spending on health in India is about one percent of the country’s GDP. In the healthcare system, the federal government finances various public health programs with tax money and state governments finance local health services. Public hospitals provide treatment at low or no cost but due to poor quality of services and lack of medications, private health facilities have been growing in popularity. In attempts to off-set high out of pocket costs to citizens, recent estimates suggest that 8 percent of public health spending in India is now on health insurance. In 2010, government-funded health insurance covered about 19 percent of the population, with still more covered by private plans.\textsuperscript{126}

\textsuperscript{125} Vora et al., \textit{Maternal health}, 198.
India has made significant progress in improving maternal health since the initiation of the Millennium Development Goals. MMR has reduced from 437 in 1990 to 189 in 2013. Some challenges remaining are increasing political commitment to maternal health, reducing high out of pocket costs for health consumers and more equity in accessibility and quality of social services across all regions of the country. In the following chapter I will compare the two case studies and draw conclusions about their experiences.
Chapter Six- Comparing the Case Studies

Nigeria and India both face serious challenges to improving maternal health, but India has managed to maintain lower rates of maternal death despite its much larger population and higher percentage of its population living in rural areas. Although the two case studies share a similar federal political structure, there have been key differences in terms of motivating local-level decision makers. In this chapter I will compare the experiences of the two countries by focusing on the following areas: political support, corruption, behavior change strategies, and rates of improvement.

Political Support

As discussed in the literature review, political support is crucial for getting maternal health issues on the agenda. In Nigeria, the environment was hostile to social causes such as maternal health until the country underwent democratization in 1999. Since 1999, there have been champions of maternal health in Nigeria but not enough have come together as a collective force to push the government. For example, the National Society of Gynecology and Obstetrics of Nigeria holds an annual conference which consistently addresses safe motherhood. The National Council of Women’s Societies is an umbrella group for all women’s groups in Nigeria and has called for abortion law reform and free maternal health services. However, local-level officials are the decisions makers for their respective health policies and funding and they currently have little incentive to make improvements. Shiffman and Okonofua state that local-level officials have a tendency to distribute funds to highly visible endeavors such as roads, as opposed to maternal and reproductive health care.\(^\text{127}\)

As mentioned in chapter two, political attention garnished on HIV/AIDS often
overshadows maternal health due to the size and scale of the issue in Nigeria. For comparison, in
Nigeria an estimated three million people are living with HIV/AIDS and just 20 percent are
receiving treatment. In India, an estimated two million people are living with HIV/AIDS and 36
percent are being treated. Population size difference means that prevalence of HIV/AIDS is
much higher in Nigeria, and is an issue that receives more attention both nationally and
internationally. This is not only happening in Nigeria. In 2010, just 4.1 percent of worldwide
official development aid went to reproductive health. Of that 4.1 percent, 64 percent went to
family planning and the treatment and prevention of sexually transmitted infections, including
HIV. The remaining 36 percent went to maternal and newborn health.¹²⁸

Turning to India, the country gained its independence in 1947 and maternal health was
not prioritized on a large scale until the 2000s. World Health Day 2005 was held in New Delhi
and the theme was maternal and child health. The Prime Minister Manmohan Singh gave several
public talks that directly addressed maternal health. Additionally, the vision and goals for the
Partnership for Maternal, Newborn and Child Health were outlined in the Delhi Declaration in
New Delhi, India between UNAIDS, UNFPA, UNICEF, WHO and the World Bank, among
others. However, similar to the structure in Nigeria, responsibility for health policies is passed
down to the state level where figure ten demonstrated that MMR, and therefore priority for
maternal health improvements, varies. The two states of Kerala and Tamil Nadu have done
particularly well in terms of holding local government accountable for maternal health outcomes,
which is most likely due to high rates of education among women. In these two states the
average percent of women who have 12 or more years of education is 14 percent, compared to

¹²⁸ Hsu, J., Berman, P., & Mills, A. (2013). Reproductive health priorities: evidence from a resource tracking
the national average of 7.6 percent.\textsuperscript{129}

In terms of political accomplishments, India leads over Nigeria thanks to the country’s successful government programs such as RISBY, which provides health insurance for the poorest Indian citizens, ABAD, a conditional cash transfer program to incentivize delayed marriage among girls and longer years of education, and JSY, a program to encourage poor pregnant woman to attend prenatal visits, deliver in a health facility and receive postpartum care. Arin and Hongoro write that while the National Health Bill in India has legal weight in mandating that each citizen has equitable access to healthcare, the National Health Policy (2006) in Nigeria is more of a voluntary framework. Therefore, the National Health Insurance scheme has grown much more slowly.\textsuperscript{130}

Corruption

Health systems are prone to corruption for several reasons. First, there is a lot of uncertainty surrounding who will get sick when and from what illness. Because consumers don’t often have the time to make expert and informed decisions, there are bound be inefficient choices made. Secondly, information is not shared equally among all the actors in health systems. Health care providers understand more about illnesses and treatments than their patients, pharmaceutical companies know more about drugs than anyone else, and patients may know more about their health history than they decide to share with providers. Additionally, the large number of different actors makes it difficult to ensure transparency at all levels.\textsuperscript{131}

\textsuperscript{129} MHFW, \textit{FHS survey}, 30.
Citizens of both Nigeria and India suffer from the necessity of payment of bribes for health services. In 2015, ActionAid Nigeria published results of a survey from over 2,000 participants showing that 25 percent *sometimes* paid bribes to secure medical attention and 8.4 percent *often* paid bribes in Nigeria. In India, a Bloomberg investigative report found that many women were being asked by medical staff to pay fees for services such as ambulance rides, medications, and clean bandages in a public hospital where these should be free. Journalists discovered that hospital staff knew that mothers would be receiving as much as 1,400 rupees from the JSY government program for delivering in a hospital, and demanded almost that much in bribes during their stay. In both case studies such bribery is unacceptable as it excludes the most vulnerable from services that are meant to be free and further perpetuates poverty.

It is widely believed that transparency aids in the fight against corruption. The International Budget Partnership’s (IBP) Open Budget Index assesses the availability in each country of eight key budget documents, as well as the comprehensiveness of the data contained in them. The organization then rates each country on a scale of 0 (scant or none) to 100 (extensive). India scored a 46, with “limited” availability of budget documents. Nigeria was further down with a score of 24, due to “minimal” availability of budget information. As mentioned in the literature review, Lewis cites audit documents as crucial tools for controlling corruption. Audit reports typically examine the soundness and completeness of the government’s year-end accounts. According to the same IBP report, Nigeria keeps its audit reports available

---

only for internal use while India publishes them for public viewing.\textsuperscript{135}

**Behavior Change Strategies**

Education has come up repeatedly in this project as an indicator of when a female will marry and of whether or not she will seek out prenatal care and a skilled birth attendant. According to the latest government surveys, Nigeria and India have roughly equal rates of females with no education, at 41.5 percent\textsuperscript{136} and 40.4 percent respectively.\textsuperscript{137} Nigeria has worked with development partners such as UNICEF and the UK’s Department for International Development (DFID) in several initiatives to improve girls’ access to equal education and life skills, but has not seen the same sort of internally-based programs that India has. India’s successful Maharashtra Life Skills Program, mentioned in chapter five, serves as a resource and training center for the Indian government and other NGOs. Efforts from the IHMP demonstrate that there is some political advocacy going on within India for women’s rights which is cultivating slightly more of an environment that prioritizes maternal health care than seen in Nigeria.

In the literature review, LeJeune and Mackie state the importance of a group of early adapters to abandon the harmful traditional practice in order to incentivize other community members to do the same. The Maharashtra Life Skills Program has done just that through its courses offered to girls and their parents. According to the International Center for Research on Women, marriages among girls in the program area decreased and median age of marriage increased, even for girls who were not participating in the courses. This suggest a change in the

\textsuperscript{135} International Budget Partnership, *Open budget survey*, 69-70.
\textsuperscript{137} MHFW, *FHS survey*, 56.
community norm of young girls' appropriate age at marriage.\textsuperscript{138} Furthermore, it is interesting to note that none of the government programs in either Nigeria or India favor the type of behavior change strategies that the IHMP and other NGOs are employing.

**Rates of Improvement**

Both Nigeria and India have made improvements in their maternal mortality ratio since the introduction of the Millennium Development Goals in 2000. The target of goal five was to reduce the MMR by three quarters between 1990 and 2015, but globally the rate was only reduced by about half. Nigeria began with an MMR of 1200 in 1990 and by 2015, the WHO estimated their MMR to be at 814, ending with a reduction of about one third.\textsuperscript{139} India was closer to reaching the target but also missed, starting with an MMR of 437 in 1990 and getting it down to 140 by 2015. If India has been able to reach an MMR of 109, they would have satisfied the two thirds reduction.

In terms of improving the percentage of births attended by a skilled health professional, India has made greater strides than Nigeria since the introduction of the MDGs. In 1992, 34 percent of births in India were assisted by a health professional,\textsuperscript{140} rising to 47 percent by the 2008 FHS survey.\textsuperscript{141} In Nigeria this same indicator was 32 percent in 1990\textsuperscript{142} and rose to just 38 percent by the 2013 DHS survey.\textsuperscript{143} Nigeria’s poor progress is likely a two-fold problem. First,

\begin{itemize}
  \item IIPS, 2005-2006 *FHS survey*, 214.
  \item NPC, *Nigeria 2013 DHS Survey*, 139.
\end{itemize}
the health system does not ensure access to quality care for all women due to cost and lack of facilities in certain area. Second, women may not feel they need professional assistance or may not be able to make that decision on their own due to their status in society.

In conclusion, both Nigeria and India have experienced challenges from their federal political structures which leave decision making power in the hands of state leaders who may not recognize the problem at hand or may simply choose to ignore it because of lack of pressure and incentive. In Nigeria, there is data on MMR to confirm a national problem but there is a lack of data disaggregated by zone or state. The implications are that local leaders are often unaware of the breadth of the problem in their area and avoid taking action. In India indicators such as MMR and number of live births are available not only in their comprehensive Family Health Surveys (similar to Nigeria’s Demographic and Health Survey) but also in the annual Sample Registration Survey which gives data by state, as seen in figure 10 in chapter five.

In India a show of top down support, such as hosting international conventions for maternal health and public show of support from the prime minister may have assisted in influencing local level leaders to take action. Furthermore, Shiffman underscores the importance of cohesive networks versus loose linkages among promoters of safe motherhood.\textsuperscript{144} Nigeria’s National Council of Women’s Societies, for example, is categorized as more of a loose linkage because all of these organizations have their own individual mandates to focus on. The following and final chapter will take these issues into consideration while outlining recommendations for both Nigeria and India in their continued efforts to improve maternal health.

\textsuperscript{144} Shiffman, \textit{Generating political priority}, 799.
Chapter Seven- Conclusions and Recommendations

Upon review, I have found that India’s lower rate of maternal mortality in comparison to that of Nigeria is due to a combination of different government policies and less government corruption. India’s policies have been more successful in providing comprehensive care for the populations most at risk, although there is still room for improvement in terms of ensuring the equal quality of services across rural and urban areas. Although corruption exists in both governments and health systems, Nigeria has struggled with national financial corruption and has proven to be less open with budget documents. I found the third component of the hypothesis, that India has lower rates of maternal mortality due to different traditional or cultural beliefs, to be incorrect. As stated in the previous chapters, both countries have a history of gender inequality and harmful practices that contribute to their poor maternal health indicators. In the following pages I will address the initial research questions identified in chapter one, as well as provide recommendations for improvement.

What role does government corruption play in rates of maternal mortality?

The research has shown that corruption diverts resources from maternal health services and prevents efficient health systems. Both Nigeria and India suffer from bribery and lack of transparency of budget information. Nigeria in particular must account for the US$20 billion in oil revenues that went missing in 2014. In Nigeria, to curb the practice of local healthcare workers demanding tips or bribes for services that should be provided free of cost, management and employee wages must be improved. Hospitals and health centers should create clear policies and procedures with regular supervision of employees by managers. Public sector workers should be provided with wages that do not encourage bribes or taking on second jobs. And finally, regular government audits of services provided and finances would encourage efficiency.
Both countries must pass and implement anti-corruption legislation and government positions must be filled by individuals who are willing to follow through. India’s Lokpal Bill is a piece of legislation passed in 2013 which led to the appointment of an official to investigate complaints against any member of government. This bill came after massive public protests in India which gained attention from the international media. This lesson reiterates the importance of citizen activism for Nigeria.

**What are the most important government policies for sustaining maternal health?**

At a minimum, health services for the poorest pregnant women should be provided free of cost by the national health system. India has put into place the Janani Suraksha Yojana program which covers all costs of women at least 19 years old in states with poor rates of institutional births. In states which have high rates of institutional births, only women 19 and older who are below the poverty line are covered. In Nigeria several states have offered free maternal health care but the government has not put any large scale scheme in place. It is important to mention that issues have arisen in India despite the free services and conditional cash transfers for institutional deliveries, such as workers demanding bribes and citizens paying high out-of-pocket costs for private services due to poor quality or availability of public services. A further challenge is that in both India and Nigeria traditional birth attendants have remained a popular choice for assistance during delivery.

In addition to efforts for increasing skilled assistance at birth and deliveries in health facilities, both India and Nigeria must work to bring quality providers to rural areas where maternal health indicators are consistently worse than urban areas. In Nigeria, the government funded Midwife Service Scheme (MSS) seeks to fill gaps in underserved areas but struggles to retain workers due to delayed payment of salaries and retention of midwives in rural areas,
especially after their one year of service is complete. In terms of delayed payments, the
government of Nigeria should overhaul the management of the MSS in order to improve
efficiency. To improve retention the MSS, as well as programs in India, should intensify efforts
to recruit local women from low-performing, rural areas to provide medical services.

And finally, policies promoting education and access to contraceptives and safe abortion
without stipulations need to be enacted in both Nigeria and India. Abortion and contraceptives
save women’s lives, especially so in countries where risk of maternal death is high. According to
a 2012 study from Guttmacher and the WHO, rates of abortion have less to do with its legal
status than with levels of unintended pregnancy. A 2012 Lancet study of 172 countries
estimated that contraceptive use averted 272,040 maternal deaths in 2008, and without
contraceptive use maternal deaths would have been 1.8 times higher.

How useful are international treaties and agreements in improving maternal mortality?

International collaborations and treaties such as CEDAW, the MDGs, the Delhi
Declaration, the Beijing Declaration, the new Sustainable Development Goals and other high-
level meetings on maternal health serve an important purpose. The agreements and conferences
build partnerships among experts in all areas of society: medical providers, political leaders,
economists, academics, and activists and others. These partnerships spark debate about their
usefulness because they generally do not lead to immediate, measureable change in maternal
health indicators. Instead, they raise awareness, strengthen surveillance of the issues at hand,
foster innovative ideas, create norms and set performance standards. In 2005 when India hosted

---

World Health Day, the Partnership for Maternal, Newborn and Child Health succeeded in outlining their goal and plan for action. While we don’t know if the subsequent improvements in India’s maternal health indicators were a result of this partnership, we do know that the event lent legitimacy to maternal health and likely put the issue on the radar of government leaders in India.

How do you address a lack of government buy-in?

In addition to the recommendation to continue participating in international partnerships and agreements to gain the attention of policy makers, both Nigeria and India would benefit from improving their data collection on health indicators. Throughout the research, I relied heavily on Nigeria’s Demographic and Health Surveys from years 1990, 1999, 2003, 2008 and 2013. These surveys are carried out by the government with technical assistance from USAID. They are useful because they ask many questions and have a similar structure throughout each survey which allows for comparison; however, they only offer a national MMR that is not disaggregated by geopolitical zone or state. Without such a disaggregated statistic, state leaders may deny that there is a maternal health problem in their respective states and continue to ignore the issue.

In the case of India, I relied on the National Family Health Survey from years 1992-1993, 1998-1999, and 2005-2006. There is a currently a survey underway for years 2015-2016 but completed data is not available. These surveys are similar to Nigeria’s and are carried out with technical assistance from the International Institute for Population Sciences, a partnership between the government of India and the United Nations. These surveys do provide the MMR by state, which provides valuable data on high and low performing states. India also completes its Sample Registration Survey each year to provide estimates of the country’s population and fertility and mortality rates but not the MMR. Both countries should increase funding for
technical capabilities necessary to complete more regular assessments of local level maternal health indicators, including the MMR, so that there is no denying the issues at hand.

Should resources be put towards ending local traditions and cultural beliefs that may be affecting maternal health? What strategies should be implemented?

We should absolutely work to end harmful traditions and cultural practices, especially in regards to gender equality and reproductive health. It is not acceptable that all women are not autonomous decision makers regarding their body and health, do not have equal access to education, are subject to genital mutilation in order to be considered for marriage and are at substantial risk for death once pregnant. This sentiment has been emphasized and acted on by major players in the international community such as the WHO, UNICEF, UNFPA, UN Women, and more.

Programs like India’s Maharashtra Life Skills Program should be piloted and scaled up throughout Nigeria and India. These programs are crucial in providing not only the young women with the skills they need to gain autonomy but also for providing their parents with messages on gender equality. In order to end traditions that are harmful to girls and women, all members of society must be involved. In Nigeria, for example, men play a large role in whether or not their female relatives seek medical care. A study published in 2005 found that educational interventions focused on men in the South West of Nigeria improved the likelihood that couples would decide to seek emergency obstetric care when it was needed.147 Other respected community members, such as religious leaders, should also be targeted in efforts to promote and disperse the basic human rights of women.

---

147 Sedgh et al., *Barriers to safe motherhood*, 20.
What are the challenges of creating a cohesive national health strategy for countries with many languages and ethnic groups? What would an effective strategy look like?

The challenges to creating a cohesive health strategy are great, especially in countries like Nigeria which has hundreds of ethnic groups and India with a deep-rooted social caste system. Because both countries have such varying geographies and social groups with their own unique challenges, it would be beneficial to maintain the federal structure with state leaders responsible for their respective public health planning. Similar to the previous recommendation that Nigeria’s Midwife Service Scheme should focus on recruiting local midwives to serve their own communities, it is recommended that all state-level governments support initiatives to produce and retain skilled medical providers who are familiar with local languages and cultures.

The path required to improve maternal health indicators will be unique to each country due to the context of their individual governments, health systems, and histories. The thesis has demonstrated that the path to safe motherhood is more than just putting the necessary facilities and providers in place; it requires a number of different outputs such as creating political priority for the cause, improving oversight and efficiency of government and national health systems, promoting gender equality and increasing equality of development indicators not just among men and women but also among urban and rural populations.
References


